

Third Edition

AN INTRODUCTION TO
Applied Linguistics

Edited by Norbert Schmitt
and Michael P.H. Rodgers



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An Introduction to Applied Linguistics

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- an introductory chapter which familiarises readers with key issues and recurrent themes;
- 17 chapters offering extended surveys of central elements of applied linguistics;
- two brand-new chapters on multilingualism and forensic linguistics;
- re-written chapters on psycholinguistics, language learners, reading and assessment;
- hands-on activities and further reading sections for each chapter, encouraging practical analysis and wider reading;
- revised and updated references for every chapter.

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Norbert Schmitt is Professor of Applied Linguistics at the University of Nottingham, UK. He has taught in the areas of vocabulary studies, applied linguistics, SLA and TESOL methodology. He has published extensively, is a regular presenter at applied linguistics conferences, and travels widely consulting and teaching on vocabulary issues.

Michael P.H. Rodgers is Assistant Professor in the School of Linguistics and Language Studies at Carleton University, Ottawa, where he teaches TESOL methodology and SLA theory. His research interests include vocabulary acquisition and language learning through television.



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Norbert Schmitt and Michael P.H. Rodgers

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Preface

This book is intended to give you a broad overview of Applied Linguistics. It will introduce you to important areas in the field, and familiarize you with the key issues in each of those areas. The book is written at the ‘sophisticated introduction’ level, where the most current ideas in the field are presented, but explained in language that is accessible and direct. After having engaged with the knowledge in this introductory book, you should be able to move on to more advanced books and articles, such as those recommended at the end of each chapter in the ‘Further reading’ section.

In addition to helping you become familiar with the issues in Applied Linguistics, the book will also help you become familiar with some of the research methodology currently being used in the field. Knowledge of this methodology is important in order to be able to read and understand original research studies in books and journals on Applied Linguistics. A number of chapter authors show you how research in their area is carried out (for example, Chapter 9, *Sociolinguistics*, and Chapter 13, *Listening*), which should enable you to gain a greater awareness of various research approaches. In addition, each chapter has some data for you to analyse and interpret, with the authors’ suggested solutions at the end of the book. These ‘Hands-on activities’ will help to understand the information in each chapter better, because you will use some of it in your own analyses.

Applied Linguistics is a big field and one person cannot be an expert in all areas. To ensure that chapters contain an authoritative treatment of an area, most are co-authored by two (and sometimes three or four) leading international specialists. By having multiple specialists writing together, the chapters can represent an expert consensus of the most important issues in that area. The various teams of authors working in their own separate areas have naturally developed different ways of discussing issues, and we have decided to let each team retain their own ‘voice’ and style, rather than try to homogenize the chapters into a single style throughout the book. We hope you will find the result illuminating and engaging.

Although teams of authors will retain their individual identity, there is a common format for the chapters. First, each chapter opens with an ‘Introduction’ or ‘What is X?’ section which briefly explains what the area is and why it is important. The following section will be the heart of each chapter, where the key issues pertaining to the area are discussed. Next, the pedagogical implications of the area will be considered. Of course, some chapters, such as Chapter 3, *Vocabulary*, may have more tangible pedagogical implications than others, such as Chapter 8, *Psycholinguistics*, but all will address pedagogical concerns. Each chapter has a ‘Further reading’ section, with a

number of reading suggestions, complete with brief annotations. Finally, each chapter has a ‘Hands-on activity’, where some data are presented for you to analyse and interpret. The authors present their suggestions in Chapter 18, *Suggested solutions*.

The areas of Applied Linguistics are related to each other in various ways. This means that certain ideas will inevitably appear in more than one chapter. We have built a certain amount of this repetition into the book, because we believe a good way to learn key ideas is to see them approached from slightly different perspectives by several authors. When an idea is discussed in another chapter, it will usually be cross-referenced, for example: (see Chapter 4, *Discourse analysis*, and Chapter 5, *Pragmatics*).

This book has been a team effort with 36 authors contributing their expertise. Writing sophisticated ideas in an accessible way is no easy task, and we thank them for their efforts. We also wish to thank the team at Routledge publishers, in particular Elizabeth Cox. In addition we would like to thank *The Gazette* and its Editor-in-chief Neil Hodgkinson for granting permission to reprint the newspaper article used in the ‘Hands-on activity’ in Chapter 9. We learned a lot about Applied Linguistics by editing this book. We hope you will be able to say the same thing after reading it.

Norbert Schmitt
University of Nottingham

Michael Rodgers
Carleton University
January 2019

An overview of applied linguistics

Norbert Schmitt¹ and Marianne Celce-Murcia²

What is applied linguistics?

‘Applied linguistics’ is using what we know about (a) language, (b) how it is learned and (c) how it is used, in order to achieve some purpose or solve some problem in the real world. Those purposes are many and varied, as is evident in a definition given by Wilkins (1999: 7):

In a broad sense, applied linguistics is concerned with increasing understanding of the role of language in human affairs and thereby with providing the knowledge necessary for those who are responsible for taking language-related decisions whether the need for these arises in the classroom, the workplace, the law court, or the laboratory.

The range of these purposes is partly illustrated by the call for papers for the American Association for Applied Linguistics (AAAL) 2010 conference, which lists 16 topic areas:

- analysis of discourse and interaction
- assessment and evaluation
- bilingual, immersion, heritage and language minority education
- language and ideology
- language and learner characteristics
- language and technology
- language cognition and brain research
- language, culture, socialization and pragmatics
- language maintenance and revitalization
- language planning and policy
- reading, writing and literacy
- second and foreign language pedagogy
- second language acquisition, language acquisition and attrition
- sociolinguistics
- text analysis (written discourse)
- translation and interpretation.

The call for papers to the 2011 AILA conference goes even further and lists 28 areas in applied linguistics. Out of these numerous areas, the dominant application has

always been the teaching and learning of second or foreign languages (L2). Around the world, a large percentage of people, and a majority in some areas, speak more than one language. For example, a survey published in 1987 found that 83 per cent of 20–24-year-olds in Europe had studied a second language (Cook, 1996: 134), although to varying levels of final proficiency. Also, in some countries, a second language is a necessary ‘common denominator’ (*lingua franca*) when the population speaks a variety of different L1s (first languages). English is the main second language being studied in the world today, and even two decades before this book was published, an estimated 235 million L2 learners were learning it (Crystal, 1995: 108). So it is perhaps not surprising that this book is written in that language, although the concepts presented here should be appropriate to non-English L2 teaching and learning as well. Figures concerning the numbers of people learning or using second languages can only be rough estimates, but they still give some idea of the impact that applied linguistics can have in the world.

Due to length constraints, this book must inevitably focus on limited facets of applied linguistics. Traditionally, the primary concern of applied linguistics has been second language acquisition theory, second language pedagogy and the interface between the two, and it is these areas which this volume will cover. However, it is also useful to consider briefly some of the areas of applied linguistics which will not be emphasized in this book, in order to further give some sense of the breadth of issues in the field. Carter and Nunan (2001: 2) list the following sub-disciplines in which applied linguists also take an interest: literacy, speech pathology, deaf education, interpreting and translating, communication practices, lexicography and first language acquisition. Of these, L1 acquisition research can be particularly informative concerning L2 contexts, and so will be referred to in several chapters throughout this book (*see* Chapter 7, *Second language acquisition*, and Chapter 8, *Psycholinguistics*, in particular, for more on L1 issues).

Besides mother tongue education, language planning and bilingualism/multilingualism, two other areas that Carter and Nunan (2001) did not list are authorship identification and forensic linguistics. These areas exemplify how applied linguistics knowledge may be utilized in practical ways in non-educational areas. Authorship identification uses a statistical analysis of various linguistic features in anonymous or disputed texts and compares the results with a similar analysis from texts whose authors are known. When a match is made, this gives a strong indication that the matching author wrote the text in question. The search for the anonymous author of the eighteenth-century political letters written under the pseudonym of Junius is an example of this. A linguistic analysis of the vocabulary in the letters (for example, whether *on* or *upon* was used) showed that it was very similar to the use of vocabulary in the writings of Sir Philip Francis, who was then identified as the probable author (Crystal, 1987: 68). Similar analyses are carried out in forensic linguistics, often to establish the probability of whether or not a defendant or witness actually produced a specific piece of discourse. Crystal (1987) relates a case where a convicted murderer was pardoned, partially because a linguistic analysis showed that the transcript of his oral statement (written by the police) was very different stylistically from his normal speech patterns. This discrepancy cast strong doubts on the accuracy of the incriminating evidence in the transcript.

In addition to all these areas and purposes, applied linguistics is interested in cases where language goes wrong. Researchers working on language-related disorders study the speech of aphasic, schizophrenic and autistic speakers, as well as hemispherectomy patients, in the belief that we can better understand how the brain functions when we

analyse what happens when the speaker's language system breaks down or does not function properly. Even slips of the tongue and ear committed by normal individuals can give us insights into how the human brain processes language (Fromkin, 1973, 1980).

The development of applied linguistics

Early history

Interest in languages and language teaching has a long history, and we can trace this back at least as far as the ancient Greeks, where both 'Plato and Aristotle contributed to the design of a curriculum beginning with good writing (grammar), then moving on to effective discourse (rhetoric) and culminating in the development of dialectic to promote a philosophical approach to life' (Howatt, 1999: 618). If we focus on English, major attempts at linguistic description began to occur in the second half of the eighteenth century. In 1755, Samuel Johnson published his *Dictionary of the English Language*, which quickly became the unquestioned authority on the meanings of English words. It also had the effect of standardizing English spelling, which until that time had been relatively variable (for example, the printer William Caxton complained in 1490 that *eggs* could be spelled as 'eggys' or 'egges' or even 'eyren' depending on the local pronunciation). About the same time, Robert Lowth published an influential grammar book, *Short Introduction to English Grammar* (1762), but whereas Johnson sought to describe English vocabulary by collecting thousands of examples of how English words were actually used, Lowth prescribed what 'correct' grammar should be. He had no specialized linguistic background to do this, and unfortunately based his English grammar on a classical Latin model, even though the two languages are organized in quite different ways. The result was that English, which is a Germanic language, was described by a linguistic system (parts of speech) which was borrowed from Latin, which had previously borrowed the system from Greek. The process of prescribing, rather than describing, has left us with English grammar rules which are much too rigid to describe actual language usage:

- no multiple negatives (I don't need no help from nobody!)
- no split infinitives (So we need to really think about all this from scratch.)
- no ending a sentence with a preposition (I don't know what it is made of.)

These rules made little sense even when Lowth wrote them, but through the ages both teachers and students have generally disliked ambiguity, and so Lowth's notions of grammar were quickly adopted once in print as the rules of 'correct English'. (See Chapter 2, *Grammar*, for more on prescriptive versus descriptive grammars.)

Applied linguistics during the twentieth century

An overview of the century

The real acceleration of change in linguistic description and pedagogy occurred in the twentieth century, during which a number of movements influenced the field only to be

replaced or modified by subsequent developments. At the beginning of the century, second languages were usually taught by the ‘Grammar-translation method’, which had been in use since the late eighteenth century, but was fully codified in the nineteenth century by Karl Plötz (1819–1881), (cited in Kelly, 1969: 53, 220). A lesson would typically have one or two new grammar rules, a list of vocabulary items and some practice examples to translate from L1 into L2 or vice versa. The approach was originally reformist in nature, attempting to make language learning easier through the use of example sentences instead of whole texts (Howatt, 1984: 136). However, the method grew into a very controlled system, with a heavy emphasis on accuracy and explicit grammar rules, many of which were quite obscure. The content focused on reading and writing literary materials, which highlighted the archaic vocabulary found in the classics.

As the method became increasingly pedantic, a new pedagogical direction was needed. One of the main problems with Grammar-translation was that it focused on the ability to ‘analyse’ language, and not the ability to ‘use’ it. In addition, the emphasis on reading and writing did little to promote an ability to communicate orally in the target language. By the beginning of the twentieth century, new use-based ideas had coalesced into what became known as the ‘Direct method’. This emphasized exposure to oral language, with listening and speaking as the primary skills. Meaning was related directly to the target language, without the step of translation, while explicit grammar teaching was also downplayed. It imitated how a mother tongue is learnt naturally, with listening first, then speaking, and only later reading and writing. The focus was squarely on use of the second language, with stronger proponents banishing all use of the L1 in the classroom. The Direct method had its own problems, however. It required teachers to be highly proficient in the target language, which was not always possible. Also, it mimicked L1 learning, but did not take into account the differences between L1 and L2 acquisition. One key difference is that L1 learners have abundant exposure to the target language, which the Direct method could not hope to match.

In the UK, Michael West was interested in increasing learners’ exposure to language through reading. His ‘Reading method’ attempted to make this possible by promoting reading skills through vocabulary management. To improve the readability of his textbooks, he ‘substituted low-frequency “literary” words such as *isle*, *nought*, and *ere* with more frequent items such as *island*, *nothing*, and *before*’ (Schmitt and 2000: 17). He also controlled the number of new words which could appear in any text. These steps had the effect of significantly reducing the lexical load for readers. This focus on vocabulary management was part of a greater approach called the ‘Vocabulary Control Movement’, which eventually resulted in a book called the *General Service List of English Words* (West, 1953), which listed the most useful 2000 words in English. (See Chapter 3, *Vocabulary*, for more on frequency, the percentage of words known in a text and readability.) The three methods, Grammar-translation, the Direct method and the Reading method, continued to hold sway until World War II.

During the war, the weaknesses of all of the above approaches became obvious, as the American military found itself short of people who were conversationally fluent in foreign languages. It needed a way of training soldiers in oral and aural skills quickly. American structural linguists stepped into the gap and developed a program which borrowed from the Direct method, especially its emphasis on listening and speaking. It drew its rationale from the dominant psychological theory of the time, Behaviourism, that essentially said that language learning was a result of habit formation. Thus the

method included activities which were believed to reinforce ‘good’ language habits, such as close attention to pronunciation, intensive oral drilling, a focus on sentence patterns and memorization. In short, students were expected to learn through drills rather than through an analysis of the target language. The students who went through this ‘Army method’ were mostly mature and highly motivated, and their success was dramatic. This success meant that the method naturally continued on after the war, and it came to be known as ‘Audiolingualism’.

Chomsky’s (1959) attack on the behaviourist underpinnings of structural linguistics in the late 1950s proved decisive, and its associated pedagogical approach – Audiolingualism – began to fall out of favour. Supplanting the behaviourist idea of habit-formation, language was now seen as governed by cognitive factors, in particular a set of abstract rules which were assumed to be innate. Chomsky (1959) suggested that children form hypotheses about their language that they tested out in practice. Some would naturally be incorrect, but Chomsky and his followers argued that children do not receive enough negative feedback from other people about these inappropriate language forms (negative evidence) to be able to discard them. Thus, some other mechanism must constrain the type of hypotheses generated. Chomsky (1959) posited that children are born with an understanding of the way languages work, which was referred to as ‘Universal Grammar’. They would know the underlying *principles* of language (for example, languages usually have pronouns) and their *parameters* (some languages allow these pronouns to be dropped when in the subject position). Thus, children would need only enough exposure to a language to determine whether their L1 allowed the deletion of pronouns (+pro drop, for example, Japanese) or not (–pro drop, for example, English). This parameter-setting would require much less exposure than a habit-formation route, and so appeared a more convincing argument for how children learned language so quickly. The flurry of research inspired by Chomsky’s ideas did much to stimulate the development of the field of second language acquisition and its psychological counterpart, psycholinguistics.

In the early 1970s, Hymes (1972) added the concept of ‘communicative competence’, which emphasized that language competence consists of more than just being able to ‘form grammatically correct sentences but also to know when and where to use these sentences and to whom’ (Richards, Platt and Weber, 1985: 49). This helped to swing the focus from language ‘correctness’ (accuracy) to how suitable any use of language was for a particular context (appropriacy). At the same time, Halliday’s (1973) systemic-functional grammar was offering an alternative to Chomsky’s approach, in which language was seen not as something exclusively internal to a learner, but rather as a means of functioning in society. Halliday (1973) identified three types of function:

- *ideational* (telling people facts or experiences)
- *interpersonal* (maintaining personal relationships with people)
- *textual* (expressing the connections and organization within a text, for example, clarifying, summarizing, signalling the beginning and end of an argument).

This approach to language highlighted its communicative and dynamic nature. These and other factors pushed the field towards a more ‘communicative’ type of pedagogy. In the mid-1970s, a Council of Europe project (van Ek, 1976) attempted to create a Europe-wide language teaching system which was based on a survey of L2 learners’

needs (*needs analysis*) and was ‘based on semantic categories related to those needs, including the relevant concepts (*notions*) and uses of language (*functions*)’ (Howatt, 1999: 624). The revised 1998 version (van Ek and Trim, 1998: 27) lists six broad categories of language function:

- imparting and seeking factual information
- expressing and finding out attitudes
- getting things done (suasion)
- socializing
- structuring discourse
- communication repair.

In addition, eight general categories of notions were listed, which are shown here with representative examples of their sub-classes:

- existential (existence, presence, availability)
- spatial (location, distance, motion, size)
- temporal (indications of time, duration, sequence)
- quantitative (number, quantity, degree)
- qualitative (shape, colour, age, physical condition)
- mental (reflection, expression of ideas)
- relational (ownership, logical relations, effect)
- deixis (anaphoric and non-anaphoric proforms, articles).

The materials from this project were influential (for example, *Threshold Level English*), and textbooks based on a notional–functional syllabus became widespread. In the early 1980s, a theory of acquisition promoted by Krashen (1982) focused attention on the role of input. Krashen’s ‘Monitor theory’ posited that a second language was mainly unconsciously acquired through exposure to ‘comprehensible input’ rather than being learnt through explicit exercises, that it required a focus on meaning rather than form, and that a learner’s emotional state can affect this acquisition (‘affective filter’). The pedagogical implications of this theory were that classrooms should supply a rich source of language exposure that was meaning-based and understandable, always including some elements just beyond the current level of learners’ ability (*i+1*).

The methodology which developed from these factors emphasized the use of language for meaningful communication – communicative language teaching (CLT) (Littlewood, 1981). The focus was on learners’ message and fluency rather than their grammatical accuracy. It was often taught through problem-solving activities and tasks which required students to transact information, such as information gap exercises. In these, one student is given information the other does not have, with the two having to negotiate the exchange of that information. Taken further, students could be taught some non-language-related subject, such as history or politics, in the L2. The assumption was that the learners would acquire the L2 simply by using it to learn the subject matter content, without the L2 being the focus of explicit instruction. Taking the communicative approach to its logical extreme, students could be enrolled in ‘immersion’ programs where they attended primary or secondary schools which taught subject matter only in the L2.

Results from this kind of immersion program, such as those initiated in Canada but which now also exist elsewhere, showed that learners could indeed become quite fluent in an L2 through exposure without explicit instruction, and that they developed excellent receptive skills. However, they also showed that the learners continued to make certain persistent grammatical errors, even after many years of instruction. In other words, a communicative approach helped learners to become fluent, but was insufficient to ensure comparable levels of accuracy. It seems as if a certain amount of explicit instruction focusing on language form may be necessary as well. The current focus-on-form movement (for example, Doughty and Williams, 1998) is an attempt to inject well-considered explicit instruction back into language lessons without abandoning the positive features and results of the communicative approach.

Just as language pedagogy developed and advanced during this time, so did the field of language assessment. Until the 1980s, tests were evaluated according to three principal criteria:

- ‘Validity’ (did the test really measure what it was supposed to measure?)
- ‘Reliability’ (did the test perform consistently from one administration to the next?)
- ‘Practicality’ (was the test practical to give and mark in a particular setting?).

These criteria focused very much on the test itself, and took little notice of the effects it might have on the people (‘stakeholders’) involved with it. Messick (1989) changed this with a seminal paper which argued that tests could not be considered ‘valid’ or ‘not valid’ in a black and white manner by focusing only on test-internal factors; rather, one needed to argue for the validity of a test by considering a variety of factors: for what kind of examinee was the test suitable; what reasonable inferences could be derived from the scores?; how did the test method affect the scores?; what kind of positive or negative effect (‘washback’) might the test have on stakeholders?; and many others. Now, tests are seen in the context of a complete assessment environment, which includes stakeholders (for example, examinees, raters, administrators, government officials), test conditions (for example, can everyone hear the audio player clearly?), the intended use of the scores (for example, will they be used for relatively ‘high-stakes’ purposes (university admission) versus relatively ‘low stakes’ purposes (a classroom quiz?)) and characteristics of the test itself (Are the instructions clear? What kind of tasks does the test employ?). Within this framework, tests are generally seen as being suitable for particular purposes and particular sets of learners, rather than ‘one size fits all’. Since every classroom and group of learners is somewhat different, there has been a move towards exploring the value of alternative types of assessment which can be individualized to suit particular situations. These include structured observation, progress grids, portfolios, learning journals, project work, peer-assessment and self-assessment. (See Chapter 17, *Assessment*, for more on these issues.)

Technology was advancing throughout the century, but the advent of powerful and affordable personal computers probably has had the greatest impact on applied linguistics. Of course, language laboratories had utilized technology since the mid- to late-1940s, but the relatively recent development of very capable personal computers made quite sophisticated language programs available to the individual user, whether learner, teacher or researcher. Pedagogically, this opened the door to ‘computer-assisted language learning’ (CALL), where learners could work on individual computers truly at

their own pace. Computer technology has also facilitated the incorporation of audio and video input into learning programs on a scale previously unimaginable. The best of the current programs are interactive, tailoring their input and tasks to individual learners' progress, although it must be said that much remains to be done in this area. With new learning programs arriving regularly, today CALL is one of the more dynamic areas in applied linguistics.

Computing technology also made it possible to analyse large databases of language, called 'corpora'. Evidence from corpora have provided numerous insights into the workings of language (Egbert and Hanson-Smith, 1999; *see also* Chapter 6, *Corpus linguistics*). Perhaps the most important revelation is the vast amount of lexical patterning which exists; in fact, it is so great that some scholars have suggested that it is more important than grammar in contributing to the organization of language (Sinclair, 1996). Corpora are now a key tool in lexicography, and have been consulted in the development of most current learner dictionaries. Evidence from corpora of spoken discourse has also highlighted the differences between spoken and written discourse (McCarthy and Carter, 1997), and the fact that language is largely phrasal in nature (Biber et al., 1999; Wray, 2002). Happily, corpora have now made truly descriptive grammars possible, with writers having numerous authentic examples of many grammatical structures at their fingertips (Carter and McCarthy, 2006). The best studies in this area can even distinguish varying language usage between different registers, for example written fiction versus academic prose (Biber et al., 1999). It is likely that evidence from corpus linguistics will continue to have a major influence on applied linguistic thinking well into the foreseeable future.

Incorporating social and cultural elements into applied linguistics

The mid-twentieth century domination of behaviourism as the overriding psychological paradigm (at least in English-speaking countries) meant that only stimuli (that is, teaching input) and reactions (student responses) which could be observed were considered worthy of discussion in the area of psychology. In linguistics, a similar dichotomy occurred when Saussure (1857–1913; *see de Saussure, 1966*) split language ('*langue*') from the actual use of language ('*parole*'). Chomsky's (1965) ideas had a similar effect as they distinguished what was happening inside the learner ('*language competence*') from what was observable outside the person ('*language performance*').

There were some voices speaking out against these divisions, such as Vygotsky (1896–1934; *see Vygotsky, 1987*), but political and academic factors kept their influence in check until the latter part of the twentieth century. In the late 1960s, Labov (1970) began exploring how social factors influence L1 language use and Tarone (1979) and others later did the same for L2 usage. The study of the interface of social factors and language use eventually developed into the field of 'sociolinguistics'. Similarly, it was acknowledged that the context in which language is used (for example, for what purpose, the relative power relationship between interlocutors) also affects the language of communication. The study of these factors blossomed in the area of 'pragmatics'. Together, these fields, along with the closely related area of 'discourse analysis', have shown that social and contextual influences cannot be divorced from individual learners when language learning and use are studied.

One view of cognition, called ‘sociocultural theory’, emphasizes individual– social integration by focusing on the necessary and dialectic relationship between the socio-cultural endowment (the ‘*inter*’-personal interface between a person and his or her environment) and the biological endowment (the ‘*intra*’-personal mechanisms and processes belonging to that person), out of which emerges the individual. Sociocultural theory suggests that in order to understand the human mind, one must look at these two endowments in an integrated manner, as considering either one individually will inevitably result in an incomplete, and thus inaccurate, representation. For it is only through social interaction with others that humans develop their language and cognition. Furthermore, most language use (spoken or written) is co-constructed with others and not simply the product of one individual acting alone in a vacuum.

Psycholinguistic perspectives in applied linguistics

One of the most noticeable recent trends has been the establishment of a more psychological perspective of language acquisition, processing and use. This perspective is being driven by a number of sub-fields (cognitive linguistics, neurolinguistics, cognitive science, cognitive neuroscience (*see* Dörnyei, 2009)), but we will use the umbrella cover term *psycholinguistics* here, as that is the title of the chapter in this volume which covers this general approach (*see* Chapter 8, *Psycholinguistics*). Psycholinguistic perspectives have now become a major influence in applied linguistics, in areas ranging from theory building to research methodology (Field, 2003; Gaskell, 2009; Harley, 2008).

Perhaps the most noticeable outcome is that the current leading theories of how second languages are acquired are all informed by psycholinguistic thinking and research. Although these theories differ somewhat, at heart most of them maintain that the mind extracts the recurring patterns from the language input a learner receives. These patterns exist with the smallest components of language all the way up to overall connected discourse. For example, some graphemes often cluster together in English (*spl* – *splatter*, *split*, *spleen*), while others rarely or never do (*zlf*). Also, affixes attach to stems in systematic ways (*re-* + *play* = *replay*). Similarly, words co-occur together in patterns called *collocations* (*black coffee*, *strong coffee*, *hot coffee*, but not* *powerful coffee*).¹ Patterns even exist at the level of discourse, as every reader would expect some type of Introduction–Body–Conclusion organization in an academic text. Current thinking is that the human mind is very good at extracting these patterns and using them to build up a picture of the systematicity of a language. In essence, the learner’s linguistic knowledge is ‘constructed’ through general learning mechanisms, rather than being innately in place, as Chomsky posited more than half a century earlier. The process is implicit, but eventually the patterns may become salient enough that a learner is able to describe them explicitly. Various versions of this ‘pattern extraction’ can be seen in the connectionism (Elman, 2001), emergentism (Ellis and Larsen-Freeman, 2006), usage/exemplar-based (Ellis, 2008) and construction grammar (Tomasello, 2003) theories of language acquisition and use.

A related trend is use of psycholinguistic research methodologies to explore language processing in much more detail than was possible before. Previously, most language measurement required explicit knowledge of linguistic features because learners were required to write down or say their answers. Newer psycholinguistic techniques can

look into the inner workings of the brain while learners are using language in various ways. This allows exploration of linguistic knowledge even before learners become aware of it. This has now made research into the very initial pre-conscious stages of language learning possible. For example, Schmitt (2010) describes how this is beginning to revolutionize research into vocabulary acquisition. He relates how:

- Reaction-timing studies can inform about the development of automaticity of lexical access.
- Priming studies can show the acquisition of collocation pairings.
- Eye-movement studies can show how formulaic sequences are read by native and non-native speakers.
- Event-Related Potentials (ERP) can indicate the very earliest traces of lexical learning.
- Functional Magnetic Resonance Imaging (fMRI) can show the locations where various types of word (that is, words relating to parts of the body) are activated in the brain.

Language is immensely complex and numerous factors affect how it is learned. While past research has often considered how these factors work in combination to lead to the end product of learning, there is a growing awareness that the various factors also affect each other in dynamic and fluid ways. For example, language learners' willingness to communicate (WTC) is partially dependent on their levels of proficiency and on their linguistic self-confidence. However, while the two factors exert their effect on WTC, they themselves can also change (for example, successful communication can improve the learner's language proficiency and enhance their confidence) (Dörnyei, 2009). In addition, it is easy to see how the two factors can affect each other. Greater proficiency should lead to greater confidence. Conversely, greater confidence may lead to the learners putting themselves in situations where they use and practise their language more, which in turn may lead to improved proficiency. Complex interactions like these are difficult to describe and understand and, in an effort to do so, some researchers are working to adapt methods from other fields which have to model complex and difficult-to-predict phenomena (for example, weather). The methods come under several names: Dynamic(al) systems theory, Complexity theory and Chaos theory. Although it is still in its early days, given the dynamic nature of language acquisition and use, it is likely that this type of approach will prove increasingly influential in the future. For overviews, see Larsen-Freeman and Cameron (2008) and de Bot, Lowie and Verspoor (2007).

Themes to watch for in this book

This book includes a broad selection of major areas in applied linguistics. But this diversity does not mean that each area can be isolated and dealt with on its own. On the contrary, true understanding of any individual area can only be gained by understanding others which are related. For example, to truly understand the information in Chapter 3, *Vocabulary*, one must take on board the insights given in Chapter 6, *Corpus linguistics*. In fact, if we look deeply enough, nearly all of the areas are related to each other in some way. This being the case, there are several themes that run through the

various chapters. These underlying currents are important because they add coherence to the overall discussion and represent an entry point to understanding and critiquing the ideas in this book.

The interrelationship of the areas of applied linguistics

There is a story from India about the five blind men of Hindustan who went out to learn about an elephant. They all felt different parts of the elephant's body and came to very different conclusions about what an elephant is like. The man who felt the trunk thought an elephant was like a snake, the one who felt a leg thought elephants were like a tree, the one who felt the ear thought elephants were like a fan, and so on. Similarly, language is a big, complex subject and we are nowhere near to being able to comprehend it in its entirety. The best any person can do at the moment is to study a limited number of elements of language, language use and language learning, and try to understand those elements in detail. Although we strive to connect this understanding with insights from other areas in the applied linguistics field, we can only be partially successful. Thus we end up with scholars becoming specialists in areas of applied linguistics, but with no single person able to master the whole field. (That is why this is an edited volume and not a book written by a single author.) This is inevitable and happens in every field, but it does mean that applied linguistics is compartmentalized to some extent. We must be aware of this and realize that this compartmentalization is an expedient which enables us to get around our cognitive limitations as human beings; it is not the way language works in the real world. Language, language learning and language use are a seamless whole and all of the various elements interact with each other in complex ways. Each chapter in this book looks at one area of specialization, but when reading them, it is useful to remember that they make up only one part of the larger 'complete elephant'.

The move from discrete to more holistic and integrative perspectives

Despite the above-mentioned caveat about compartmentalization, we are getting better at being able to grasp larger and larger bits of the language elephant. Up until the middle of the last century, language was viewed in very discrete terms: it was made up of grammar, phonology and vocabulary, each of which could be separately identified and described. (In fact, phonetics was the first area within linguistics to become well-developed (late nineteenth century) and the Reform Movement in language teaching, led by phoneticians, was very influential in encouraging a focus on the spoken language.) The last 40 years have seen a move towards viewing language in much more integrative and holistic terms. We now know that language use is not just a product of a number of individual language 'knowledge bits' which reside completely within 'interlocutors' (language users); it is also profoundly affected by a number of other factors, such as the social context (who you are communicating with and for what purpose), the degree of involvement and interaction, the mode of communication (written versus spoken) and time constraints. Taking these and other factors into account gives us a much richer and more accurate account of the way language is actually used and leads to a better description of the knowledge and skills which make up language proficiency. In fact Celce-Murcia and Olshtain (2000) have proposed a

discourse-based framework for language teaching designed to deal with all these factors simultaneously. In the rest of this book, therefore, a trend worth watching is how the various areas of applied linguistics now embrace integrative perspectives which acknowledge the complex interplay of numerous factors.

Lexico-grammar and formulaic language

The areas of vocabulary and grammar provide a good example of this new integrative approach. Traditionally, vocabulary was viewed as individual words which could be taught and used in isolation. With grammar being highlighted in most theories and pedagogical methodologies, vocabulary items were seen merely as ‘slot fillers’ necessary to fill out syntactic structures. This conception saw vocabulary and grammar as two discrete entities which could be taught and learnt separately. This view is starting to change and one of the most interesting developments in applied linguistics today is the realization that vocabulary and grammar are not necessarily separate things, but may be viewed as two elements of a single language system referred to as ‘lexico-grammar’ (Halliday, 1978). This term acknowledges that much of the systematicity in language comes from lexical choices and the grammatical behaviour of those choices. For example, you can use the word *plain* in many ways and in many grammatical constructions, but once you choose the collocation *made it plain* you are more or less constrained to using the following structure:

SOMEONE/SOMETHING made it plain that *SOMETHING AS YET UNREALIZED*
(often with authority) *WAS INTENDED OR DESIRED*

(Schmitt and 2000: 189)

This structure should not be viewed in terms of being first generated with grammar, and then the words simply slotted into the blanks. Rather, this structure is likely to reside in memory as a bit of formulaic language which is already formed, that is, it is a ‘formulaic sequence’. Since it is preformed and ‘ready to go’, it should take less cognitive energy to produce than sequences which have to be created from scratch (Pawley and Syder, 1983; Conklin and Schmitt and 2008). Evidence from corpora show that much of language is made up of such ‘multi-word units’, many of which are likely to be preformulated in the mind (*see* Moon, 1997; Wray, 2002). Because we now believe that a great deal of language is stored in peoples’ minds as these ‘chunks’, it makes little sense to attempt to analyse those chunks as if they were generated online according to grammar rules. This insight is forcing a reappraisal of both how we consider language itself and how it is processed.

Bringing the language learner into the discussion

Previously, much of the discussion about language learning focused on the best techniques and materials for teaching. In other words, it had a focus on the teacher. There seemed to be an unexpressed view that the learner was somehow a ‘container’ into which language knowledge could be poured. This view fitted well with teacher-fronted classes and behaviourist theories which suggested learning was merely the result of practice and conditioning. However, in the early 1970s, it was realized that learners are

active participants in the learning process and should be allowed to take substantial responsibility for their own learning. This led to interest in the various ways in which individual learners were different from one another and how that might affect their learning. It first led to the development of the area of ‘learner strategies’. If learners were, in fact, active participants then it followed that what these learners did would make a difference in the quality and speed of their learning. Studies were carried out to find out what behaviours differentiated ‘good’ from ‘poor’ learners (Naiman et al., 1978). From these studies, lists of learning strategies which good learners used were developed and it was suggested that all learners could benefit from training in these strategies. Of course, nothing in applied linguistics is so straightforward, and it was eventually discovered that the correspondence between strategy training and use, and higher language achievement, was less direct than previously assumed. It is clear that effective strategy use can facilitate language learning (Oxford, 1990), but it is still unclear how to best train learners to use strategies, or indeed how effective strategy training is in general.

More recently, there has been a great deal of emphasis on how the individual characteristics of each learner affects their learning (that is, individual differences). Clearly, a range of differences either constrain or facilitate the rate at which second languages are learned, including age (Birdsong, 2006), aptitude (Dörnyei, 2005), learning style preferences (Cohen and Weaver, 2006), strategy use (Griffiths, 2008) and motivation (Dörnyei, 2005). The area of individual differences will be discussed in detail in Chapter 10, *Focus on the language learner: Styles, strategies and motivation*.

New perspectives on teaching the four skills

The teaching of the four language skills (*see* Chapter 13, *Listening*, Chapter 14, *Speaking and pronunciation*, Chapter 15, *Reading* and Chapter 16, *Writing*) has long been an important concern in second language pedagogy. Language use inevitably involves one or more of the four skills, thus this text devotes a chapter to each language skill. Although it is useful to give attention to the unique sub-skills and strategies associated with each skill, it is also important to consider the overlaps in mode (oral versus written) and process (receptive versus productive):

	Oral	Written
Receptive	LISTENING	READING
Productive	SPEAKING	WRITING

Furthermore, each skill may usefully be described in terms of the top-down and bottom-up processing required. Listeners and readers work to decode and construct meanings and messages, whereas speakers and writers use language resources to encode and express meanings and messages. These meanings and messages occur at the level of text or discourse; thus, discourse analysis is highly relevant to understanding the four skills. Top-down processing utilizes shared knowledge, pragmatic knowledge and contextual information to achieve an appropriate interpretation or realization of textual meanings and messages. Bottom-up processing depends on language resources – lexico-grammar and phonology (pronunciation) or orthography – as aids to the accurate decoding or interpretation, or encoding or realization, of meaningful text.

Typically, more than one language skill is involved in any communicative activity (for example, we take turns at listening and speaking in conversation, we write notes while listening to a lecture, we read a passage carefully in order to write a summary, etc.). If teachers focus on one skill for purposes of pedagogy and practice, that is, to improve learners' use of that skill, the ultimate goal should always be to move from such practice toward the types of integrated skill use that the learners are likely to need when using the target language for communication.

The lack of 'black and white' answers

Because language is created and processed both between interlocutors and within the human mind, much of what is of interest in applied linguistics is hidden from direct view and study. Despite the advances in psycholinguistic methodologies, we cannot yet look into the human brain and directly observe language, which means that most research has to rely on indirect evidence observable through language processing and use. The results of such indirect evidence need to be interpreted, and usually more than one interpretation is possible. This makes it difficult to say much with complete certainty about language learning and use. You will notice that throughout the book there are a number of theories and hypotheses and that different scholars hold different positions on key issues. Until 'neurolinguistics' develops to a point which allows us to directly track language in a physiological manner (Brown and Hagoort, 1999; Paradis, 2004; Schumann et al., 2004), a degree of controversy and multiplicity of views seems inevitable. It thus remains the responsibility of researchers, teachers and you the reader to evaluate the various proposed positions and decide which makes the most sense. Readers looking for easy, tidy and absolute answers may be disappointed, but should remain open to new directions in the future.

Conclusion

From the discussion in this overview, it should be obvious that our field's views on language, language learning and language use are not static, but are constantly evolving. At the point in time when you read this book, they will still be changing. Thus, you should consider the ideas in this book (and any book) critically and remain open to future directions in the field.

Notes

- 1 University of Nottingham.
- 2 University of California, Los Angeles.
- 3 An asterisk indicates a form that is ungrammatical or inappropriate.

Further reading

- Howatt, A.P.R. (2004) *A History of English Language Teaching* (second edition). Oxford: Oxford University Press.
- McLelland, N. (2017). *Teaching and Learning Foreign Languages: A History of Language Education, Assessment and Policy in Britain*. Basingstoke: Routledge.

[Two books which give a historical background to the key applied linguistics area of second language teaching and learning (the first focusing on English as a second language).]

- Burns, A. and Richards, J.C. (eds.) (2012) *The Cambridge Guide to Pedagogy and Practice in Second Language Teaching*. Cambridge: Cambridge University Press.
- Chapelle, C.A. (ed.) (2012) *The Encyclopedia of Applied Linguistics*. Oxford: Wiley-Blackwell.
- Cummins, J. and Davison, C. (eds.) (second edition forthcoming). *International Handbook of English Language Teaching, Parts 1 and 2*. New York: Springer.
- Davies, A. and Elder, C. (eds.) (2006) *The Handbook of Applied Linguistics*. Oxford: Blackwell.
- Hinkel, E. (ed.). (2005; 2011; 2016) *Handbook of Research in Second Language Teaching and Learning (Volumes I, II and III)*. Mahwah, NJ: Lawrence Erlbaum.
- Kaplan, R.B. (ed.) (2010) *The Oxford Handbook of Applied Linguistics* (second edition). Oxford: Oxford University Press.

[There is now a range of encyclopedias/handbooks that cover the areas of applied linguistics and English language teaching, and the above eight volumes are a representative sample. They tend to be longer books that cover a more comprehensive range of subjects than the present text, although each area is often covered in less depth. They are primarily meant as reference volumes where teachers and researchers can look up a range of topics and obtain a brief overview of those subjects.]

- Celce-Murcia, M., Brinton, D.M. and Snow, M.A. (eds.) (2014) *Teaching English as a Second or Foreign Language* (fourth edition). Boston, MA: National Geographic Learning.

[A comprehensive introductory volume intended for preservice teachers focusing on teaching language skills and pedagogical issues.]

- Crystal, D. (2010) *The Cambridge Encyclopedia of Language* (third edition). Cambridge: Cambridge University Press.

[A lively table-top reference book which gives interesting snippets on a wide variety of language issues, the vast majority of them focusing on the L1 (but including an L2 section).]

- Larsen-Freeman, D. and Anderson, M. (2011) *Techniques and Principles in Language Teaching* (third edition). New York: Oxford University Press.

[A very accessible book which describes, and gives examples, of the various major teaching methodologies used in the twentieth century.]



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Part I

Description of language and language use



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Grammar

Diane Larsen-Freeman¹ and Jeanette DeCarrico²

Introduction: grammar and grammars

When it comes to definitions of grammar, confusion abounds. One problem is that the word ‘grammar’ means different things to different people. For many, the term suggests a list of do’s and don’ts, rules that tell us we should say *It is I*, not *It is me*, that we should not say *ain’t*, or that we should avoid ending a sentence with a preposition. For others, the term may refer to the rules of grammar found mainly in written language, for example, rules that label sentence fragments as incorrect even though they are often found in spoken language (for example, ‘*Working on a term paper*’ as a response to the question ‘*What are you doing?*’), or that admonish us not to begin sentences with *and* or *but*, though again, this usage is common in spoken English. For others, it may simply mean an objective description of the structures of language, with no comment concerning correct versus incorrect forms.

Grammars with rules that make distinctions between correct and incorrect forms are defined as ‘prescriptive’ grammars. They tell us how we ought to speak, as in *It is I*, and how we ought not to speak, as in *It is me*, or *He ain’t home*. This approach codifies certain distinctions between standard and non-standard varieties, and often makes overt value judgements by referring to the standard varieties as correct, or ‘good’, English and the non-standard as incorrect, or ‘bad’, English.

Grammars that do not make these distinctions and that aim to describe language as it is actually used are called ‘descriptive’ grammars. The rules are more like a blueprint for building well-formed structures, and they represent speakers’ unconscious knowledge, or ‘mental grammar’ of the language. Taking this unconscious knowledge into account, this approach focuses on describing how native speakers actually do speak and does not prescribe how they ought to speak. No value judgements are made, but rather the value-neutral terms ‘grammatical’ and ‘ungrammatical’ are used to distinguish between patterns that are well-formed, possible sentences or phrases in a language and those that are not. For example, *The cow ate the corn* is a grammatical sentence in English, but **Ate the corn the cow* is ungrammatical. (An asterisk indicates a form that is ungrammatical or inappropriate.) Grammar in this sense consists of rules of syntax, which specify how words and phrases combine to form sentences, and rules of morphology, which specify how word forms are constructed (for example, present and past tense distinctions: *love, loved*; number distinctions: *word, words*) and so on. For linguists, a descriptive grammar may also be a more detailed look at language,

including not only syntax and morphology but also phonetics, phonology, semantics and lexis (that is, vocabulary).

For applied linguists, the focus is more on ‘pedagogical grammar’, the type of grammar designed for the needs of second-language students and teachers. Although teaching grammar in a second language does involve some of the prescriptive rules for the standard varieties, a pedagogical grammar resembles a descriptive grammar much more than a prescriptive one, especially in terms of the range of structures covered (Odlin, 1994). And while certain linguistic grammars tend to be narrowly focused, pedagogical grammars are typically more eclectic, drawing on insights from formal and functional grammars (*see below*), as well as work on corpus linguistics, discourse analysis and pragmatics, addressed in other chapters in this volume. For after all, applied linguists must be concerned that students not only can produce grammatical structures that are formally accurate; students must be able to use them meaningfully and appropriately as well.

Issues when describing grammar

A descriptive approach to grammar may seem a simple matter, but in practice it is somewhat more complicated than it may first appear. The outcome will be different depending on which parts of the grammar are included and on what the focus of the description is.

Which rules to describe

For one thing, we tend to expect grammars to state rules in terms of general statements, to describe how structures behave in a predictable, rule-governed way. Yet a moment’s reflection tells us that some rules apply more consistently than others. For example, whereas the ordering rule for auxiliaries is invariant (modal auxiliaries such as *would*, *might* and so on, always precede the primary auxiliaries *have* or *be*, as in, *would have tried*, *might be trying* but not **have would tried*, **be might trying*), the subject–verb agreement rule admits exceptions (verbs take the suffix *-s* if their subject is third person singular, as in *He leaves*, but there are exceptions such as subjunctive forms, *I insist that he leave now*). Plural titles of books, plays, films, etc. are also sometimes exceptions to the subject–verb agreement rule (*Angela’s Ashes is a novel about growing up in an impoverished Irish family*). We will also discuss other examples below in which the intended meaning dictates the form of the verb, regardless of the number of the subject.

As these examples indicate, grammar must include both rules that are invariant and rules that admit variations. Notice that these examples fall under well-established categories of acceptable, standard English. But what about different varieties? Some descriptive grammars may include only standard varieties as spoken and written on formal occasions by educated speakers of the language, whereas others may focus more on standard forms but also include certain non-standard, or ‘informal’, variants. Grammars intended for use by students of writing, for instance, typically include only those forms acceptable in formal writing. Pedagogical grammars, on the other hand, may focus on standard formal patterns but also include a number of informal alternatives, with explanations of the situations in which each is acceptable, for example, class assignments, job interviews and the like typically require formal writing or speaking (*How do you do?*, *I would like to enquire about X*), whereas casual conversation with friends tends towards informal expressions (*Hi there*, *What’s up?*).

These examples illustrate that issues of what to include can often be decided on the basis of the intended audience. There are other issues that depend on a particular view of what grammar is and on what type of description accords with that particular view. These include formal versus functional approaches to grammatical description, considerations of type versus token, sentence versus discourse grammar and the role of spoken versus written forms. Then, too, many educators these days do not see conformity to grammar as it is spoken by native speakers to be necessary. Choices based on these issues have far-reaching implications, not only for the particular framework of the grammar itself but also for applications that influence the design of pedagogical grammars, of syllabuses and of teaching approaches. The remainder of this section addresses these issues in more detail.

Form and function

Models of grammar differ greatly, depending on whether they are formal grammars or functional grammars. Formal grammar is concerned with the forms themselves and with how they operate within the overall system of grammar. Traditional grammar, which describes the structure of sentences, is perhaps the best known formal grammar. Among linguists, the most influential formal grammar in the latter half of the twentieth century has been the generative (transformational) theory of grammar (Chomsky, 1957, 1965), the general principles of which are still the basis for Chomsky's later versions of generative grammar in the form of principles and parameters (Chomsky, 1981) and the minimalist programme (Chomsky, 1995), and for dozens of other competing variants developed within some version of the generative framework. The focus is primarily syntax and morphology.

Generative theory is based on a rationalist approach, the central assumption being that language is represented as a speaker's mental grammar, a set of abstract rules for generating grammatical sentences. This mental grammar, or internalized, unconscious knowledge of the system of rules, is termed 'competence'. The rules generate the syntactic structure and lexical items from appropriate grammatical categories (noun, verb, adjective, etc.) are selected to fill in the corresponding grammatical slots in the syntactic frame of the sentence. The interests of generative linguists focus mainly on rule-governed behaviour and on the grammatical structure of sentences and do not include concerns for the appropriate use of language in context.

Hymes (1972), an anthropological linguist, developed a functional model that focuses more on appropriate use of language, that is, on how language functions in discourse. Although not rejecting Chomsky's model entirely, Hymes (1972) extended it and gave greater emphasis to sociolinguistic and pragmatic factors. A central concern of his model is the concept of 'communicative competence', which emphasizes language as meaningful communication, including the appropriate use of language in particular social contexts (for example, informal conversation at the dinner table versus formal conversation at the bank). For Hymes (1972), communicative competence is defined as 'the capabilities of a person', a competence which is 'dependent upon both [tacit] *knowledge* and [ability for] *use*' (Hymes, 1972: 282). In other words, it includes not only knowledge of the rules in Chomsky's sense (grammatical competence) but also the ability to use language in various contexts (pragmatic competence). For example, it includes knowing how to formulate a yes/no question (Operator-NP-VP), and knowing that only certain types function as polite requests (for example, '*Could you VP?*') and knowing how to use them appropriately.

In applied linguistics, the influence of these theoretical models is evident in various areas. For example, the approach to grammar as abstract linguistic descriptions is found in learners' grammars such as Quirk et al. (1972), a descriptive grammar that deals with abstract forms as syntactic combinations of words. On the other hand, a functional approach is evident in Leech and Svartvik (1975), a communicative grammar based on correspondences between structure and function. In this learners' grammar, each section is built around a major function of language, such as denial and affirmation, describing emotions, and presenting and focusing information.

Influence of different models of grammar can also be seen in syllabus design. Many ESL or EFL grammar texts are based on a structural syllabus design defined in formal terms, with lexical items and grammatical patterns presented according to structural categories such as nouns and noun phrases, verbs and verb phrases, verb tense and aspect, and clause and sentence types. In contrast, notional syllabuses are defined in functional terms such as the speech acts of requesting, '*Could you VP?*'; offering, '*Would you like X?*' and so on; these notional syllabuses developed at a time when linguistic interest had begun to shift to the communicative properties of language (Widdowson, 1979).

Various teaching approaches also draw on insights from these differing approaches to grammar. Approaches influenced by formal theories such as generative grammar tend to view language learning as rule acquisition and, therefore, focus on formalized rules of grammar. Those that evolved from functional considerations, known as communicative language teaching, view language as communication and tend to promote fluency over accuracy, consequently shifting the focus from sentence-level forms to communicative functions, such as requests, greetings, apologies and the like.

More recently, some applied linguists have argued for an approach that draws not on one or the other, but on both (Rutherford and Sharwood Smith, 1988; Widdowson, 1989). Widdowson (1989) is particularly insistent that it is a mistake to concentrate solely on functional considerations while ignoring form altogether. He observes, for instance, that just as approaches that rely too heavily on application of rules of grammar often lead to dissociation from any consideration of appropriateness, so approaches which rely too heavily on an ability to use language appropriately can lead to a lack of necessary grammatical knowledge and of the ability to compose or decompose sentences with reference to it. There is, he says, 'evidence that excessive zeal for communicative language teaching can lead to just such a state of affairs' (Widdowson, 1989: 131). What is needed is an approach that provides a middle ground in that it neglects neither.

Newer linguistic theories that attempt to combine form and meaning (though they give less attention to appropriate use) are cognitive grammar (Langacker, 1987) and construction grammar (Fillmore, Kay and O'Connor, 1988). Constructions integrate form and meaning at various levels of complexity from the morphology of words to phrases to clauses. An oft-cited example is that of English verb-argument constructions (Goldberg, 2006). For instance, many English verbs enter into a pattern called the 'ditransitive' or 'double object' construction, in which the indirect object precedes the direct object following the verb. This construction entails the meaning 'X causes Y to receive Z', as in '*Sam mailed Paul a letter*'. When newer verbs enter into this construction, they inherit the semantics of the construction and force us to interpret the sentence in the same way. For example, '*Paul texted Sam a reply*'. It is important to

note that, contrary to formal grammar, construction grammar takes the position that certain words fit certain patterns. In other words, it is not the case that any word will fill any slot in a construction.

Pedagogical grammarians Celce-Murcia and Larsen-Freeman (1999) give strong support to the view that, in language teaching, a formal or functional approach should not be taken to the exclusion of the other. In fact, these authors recommend adopting a three-prong approach, including meaning as a separate dimension, along with those of form and function. They recognize that grammar is not merely a collection of forms but rather involves the three dimensions of what linguists refer to as (morpho)syntax, semantics, and pragmatics. (Larsen-Freeman and Celce-Murcia, 2015). They illustrate the importance of all three dimensions by means of a pie chart divided into equal and interconnected parts labelled 'Form', 'Meaning' and 'Use' (Figure 2.1). They feel this chart is useful as a conceptual framework for teaching grammar as it serves as a reminder that learners need not only achieve a certain degree of formal accuracy, but that they also need to use the structures meaningfully and appropriately as well (*see also* Larsen-Freeman, 2001; 2003).

Type versus token

In terms of descriptive grammars, there still remain questions about what it is, exactly, that should be described. Descriptions of language will also have different outcomes depending on whether they account for types of linguistic elements in the abstract, or for tokens of linguistic elements as they actually occur in contexts of use. Descriptions that deal with forms in the abstract describe a range of category types, but those that deal with actual tokens (instances) of language use reveal more than category types: they also reveal the relative frequency of forms and their habitual co-occurrence in different contexts. Whereas a type description might

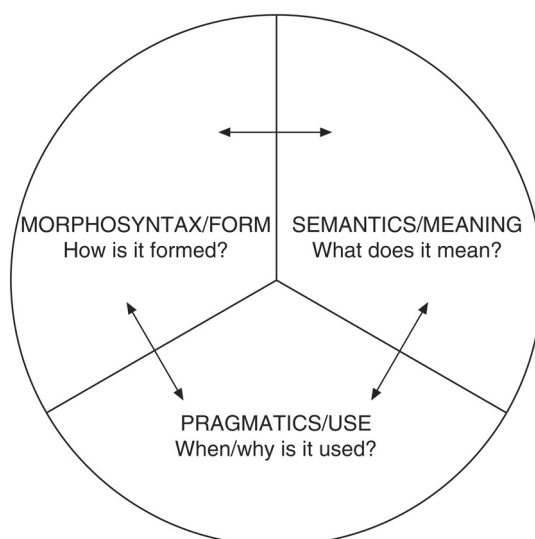


Figure 2.1 Interconnected dimensions of grammar

present a broad array of structures and give each equal weight, a token description ‘might well reveal that some of these were of rare occurrence, or restricted to a realization through a limited range of lexical items, almost exclusively confined to certain contexts, or associated with certain meanings’ (Widdowson, 1990: 75).

With the development of computers and computer analysis of language, token descriptions are now possible on a massive scale, and such descriptions have revolutionized the way we view language (*see* Chapter 6, *Corpus linguistics*). A well-known example is the COBUILD Bank of English Corpus, which contains more than 500 million words (mostly from written texts). Sinclair (1985) notes that type descriptions lacking attested data do not provide an adequate source of reference for language teaching. Instead, he believes that language for pedagogical purposes should be a projection of what actually occurs as recorded by the computer analysis of text.

Projects based on analyses of this and other corpus studies have produced various dictionaries and grammars, including the *Collins COBUILD English Grammar* (1990) of which Sinclair was Editor-in-Chief; Biber et al. (1999); Hunston and Francis (2000); and Carter and McCarthy (2006). These grammars attempt to make statements about English, as attested by an analysis of patterns of words in linguistic corpora.

Discourse grammar

Corpus studies have also led to an increased interest in analyses of ‘discourse grammar’, that is, analyses of the functional roles of grammatical structures in discourse. Here we are using discourse to mean the organization of language at a level above the sentence or individual conversational turn – that which connects language at the suprasentential level. In addition to the discourse context, there is also the influence that the non-linguistic co-text plays in the deployment of a speaker’s grammatical resources.

Speakers and writers make grammatical choices that depend on how they construe and wish to represent the context and on how they wish to position themselves in it (Larsen-Freeman, 2002). For example, speakers use the past perfect tense–aspect combination in English, not only to indicate the first of two past events, but also to give a reason or justification for the main events of the narrative. These events are not the main events themselves but, rather, are felt to be an essential background to what happened (*see* McCarthy and Carter, 1994; Hughes and McCarthy, 1998). The italicized structure in the following excerpt, from an illustration given by Hughes and McCarthy (1998), occurs in a conversation between two young women who are talking about mutual friends from their days together at Brunel University.

Speaker 1: Got on better with Glynbob I think and John Bish let me and Trudie sleep in his bed last time we went up to Brunel or the one time when we stayed in Old Windsor with them cos erm *Ben had given us his room cos he’d gone away for the weekend* and erm it was me and Trudie just in Ben’s room and John Doughty had a double bed so he, John Bish had a double bed so he offered us this double bed between us and then slept in Ben’s room cos *Ben and PQ had gone away for the weekend.*

(Hughes and McCarthy, 1998: 270)

Hughes and McCarthy (1998) note that the italicized past perfects seem to give a reason or justification for the main events. In a similar vein, Celce-Murcia (1998) argues that the vast majority of grammatical choices that writers make represent ‘rules’ that are discourse-sensitive, including position of adverbials, passive versus active voice, indirect object and direct object, sequencing, pronominalization across independent clauses, article/determiner selection, use of existential *there* and tense–aspect–modality choice. The order of adverbial clauses viz-a-viz main clauses in sentences, for instance, is not simply random. Rather, it has been found that sentence-initial adverbial clauses serve an important discourse-organizing role by linking up information in the main clause with information in the previous discourse; sentence-final clauses, in contrast, generally only expand the local main clause (Thompson, 1985; DeCarrico, 2000). The following example, from DeCarrico (2000), illustrates this point. It is an excerpt from a description of the painter Winslow Homer.

Thoreau had called the seacoast a ‘wild rank place ... with no flattery in it.’ Homer, in his later years, consciously cultivated a briney persona that matched [the seacoast] roughness. *When he was not communing with the roaring sea from his studio, on Prout’s Neck, Maine*, he was off in the Adirondacks with his brother, Charles, angling for trout.

(DeCarrico, 2000: 194)

The first sentence establishes, as the discourse topic, the ruggedness of the seacoast and Homer’s deliberate cultivation of a rugged persona to match. DeCarrico (2000) notes that, given this context, the initial placement of the ‘when’ adverbial clause not only functions within the sentence to indicate a time relation between the events within the two clauses themselves, but it also serves as a discourse link between the previously established topic, that of the wild seacoast and the pursuit of a briney persona, and the idea of being off in the Adirondacks angling for trout. If normal word order had been used, with the adverbial clause in final position, the linkage with the previous discourse would be much less clear, if not entirely lost.

Spoken and written grammar

Corpus studies also reveal important distinctions between spoken and written grammar. Comparisons of spoken and written corpora have raised some basic questions concerning descriptions of grammar, such as how different types of spoken language can be classified, how features of written and spoken grammar are differently distributed and what the status of the spoken language is, as an object of study within applied linguistics (McCarthy, 1998).

Carter and McCarthy (1995) believe that the differences between spoken and written grammar are especially important for pedagogical grammars, since ‘descriptions that rest on the written mode or on restricted genres and registers of spoken language are likely to omit many common features of everyday informal grammar and usage’ (Carter and McCarthy, 1995: 154). For instance, grammars these authors surveyed gave examples of the reporting verb in the simple past tense (*X said that Y*), and yet in their spoken corpus they found various examples of the reporting verb in past continuous (*X was saying Y*). While undoubtedly such observations are valid, Leech (2000) contends

that the same grammatical repertoires operate in both speech and writing, although the structures used in each may occur with different frequencies. It should also be noted that there has often been a 'written bias' in linguistic descriptions (Linell, 2005).

Limitations of grammatical descriptions

Previous sections have reviewed issues in describing grammar, issues that were mainly concerned with what to describe, how to describe it and how to account for differing approaches and their implications in terms of theory and pedagogy in applied linguistics. But however precise and thorough researchers may attempt to be in addressing these issues, there are certain limitations to descriptions of grammar given in isolation from all other parts of the language system.

The interdependence of grammar and lexis

Regardless of the type of description or the approach taken, when we try to make general statements about grammar that neatly identify broad patterns, we are abstracting away from the overall system in ways that are somewhat artificial. One reason is that it is very difficult to isolate grammar and lexis into completely separate categories, because grammar does not exist on its own. It is interdependent with lexis and, in many cases, grammatical regularity and acceptability are conditioned by words.

A commonly cited example is the past morpheme *-ed*, which applies only where the verb happens to be 'regular', as in *walked*, *traded*, *wondered*. Irregular verbs, on the other hand, take various past forms, such as *drank* or *ate*. However, the choice of lexical item may restrict grammatical structures in other ways. The progressive aspect, for instance, is often used to indicate a temporary activity, but certain lexical items may act upon the grammar to constrain this sense of temporariness. We easily recognize that a sentence such as *Mary is taking a nap* indicates a temporary activity, whereas *Mary is taking a class* indicates an activity of extended duration.

Lexicogrammar: the problem of defining boundaries

A more striking instance of the interdependence of lexis and grammar is that of prefabricated 'chunks' of language, in which the boundary between the two becomes even more blurred. Native speakers tend to use a great many expressions that are formulaic in nature (Pawley and Syder, 1983), fixed or semi-fixed expressions that act as single lexical units used as wholes. That is, they are not composed each time from scratch by the rules of syntax. As fixed units, they appear to be intermediary between lexical words and grammatical structures.

These prefabricated units are called by many names, perhaps most commonly 'formulaic sequences' (Wray, 2002), and exhibit great variability. Nattinger and DeCarrico (1992) were among the first to highlight the importance of these sequences, focusing in particular on 'lexical phrases', which they describe as 'multi-word lexical phenomena that exist somewhere between the traditional poles of lexicon and syntax, conventionalized form/function composites that occur more frequently and have more idiomatically determined meaning than language that is put together each time' (1992: 1). As form/function composites, lexical phrases differ from other formulaic language,

such as idioms (*kick the bucket, hell bent for leather*), in that they have associated discourse functions. They range from completely fixed, as in *by the way*, which functions to shift a topic in discourse, to relatively fixed frames with limited slots for fillers, as in *a ___ ago*, used to express time relationships (for example, *a day ago, a long time ago*), to frames with slots allowing considerable variation, as in *I'm (really) (very) sorry to hear that X* (where *X* may be an entire clause, such as, *you flunked the test, you lost your job*, etc.), used to express sympathy.

The descriptive part of the problem is that these phrasal units, which are pervasive in language, cannot be adequately accounted for by models consisting of abstract rules of sentence syntax, supported by a lexicon of single word items that are inserted into abstract categories such as NP, VP, PP, etc. There is considerable evidence that the mind stores and processes lexical phrases as individual wholes, including evidence from first language acquisition studies indicating that they are learned first as unanalysed chunks and, only later, analysed as to particular grammatical patterns (Peters, 1983).

At present, there is growing interest in investigating the implications of formulaic language for descriptions of grammar, in particular, implications for how we view the components of syntax and lexicon and for how the components interact with each other and with discourse level concerns (DeCarrico, 1998). A closer look at the limitations of various grammatical models may help us to reexamine previous assumptions and to look for new directions in resolving issues and problems in the description of grammar. As this essential work on arriving at more comprehensive descriptive grammars continues, applied linguists must also get on with the tasks of explaining the learning, and improving the teaching, of grammar.

Learning grammar

Over the history of applied linguistics, different theories of learning have been proposed to account for how grammar is learned. During the middle of the previous century, for instance, grammar learning was thought to take place through a process of verbal 'habit formation'. Habits were established through stimulus-response conditioning, which led to the 'overlearning' of the grammatical patterns of a language. In order to help students overcome the habits of their native language and inculcate those of the target language, teachers conducted pattern practice drills of various types: repetition, transformation, question and answer, etc. Teachers introduced little new vocabulary until the grammatical patterns were firmly established. Language use was also tightly controlled in order to prevent students making errors that could lead to the formation of bad habits that would later prove difficult to eradicate.

With the rise of generative grammar and its view of language as a system of rules, grammar learning was seen to take place through a process of 'rule formation', which itself was brought about when students formulated, tested and revised hypotheses about grammatical structures in the target language. Thus, students were seen to play a much more active role in the classroom than they had earlier. Consistent with this perspective, students' errors were not to be feared, but rather welcomed as evidence that students were attempting to test their hypotheses and receive feedback, with which they could then revise their hypotheses. In the classroom, students were given written grammar exercises so they could induce the grammatical rules that would allow them to generate and understand novel sentences.

With the shift toward a more communicative approach to language teaching, views of grammar learning changed once again. Some held that grammar learning took place implicitly and most effectively when students' attention was not on grammar at all. In other words, they said that grammar was best learned subconsciously when students were engaged in understanding the meaning of the language to which they were introduced (Krashen and Terrell, 1983). Those that adhered to a Chomskyan universal grammar (UG) perspective felt that target language input alone or input with negative evidence (that is, evidence that a particular form is ungrammatical) might be sufficient to have learners reset the parameters of UG principles in order to reflect the differences between the native language and target language grammars (White, 1987). Others felt that explicit grammar teaching had a role (Norris and Ortega, 2000), with some claiming that explicit attention to grammar was essential for older language learners whose ability to acquire language implicitly, much as children learn their native language, was no longer possible, or at least no longer efficient.

Second language acquisition (SLA) research in both naturalistic and classroom environments has informed modern perspectives of grammar learning (*see* Chapter 7, *Second language acquisition*). SLA research tells us that an analysis of the language that learners use, their 'interlanguage', reveals that grammar is not acquired in a linear fashion, one structure being mastered after another. Further, with regard to any one structure, learners use a lot of intermediate forms before conforming to what is accurate in the target language. It can easily be seen that many learners' utterances are overgeneralizations. For example, learners of English produce 'eated' for 'ate', interpreted by some researchers as evidence for the process of rule formation in SLA. Learners also use forms that do not resemble target forms, and they do so consistently, such as using pre-verbal negation during early English language acquisition (for example, 'no want'), regardless of the native language of learners. This behaviour explains why it has been said that the interlanguage is systematic, that is, learners operate consistently within a system, albeit one that is not consonant with the target language. New structures are not simply assimilated one by one, but rather as a new structure makes its appearance into a learner's interlanguage, the learner's system begins to shift. Thus, learning does not add knowledge to an unchanging system – it changes the system (Feldman, 2006).

It is also clear, however, that rule formation does not account for all of grammar learning. Indeed, some would argue that it has no role in SLA at all. Connectionist or neural network models support such a conclusion (Ellis, 1998). Repeated exposure to target language forms contributes to the strengthening of connections in neural network models. The models simulate rule-like grammatical behaviour even though no rules or algorithms are used in constructing the model. Instead, patterns are abstracted from the way structures are statistically distributed in massive amounts of input data. With the use of connectionism to simulate the way that neural networks in the brain function (*see* Chapter 7, *Second language acquisition*), new ways of conceptualizing grammar learning are coming to the forefront.

One concept that is receiving a great deal of attention is emergentism (Ellis and Larsen-Freeman, 2006; Larsen-Freeman, 2006). Emergentists believe that rather than speakers' performance being managed by a 'top-down' rule-governed system, learners' interlanguage emerges from repeated encounters with structures and with opportunities to use them. In this way, it could be said that language learning is an iterative process,

revisiting the same or similar territory again and again (Larsen-Freeman and Cameron, 2008). Thus, grammar learning is facilitated by the frequency of use of the forms in the language to which the learner is exposed. The Zipfian profile of language, in which certain forms are used very frequently while others are used far less so, facilitates the process of perceiving the patterns (Ellis and Larsen-Freeman, 2009). The fact that frequently occurring constructions are often semantically concrete and short in length aids the learning process (Goldberg, 2006).

Regardless of which type (or types, as is more likely the case) of process is responsible for learning, SLA research makes it clear to most researchers that some attention must be given to grammar by second language learners. However, it is also clear that the attention to form should not come through the use of decontextualized drills or isolated grammar exercises. Learners will be able to complete the exercises satisfactorily when their attention is focused on the grammar, but when their attention shifts to a more communicative interaction, the grammar will be forgotten. In order for learners to be able to transfer what they have learned in the classroom to more communicative contexts outside it, pedagogical activities have to transfer appropriate processing and be psychologically authentic, where there is alignment between the conditions of learning and the conditions of subsequent use (Segalowitz, 2003).

Further, for new forms to be incorporated into the intermediate language, or ‘inter-language’, that learners speak, it is thought that students must first notice what it is they are to learn (Schmidt, 1990). Until they do, the target form may merely remain as part of the ‘noise’ in the input. Then too, even when they are able to produce grammatical structures accurately, students still need to learn what they mean and when they are used. In other words, learning grammar does not merely entail learning form.

In fact, as we noted earlier, what needs to be learnt about grammar can be characterized by three dimensions: form, meaning and use. We have seen in Figure 2.1 that the dimensions are interconnected, but nonetheless can be described discretely. For example, in learning the rule of English subject–verb agreement discussed above, students would have to learn the form that an ‘s’ is added to the verb stem and that the orthographic ‘s’ may be realized in pronunciation as one of three allomorphs /s/, /z/ or /əz/. (The slashes indicate sounds; see Chapter 9, *Sociolinguistics*, and Chapter 14, *Speaking and pronunciation*.) They would also have to learn what it means, that is, that it signals the present tense and that the subject is third person and is conceived of as a single entity. This being the case, usually, singular subjects go with singular verbs and plural subjects with plural verbs. However, to show that the meaning contribution is independent from form, we only have to think of a case where there is a departure from this convention. For example, a sentence such as *‘Ten miles makes for a long hike’* shows us that even a plural subject can be conceived of as a single entity. Here again, as we showed earlier, there are times when the rule of subject–verb agreement does not apply. Teaching students when to use it and when not to, then, becomes an essential element in grammar instruction.

The same analysis holds for a formulaic utterance. A greeting, such as *‘Good afternoon’*, for instance, can be described in terms of its form, a noun preceded by an attributive adjective. Its meaning is a greeting at a particular time of day. Learning to use it would involve, for example, students learning when to use it as opposed to learning to use a more informal greeting such as *‘Hi’*. Another example of learning to use greetings is the need for learners of English to learn that *‘Good night’* is used only

for taking leave. ‘*Good evening*’ is appropriate for a greeting, no matter what time of night it is. This is different from other languages in which the equivalent of ‘*Good night*’ is used as a greeting. This last point highlights the influence of the L1. Because the patterns of the native language are so entrenched, many believe that grammar teaching is the only, or certainly the most efficient, way to help learners master new patterns.

Teaching grammar

As mentioned above, the prevailing view today is that students must notice what it is they are to learn. Although this has traditionally been accomplished by a teacher presentation, often of an explicit rule, a greater variety of means, some far more implicit or interactive, is favoured these days. An example of an implicit means of promoting student noticing is the use of some sort of input enhancement (Sharwood Smith, 1993). It might take the form of ‘input flooding’, that is, increasing the number of times that students encounter the target structure in a particular text. Another possibility for enhancing the input is for the teacher to modify the text features in some fashion, such as boldfacing the target structures to make them more salient to students. An example of encouraging noticing through interaction is accomplished through guided participation (Adair-Hauck, Donato and Cumo-Johanssen, 2000), in which the teacher carefully leads students to awarenesses that they did not have before – it is neither an inductive nor a deductive process, then, but rather teacher and students collaborate to produce a co-constructed grammar explanation. Awareness may also be heightened through peer interactions, as research by Donato (1994) and Swain and Lapkin (1998) has shown.

Peer interaction has also been used effectively in promoting noticing through the use of specific ‘consciousness-raising’ tasks (Fotos and Ellis, 1991) in which students are given data, such as a set of grammatical and ungrammatical sentences, and are encouraged to discover the grammatical generalization for themselves. For example, they may be given the following sentences in order to figure out the rule about English word order with regard to indirect and direct objects:

- Sandy bought Margaret a gift.
- Sandy bought a gift for Margaret.
- Sandy bought it for her.
- *Sandy bought her it.

Also included in the promoting noticing category would be VanPatten’s (1996, 2007) input-processing tasks, in which students are guided to pay attention to particular aspects of the target language, especially those aspects that differ between the L1 and the L2, rather than working on explicit rule learning and application.

Although not all would agree, we feel that teachers cannot be satisfied with merely promoting their students’ noticing. Since language use is a skill, overt productive practice is also needed (DeKeyser, 2007). It is important to point out, however, that in order for optimal transfer to take place, the practice must be meaningful, what Larsen-Freeman (1995) has called ‘grammaring’. Grammaring may be accomplished by asking students to engage in a communicative task where it is necessary to use certain structures to complete it (Loschky and Bley-Vroman, 1993). An example might be where

students have to read maps in order to give directions to someone. By so doing, they naturally would receive meaningful practice in using prepositions and imperatives.

Depending on the learning challenge, that is, the grammatical dimension with which students are struggling, the nature of the productive practice activity will differ. If the students need to work on form, for instance, meaningful iteration is useful. For example, students might be asked to talk about their family members' or friends' daily routines, in which they will have ample opportunity to use the third person singular form of verbs. Meaningful iteration would also be useful for helping students learn the form of lexical phrases or other prefabricated structures. If the students' learning challenge is meaning, they will need to practise bonding form and meaning together, such as practice associating certain phrasal verbs with physical actions (*Stand up, Turn on the light, Sit down, etc.*). If the challenge is use, students will need to make a choice. For example, asking students to role-play a situation that calls for advice to be given to a supervisor versus to a friend invites those students to select the appropriate form of modal or other structure with which to offer such advice. To practise use of discourse grammar, students might be asked to choose between use of the active or passive voice after a given prompt.

Feedback is also seen to be a necessary part of grammar instruction. Feedback mechanisms span the spectrum from direct correction by the teacher to recasts, in which the teacher reformulates correctly what the learner has just said erroneously, to giving students the space to correct themselves (Aljaafreh and Lantolf, 1994; Lyster and Ranta, 1997). In a total turnaround from the view that learner errors are to be prevented, some applied linguists have even suggested that students should be encouraged to make errors by being 'led down the garden path'. For example, students might be given a rule without being told that it has exceptions. It is assumed that when students do overgeneralize the rule and commit an error, the negative feedback they receive will be more successful in their acquiring the exceptions than if they were given a list of exceptions in advance (Tomasello and Herron, 1989). Of course, all of this is in vain if learner noticing and uptake do not occur after the feedback. This has been the concern with recasts. Although teachers' recasts are ubiquitous, they have the inherent problem of learners not necessarily noticing that they are being corrected. It has been suggested more recently that prompts may be more effective in this regard than recasts. In addition, Lyster (2004) observes that prompts, such as a teacher repeating a learner's error verbatim with rising intonation, withholds approval and allows the learner to self-repair.

Earlier we made the point that learners do not master grammatical structures one after another like beads on a string. Indeed, the learning of grammar, as with the learning of many aspects of language, is a much more organic process (Rutherford, 1987; Larsen-Freeman, 2003). This suggests that a traditional grammatical syllabus that sequences structures one after another may result in a mis-match between learnability and teachability (Pienemann, 1984). For this reason, many have recommended the use of a 'spiral syllabus', where particular structures are recycled from time to time during a course (Ellis, 1993). A helpful guideline in the construction of such a spiral syllabus might be to focus on a different dimension of a grammar structure each time it is revisited. An alternative some have recommended is not to adopt a grammatical syllabus at all, reckoning that the grammar that students need to learn will become apparent as they work on meaningful content. In this way, grammar teaching becomes more responsive than proactive. This last line of thinking is perhaps best exemplified in the prescription that a 'focus on form' should only occur as needed; students should

otherwise spend their time engaged in meaningful tasks and in learning content (Long, 1991). When it appears that students are ready to learn, their attention can be drawn to linguistic form. One problem with this approach is that an opportunity to teach a particular structure may not present itself because it occurs infrequently or because students know that they have difficulty with the structure, and so they avoid it. Perhaps the best compromise is to employ a grammar checklist – to ensure that students have worked on particular forms by the end of a course – but leaving the sequence indeterminate so that students can work on structures as they emerge naturally from classroom tasks and content (Larsen-Freeman, 2003). When they do not emerge, teachers can create supplementary tasks and activities to ensure that they receive attention when the teacher has determined that the students are ready to learn them. In this way, the risk of focusing on forms in isolation is minimized (Long, 1991).

Not all grammar teaching needs to be reactive, however. For instance, it is recommended to teachers of English language learners that they teach structures that learners will need in order to make sense of the decontextualized academic language they must handle in their schooling. In an academic context, therefore, it is important for lessons for English language learners to have both content objectives and linguistic objectives (Pica, 2002; Schleppegrell, Achugar and Oteiza, 2004).

Indeed, to leave the grammar to chance overlooks an important function of a ‘focus on form’ which is to ‘fill in the gaps in the input’ (Spada and Lightbown, 1993). That is, teachers need to work with students on structures that do not normally arise in the course of every day classroom discourse or even content-based or task-based instruction. More recently, Spada and Lightbown (2008) have made the case for both isolated and integrated form-focused instruction. Isolated grammar instruction does not mean instruction removed from a programme that is primarily communicative in orientation. Rather, it is one where grammar activities are separated from communicative or content-based interaction. The authors suggest that the two types of instruction have different purposes and that isolated instruction, in particular, is useful when the L1 has a strong influence on the forms that learners are producing in the L2, when certain grammatical features are not particularly salient so that they escape learners’ attention and when certain forms are not naturally frequently occurring in the classroom.

One should also not forget that teachers do not only teach language; they teach learners. It should not be surprising to learn, therefore, that students and teachers have different aptitudes and attitudes toward grammar (Larsen-Freeman, 2009), which no doubt affect the way it is taught and learned. It is also the case, as we mentioned earlier, that not all learners want to or need to sound like native speakers of English.

Conclusion

Views of grammar have changed over the years. With the awareness that formulaic language is as prevalent as it is, it is clearly the case that we should be thinking more in terms of lexicogrammar, rather than thinking solely of morphology and syntax. Similarly, owing to contributions from SLA research, we can appreciate the fact that the acquisition of lexicogrammar is not likely to be accounted for by one type of learning process. Finally, due to the multifaceted nature of grammar and the learning processes, we must recognize that the teaching of grammar itself is complex and multidimensional and may require a variety of teaching approaches. What should not be expected is a simple, proximal, causal link

between what is taught and what is learned. This is not surprising though, given the non-linear nature of the learning process, and it does not reduce in the least the need for grammar instruction.

Hands-on activity

Analyse the following interlanguage productions by ESL/EFL learners. Say what the problem is. Next, diagnose the error as an error of form, meaning or use in terms of Standard English. Finally, plan one promotion of noticing and one practice activity for dealing with the problem as you have diagnosed it.

- 1 *Allyson is a 13-years-old girl.
- 2 *I am boring in algebra class.
- 3 *A goal was wanted by the other team.
- 4 *There are a lot of mountains in the West; on the contrary, there are few in the Midwest.
- 5 Would you hand me that book? *Of course, I would.
- 6 *Although he had few close friends, he was very lonely.
- 7 *I will buy for my parents a house.

Notes

- 1 University of Michigan.
- 2 Portland State University.

Further reading

Larsen-Freeman, D. and Celce-Murcia, M. (2015) *The Grammar Book: Form, Meaning, and Use for English Language Teachers* (third edition). Boston, MA: Cengage/National Geographic Learning.

[Larsen-Freeman and Celce-Murcia have written their book to help prospective and practising teachers of English as a second or foreign language (ESL/EFL) enhance their understanding of English grammar, expand their skills in linguistic analysis and develop a pedagogical approach to teaching English grammar. Each chapter deals with a major structure of English, analysing its form, meaning and use. Each chapter concludes with teaching suggestions.]

DeCarrico, J. (2000) *The Structure of English: Studies in Form and Function for Language Teaching*. Ann Arbor, MI: University of Michigan Press.

[This book presents a descriptive overview of grammatical structures in English, but it differs from most grammar books in that the focus is not only on form but also on function (both sentence level grammatical function and discourse function). The underlying philosophy is that a better understanding of how grammar works and why it works that way will enable teachers to be more effective in teaching grammar in the classroom.]

DeKeyser, R. (ed.) (2007) *Practice in a Second Language*. New York: Cambridge University Press.

[Seeing language as a skill to be learned raises the question of how declarative knowledge becomes proceduralized/automatized. The contributors to this volume explore a number of questions of theoretical and practical significance, including what kinds of practice are more effective, in what contexts, for what kinds of learners.]

Doughty, C. and Williams, J. (1998) *Focus on Form in Classroom Second Language Acquisition*. Cambridge: Cambridge University Press.

[Doughty and Williams argue for incorporating a focus on form into the communicative approach to language teaching. They believe that focusing on form respects students' 'internal linguistic syllabus', drawing their attention to problematic linguistic features during communicative activities. This approach recognizes the need for accuracy and provides an alternative to methodologies that treat accuracy and fluency separately.]

Nassaji, H. and Fotos, S. (eds.) (2010) *Teaching Grammar in Second Language Classrooms: Integrating Form-Focused Instruction in Communicative Context*. New York: Routledge.

[This book outlines the options that language teachers have for incorporating a focus on grammar and a focus on communication into the classroom. Each chapter outlines an option through its theoretical background and exemplary activities.]

Larsen-Freeman, D. (2014) Teaching grammar. In Celce-Murcia, M., Brinton, D.M., Snow, M. A. (eds.) *Teaching English as a Second or Foreign Language* (fourth edition). Boston, MA: Heinle/Cengage.

[In this article, Larsen-Freeman makes a case for teachers systematically addressing the three dimensions of grammatical structures: their form, meaning and use, depending on which of these dimensions presents the greatest learning challenge to ESL/EFL students. She also suggests that the three dimensions need to be taught differently since they are likely learnt differently.]

Larsen-Freeman, D. (2003) *Teaching Language: From Grammar to Grammaticing*. Boston, MA: Heinle/Cengage.

[Larsen-Freeman proposes that grammar is, as with other naturally occurring systems, best conceived of as a non-linear, dynamic system. Seen in this way, the complexity of grammar is respected, especially as manifest at the discourse level, the non-linear nature of language and its learning is best understood and the organic nature of language/grammar is appreciated. As a consequence of this way of viewing grammar, Larsen-Freeman has proposed that grammar teaching be thought of as 'grammaticing', to reflect the dynamic nature of grammar and its learning.]

Vocabulary

*Paul Nation*¹ and *Paul Meard*²

What is vocabulary?

One of the most difficult questions to answer in vocabulary studies is ‘What is a word?’ and there are a variety of only partly satisfactory answers depending on the reasons for asking the question. If we want to count how long a book is, or how fast someone can speak or read in words per minute, then we need to count *tokens*. The sentence ‘To be or not to be, that is the question’ contains ten tokens. Even though the same word form *be* occurs twice, it is counted each time it occurs. When counting tokens, it is necessary to decide if we count items like *I’m* or *we’ll* as two tokens or one. If we are counting tokens in spoken language, do we count *um* and *er* as tokens, and do we count repetitions like *I ... I ... I said* as tokens? We can only answer these questions by examining our reasons for counting.

Often we are interested in how many different words someone knows or uses. For example, if we are interested in how much sight vocabulary a learner has (words that are known well enough to be quickly and accurately recognized), then we would count word *types*. The sentence ‘To be or not to be, that is the question’ contains eight word types. Both *be* and *to* occur twice, and so they are not counted after their first occurrence. Some of the problems with counting types include deciding what to do about capital letters (Are *High* and *high* two types or one?) And what to do with identical types that have different meanings (*generation* (of electricity) and (the younger) *generation*).

If our reason for counting is related to vocabulary learning, then we need to choose a unit of counting that reflects the kind of knowledge that language users draw on. There is evidence (Nagy et al., 1989) that language users see closely related word forms (*mend, mends, mended, mending*) as belonging to the same *word family* and it is the total frequency of a word family that determines the familiarity of any particular member of that family. In other words, the regular word building devices create items that are seen as being very closely related to each other. A major problem with counting word families is in deciding what should be counted as a member of a family. The most conservative way is to count *lemmas*. A lemma is a set of related words that consists of the stem form and inflected forms that are all the same part of speech. So, *approach, approaches, approached, approaching* would all be members of the same lemma because they all have the same stem, include only the stem and inflected forms, and are all verbs. *Approach* and *approaches* as nouns would be a different lemma. A less conservative definition of a word family would also include items made with derivational affixes like *un-* and *non-*, *-ness* and *-ly*. Bauer and Nation (1993) suggest that as

learners become more proficient, the number of items included in their word families will also tend to increase. If we are counting learners' receptive knowledge, the word family is the best unit. If we are counting productive knowledge as in speaking or writing, the word type (or perhaps the lemma) is the best unit.

There are some groups of words, like *good morning* and *at the end of the day*, which seem to be used like single words. Some of the groups may be items that have not been analysed into parts but are just learned, stored and used as complete units. Others may be constructed from known parts but are used so often that users treat them as a single unit. Pawley and Syder (1983) suggest that native speakers speak appropriately and fluently because they have stored a great deal of this *formulaic language* which they can draw on when engaging in communication. The phenomenon of formulaic language goes by several names, including:

- 'Preformulated language' (emphasizing how multi-word units can be stored as single units which are 'ready to go').
- 'Formulas' (emphasizing how multi-word units can be repeatedly used instead of having to generate new ways of saying things).
- 'Lexical phrases' (emphasizing how certain phrases are typically used to achieve particular functions in everyday life, for example, *Have you heard the one about _____* is commonly used to introduce a joke).
- 'Formulaic sequences or multi-word items' (the individual formulaic items).

From a learning perspective, it is useful to classify formulaic language into three major categories (Grant and Nation, 2006).

- 1 Core idioms: These are items where the meaning of the parts bears no obvious relationship to the meaning of the whole. The most frequent examples of these in English are *as well (as)*, *of course*, *such and such*, *out of hand*, *take the piss*, and *serve (someone) right*. Surprisingly, there are only just over 100 such items in English.
- 2 Figuratives: These are items that have both a literal meaning and a figurative meaning. For example, *We have to make sure we are singing from the same hymn sheet* has a literal meaning, but it is used here with a figurative meaning – 'We have to make sure we are following the same set of rules'. There are thousands of these in English and they are continually being added to. They make up most of the entries in idiom dictionaries. Typically the figurative meaning can be readily related to the literal meaning of the multi-word unit. Core idioms are probably figuratives whose history has been lost.
- 3 Literals: By far the largest group of formulaic sequences are literals, where the meaning of the part clearly makes up the meaning of the whole. Some of the highest frequency literals in spoken English are *you know*, *I think*, *thank you*, *in fact*, *talk about* and *I suppose*. Most of what are called collocations are included in literals.

The few core idioms need to be learnt as set phrases, although a large proportion of them have a changeable form. Figuratives need to be dealt with using a strategy that involves relating the figurative meaning to the literal meaning. Literals do not require any interpretive strategy, but may be usefully memorized as a way of increasing fluency of access and gaining native-like accuracy. Some literals may not have parallel L1 forms.

What vocabulary should be learned?

What vocabulary to focus on should be determined by two major considerations – the needs of the learners and the usefulness of the vocabulary items. The traditional way of measuring the usefulness of items is to discover their frequency and range in a relevant corpus. The most striking features of the results of a frequency-based study are:

- The very wide spread of frequencies, with some items occurring many, many times and some occurring only once.
- The relatively small number of words needed to cover a very large proportion of the tokens in a text.
- The very large number of low-frequency items that account for a very small proportion of the tokens in a text.

These three points are illustrated in Table 3.1 and 3.2. Table 3.1 is the result of a frequency count of a 500-token section of this chapter. The 500-word section contained 204 different word types which made up 169 word families. Table 3.2 lists the frequency, the number of words with that frequency and the cumulative coverage of the tokens. In Table 3.1 not all the words occurring once or twice are listed because there were too many of them to show here. A very large proportion of words in even a very big collection of texts occur only once.

By doing frequency counts of large relevant corpora, it is possible to come up with lists of words that will be very useful for people in the early stages of learning a language. Several such lists exist and they provide a very useful basis for course design. The classic list of the most useful words of English is Michael West's (1953) *A General Service List of English Words (GSL)* which contains 2000 high-frequency words. There is plenty of evidence that 2000 words is an appropriate size for such a list, but the list needs to be based on a corpus where spoken language is well represented. The GSL is based on written language, and so needs to be updated by a new list based on both spoken and written discourse.

The information from frequency studies suggests a cost–benefit approach to dealing with vocabulary. If we use frequency counts to distinguish high-frequency from low-frequency words, then it seems clear that the high-frequency words need to be the first and main vocabulary goal of learners. These words are so frequent, so widespread and make up such a manageable group that both teachers and learners can usefully spend considerable time ensuring that they are well learned. The low-frequency words are so infrequent, have such a narrow range of occurrence and make up such a large group that they do not deserve teaching time. Of course, learners need to keep on learning low-frequency words after they have learned the high-frequency words, but they should do this incidentally or deliberately in their own time. Teachers should focus on strategies that help learners do this ‘incidental’ or ‘deliberate’ learning. These strategies include guessing from context, learning from word cards, using word parts and dictionary use. We will look at these in more detail later in this chapter.

It is possible to increase the number of high-frequency words that teachers and learners should give attention to by looking at the needs of the learners and making special purpose vocabulary lists. The most useful of these lists is the *Academic Word List* (Coxhead, 2000) which is designed for learners who intend to do academic study

Table 3.1 A frequency list of a 500-word text

The	22	I	4	Conservative	2
Of	18	It	4	Contains	2
To	17	Occurs	4	Deciding	2
And	16	Related	4	Different	2
Is	16	With	4	Each	2
A	14	Words	4	Form	2
That	12	Counted	3	...	
We	12	For	3	About	1
Word	11	Forms	3	Affixes	1
Or	10	How	3	After	1
Are	8	Include	3	Also	1
Be	8	Items	3	Anderson	1
In	8	Language	3	Answers	1
As	7	Like	3	Any	1
Count	7	Not	3	Approach	1
Counting	7	One	3	Approached	1
Tokens	7	Only	3	Approaches	1
Family	6	Question	3	Approaching	1
What	6	Stem	3	Asking	1
If	5	Then	3	Bauer	1
Same	5	Twice	3	Because	1
Types	5	Would	3	Being	1
Vocabulary	5	Answer	2	...	
All	4	Can	2		
Do	4	Closely	2		

Table 3.2 Number of words and coverage for each frequency

<i>Frequency</i>	<i>Number of types</i>	<i>Cumulative coverage of text (%)</i>
10 and above	10 word types	29.6
8 occurrences	3	34.4
7	4	40.0
6	2	42.4
5	4	46.4
4	8	52.8
3	16	62.4
2	32	75.2
1	125	100

through the medium of English. The list consists of 570 word families which account for 8.5–10 per cent of the tokens in a wide range of academic texts. The list includes words such as *evaluate*, *invest*, *technology* and *valid*. These words are a very important learning goal for learners with academic purposes who have learned the high-frequency words of English. On average, there are 30 of these words on every page of an academic text. Some of these words have more than one largely unrelated meaning, for example *issue* = ‘problem’, *issue* = ‘produce, send out’, but almost invariably one of these meanings is much more frequent than the other.

In specialized texts, technical vocabulary plays a very important role, making up anything from 20–30 per cent of the running words of a text (Chung and Nation, 2003). Technical vocabulary consists of vocabulary that is very closely related to a particular subject area. The technical vocabulary of anatomy, for example, includes words like *xiphoid*, *vascular*, *neck*, *chest*, *cranial*, *trachea* and *girdle*. Note that some of this vocabulary comes from the high-frequency words of English, some may be in the *Academic Word List* and much of it consists of words that occur only in the fields of medicine and anatomy. Because technical vocabulary occurs much more frequently in a specialized text than in other areas, it is possible to quickly find most of the technical vocabulary of a specialized field by comparing the frequency of words in that field with their frequency in general English.

Technical vocabulary needs to be treated in much the same way as high-frequency vocabulary for learners who are specializing in that field. That is, it needs both deliberate attention and the opportunity to learn it through use. Let us now look at the range of these opportunities for learning.

How should vocabulary be learned?

Many teachers would assume that vocabulary learning stems mainly from the direct teaching of words in the classroom. However, vocabulary learning needs to be more broadly based than this. Let us look at four strands of vocabulary learning in turn (Nation, 2007). These strands need to be present in roughly equal proportions in a well-balanced language course.

Learning vocabulary from meaning-focused input (listening and reading)

Learning from meaning-focused input, that is, learning incidentally through listening and reading, accounts for most first language vocabulary learning. Although this kind of learning is less sure than deliberate study, for native speakers there are enormous opportunities for such learning (Nagy, Herman and Anderson, 1985). For such learning to occur with non-native speakers, three major conditions need to be met. First, the unknown vocabulary should make up only a very small proportion of the tokens, preferably around 2 per cent, which would mean one unknown word in 50 (Hu and Nation, 2000; also see Chapter 15, *Reading*). Second, there needs to be a very large quantity of input, preferably one million tokens or more per year. Third, learning will be increased if there is more deliberate attention to the unknown vocabulary through the occurrence of the same vocabulary in the deliberate learning strand of the course. It also helps to make learners aware of new words by glossing them (Watanabe, 1997), highlighting them in the text and by using dictionaries. In fact, most research shows the

clear advantages of integrating incidental and deliberate vocabulary learning approaches (Schmitt and 2008). It is also important to remember that incidental learning is cumulative, and therefore vocabulary needs to be met a number of times to allow the learning of each word to become stronger and to enrich the knowledge of each word.

The core of the meaning-focused input strand of a course is a well-organized, well-monitored, substantial extensive reading programme based largely, but not exclusively, on graded readers (for substantial reviews, see Day and Bamford, 1998; Waring, 1997a). Graded readers are particularly helpful for learners in the beginning and intermediate stages, as they best realize the three conditions for learning outlined above. Typically a graded reader series begins with books about 5000 words long written within a 300–500 word family vocabulary. These go up in four to six stages to books about 25,000–35,000 words long written within a 2000–2500 word family vocabulary. Nation and Wang (1999) estimate that second language learners need to be reading at least one graded reader every two weeks in order for noticeable learning to occur. In the past, graded readers have been accused of being inauthentic reduced versions of texts which do not expose learners to the full richness of the English language and are poorly written. These criticisms all had a grain of truth in them, but they are now essentially misinformed. There are currently some very well-written graded readers which have key advantages: even beginning and intermediate learners with limited vocabulary sizes can read simplified readers for pleasure, which is an authentic use of language, even if the text itself is not purely ‘authentic’. Learners find it impossible to respond authentically to texts that overburden them with unknown vocabulary. A list of very good graded readers can be found on the website of the Extensive Reading Foundation. The Extensive Reading Foundation awards prizes for the best graded readers at various levels each year.

Listening is also a source of meaning-focused input and the same conditions of low unknown vocabulary load, quantity of input and some deliberate attention to vocabulary are necessary for effective vocabulary learning. Quantity of input, which directly affects repetition, can be partly achieved through repeated listening, where learners listen to the same story several times over several days. Deliberate attention to vocabulary can be encouraged by the teacher quickly defining unknown items (Elley, 1989), noting them on the board, or allowing learners the opportunity to negotiate their meaning by asking for clarification (Ellis, 1994, 1995; Ellis and Heimbach, 1997; Ellis and He, 1999). Newton (1995) found that although negotiation is a reasonably sure way of vocabulary learning, the bulk of vocabulary learning was through the less sure way of non-negotiated learning from context, simply because there are many more opportunities for this kind of learning to occur.

Learning vocabulary from meaning-focused output (speaking and writing)

Learning from meaning-focused output, that is, learning through speaking and writing, is necessary to move receptive knowledge into productive knowledge. This enhancement of vocabulary through the productive skills can occur in several ways. First, activities can be designed, such as those involving the use of annotated pictures or definitions, which encourage the use of new vocabulary. Second, speaking activities involving group work can provide opportunities for learners to negotiate the meanings of unknown words with each other. Such negotiation is often successful and positive

(Newton, 1995). Third, because the learning of a particular word is a cumulative process, using a partly known word in speaking or writing can help strengthen and enrich knowledge of the word.

Joe, Nation and Newton (1996) describe guidelines for the design of speaking activities that try to optimize vocabulary learning by careful design of the written input to such activities. These guidelines include predicting what parts of the written input are most likely to be used in the task, using retelling, role play or problem-solving discussion which draws heavily on the written input, and encouraging creative use of the vocabulary through having to reshape the written input to a particular purpose.

Written input to a writing task can play a role similar to that which it can play in speaking tasks.

Deliberate vocabulary learning

Studies comparing incidental vocabulary learning with direct vocabulary learning characteristically show that direct learning is more effective. This is not surprising as noticing and giving attention to language learning generally makes that learning more effective (Schmidt, 1990). Also, deliberate learning is more focused and goal-directed than incidental learning. There is a long history of research on deliberate vocabulary learning, which has resulted in a very useful set of learning guidelines (Nation, 2013). These guidelines are illustrated below through the use of word cards.

- 1 Retrieve rather than recognize. Write the word to be learned on one side of a small card and its translation on the other side. This forces retrieval of the item after the first meeting. Each retrieval strengthens the connection between the form of the word and its meaning (Baddeley, 1990). Seeing them both together does not do this.
- 2 Use appropriately sized groups of cards. At first start with small packs of cards – about 15 or 20 words. Difficult items should be learned in small groups to allow more repetition and more thoughtful processing. As the learning gets easier, increase the size of the pack – more than 50 seems to be unmanageable simply for keeping the cards together and getting through them all in one go.
- 3 Space the repetitions. The best spacing is to go through the cards a few minutes after first looking at them, and then an hour or so later, and then the next day, and then a week later and then a couple of weeks later. This spacing is much more effective than massing the repetitions together into an hour of study. The total time taken may be the same but the result is different. Spaced repetition results in longer lasting learning.
- 4 Repeat the words aloud or to yourself. This ensures that the words have a good chance of going into long-term memory.
- 5 Process the words thoughtfully. For words that are difficult to learn, use depth of processing techniques like the keyword technique (*see below*). Think of the word in language contexts and visualize it in situational contexts. Break the word into word parts if possible. The more associations you can make with an item, the better it will be remembered.
- 6 Avoid interference. Make sure that words of similar spelling or of related meaning are not together in the same pack of cards. This means days of the week should not

be all learned at the same time. The same applies to months of the year, numbers, opposites, words with similar meanings and words belonging to the same category, such as items of clothing, names of fruit, parts of the body and things in the kitchen. These items interfere with each other and make learning much more difficult (Higa, 1963; Tinkham, 1997; Waring, 1997b; Nation, 2000).

- 7 Avoid a serial learning effect. Keep changing the order of the words in the pack. This will avoid serial learning where the meaning of one word reminds you of the meaning of the next word in the pack.
- 8 Use context where this helps. Write collocates of the words on the card too where this is helpful. This particularly applies to verbs. Some words are most usefully learned in a phrase or sentence.

Deliberate vocabulary learning is a very important part of a vocabulary learning programme. It can result in a very quick (and long-lasting) expansion of vocabulary size which then needs to be consolidated and enriched through meaning-focused input and output, and fluency development. Deliberate learning can result in both explicit knowledge and the implicit knowledge needed for normal language use (Elgort, 2007). The meaning-focused and context-based exposure also complements deliberate learning in that deliberate learning by itself usually does not provide the knowledge of grammar, collocation, associations, reference and constraints on use that may be best learned through meeting items in context.

Deliberate vocabulary teaching is one way of encouraging deliberate vocabulary learning. Such teaching can have three major goals. First, it can aim to result in well-established vocabulary learning. This requires what has been called 'rich instruction' (Beck, McKeown and Omanson, 1987: 149). This involves spending a reasonable amount of time on each word and focusing on several aspects of what is involved in knowing a word, such as its spelling, pronunciation, word parts, meaning, collocations, grammatical patterns and contexts of use. Such rich instruction is necessary if pre-teaching of vocabulary is intended to have the effect of improving comprehension of a following text (Stahl and Fairbanks, 1986). Because of the time involved in rich instruction, it should be directed towards high-frequency words. Second, deliberate vocabulary teaching can have the aim of simply raising learners' consciousness of particular words so that they are noticed when they are met again. Here vocabulary teaching has the modest aim of beginning the process of cumulative learning. However, it can also directly lead to implicit knowledge. Third, deliberate vocabulary teaching can have the aim of helping learners gain knowledge of strategies and of systematic features of the language that will be of use in learning a large number of words. These features include sound-spelling correspondences (Wijk, 1966; Venezky, 1970; Brown and Ellis, 1994), word parts, (prefixes, stems and suffixes), underlying concepts and meaning extensions, collocational patterns and types of associations (Miller and Fellbaum, 1991).

Deliberate vocabulary teaching can take a variety of forms including:

- Pre-teaching of vocabulary before a language use activity.
- Dealing with vocabulary in a variety of ways during intensive reading.
- Exercises that follow a listening or reading text, such as matching words and definitions, creating word families using word parts or semantic mapping.

- Self-contained vocabulary activities like the second-hand cloze (Laufer and Osimo, 1991).
- Word detectives, where learners report on words they have found.
- Collocation activities.
- Quickly dealing with words as they occur in a lesson.

Developing fluency with vocabulary across the four skills

Knowing vocabulary is important, but to use vocabulary well it needs to be available for fluent use. Developing fluency involves learning to make the best use of what is already known.

Thus, fluency development activities should not involve unknown vocabulary. The conditions needed for fluency development involve a large quantity of familiar material, focus on the message and some pressure to perform at a higher than normal level. Because of these conditions, fluency development activities do not usually focus specifically on vocabulary or grammar, but aim at fluency in listening, speaking, reading or writing.

There are two general approaches to fluency development. The first approach relies primarily on repetition and could be called ‘the well-beaten path approach’ to fluency. This involves gaining repeated practice on the same material so that it can be performed fluently. It includes activities like repeated reading, the 4/3/2 technique (where learners speak for four minutes, then three minutes, then two minutes on the same topic to different learners) the best recording (where the learner makes repeated attempts to record their best spoken version of a text) and rehearsed talks. The second approach to fluency relies on making many connections and associations with a known item. Rather than following one well-beaten path, the learner can choose from many paths. This could be called ‘the richness approach’ to fluency. It involves using the known item in a wide variety of contexts and situations. This includes speed reading practice, easy extensive reading, continuous writing and retelling activities. The aim and result of these approaches is to develop a well-ordered system of vocabulary. Fluency can then occur because the learner is in control of the system of the language and can use a variety of efficient, well-connected and well-practised paths to the wanted item. This is one of the major goals of language learning.

This discussion has focused on the learning of individual words, but learning formulaic sequences can occur across the four learning strands as well. Most learning of such sequences should occur through extensive meaning-focused language use rather than deliberate study. Fluency development activities provide useful conditions for establishing knowledge of these units.

Strategy development

There are four major strategies that help with finding the meaning of unknown words and making the words stay in memory. These strategies are guessing from context clues, deliberately studying words on word cards, using word parts and dictionary use. These are all powerful strategies and are widely applicable. Because they provide access to large numbers of words, they deserve substantial amounts of classroom time. Learners need to reach such a level of skill in the use of these strategies that it seems easier to use them than not use them. These strategies are useful for the high-frequency words

of the language and they are essential for the low-frequency words. Because there are thousands of low-frequency words and each word occurs so infrequently, teachers should not spend classroom time teaching them. Instead, teachers should provide training in the strategies so that learners can deal with these words independently.

Guessing from context

Guessing a meaning for a word from context clues is the most useful of all the strategies. To learn the strategy and to use it effectively, learners need to know 95–98 per cent of the tokens in a text. That is, the unknown word to be guessed has to have plenty of comprehensible supporting context. The results of using the guessing strategy have to be seen from the perspective that learning any particular word is a cumulative process. Some contexts do not provide a lot of information about a word, but most contexts provide some information that can take knowledge of the word forward. Nagy, Herman and Anderson (1985) estimated that native speakers gain measurable information for up to 10 per cent of the unknown words in a text after reading it. While this figure may seem low, if it is looked at over a year of substantial amounts of reading, the gains from such guessing could be 1000 or more words per year. For second language learners, learning from guessing is part of the meaning-focused input strand, and this should be complemented by direct learning of the same words, and for the higher frequency words, opportunity to use them in meaning-focused output.

Training in the skill of guessing results in improved guessing (Fukkink and de Glopper, 1998; Kuhn and Stahl, 1998). Such training should focus on linguistic clues in the immediate context of the unknown word, clues from the wider context, including conjunction relationships, and common-sense and background knowledge. Word part analysis is not a reliable means of guessing, but it is a very useful way of checking on the accuracy of a guess based on context clues.

Successful guessing from context is also dependent on good listening and reading skills. Training learners in guessing from context needs to be a part of the general development of these skills. Training in guessing needs to be worked on over several weeks until learners can make largely successful guesses with little interruption to the reading process.

Learning from word cards and using word parts

The strategy of learning vocabulary from small cards made by the learners has already been described in the section on the deliberate study of words. Although such rote learning is usually frowned on by teachers, the research evidence supporting its use is substantial (Nation, 2013). There are also very useful mnemonic strategies that can increase the effectiveness of such learning. The most well-researched of these is the ‘keyword technique’ which typically gives results about 25 per cent higher than ordinary rote learning. The keyword technique is used to help link the form of a word to its meaning, and so can be brought into play once the learner has access to the meaning of the word. To explain the technique, let us take the example of a Thai learner of English wanting to learn the English word *fun*. In the first step, the learner thinks of a first language word that sounds like the foreign word to be learned. This is the keyword. Thai has a word *fun* which means ‘teeth’. In the second step, the meaning of the

keyword is combined in an image with the meaning of the foreign word. So, for example, the learner has to think of the meaning of the English word *fun* (happiness, enjoyment) combining with the Thai keyword *fun* (teeth). The image might be a big smile showing teeth, or a tooth experiencing a lot of enjoyment.

Using word parts to help remember the meaning of a word is somewhat similar. If the learner meets the word *apposition* meaning ‘occurring alongside each other’, the learner needs to find familiar parts in the word, *ap-* (which is a form of *ad-* meaning ‘to’ or ‘next to’), *pos* (meaning ‘to put or to place’), and *-ition* (signalling a noun). The word parts are like keywords, and the analysis of the word into parts is like the first step of the keyword technique. The second step is to relate the meaning of the parts to the meaning of the whole word, which is a simple procedure for *apposition*. This is done by restating the meaning of the word including the meaning of the parts in the definition – ‘placed next to each other’. To make use of word parts in this way the learner needs to know the most useful word parts of English (20 or so high-frequency prefixes and suffixes are enough initially), needs to be able to recognize them in their various forms when they occur in words and needs to be able to relate the meanings of the parts to the meaning of the definition. Like all the strategies, this requires learning and practice. Because 60 per cent of the low-frequency words of English are from French, Latin or Greek, and thus are likely to have word parts, this is a widely applicable strategy.

Dictionary use

Dictionaries may be monolingual (all in the foreign language), bilingual (foreign language words—first language definitions and vice versa) or bilingualized (monolingual with first language definitions also provided). Learners show strong preferences for bilingual dictionaries, and research indicates that bilingualized dictionaries are effective in that they cater for the range of preferences and styles (Laufer and Kimmel, 1997; Laufer and Hadar, 1997).

Dictionaries can be used ‘receptively’ to support reading and listening, or ‘productively’, to support writing and speaking. Studies of dictionary use indicate that many learners do not use dictionaries as effectively as they could, and so training in the strategies of dictionary use could have benefits. Dictionary use involves numerous sub-skills such as reading a phonemic transcription, interpreting grammatical information, generalizing from example sentences and guessing from context to help choose from alternative meanings.

Dictionaries may also be used as learning tools, and learners can benefit from some training in how to do this. This involves looking at the various senses of the word to see if there is a shared core meaning in all the senses. It can also involve looking for related words (*base*, *basic*, *basis*, *basal*) to see if the new word is formally and semantically related to a known word. It can also involve deliberately imaging or visualizing some of the example sentences to help the new word stick in memory.

Training learners in vocabulary use strategies requires assessment to see what skill and knowledge of the strategies the learners already have, planning a programme of work to develop fluent use of the strategy, helping learners value the strategy and be aware of its range of applications, and monitoring and assessing to measure progress in controlling the strategy. Each of the strategies described above are powerful strategies

that can be used with thousands of words. They each deserve sustained attention from both teachers and learners.

Assessing vocabulary knowledge

Vocabulary tests can have a range of purposes:

- To measure vocabulary size (useful for placement purposes or as one element of a proficiency measure).
- To measure what has just been learned (a short-term achievement measure).
- To measure what has been learned in a course (a long-term achievement measure).
- To diagnose areas of strength and weakness (a diagnostic measure).

There are now several vocabulary tests that have research evidence supporting their validity (*see also* Chapter 17 *Assessment*). They include the Vocabulary Levels Test (Schmitt, 2000; Nation, 2013; Schmitt, Schmitt and Clapham, 2001), the Productive Levels Test (Laufer and Nation, 1999), the V_YesNo checklist test (Meara, available at <http://www.lognostics.co.uk>), the Vocabulary Dictation tests (Fountain and Nation, 2000) and the Vocabulary Size Test (Nation and Beglar, 2007; Beglar, 2010). There are also bilingual versions of the Vocabulary Levels Test and the Vocabulary Size Test. Each of these tests samples from a range of frequency levels and tests learners' knowledge of the words. The Vocabulary Levels Test uses a matching format where examinees write the number of their answer in the blanks.

1	business		
2	clock	_____	part of a house
3	horse	_____	animal with four legs
4	pencil	_____	something used for writing
5	shoe		
6	wall		

The test has five sections covering various frequency levels, and so the results can help teachers decide what vocabulary level learners should be working on. Because teachers should deal with high-frequency and low-frequency words in different ways, the results of this test can also help teachers decide what vocabulary work they should be doing with particular learners or groups of learners.

The Productive Levels Test requires learners to recall the form of words using a sentence cue.

They keep their valuables in a va _____ at the bank.

The first few letters of each tested word are provided to help cue the word and to prevent the learners from writing other synonymous words. This test format is useful in showing whether a learner's knowledge of a word has begun to move towards productive mastery.

The V_YesNo test uses a yes/no format where learners see a word on a computer screen and then have to decide if they know it. The test includes some pseudowords (like *skemp*) that look like real words, and learners' scores are adjusted downwards by the number of times they say that they know these non-words. The test gives an estimate of overall vocabulary size.

The Vocabulary Dictation tests each consist of five paragraphs with each successive paragraph containing less frequent vocabulary. The test is administered like a dictation but only the 20 target words at each level are actually marked. There are four versions of the test. It can be used for quickly determining the extent of learners' listening vocabulary.

The Vocabulary Size Test (Nation and Beglar, 2007) was designed as a proficiency test to measure total vocabulary sizes. Copies of the test can be found at <http://www.victoria.ac.nz/lals/staff/paul-nation/nation.aspx> and at Tom Cobb's website (www.lexutor.ca). It consists of 140 multiple-choice items with the stem containing the tested word in a non-defining context sentence. Although the test is divided into fourteen 1000-word levels, with ten items at each level, a learner's total vocabulary size is found by simply multiplying the learner's score on the test by 100. A Rasch-based validation of the test (Beglar, 2010) found:

- 1 It can be used with learners with a very wide range of proficiency levels.
- 2 It measures what it is supposed to measure and does not measure other things. Beglar found that the test was very clearly measuring a single factor (presumably written receptive vocabulary knowledge) and other factors played a very minor role in performance on the test.
- 3 It behaves in ways that we would expect it to behave, distinguishing between learners of different proficiency levels, having a range of item difficulties related to the frequency level of the tested words and clearly distinguishing several different levels of vocabulary knowledge so that learners' vocabulary growth over time could be measured.
- 4 It performs consistently and reliably, even though circumstances change. In Beglar's trialling of the test, these changes included comparing the performance of male subjects with female subjects, comparing 70-item versions of the test with the 140-item version and comparing learners of various proficiency levels. Rasch reliability measures were around 0.96.
- 5 It is easy to score and interpret the scores.
- 6 The items in the test are clear and unambiguous.
- 7 It can be administered in efficient ways. When learners sit the test, they need not sit the whole test if the lower frequency levels are thought to be well beyond their present level of knowledge. Ideally, they should sit at least two levels beyond their present level of knowledge. So if learners are thought to have a vocabulary size of around 3000 words, they should sit the first five or six 1000 word levels.

The test works very well because it covers a very wide range of frequency levels, it includes a large number of items (even half of this number would work well), the items have been very carefully designed and made and the test is designed to measure just one kind of vocabulary knowledge.

As can be seen in the above examples of the various tests, there is a wide variety of vocabulary test formats. Different test formats testing the same vocabulary tend to correlate with each other around 0.7, indicating that test format plays a considerable role in determining the results of a vocabulary test. This also suggests that different test formats may be tapping different aspects of vocabulary knowledge. There are a number of issues that complicate vocabulary testing, and these are well covered by Read (2000) in his book devoted to assessing vocabulary and Schmitt (2010) in his vocabulary research manual.

Limitations on generalizing vocabulary size: Estimates and strategies to other languages

It is worth pointing out that most of the research on vocabulary has been done within the broad context of English Language Teaching (ELT). This is rather unfortunate, since English is a very peculiar language in some respects, and particularly so as far as its vocabulary is concerned. This means that the findings reported in the earlier part of this chapter may not always be generalizable to other languages in a straightforward way.

The chief characteristic of English vocabulary is that it is very large. Consider, for example, the set of objects and actions that in English are labelled as: *book, write, read, desk, letter, secretary* and *scribe*. These words are all related semantically, in that they refer to written language, but it is impossible to tell this simply by looking at the words. They share no physical similarities at all, and this means that learners of English have to acquire seven separate words to cover all these meanings. In other languages, this is not always the case. In Arabic, for example, all seven meanings are represented by words which contain a shared set of three consonants – in this case k-t-b. The different meanings are signalled in a systematic way by different combinations of vowels. This means that in Arabic all seven English words are clearly marked as belonging to the same semantic set, and the learning load is correspondingly reduced.

There are also some historical reasons which contributed to the complexity of English vocabulary. A substantial proportion of English vocabulary is basically Anglo-Saxon in origin but, after the Norman invasion in 1066, huge numbers of Norman French words found their way into English, and these words often co-existed side-by-side with already existing native English words. English vocabulary was again very heavily influenced in the eighteenth century when scholars deliberately expanded the vocabulary by introducing words based on Latin and Greek. This means that English vocabulary is made up of layers of words, which are heavily marked from the stylistic point of view. Some examples of this are:

cow	beef	bovine
horse	...	equine
pig	pork	porcine
sheep	mutton	ovine

The first column (Anglo-Saxon words), describes animals in the field, the second column (Norman French derivatives) describe the animals as you might find them in a feast, while the third column (learned words) describes the animals as you might find

them in an anatomy text book. It is very easy to find examples of the same process operating in other lexical fields as well, since it is very widespread in English. Almost all the basic Anglo-Saxon words have parallel forms based on Latin or Greek, which are used in particular, specialist discourse. In fact, estimates suggest around 60 per cent of English vocabulary comes from French, Latin or Greek.

English also has a tendency to use rare and unusual words where other languages often use circumlocutions based on simpler items. Thus, English uses *plagiarism* to describe stealing quotations from other people's literary works, *rustling* to describe stealing other people's cows and *hijacking* to describe stealing other people's airplanes. These terms are completely opaque in English: the words themselves contain no clues as to their meaning. In other languages, these ideas would often be described by words or expressions that literally translate as *stealing writing*, or *stealing cows* or *stealing aircraft*. In these languages, the meaning of these expressions is entirely transparent, and they could easily be understood by people who knew the easy words of which these expressions are composed.

The lexical bar

Unfortunately for EFL learners, the opaque terms are not just an optional extra. A large part of English education is about learning this difficult vocabulary, which Corson (1995) called the 'lexical bar' or barrier, and educated English speakers are expected to know these words and be able to use them appropriately. Trainee doctors, for example, need to master a set of familiar words for body parts, (*eye, ear, back, etc.*) as well as a set of formal learned words for the same body parts (*ocular, auricular, lumbar, etc.*) They may also need to acquire a set of familiar words which refer to body parts which are regarded as taboo (*stomach/belly, bum, arse, bottom, etc.*). Some of these words will only occur in speech with patients, some would only be appropriately used with children, others will only appear in written reports, others might be appropriately used in a conversation with a medical colleague. Using a word in the wrong context can cause offence, make you look like an idiot or cause you to be completely misunderstood. All this represents a significant learning burden for non-native speakers, and one which is not always found to quite the same extent in other languages.

The basic problem here seems to be that English vocabulary consists of a large number of different items, which are layered according to the contexts in which they appear. In other languages, the number of basic items is smaller, but there is more of a 'system' for inventing new words (Ringbom, 1983). In languages with a rich morphology, for example, it is often possible to make a verb out of any noun by adding the appropriate verbal ending, or to make an adjective by adding an appropriate adjectival ending. You cannot always do this easily in English. In some other languages – German is a good example – it is possible to create new words by combining simple words into novel, compound forms. Native speakers learn these systems and develop the ability to create new words as they need them, and to easily decode new words created by other speakers when they hear them. In these languages, having a large vocabulary may be less important than having an understanding of the process of word formation and having the ability to use these processes effectively and efficiently as the need arises.

An important consequence of this is that some of the statistical claims put forward for English will not apply straightforwardly to other languages. In English, for example, we would normally consider a vocabulary of 4000–5000 word families to be a minimum for

intermediate level performance, and 6000–9000 word families to be the requirement for advanced performance (Nation, 2006). But this may not be the case for other languages. It is possible, for example, that in a language which makes extensive use of compounding, and has a highly developed morphological system, a vocabulary of 2000–3000 words might give you access to a very much larger vocabulary which could be constructed and decoded on-line. It is difficult to assess this idea in the absence of formal statistical evaluations, but it clearly implies that we need to evaluate the claims we make about English in the light of the particular lexical properties of other target languages.

Vocabulary size and language proficiency

This means that the relationship between vocabulary size and overall linguistic ability may differ from one language to another. In English, there is a relatively close relationship between how many words you know, as measured on the standard vocabulary tests, and how well you perform on reading tests, listening tests and other formal tests of your English ability. In other languages, it is much less clear that this relationship holds up in a straightforward way. Let us imagine, for example, a language which has a relatively small core vocabulary – let’s call it ‘Simplish’ – and let’s say that Simplish has a core vocabulary of about 2000 core words but makes up for this by making very extensive use of compounding. In Simplish, anyone who had acquired the basic vocabulary and understood the rules of compounding would automatically have access to all the other words in the vocabulary as well. ‘Difficult words’ – in the sense of words that are infrequent – would exist in Simplish, but they would not be a problem for learners. These infrequent words would probably be long, because they were made up of many components, but the components would all be familiar at some level. It might be difficult to unwrap the words at first but, in principle, even the most difficult word would be amenable to analysis. For L2 learners of Simplish, the vocabulary learning load would be tiny, and once they had mastered the core items, they would face few of the problems that L2 English speakers face. They would be able to read almost everything they encountered; they would be able to construct new vocabulary as it was needed, rather than learning it by rote in advance. For teachers of Simplish, it would be important to know how much of the core vocabulary their students could handle with ease and familiarity, but beyond that, the notion of ‘vocabulary size’ would be completely irrelevant. It would be useful to know whether your class had a vocabulary of 500 words or 1500 words, but once the learners had mastered the 2000 core words it just wouldn’t make sense to ask how big their vocabulary was. It would also not make much sense to ask what words we need to teach: the obvious strategy would be to get students familiar with all the core vocabulary as quickly as possible. After that, we would need to concentrate on teaching learners how to unpack unfamiliar vocabulary, and how to construct compound words in a way that was pleasing, elegant and effective.

Unfortunately, not many languages are as elegant as Simplish. However, if we think of English as being especially difficult as far as vocabulary is concerned, then it seems likely that many of the languages that we commonly teach are much more like Simplish than English. This means that we would not always expect to find that vocabulary plays the same role in learning these languages as it does in English. Vocabulary size in English strongly limits the sorts of texts that you can read with ease: this might not be the case in other languages, and this would make it unnecessary for teachers to invest in simplified readers. Advanced learners of English tend to exhibit richer vocabulary in

their writing than less advanced learners do: in a language that makes more extensive use of a core vocabulary, this relationship might not be so obvious, and this might have implications for the ways examiners evaluate texts written by learners of these languages. English has very different vocabulary registers for special areas of discourse, and this makes it important for learners to acquire academic vocabulary, legal vocabulary, the vocabulary of business English and so on: in other languages, these special vocabularies may not be so obvious or necessary.

The general point here is that the sheer size of English vocabulary has a very marked effect on the way we teach English, and severely constrains the level of achievement we expect of learners. Most people agree that fluent English speakers need very large vocabularies, that it makes sense to pace the learning of this vocabulary over a long time, and that we should rely principally on the learners' own motivation to get them to these very high levels of vocabulary knowledge. However, this wouldn't be the best set of strategies to adopt if you believed that the language you were teaching was more like Simplish. In these cases, it would be worth putting a lot of effort into getting students to learn the core vocabulary very quickly indeed, simply because the pay-off for this effort would be very great.

Our guess is that very many languages are much simpler than English is as far as their vocabulary structure is concerned, and that it would be wrong to assume that research findings based on English will generalize automatically to these languages. This means that teaching methods that take English vocabulary structure for granted will not always be the best way for us to approach the teaching of vocabulary in other languages.

This comparison underlines the importance of having a well thought-out plan for helping learners with English vocabulary. The basis for this plan is an awareness of the distinction between high-frequency and low-frequency words, and of the strands and strategies which are the means of dealing with these words.

Hands-on activities

A. Take this test (Goulden, Nation and Read, 1990) to estimate how many word families you know. You will find below a list of 50 words which is part of a sample of all the words in the language. The words are arranged more or less in order of frequency, starting with common words and going down to some very unusual ones.

Procedure

- 1 Read through the whole list. Put a tick next to each word you know, that is, you have seen the word before and can express at least one meaning for it. Put a question mark next to each word that you think you know but are not sure about. Do not mark the words you do not know.
- 2 When you have been through the whole list, go back and check the words with question marks to see whether you can change the question mark to a tick.
- 3 Then find the last five words you ticked (that is, the ones that are furthest down the list). Show you know the meaning of each one by giving a synonym or definition or by using it in a sentence or drawing a diagram, if appropriate.
- 4 Check your explanations of the five words in a dictionary. If more than one of the explanations is not correct, you need to work back through the list, beginning with the sixth to last word you ticked. Write the meaning of this word and check it in the

- dictionary. Continue this process until you have a sequence of four words (which may include some of the original five you checked) that you have explained correctly.
- 5 Calculate your score by multiplying the total number of known words by 500. Do not include the words with a question mark in your scoring.

Test

- | | |
|-----------------|---------------------|
| 1 bag | 26 regatta |
| 2 face | 27 asphyxiate |
| 3 entire | 28 curricule |
| 4 approve | 29 weta |
| 5 tap | 30 bioenvironmental |
| 6 jersey | 31 detente |
| 7 cavalry | 32 draconic |
| 8 mortgage | 33 glaucoma |
| 9 homage | 34 morph |
| 10 colleague | 35 permutate |
| 11 avalanche | 36 thingamabob |
| 12 firmament | 37 piss |
| 13 shrew | 38 brazenfaced |
| 14 atrophy | 39 loquat |
| 15 broach | 40 anthelmintic |
| 16 con | 41 gamp |
| 17 halloo | 42 paraprotein |
| 18 marquise | 43 heterophyllous |
| 19 stationary | 44 squirearch |
| 20 woodsman | 45 resorb |
| 21 bastinado | 46 goldenhair |
| 22 countermarch | 47 axbreaker |
| 23 furbish | 48 masonite |
| 24 meerschaum | 49 hematoid |
| 25 patroon | 50 polybrid |

B. The following table contains a few activities classified into the four vocabulary learning strands.

Complete the table by putting the following activities into the appropriate strand. Be prepared to justify your choices by referring to the criteria in Column 2.

What strands do these activities fit into?

- Ten minute writing (The learners write for ten minutes each day on very easy topics. The best learner is the one who writes the most.)
- 4/3/2 (The learners give the same talk to three different learners one after the other having four minutes for the first delivery, three minutes for the second and two minutes for the third.)
- Communication activities.

- Communication activities with written input.
- Direct learning.
- Direct teaching of vocabulary.
- Intensive reading.
- Linked skills. (For example, read about a topic, then talk about it and then write about it.)
- Listening to easy input.
- Listening to stories.
- Prepared writing.
- Reading easy graded readers.
- Reading graded readers.
- Rehearsed tasks.
- Repeated reading.
- Speed reading.
- Training in vocabulary strategies.

Table 3.3 Four vocabulary learning strands

<i>Strand</i>	<i>General conditions</i>	<i>Activities and techniques</i>
Meaning-focused input	Focus on the message Some unfamiliar items (2%) Understanding Noticing	Listening to the teacher explain something
Language-focused learning	Focus on language items Deliberate study	Learning word parts Using word cards Learning to guess from context
Meaning-focused output	Focus on the message Some unfamiliar items Understanding Noticing	
Fluency development	Focus on the message Little or no unfamiliar language Pressure to perform faster Quantity of practice	Listening to other learners give talks

Notes

1 Victoria University of Wellington.

2 Swansea University.

Further reading

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[The classic first language study of guessing from context.]

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[A substantial survey of vocabulary teaching and learning.]

Nation, I.S.P. (2008) *Teaching Vocabulary: Strategies and Techniques*. Boston: Heinle Cengage Learning.

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Read, J. (2000) *Assessing Vocabulary*. Cambridge: Cambridge University Press.

[A clear, well-informed study of vocabulary testing.]

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[A guide for researchers interested in exploring how vocabulary knowledge is acquired.]

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Discourse analysis

*Michael McCarthy*¹, *Christian Matthiessen*² and *Diana Slade*³

What is discourse analysis?

Life is a constant flow of discourse – of language functioning in one of the many contexts that together make up a culture. Consider an ordinary day. It will, very likely, start with discourse (for example, greeting members of the household or perhaps some item of news from the radio, TV, world wide web or printed newspaper) before individuals rush off to go to work or school. The day then continues with a variety of discourse in these institutions: discussing plans at a business meeting, writing an undergraduate psychology essay in the university library, ordering lunch at a fast food outlet. (The day may, of course, include contexts that are not part of daily life, both private ones, such as a consultation with a medical specialist, and public ones, such as the inaugural speech by a newly elected official.) As the day outside the home draws to a close, the members of the household come together again, quite possibly sitting down for a joint meal with enough time to review the day and dream about the future.

If you try to document, in a ‘discourse diary’, the flow of discourse over a few days, you will get a good sense of the extent to which life is ‘made up of’ discourse, and of the extraordinary range of contexts in which you engage in communication. This will also give a good indication of the diverse demands on language faced by language learners: learning how to engage in discourse is one of the most important goals in language learning and teaching. This means that the study of discourse is absolutely central to the concerns of applied linguistics; and as a language student or language teacher it is very helpful to ‘develop an ear’ for discourse – to learn to attend to the different strands of patterning in discourse and to focus on those contexts and linguistic strategies that are most immediately relevant.

Because of its pervasiveness in life, discourse is studied in a number of different disciplines (*see below*). In the field of applied linguistics, the most relevant body of work is that which has come to be known as ‘discourse analysis’ (or ‘text linguistics’). The discourse analyst studies texts, whether spoken or written, whether long or short, and is interested in the relationship between texts and the contexts in which they arise and operate. Discourse analysts always look at real texts – and in this they differ significantly from formal (as opposed to functional) grammarians and philosophers of language, since these scholars tend to work with invented (constructed) examples. In addition, discourse analysts study language independently of the notion of the sentence, typically studying longer passages of text, whereas grammarians traditionally do not work beyond the written sentence. In other words,

discourse analysts work with ‘utterances’ (sequences of words written or spoken in specific contexts), whereas grammarians tend to work with ‘sentences’ (sequences of words conforming, or not, to the rules of grammar for the construction of phrases, clauses, etc.) Discourse analysts focus on the following questions when analysing texts:

- Who are the participants in the discourse, that is, the writer and reader(s), the speaker(s) and listener(s)? What is their relationship? Is it one between equals? Are there differences in power or knowledge between the participants? What are their goals? (A formal grammarian does not usually take any of these factors into account when working with out-of-context sentences.)
- How do we know what writers and speakers mean? More specifically, discourse analysts ask ‘What does this piece of language *mean in this context?*’ and ‘What does the speaker/writer *mean by* this piece of language?’ What factors enable us to interpret the text? What do we need to know about the context? What clues are there in the surrounding text which will enable us to apprehend the meaning? (In contrast, a formal grammarian can ask the question ‘What does this sentence *mean?*’, and a lexicologist can ask ‘What does this word *mean?*’, independently of context.)

The important position that discourse analysis occupies in applied linguistics has come about because it enables applied linguists to analyse and understand real language data, for example, texts written by first and second language learners, or recordings of the spoken output of second language learners, or of the interaction between teachers and learners or among learners themselves in classrooms. It also enables us to understand better the kinds of discourse that language learners are exposed to outside the classroom: the language of service encounters in shops, banks, restaurants, etc., the language of newspapers, the language of everyday informal conversation. In addition, such analyses can assist language teachers and materials writers to evaluate language course books in terms of how closely they approximate authentic language, or what needs to be modified when authentic texts are brought into the classroom. Language testing can also gain a great deal from looking at real language use as a source of criteria for the evaluation of test performances.

Speaking and writing

Discourse analysis is the analysis of language in its social context. Discourse analysts are just as interested in the analysis of spoken discourse as they are in the analysis of written discourse. When the focus in linguistics was primarily on written language and restricted to the study of isolated sentences, spoken language was seen as formless and ungrammatical and written language as highly structured and organized. Beattie (1983) wrote: ‘Spontaneous speech is unlike written text. It contains many mistakes, sentences are unusually brief and indeed the whole fabric of verbal expression is riddled with hesitations and silences’ (Beattie, 1983: 33). However, research on the analysis of spoken discourse (Halliday, 1985; Eggins and Slade, 2005; McCarthy, 1998) shows that spoken English does have a consistent and describable structure and that in many respects the language patterning is the same as written English. Halliday (1985: 77) provides an explanation for the myth of the ‘formlessness’ of spoken language, arguing that it derives from the analysis of written transcriptions of conversation, with all their

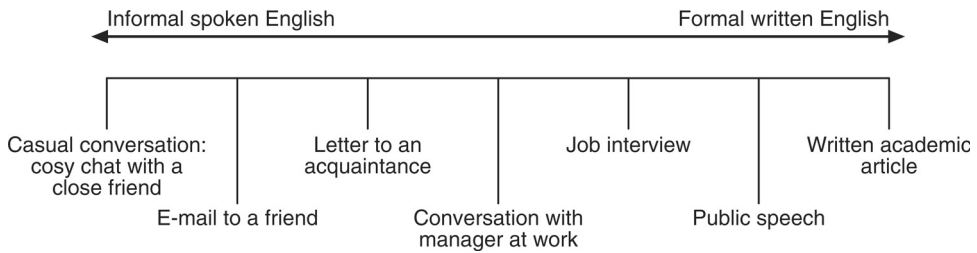


Figure 4.1 The cline between spoken and written discourse.

pauses, repetitions and false starts. He contends that an author's first draft, with its crossings-out and re-writings, would look just as ramshackle. Beneath its surface 'imperfections' (which are an essential part of its dynamic flexibility) spoken language exhibits a highly elaborate organization, and is grammatically intricate, though in a way which is quite different from the language which we read and write.

One way of approaching differences between speaking and writing is to plot individual texts along scales or dimensions. Figure 4.1 maps different kinds of spoken and written texts along such a scale. At one end of the scale, we have the most informal, concrete, interactions and, at the other, the most formal and abstract interactions.

At the most formal end of the formality continuum, there are the most dense written texts, such as academic articles, which are planned, collated and redrafted many times. At the other, are the most informal, spontaneous spoken interactions, with turn-taking, constantly shifting topics, overlapping speech and frequent interruptions. It is to these informal interactions that the label 'casual conversation' is applied. In the middle of the scales are the informal, written texts (such as email and letters to friends) and the formal, spoken texts (such as service encounters, job interviews or a public speech).

Academic texts are usually written in a detached and formal style (detachment or distancing oneself from the reader may be seen in the use of impersonal pronouns and passive voices, an absence of the pronoun *you* and an absence of affective/emotional vocabulary). Chatting with a friend over coffee, on the other hand, is usually a highly involved activity, with the pronouns *I* and *you* much in evidence, along with affective vocabulary. We have to hedge these statements with the word *usually*, however, as the characteristics of all types of discourse are variable to some degree. For example, chat between strangers may be much more distant and uninvolved personally, a kind of ritual where subjects such as the weather are acceptable, but where personal and intimate topics are not.

Not only is the formality of the vocabulary usually different between spoken and written discourse but the amount of content that the words carry also differs, that is, spoken and written discourse usually have different lexical densities. Lexical density in a text is the rate of occurrence of lexical items (so-called 'content words', such as, *sun*, *confuse*, *tiny*) as compared to grammatical items (for example, *he*, *was*, *on*). Spoken discourse typically has a far lower lexical density and it is partly because of this lexical scarcity that some people believe that spoken language 'lacks content'. In fact, much of the content is 'filled into' the grammatical words by the context. For example, the grammatical words in '*It's over there*' can be easily understood by watching the speaker gesture to a flowerpot on a shelf.

Table 4.1 Differences between informal and formal spoken discourse

<i>Informal spoken discourse</i>	<i>Formal spoken discourse</i>
Primary purpose is the achievement of interpersonal goals: to establish who we are, how we relate to others and what we think of how the world is	Primary purpose is the achievement of pragmatic goals: to talk to find out information, to pass on knowledge, to make appointments, to get jobs and to jointly participate in practical activities
Spontaneity phenomena, such as false starts, hesitations, interruptions and overlap	Turn-taking more ordered
Constantly shifting topics as the goal is not to achieve a particular purpose	Role differentiation: there is clear role differentiation between interactants (for example, in doctor–patient interactions), which results in greater topic control
Conversations are open-ended and can continue for hours; it is in the process of talking that we explore our social relationships	Formal conversations are closed; once the task is achieved, interaction ends

If we focus just on spoken English, it is possible to plot the differences between the most informal casual conversations, such as a dinner party conversation, and formal spoken interactions, such as doctor–patient interactions or formal job interviews. Table 4.1 illustrates that the differences between formal and informal spoken English are indicative of, but not as extreme, as the differences between spoken and written discourse. Overall, spoken interactions can be broadly categorized as interpersonally motivated or pragmatically motivated.

The significant contribution of discourse analysis is that it has demonstrated that both spoken and written discourse have consistent and describable structures, with different complexities reflecting the different functions of speech and writing in our culture. As Halliday (1985: 92) wrote, ‘talking and writing, then, are different ways of saying. They are different modes for expressing linguistic meanings.’

Language teachers will be aware that most traditional grammars derive from analysis of written texts. However, recently there has been the development of grammars that deal with both spoken and written English (Halliday, 1994; Biber et al., 1999; Carter, Hughes and McCarthy, 2001). Discourse analysis provides valuable insights into the way we pattern and organize our speech. In every way possible, learners should be alerted to the special qualities of spoken language and encouraged to accord equal ‘validity’ to both spoken and written formulations of language.

In the next sections we will briefly describe the different approaches to discourse analysis, and then go on to discuss how discourse analysts explain semantic and lexicogrammatical features (the words and grammar of discourse).

Approaches to discourse analysis

Overview

Discourse analysts come from a number of different academic disciplines and the field is vast. We will not, therefore, attempt to provide a comprehensive review of approaches to discourse analysis, as this has been done elsewhere (*see* Levinson (1983),

McCarthy (1991), Schiffrin (1994), Coulthard (1985), Eggins and Slade (2005)) but will, rather, focus on those approaches that have the greatest relevance to applied linguistics and language education. The different approaches that have developed since the mid-twentieth century may be classified according to different criteria. The most prominent, according to disciplinary origins, are shown in Figure 4.2.

The major contribution to the study of spoken discourse has come from sociology, in particular from conversational analysis. Within sociolinguistic approaches those relevant to the analysis of spoken discourse are the ethnography of speaking, interactional linguistics (Tannen, 1984; 1989) and Labov and Waletzky's (1967) research on narrative within variation theory. From philosophy, speech act theory and pragmatics have shed light on how people interpret particular utterances. Within linguistics, the Birmingham School and systemic functional linguistics (SFL) have both made significant contributions to an understanding of spoken and written discourse in English. Recently, perspectives have emerged from interdisciplinary connections between linguistics and critical and cultural theory, including critical linguistics and critical discourse analysis (CDA).

Although each of the approaches listed in Figure 4.2 has made a significant contribution to our understanding of discourse, we will review only those that are currently playing a major role in the various contexts of applied linguistics and language education.

Sociology: conversation analysis

Conversation analysis is concerned with the detailed organization of everyday interaction; thus, it contrasts with much of the work in mainstream sociology which focuses on large-scale categories of class, gender, age groups and so on. It is concerned mainly with dialogic, spoken discourse of a fairly informal character. Conversation analysis

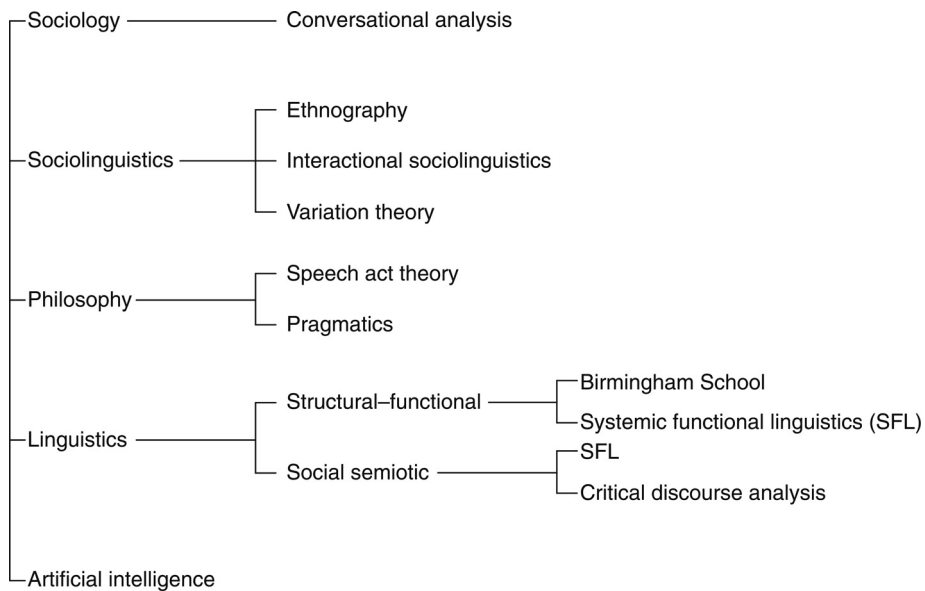


Figure 4.2 Approaches to discourse analysis according to disciplinary origins (adapted from Eggins and Slade, 2005).

was stimulated by Garfinkel's (1967) ethnomethodology and Goffman's (1974, 1981) frame analysis, and was developed into a distinctive field of enquiry by Sacks, Schegloff, Jefferson and others (Jefferson, 1972; Schegloff, 1972; Sacks, Schegloff and Jefferson, 1974; Schegloff, Jefferson and Sacks, 1977; Sacks, 1992). Conversation analysis focuses on conversation because it offers a particularly appropriate and accessible resource for sociological enquiry. It favours fine-grain analyses, often of quite short stretches of conversation. Key questions for conversation analysts are:

- How do people take turns in conversation?
- How do people open and close conversations?
- How do people launch new topics, close old ones, shift topic, etc.?
- How is it that conversation generally progresses satisfactorily from one utterance to the next?

Turn-taking

In conversation analysis, the basic unit of speech is the individual speaker 'turn'. A turn is each occasion that a speaker speaks and a turn ends when another speaker takes a turn. This is based on social interaction in the first place rather than on any phonological, lexico-grammatical or semantic considerations. Conversation analysts are interested in how speakers achieve smooth turn-taking, and what the 'rules' are for who speaks when.

In any ordinary, informal conversation, there is hardly any overlap or interruption, and only minimal silences between turns (on average, less than a second), if there is any silence at all. Sacks, Schegloff and Jefferson (1974) observed that speakers are permitted to take turns when they are chosen or 'nominated' by the current speaker, or if no one is directly selected, they may speak of their own choice ('self-selection'). If neither of these conditions apply, the current speaker can simply continue. The language provides us with ways of getting the next turn. These vary in appropriateness to different contexts (*'If I may ask a question of the panel', 'Can I speak?', 'Shut up for goodness sake, I can't get a word in!'*). There are also ways of not taking the turn even when one has the chance to, for example by just saying *Mmm*. Vocalizations while another person is speaking, such as *Mmm, uhuh, yeah, sure, right*, are called 'back-channel' responses (Yngve, 1970; McCarthy, 2001) and show that the listener is still following the speaker and wishes him or her to continue. Another important aspect of turn-taking is the way interlocutors predict one another's turns and often complete the speaker's utterance for them. Also, they often overlap with the speaker as they complete the speaker's utterance even though the speaker is still talking. Neither back-channels nor completions or overlaps are normally perceived as interruptions or as rude. For conversation analysts, they represent cooperative activity by participants to facilitate communication.

Patterns in turn-taking: adjacency pairs

In conversation analysis, the most basic pattern is the 'adjacency pair', which is a pair of turns that mutually affect one another. Examples of everyday adjacency pairs are *greeting-greeting, compliment-thanks, apology-acceptance*. Such pairs consist of two parts: a first pair-part and a second-pair-part:

First pair-part	Second pair-part
A: Good morning	B: Hi, good morning
A: Congratulations on the new job	B: Oh, thanks

These adjacency pairs proceed smoothly and are well-formed in terms of the cultural contexts in which they typically occur in English: a greeting gets a greeting in return, and congratulations prompt a thank-you. These are examples of ‘preferred sequences’. But consider this:

A: Hi, how’s it going? → B: Drop dead!

This would probably be perceived as a ‘dispreferred sequence’, a problem for the speakers. Sometimes it is necessary to produce a dispreferred second pair-part (for example, declining an invitation or offer). When this occurs, hard work is usually involved to make the sequence as little-damaging to the participants’ ‘face’ (sense of personal worth) as possible. Apart from ritual adjacency pairs (often connected with politeness, small talk, openings and closings, etc.), other common types include ‘solidarity routines’ (for example, A: *I have a terrible headache*, B: *Oh, I’m sorry, can I do anything?*) and ‘converging pairs’ (for example, A: *I just love that green sweater*, B: *Oh, so do I, isn’t it great!*) (see Pomeranz, 1984).

Conversation analysts are also interested in conversational openings and closings (Schegloff and Sacks, 1973) and how interactants manage the topics they want to talk about (Gardner, 1987). (See Chapter 14, *Speaking and pronunciation*, for more on turn-taking and topic management.)

A major contribution of conversation analysis has been to make everyday interaction a subject worthy of academic research. The strength of the observations of conversation comes, in part, from the fact that they are always based on actual recorded data of naturally occurring interactions, transcribed in meticulous detail (albeit usually giving the prosodic features of intonation and rhythm a very cursory treatment). Believing that intuition is an extremely unreliable guide for work in conversation, conversation analysis has always rejected experimental methods of collecting conversational data, such as simulating dialogues or setting up artificial interactive contexts, and has challenged discourse analysts to access the data offered by everyday life. This has implications for the language teaching classrooms: as much as possible, language learners should be given access to authentic spoken extracts, as so often the concocted examples provided in text books do not resemble real conversation at all.

Sociolinguistic approaches: ethnography and variation theory

Anthropological linguistics and sociolinguistics are concerned with studying not the isolated sentence but how language creates effective communication in the contexts of everyday life. The three sociolinguistic approaches to discourse analysis are ethnographic approaches, interactional sociolinguistics and variation theory. We will briefly outline two of these approaches, and refer readers to Schiffrin (1994), Eggins and Slade (2005), as well as to Chapter 9, *Sociolinguistics*.

Ethnography

Ethnographic approaches to conversation have been led by Hymes (1972a, 1972b; Saville-Troike, 1989) and are concerned with ‘the situation and uses, the patterns and functions, of speaking as an activity in its own right’ (Hymes, 1974: 3). Hymes developed a schema for analysing context that has the ‘speech event’ in which language occurs as its prime unit of analysis:

The speech event is to the analysis of verbal interaction what the sentence is to grammar ... It represents an extension in the size of the basic analytical unit from the single utterance to stretches of utterances, as well as a shift in focus from ... text to ... interaction.

(Hymes, 1972b: 17)

Speech events include interactions such as a conversation at a party or ordering a meal, etc. Any speech event comprises several components and these are listed in the grid in Table 4.2. With each letter acting as an abbreviation for a different component of communication, Hymes’s grid has become known as the ‘SPEAKING grid’.

The SPEAKING grid provides a necessary reminder of the contextual dimensions that determine our use of language. Hymes’s ethnographic framework led not only to broader notions of the ‘communicative competence’ language users display but also to a recognition of the close relationship between speech events and their social or cultural contexts.

A concept that is increasingly important in language teaching is the concept of ‘genre’. Later, we will describe some of the different genres that occur in spoken and written English. The term ‘genre’ is used in many different disciplines (*see* Chapter 6, *Corpus linguistics*, Chapter 14, *Speaking and pronunciation* and Chapter 16, *Writing*). What each approach has in common is the recognition that there are, in both spoken and written language, different text-types or genres with their own different internal structures, which accord with different social goals. As the SPEAKING grid shows, Hymes (1972b) used the term ‘genre’ to refer to just one component of the speech event.

Table 4.2 Hymes’s SPEAKING grid (Hymes, 1972b)

S	setting scene	temporal and physical circumstances, subjective definition of an occasion
P	participant	speaker/sender/addressor/hearer/receiver/audience/addressee
E	ends	purposes and goals outcomes
A	act sequence	message form and content
K	key	tone, manner
I	instrumentalities	channel (verbal and non-verbal; physical forms of speech drawn from community repertoires)
N	norms of interaction and interpretation	specific properties attached to speaking interpretations of norms within cultural belief system
G	genre	textual categories

Variation theory

Variation theory was developed by Labov (1972) and has made a major contribution to the analysis of discourse, in particular, his description of the structure of spoken narratives, which has been very influential in language teaching. Labov, with Waletzky (Labov and Waletzky, 1967), argued that the ‘overall structure’ of a fully formed narrative of personal experience is:

- Abstract (summary of story, with its point),
- Orientation (in respect of place, time and situation),
- Complication (temporal sequence of events, culminating in crisis),
- Evaluation (narrator’s attitude towards narrative),
- Resolution (protagonist’s approach to crisis),
- Coda (point about narrative as a whole).

(Labov and Waletzky, 1967: 363)

Labov did not use the word *genre*, but his analysis of text structure, in particular in relation to narratives of personal experience, has been particularly influential in work on genre in language teaching and within functional linguistics, which are described below.

Linguistic approaches

The Birmingham School

In the early 1970s, Sinclair and Coulthard (1975) tape-recorded mother-tongue classes. The classes were traditional, teacher-fronted lessons where knowledge was typically transmitted by the pupils answering the teacher’s display questions (questions where the teacher already knew the answers), engaging in some sort of activity or just listening to the teacher talking. From these recordings, Sinclair and Coulthard (1975) built a model for the analysis of classroom discourse. A typical piece of classroom discourse, from a primary school class in England is the following:

- T = Teacher P = Any pupil who speaks
 T: Now then ... I’ve got some things here, too. Hands up. What’s that, what is it?
 P: Saw.
 T: It’s a saw, yes this is a saw. What do we do with a saw?
 P: Cut wood.
 T: Yes. You’re shouting out though. What do we do with a saw? Marvelette.
 P: Cut wood.
 T: We cut wood.

Note here:

- a The teacher begins this phase of the lesson with ‘Now then’. This is a discourse marker that indicates a boundary, the start of something new.
- b Pupils aren’t allowed just to shout their answers. The teacher nominates who speaks next.

- c The teacher reinforces the answer by repeating it and evaluating it as a good answer ('It's a saw, yes, this is a saw').
- d The discourse proceeds in units of three parts: the question, the response and the feedback or follow-up.

(Sinclair and Coulthard, 1975: 93–94)

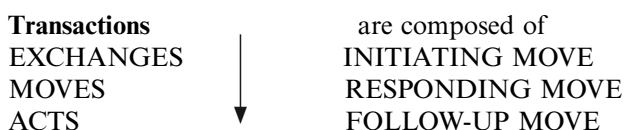
This extract also shows how the discourse is organized at several different levels. The top level is the lesson phases usually bounded by discourse markers such as 'Now then' and 'Right'. In the Sinclair and Coulthard (1975) model these are called 'transactions'.

The next level is illustrated in the question–answer–feedback combinations. Sinclair and Coulthard (1975) called these 'exchanges'.

The next level below is represented by the single actions of questioning, answering, feeding back, each of which is called a 'move'.

Finally, there are local, micro-actions such as nominating a pupil to speak, telling the kids to put their hands up, acknowledging, etc., which Sinclair and Coulthard (1975) called 'acts'.

These different levels form a rank-scale, in which any level is comprised of all the levels below it.



A typical exchange in the teacher-fronted classroom is the 'eliciting exchange', which has three moves: an initiating move, a responding move and a follow-up move:

- T: How do we use a thermometer? Jennie.
- P: Put it in your mouth.
- T: You put it in your mouth.

These three core moves, **I**(nitiating), **R**(esponding) and **F**(ollow-up) led to the model being referred to by the shorthand title, the 'IRF model'.

Many second language teachers will recognize in the Sinclair-Coulthard transcripts their own instinctive behaviour in front of large groups of learners, especially when institutional pressures prevent more imaginative ways of communicating in the classroom. Sinclair and Coulthard's research brought a new awareness of classroom language to a generation of language teachers in the 1970s and 1980s, and had an important informing role in boosting the move towards communicative language teaching. The model was taken into the world outside the classroom (Hoey, 1991; Francis and Hunston, 1992), and since its early days it has been immensely useful for those interested in analysing language classrooms and many other types of discourse.

Systemic functional linguistics

There is a family of linguistic approaches – of which systemic functional linguistics (SFL) and critical discourse analysis are members – that is socially oriented, essentially concerned with describing the relationship of language, text and social life. Within this broad

band of approaches, there are functional descriptions of language which see a particular kind of relationship between language and context where one shapes the other. Functional descriptions seek to explain the nature and organization of language according to what it has to do (for example, *Excuse me, do you know the way to _____?* serves the purpose of asking for directions). Systemic functional linguistics is one variety of functional linguistics, its distinctive feature being the concern to explain the internal organization of language in terms of the functions that it has evolved to serve (Halliday, 1978, 1994).

The central concern of systemic functional linguistics is how people use language with each other to accomplish everyday social life and how social worlds are, in turn, created in and through language. This interest leads to an investigation of how language is structured to achieve sociocultural meanings. Systemic functional linguistics therefore focuses on the analysis of texts, considered in relationship to the social context in which they occur. It has particular applicability to the analysis of spoken discourse.

The systemic functional linguistics orientation to spoken discourse is similar to that of conversation analysis, in that both are concerned to describe the relationship between language and its social context. However, the focus in systemic functional linguistics on spoken language is on the way that language is organized to enable conversation to work and to have the power it does. By contrast, conversation analysis focuses on social life, and conversation is seen as a key to that. What they share is the belief in the social nature of language: that conversation builds social contexts at the same time as these contexts guide and shape conversation.

Critical discourse analysis

Critical discourse analysis is concerned with the relationship between language, ideology and power (Fairclough, 1989) and the relationship between discourse and sociocultural change (Fairclough, 1992). The approach is influenced by Halliday and systemic linguistics (Fairclough, 1995: 6).

Genres in critical discourse analysis are seen as social actions occurring within particular social and historical contexts. As Miller (1984) argues, similarities in form and function are seen as deriving from the similarity in the social action undertaken. Thus, texts are looked at not only according to the textual regularities they display but also according to what class, gender and ethnic bias they incorporate, what discursive practices are constructed in the text, and, as a consequence of this, what social practices they reflect.

This new conception of genre in critical discourse analysis sees genres as both social and textual categories and no longer as fixed and immutable, but as dynamic and changing. As with the systemic accounts of genres, genres in critical discourse analysis are seen not only as a reflection of social reality but also as constructing social reality. Genres, therefore, not only arise out of the social context but, in fact, they shape the social context.

Grammar and discourse: spoken and written differences

In written discourses, writers can rely on readers to process the text in a logical and commonsense way. So, if a subject is not repeated in a co-ordinated clause, the reader simply assumes that the same subject applies:

We stood and gazed at the sea.
(Understood: We stood and **we** gazed at the sea.)

But because spoken discourse is usually so tied to its immediate context (unlike written texts which are often produced at one time and place to be read at another), speakers usually have even less need to refer to everything that is in the context and can take for granted that listeners will know what is being referred to. This is often reflected in very short, reduced turns in informal conversation, where items normally required by the grammar of writing are simply absent. For instance, it is a general rule of English, that verbs in interrogative clauses must have a subject, and yet subjects and auxiliary verbs are often absent in questions directly referring to the listener(s):

Hi, Nigel, been working?
(Understood: ‘**Have you** been working?’)
A: Anybody want soup?
B: No thank you.
(Understood: ‘**Does** anyone want soup?’)

Statements, too, often occur without a subject where the subject is obvious or may be assumed to be known:

Turned out well in the end.
(Understood: ‘**It** turned out well in the end.’)

Countable nouns sometimes occur without articles of any kind:

A: Nice restaurant.
B: Yes, it is, isn’t it.
(Understood: ‘**It’s** a nice restaurant.’)

These common features of spoken discourse mean that a grammar written solely on the basis of written texts, where such phenomena might be rare or completely absent, is incomplete. Equally, some structures which are common in writing may be very rare indeed in everyday conversation, for example non-finite *-ing* clauses in English. At the beginning of this chapter we used this sentence to introduce types of discourse:

As the day outside the home draws to a close, the members of the household come together again, **quite possibly sitting down** for a joint meal with enough time to review the day and dream about the future.

This type of *-ing* clause is very rare indeed in informal conversation. So, once again, we can say that a grammar that fails to make the spoken–written distinction may be incomplete or even misleading, giving the impression that structures are equally common in speech and writing. A discourse grammar, since it derives its description from real contexts of use rather than from isolated or invented sentences, will necessarily be interested in the spoken–written divide wherever it is relevant. Carter and McCarthy (1995) give further examples of typically spoken grammatical phenomena, and argue that language teaching should take note of the differences, especially where skills are separated into speaking or listening skills and writing or reading skills, in syllabuses, materials and language testing.

At least one major new descriptive grammar now offers wide-ranging information on spoken and written differences (Biber et al., 1999).

Lexical patterns in spoken language

Discourse analysts are interested in how speakers' and writers' use of lexis creates patterns over longer stretches of text beyond the sentence (*see* Chapter 2, *Grammar*, and Chapter 6, *Corpus linguistics*). Here, we shall focus on spoken texts. Speakers make their lexical choices, and listeners receive and interpret them. It is clear from actual discourse contexts that the fixedness of meanings that we associate with dictionary definitions is open to negotiation, and that lexical meaning emerges from context, rather than being entirely pre-ordained. For example, agreed meanings can be signalled and confirmed by repetition, where the listener repeats the speaker's lexis:

SPEAKER 1: And then we went down to San Diego. Santa Barbara.

SPEAKER 2: California. Lovely.

SPEAKER 1: Yeah. Oh.

SPEAKER 2: Yeah.

SPEAKER 1: It was really **beautiful**.

SPEAKER 2: It's a **beautiful** place.

However, a notable feature of conversation is the way speakers often trade approximate synonyms, rather than repeating one another, especially when exchanging subjective meanings, in an attempt to converge on agreed interpretations. In the next extract, *lovely* and *so nice* are matched:

SPEAKER 1: Alice where did you get that skirt? Cos I want one like that.

SPEAKER 2: Isn't it **lovely**?

SPEAKER 1: It's so **nice**.

SPEAKER 3: In Topshop.

This phenomenon is known as 'relexicalization' (McCarthy, 1988). Repetition and relexicalization enable conversational participants to converge on meanings, to negotiate them in particular contexts. Sometimes, more than one pair of lexical items is involved, and complex chains of lexical interaction may be observed, involving both repetition and relexicalization in the same stretch of talk:

SPEAKER 1: Ooh. Look at the sky.

SPEAKER 2: Oh that's **lovely**.

SPEAKER 1: **Gorgeous**. The sky is **absolutely beautiful**.

SPEAKER 2: **Beautiful**.

Another feature related to the negotiation of meaning is the display of opposites in the same utterance, which enables speakers to focus lexical meaning:

SPEAKER 1: I can take a bit of the burden off Jim. Sometimes it's **hard** but I sometimes really feel as though I'm bashing my head against a wall though.

SPEAKER 2: Well it is it is **hard** isn't it. It's **not easy** to go forward.

McCarthy (1988) refers to 'instantial' lexical meanings in describing synonyms and antonyms used in this way in context, to distinguish them from out-of-context semantic meanings, such as are found in dictionary entries for single words. What is very clear is that the native speaker or expert user's mental lexicon of any language is organized in terms of meaning connections such as similarity and opposition, and that this is not a mere abstract convenience (*see* Schmitt and 2000). Synonyms and antonyms are speedily accessed and used fluently by speakers in conversation as part of their basic strategy for creating meaning. The implications of this are that the abstract domains of lexical semantics and the pedagogical issues of learning and using vocabulary should by no means be divorced from what happens in ordinary communication. Repetition and relexicalization are part of the speaking skill, and in the case of relexicalization (that is, the ability to retrieve synonyms and antonyms quickly), present a considerable challenge to second language learners.

Corpus linguistics and variation in discourse

In recent years, discourse analysts have been able to greatly expand the scope of their work thanks to computer software that can analyse large corpora (*see* Chapter 6, *Corpus linguistics*). Corpus linguistics sprang from a desire to be more objective about language and to free description from subjective intuition (*see* Halliday, 1966 and Sinclair, 1966 for early arguments in favour of using corpora). Corpus linguists believe that external evidence, looking at language use, is a better source for description than internal evidence, or native speaker intuition (for a good introduction, *see* Biber, Conrad and Reppen, 1998). Broadly, corpus linguistics may be performed in two ways: quantitative and qualitative. The quantitative approach usually looks for the largest corpus possible (up to 100–600 million words at the time of writing), from as wide a range of sources as possible. These data are then analysed computationally and the output comprises sets of figures that tell the discourse analyst about the frequency of occurrence of words, phrases, collocations or structures. These statistics are then used to produce dictionaries, grammars and so on. But for the discourse analyst, statistical facts raise the question 'Why?', and answers can only be found by looking at the contexts of the texts in the corpus. Discourse analysts, therefore, work with corpora in a qualitative way. For example, a spoken corpus frequency list might show an unexpectedly high frequency for words such as *absolutely*, *exactly* and *brilliant* compared with a written corpus frequency list. Here are some frequency figures for *absolutely*:

	CIC* written: five million word sample	CANCODE* spoken: five million words
<i>absolutely</i>	276	1234

*CIC = Cambridge International Corpus; CANCODE = Cambridge and Nottingham Corpus of Discourse in English.

© Both corpora are copyright Cambridge University Press.

The discourse analyst then seeks an explanation for this, and finds that in the spoken corpus, these high-frequency words often occur as single-word responses to incoming talk, for example:

SPEAKER 1: I thought it was wonderful, you know.

SPEAKER 2: Yeah, **absolutely**.

In this way, spoken discourse analysts use corpus statistics to get at notions such as listener feedback, turn-taking distributions, the distribution of items such as hedges and intensifiers (which often reveal much about politeness and communicative strategies) and the frequency and distribution of discourse markers such as *you know*, *I mean*, *you see*, *well*, *right*, *anyway*, *okay*, etc. Written text analysts can gain similar information from statistical procedures, as well as the frequency and distribution of cohesive devices, how academic writers hedge or how they cite others' work, and so on. Such information is immensely useful to those designing language teaching materials, since a corpus offers direct evidence of language use on a wide scale. McCarthy (1998) is one example of using a corpus to pursue answers to questions that interest discourse analysts and language teachers alike. There is no doubt that corpus linguistics will continue to influence discourse analysis as corpora become more available and software easier to manipulate, and that the results of corpus-based discourse analysis will feed through to the teaching of speaking and writing in language pedagogy.

Implications for pedagogy

The ideas outlined in this chapter have the following direct implications for language pedagogy:

- Discourse analysts describe and analyse how language is structured in different contexts of use. This enables language practitioners to more precisely delineate in syllabuses and materials the different genres of language with which learners will need to engage, and to select and evaluate discourses that are relevant to particular learners' needs.
- When modelling different types of writing (for example, academic paper, business letter), discourse analysis can help teachers to explain the underlying features of the text types associated with those types of writing.
- In both teacher training programmes and for the teacher already in the classroom, models of analysis, such as the IRE, may serve to raise awareness of the nature of teacher–learner interaction. For example, traditional teacher-fronted classrooms may offer an impoverished context for learners to engage in the genuine interaction which seems to facilitate language acquisition. Insights from the analysis of discourse can help teachers consider their own interaction practices in a more systematic manner.
- Teachers can use insights from discourse analysis to better evaluate their own learners' performance in classroom tasks, such as pair work and group work, in terms of its proximity to or distance from real-world discourse. The results of such evaluation may also lead to better classroom task design.
- Conversation analysis shows that everyday talk is not as disorganized as it may seem, and this offers the possibility of systematic teaching of features, such as the language of openings and closings, discourse markers and common adjacency pairs.

- Discourse analysis provides the descriptive information which pedagogical grammarians and lexicographers require to produce more true-to-life descriptions and guidelines for the use of language. The products of these descriptions (especially corpus-based ones) come in the form of pedagogical grammars and learners' dictionaries which are more sensitive to context and the different demands that speech and writing place on the learner.

Hands-on activity

Read the two texts below and consider their similarities and differences. In particular, consider:

- How dependent each text is on context.
- The nature of the vocabulary in each text.
- The grammatical complexity of each text.
- The lexical density of the beginning of each text where the lexical words have been underlined for you.

Text 1: cockroaches

Cockroaches are eminently tropical, but certain species have become widely disseminated through commerce and are now cosmopolitan. Cockroaches are nocturnal in habit, hiding themselves during the day; the domestic species are omnivorous but are especially addicted to starchy or sweetened matter of various kinds, as a rule they injure and soil far more than consume, and most species emit a disagreeable odour.

Text 2: cockroaches

Turn Speaker

1 Pat I remember we were sitting for our analytical chemistry exam and it was the final exams and they have sort of like bench desks where there's three to a bench normally and they had the middle seat empty and two sat either side and I was sitting there and I thought 'Geez I can feel something on my foot.'

2 Pauline uhhh

3 Pat And I thought 'No, no, don't worry about it,' you know 'what on earth is this chemical equation?' and I am trying to think 'but there's something on my foot!' and I looked down and there was this cockroach like this [gesture] – and I just screamed and jumped up on the chair and as I did that I knocked the bench and it went up and all Geoff's exam stuff went into the bin next to him, and I was standing on this chair screaming and the exam supervisor came running over, 'what's going on there?' [laughs]
And I said 'there's a cockroach down there' [laughs]
'cause you're not allowed to speak, sneeze, cough, anything in those final exams, and um, there's me screaming on the chair.

Non-verbal [Pat and Pauline both laugh]

Notes

- 1 University of Nottingham.
- 2 Hong Kong Polytechnic University.
- 3 Australian National University.

Further reading

Cook, G. (1989) *Discourse*. Oxford: Oxford University Press.

[A good first introduction to the field, which gives a helpful and accessible summary of the IRF model.]

Eggs, S. and Slade, D. (2005) *Analysing Casual Conversation*. London: Equinox.

[Based on a large body of authentic conversational data, this book develops a functionally oriented model for the systematic analysis and critical interpretation of casual conversation in English.]

Hughes, R. (1996) *English in Speech and Writing*. London: Routledge.

[An activity-based book, which provides the most comprehensive account of the differences between spoken and written discourse.]

Johnstone, B. (2018) *Approaches to Discourse* (third edition). Oxford: Wiley-Blackwell.

[An exploration of a variety of approaches to analysing discourse providing breadth of coverage with theoretical background and practical examples.]

McCarthy, M.J. (1991) *Discourse Analysis for Language Teachers*. Cambridge: Cambridge University Press.

[In addition to giving a more detailed treatment of the various approaches to spoken and written discourse analysis covered in the present chapter, this book also has chapters on grammar and lexis at the discourse level.]

McCarthy, M.J. (1998) *Spoken Language and Applied Linguistics*. Cambridge: Cambridge University Press.

[This book contains a detailed treatment of spoken genres and integrates discourse analysis with corpus-based analyses of spoken language.]

Pragmatics

Helen Spencer-Oatey¹ and Vladimir Žegarac²

Introduction

Pragmatics could be described as an ‘insecure science’. According to Hacking (1995: 352) an insecure science is ‘a science whose leaders say they are in quest of a paradigm, or have just found a paradigm’. In certain respects, over the past 30 years or so, pragmatics has grown into a well-established, ‘secure’ discipline in institutional terms. There are a number of specialist journals (*Journal of Pragmatics*, *Pragmatics*, *Pragmatics and Cognition*, *Multilingua* as well as others), there is at least one major professional organization (The International Pragmatics Association) whose membership reaches into thousands and regular international conferences are held the world over. Yet, despite these achievements, pragmatics remains a good example of an insecure science in terms of Hacking’s definition. None of the many pragmatic theories and frameworks comes close to being a generally accepted paradigm and, in fact, there is no consensus as to the domain of pragmatics. Nevertheless, most people working in the field would probably not disagree with some interpretation or other of the suggestion, put forward by Charles Morris (1938: 30), that pragmatics is ‘the science of the relation of signs to their interpreters’. In other words, pragmatics is concerned not with language as a system or product *per se*, but rather with the interrelationship between language form, (communicated) messages and language users. It explores questions such as the following:

- How do people communicate more than what the words or phrases of their utterances might mean by themselves, and how do people make these interpretations?
- Why do people choose to say and/or interpret something in one way rather than another?
- How do people’s perceptions of contextual factors (for example, who the interlocutors are, what their relationship is and what circumstances they are communicating in) influence the process of producing and interpreting language?

Pragmatics thus questions the validity of the ‘code-model’ of communication that was developed within the discipline of semiotics. In the code-model, communication is seen as an encoding–decoding process, where a code is a system that enables the automatic pairing of messages (that is, meanings internal to senders and receivers) and signals (that is, what is physically transmitted (for example, sound, smoke signals, writing) between the sender and the receiver). According to this view, communication is successful to the extent that the

sender and the receiver pair signals and messages in the same way, so that the message broadcast in the form of a given signal is identical to the one received when that signal is decoded. The code model has the merit of describing one way in which communication can be achieved (for example, between machines or bees), but it is wholly inadequate as an account of how people actually communicate (*see* Sperber and Wilson, 1986/1995: Chapter 1). Modern approaches to pragmatics recognize that human communication largely exploits a code (a natural language such as English, German or Japanese), but they also try to do justice to the fact, illustrated in the next section, that human communicative behaviour relies heavily on people's capacity to engage in reasoning about each other's intentions, exploiting not only the evidence presented by the signals in the language code, but also evidence from other sources, including perception and general world knowledge.

In a brief chapter like this, it is impossible to explain properly the many topics that are usually studied within pragmatics, and the various different approaches that are taken within the field. So our goal is to provide a taster to these topics and issues and the methods used to study them, to show how pragmatic concerns have relevance to areas of applied study such as foreign language teaching, and to suggest references for follow-up reading.

Pragmatic perspectives on language use

This section uses a brief (authentic) dialogue in order to introduce some important terms and concepts in modern pragmatics and to illustrate briefly the sorts of phenomena that pragmatics needs to account for.

A sample dialogue

Situation: Kiki and Sharon are students at a British University. They have been flatmates for a short time and do not know each other very well. Kiki is Greek and Sharon is English. Sharon is getting ready to go out.

- [1] Kiki: Where are you going tonight?
- [2] Sharon: Ministry.
- [3] Kiki: Ministry?
- [4] Sharon: Ministry of Sound. A club in London. Heard of it?
- [5] Kiki: I've been clubbing in London before.
- [6] Sharon: Where to?
- [7] Kiki: Why do you want to know?
- [8] Sharon: Well, I may have been there.
- [9] Kiki: It was called 'The End'.
- [10] Sharon: Nice one!
- [11] Kiki: I hope you have a good time at the Ministry.

(contributed by Kelly-Jay Marshall)

Pragmatic meaning

It is often (though not universally) assumed that the task of 'semantics' is to describe and explain linguistic meaning (that is, what a given utterance means by virtue of the

words used and the ways in which they are put together), whereas ‘pragmatics’ is concerned with the study of the meaning that linguistic expressions receive in use. So one task of pragmatics is to explain how participants in a dialogue such as the one above move from the decontextualized (that is, linguistically encoded) meanings of the words and phrases to a grasp of their meaning in context. This process can involve several aspects:

- The assignment of reference; for example, what does *Ministry* [line 2] stand for (technically, refer to)?
- Figuring out what is communicated directly; for example, what does *Nice one* [line 10] mean in this context?
- Figuring out what is communicated indirectly, or implicitly; for example, what does Sharon intend to imply when she asks *Heard of it?* [line 4]?; what is the illocutionary force of Kiki’s interrogative utterance: *Where are you going tonight?* [line 1]?

In our sample dialogue, the process of handling these pragmatic issues sometimes goes smoothly, but sometimes it does not (as is typical of real life). Let us consider each of them in turn.

Assigning reference

Kiki starts by asking Sharon where she is going, but Sharon’s one-word answer is not informative enough for Kiki to be able to figure out what Sharon is actually referring to. Sharon’s utterance takes it for granted that the name ‘Ministry’ has a referent (in other words, it presupposes the existence of a referent), but Kiki’s general world knowledge is insufficient for her to identify the specific referent that Sharon intended for ‘Ministry’ in this context. Only upon further clarification (requested in [line 3] and given in [line 4]), is Kiki able to work out that, by saying *Ministry* [line 2], Sharon intends to convey something like: I am going to a London club called ‘Ministry of Sound’. So, there is a gap between the decontextualized meaning of the utterance (roughly, what the word ‘Ministry’ means according to the dictionary) and the thought expressed by that word (roughly: a London club called ‘Ministry of Sound’). Kiki needs to bridge this gap, and initially fails to do so. In other words, a listener needs to assign reference to the words that a speaker uses, and since there is no direct relationship between entities and words, the listener typically has to make inferences as to what the speaker intends to identify. If this inferencing process is too difficult, communication will falter and so, to be cooperative, a speaker needs to anticipate how much information the listener will need. As Yule (1996) points out:

... [reference] is not simply a relationship between the meaning of a word or phrase and an object or person in the world. It is a social act, in which the speaker assumes that the word or phrase chosen to identify an object or person will be interpreted as the speaker intended.

(Yule, 1996: 22)

The process of assigning reference also involves the interpretation of ‘deictic expressions’. These are linguistic items that point to contextually salient referents without naming them explicitly. There are several types of deictic expressions in the dialogue: person deictics (for example, the personal pronouns *you* ([line 1], [line 7]), *it* ([line 4], [line 9]), *I* ([line 5], [line 8], [line 11]), place deictics (for example, *there* [line 8]), and time deictics (for example, the tensed forms of the verbs). In context, they refer to particular people or things, places and moments in time, respectively, but on different occasions they pick out different referents. For example, when Sharon says *I may have been there* [line 8], the deictic *there* refers to the particular club in London which Kiki has visited. But, when used on another occasion, the same word will refer to some other place.

Figuring out what is communicated directly

Sometimes the process of identifying pragmatic meaning (that is, contextually determined aspects of utterance meaning) involves interpreting ambiguous and vague linguistic expressions in order to establish which concepts and thoughts they express. For example, in line [10] Sharon says *Nice one*. This could be taken to mean that a particular previously mentioned thing is nice (in this context, the London club called ‘The End’), but this expression also has another conventionalized (and somewhat vague) meaning, roughly: ‘Good idea’ or ‘Well done’. In this dialogue, it is unclear whether Kiki has interpreted the phrase in one way rather than another, or whether she treats both interpretations as possible.

These observations show that the meaning of an utterance is not fully determined by the words that are used: there is a gap between the meaning of the words used by the speaker and the thought that the speaker intends to represent by using those words on a particular occasion. More technically, the linguistic meaning of an utterance underdetermines the communicator’s intended meaning. This gap is filled by the addressee’s reasoning about what the communicator (may have) intended to communicate by his or her utterance. Hence, pragmatics plays a role in explaining how the thought expressed by a given utterance on a given occasion is recovered by the addressee (*see* Carston, 2004).

Figuring out what is communicated indirectly

The main import of an utterance may, in fact, easily lie not with the thought expressed by the utterance (that is, with what is communicated directly) but rather with the thought(s) that the hearer assumes the speaker intends to suggest or hint at. More technically, it lies with what is implicated, or communicated indirectly. For example, in [line 4] Sharon asks *Heard of it?*, indicating that information about whether Kiki has heard of the club in question is desirable to her. However, Kiki interprets Sharon’s question as evidence that Sharon considers her incompetent or inadequate in the social sphere. Therefore, she responds to (what she takes to be) the implicit import of Sharon’s utterance [line 5], rather than giving the information explicitly requested. So, pragmatics needs to explain how indirectly (that is, implicitly) communicated ideas (in this case: Sharon thinks Kiki is socially incompetent and/or inadequate) are recovered.

By far the most influential solution to this problem was developed in the mid-1960s by the Oxford philosopher Paul Grice (1989). He argued that people are disposed to

presume that communicative behaviour is guided by a set of principles and norms, which he called the ‘Co-operative Principle’ and maxims of conversation.

The Co-operative Principle

Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

(Grice, 1989: 26)

Deriving an interpretation that satisfies the Co-operative Principle is effected through four maxims which the communicator is presumed to abide by:

- **Truthfulness** (communicators should do their best to make contributions which are true).
- **Informativeness** (communicators should do their best to be adequately informative).
- **Relevance** (communicators should do their best to make contributions which are relevant).
- **Style** (communicators should do their best to make contributions which are appropriately short and clearly expressed).

Grice labelled the maxims using terms which are, perhaps, less intuitive: ‘quality’, ‘quantity’, ‘relation’ and ‘manner’, respectively. Grice’s fundamental point was not that people always observe these maxims, but rather that they are unstated assumptions that underlie communication. So if a speaker clearly flouts one or more of the maxims (for example, by giving a very brief answer when a more informative one is expected), the speaker may be prompting the listener to look for a meaning that is different from (or additional to) the meaning that is verbally expressed; in other words, to work out the ‘conversational implicature’.

Grice’s approach provides a reasonably neat account of implicated (that is, indirectly communicated) meaning. For example, what might Kiki mean by saying *I’ve been clubbing in London before?* [line 5] Superficially it might seem that her answer is not relevant. However, given the context set by the exchange up to that point, and assuming that Kiki is trying to be co-operative, informative, relevant and concise, it seems clear why Sharon would be justified in concluding that Kiki implicates (that is, intends to imply) that she is familiar with the London club scene, that she is generally socially competent and the like. Nevertheless, Grice’s theory has a number of limitations; for example, it does not incorporate the impact of social or interpersonal factors which influence the participants’ preferences and goals (*see below*), and are important in explaining why Kiki interprets Sharon’s question *Heard of it?* [line 4] as questioning her social competence; nor does Grice’s approach explain the fact that context plays an extremely important role in determining the thought expressed by an utterance. In other words, it does not explain pragmatic aspects of what is communicated directly.

The challenge of describing and explaining the reasoning processes involved in communication has also been taken up by cognitive approaches to pragmatics, such as Sperber and Wilson’s (1986/1995) ‘relevance theory’, which maintains that the reasoning processes involved in communication are constrained by a single principle: the

principle of relevance, making the Co-operative Principle and the maxims of quality (truthfulness), quantity (informativeness) and manner (style) redundant. In this view, human cognition is designed in such a way that people generally tend to be on the lookout for new information worth having. When we produce communicative acts, such as utterances and texts, we indicate to their intended recipients (hearers, readers) that these acts warrant their attention; that if they mentally represent and process what we have said or written, they will get enough information worth having without wasting their mental effort. So, according to the communicative principle of relevance, an act of communication (such as an utterance, text or pointing gesture) makes evident a tacit guarantee that it is informative enough to be worth mentally representing and processing. For example, when deciding how much information to give in response to Kiki's first question [line 1] *Where are you going tonight?* Sharon needs to work out what sort of information Kiki would like to have, how much information of this type she is interested in having and how this information can be conveyed most effectively (that is, simply, without putting Kiki to gratuitous expenditure of mental processing effort). In this instance, Sharon's one word reply ([line 2] *Ministry*) falls short of conveying enough desirable information to Kiki, who is left wondering about the likely reasons for this.

Another perspective on meaning in communication focuses on the distinction between the linguistic form of the utterance and its communicative function (technically, the 'illocutionary force') of that utterance in the communication situation. The philosopher John Austin (1975) generated, and another philosopher of language, John Searle (1969), developed the view that language should be seen as a form of action – that when we speak, we 'do' things like make requests, make statements, offer apologies and so on. Austin's initial insight was that people do not simply make statements that can be judged as 'true' or 'false'; rather they use language to perform actions (such as requesting information, promising, offering, betting, etc.) that have an impact in some way on the world. Both he and Searle tried to classify speech acts into different categories, and to identify the 'felicity conditions' that enable a speech act to be performed 'successfully'. Let us consider Kiki's first question again: [line 1] *Where are you going tonight?* Under what circumstances is it appropriate to ask another person a question? Under what circumstances is it appropriate to ask people for factual information of the type requested by Kiki? Was she requesting information? Is it possible that she used the (interrogative) form of words which is standardly used for asking questions, because she intended to hint that she wanted to be invited out with Sharon? Or was she perhaps criticizing Sharon for going out too much? In other words, what was her intention in using an interrogative utterance, or more technically, what was the illocutionary force (request for information (?), suggestion/hint (?)) of Kiki's interrogative utterance? While speech act theory looks at these questions by focusing on the relation between linguistic form (for example, interrogative) and communicative function (for example, request for information) Grice's approach aimed to answer them in terms of the Co-operative Principle, the maxims of conversation and contextual knowledge.

Explaining the impact of social factors

Grice's (1989) theory of conversation, and in particular his view that conversation is governed by a set of norms, pointed to the importance of investigating the social regularities which arise through and are reflected in communicative interaction. Relevance theory takes the view that such social factors which influence communication are best

analysed as part of the context (the set of assumptions which participants use in producing and interpreting acts of communication), so they do not need to be taken account of by positing special mechanisms (for example, additional principles or maxims). In contrast to the cognitive framework of relevance theory, work within social pragmatics has sometimes led to the introduction of additional communicative norms. For example, Leech (1983) maintains that the 'Politeness Principle' is a necessary supplement to Grice's Co-operative Principle, arguing that people often break the Co-operative Principle for 'politeness' reasons; in other words, 'to maintain the social equilibrium and the friendly relations which enable us to assume that our interlocutors are being cooperative in the first place' (Leech, 1983: 82). Leech proposes a set of 'politeness maxims', such as the 'modesty maxim' and the 'agreement maxim', which operate in conjunction with the co-operative maxims. They are worded as 'rules' (for example, minimize praise of self, maximize dispraise of self; minimize disagreement between self and other, maximize agreement between self and other), but in fact they aim to describe the interactional principles that underlie language use. Leech (1983) also suggests that language use involves a 'pragmalinguistic' perspective and a 'sociopragmatic' perspective. This distinction is a useful one that has been widely adopted, although it can be fuzzy at times.

The pragmalinguistic perspective focuses on the linguistic strategies that are used to convey a given pragmatic meaning, while the sociopragmatic perspective focuses on the socially-based assessments, beliefs and interactional principles that underlie people's choice of strategies. For example, suppose I am a dinner guest and want to reach the salt which is placed at the other side of the table. I have various options available: I could stand up and reach for it, I could say '*Pass the salt, will you*', or '*Can you pass the salt, please*', or even '*I like my food quite salty*'.

A sociopragmatic perspective focuses on the social judgements associated with such a scenario; for example, what the relationship between the participants is (for example, close or distant, equal or unequal), and the social acceptability of reaching for food in such a context. A pragmalinguistic perspective, on the other hand, focuses on the linguistic strategies used to operationalize the request: for example, whether it is a direct request ('*Pass the salt, will you*'), a conventionally indirect request ('*Can you pass the salt please?*') or a non-conventionally indirect request ('*I like my food quite salty*'). Thomas (1983) suggests that when there is a mismatch in people's sociopragmatic conventions (for example, one person thinks it is acceptable to say '*sorry*' and stand up and reach for the salt, whereas someone else does not), sociopragmatic failure can occur, and that when there is a mismatch in people's pragmalinguistic conventions (for example, one person typically uses a direct request in this context, whereas another person typically uses a conventionally indirect request), pragmalinguistic failure can occur.

One of the most influential models that tries to explain the impact of social factors on people's use of language is Brown and Levinson's (1987) 'face' model of politeness. Brown and Levinson define face as 'the public self-image that every member wants to claim for himself' (1987: 61), and they draw a distinction between positive face and negative face. Positive face reflects every person's need that his/her self-image is appreciated and approved of, and negative face reflects every person's 'basic claim to territories, personal preserves, rights to non-distraction – i.e. to freedom of action and freedom from imposition' (1987: 61). So, for example, Kiki's question [line 1] *Where are you going tonight?* could be interpreted by Sharon as an infringement of her

personal preserves, or in other words, as a threat to her negative face. This threat may well have been aggravated by the fact that Sharon was getting ready to go out and was too busy or preoccupied to engage in small talk with Kiki. But, in a more general sense, every utterance is potentially an imposition on the hearer, because, by producing the utterance, the speaker indicates that s/he requests the hearer's attention. Clearly, the request for attention may be justified if the information communicated by the utterance is actually desirable to the hearer. But when the speaker requests information from the hearer, as Kiki did in [line 1], her request for Sharon's attention may easily be taken as an imposition, because the information requested is seen as desirable to Kiki, rather than to Sharon, who is asked to supply it. Various forms of 'polite' linguistic behaviour have developed precisely to show that the speaker acknowledges the imposition (and, possibly, that she would consider herself in the hearer's debt, if the latter decided to accept the imposition). Examples in English include expressions such as: *I know I'm interrupting you, but...*, *Could you ...*, *I'd be grateful if ...*, and many others.

A face interpretation can also be given to Sharon's question [line 4] *Heard of it?* Kiki interprets this question as a challenge to her social competence, or in other words, as a threat to her positive face. In fact, Sharon may not have meant it in this way, but Kiki may be particularly sensitive to positive face threats of this kind since she is a foreigner (a Greek student in Britain) and may be insecure as to whether she has been accepted as a member of the local youth culture.

The fact that the two interlocutors are from different cultural backgrounds raises further possibilities. It could be that they have slightly different conventions for initiating small talk. In some languages (for example, Chinese), a question like *Where are you going?* is a phatic remark which is not really meant to be treated as a request for information, but rather is meant simply as a superficial friendly remark, similar to the way in which we routinely say *How are you?* in English without expecting a detailed or particularly truthful response. However, this 'cultural difference' explanation is unlikely to be satisfactory in Kiki's case, as this type of question is not commonly used as a phatic remark in Greek. So perhaps the rather 'clumsy' start to the conversation is a reflection of Kiki's uncertainty as to how to start a conversation appropriately in English with someone she does not know very well.

Brown and Levinson (1987) argue that speakers take three main variables into account when deciding how to word a face-threatening utterance such as a request or a challenge:

- The power differential between hearer and the speaker (that is, amount of equality/inequality, labelled **P**).
- The distance–closeness between them (labelled **D**).
- The degree of imposition of the content of the utterance (confusingly labelled **R** for rank).

They maintain that, other things being equal, the greater the power differential, the greater the distance and the greater the imposition, the more careful and more indirect the speaker will be. In our sample conversation, the interlocutors are equal, and the content of Kiki's initial request [line 1] *Where are you going tonight?* is not particularly imposing. So in many respects we would not expect her to phrase it particularly diplomatically. On the other hand, the two of them do not know each other very well, so

we might have expected a slightly more tentative remark such as *Going anywhere special tonight?* Perhaps Kiki's direct question *Where are you going tonight?* reflected the Greek tendency to use positive politeness strategies (to use 'approach oriented' strategies that assume a certain level of closeness), in contrast to the British tendency to use negative politeness strategies (to use 'imposition acknowledgement' strategies) to people they do not know well (cf. Sifianou 1992). Or perhaps she was doing this strategically to try and build up her friendship with Sharon.

Conversational patterns and structure

Conversational patterns such as those in lines [6]–[9] have been studied extensively within the framework of conversation analysis (see Chapter 4, *Discourse analysis*). This is an approach that starts from the common-sense observation that people take turns in conversation, and that relies on descriptions of naturally occurring data to discover the rules involved in the patterning of conversational exchanges. In this view, conversation proceeds through ordered pairs of utterances, called adjacency pairs. The utterances in a pair are ordered, in that the first member of a pair requires a second member. For example, a question requires an answer. Within the framework of conversation analysis, one would say that the adjacency pair consisting of the question in [line 6] and the answer in [line 9] is interrupted by another adjacency pair ([line 7] and [line 8]), thus forming an insertion sequence. Conversation analysis is really an approach to discourse analysis; however, patterns such as insertion sequences can also be analysed from a pragmatic perspective, in which case factors such as 'face' are included to try and explain why such patterns occur. On the other hand, pragmatists working within other frameworks, such as Sperber and Wilson's (1986/1995) cognitive–psychological approach, would argue that the patterns observed by conversation analysts follow from general principles of human cognition and communication. They would, therefore, dispute the need for and the plausibility of turn-taking rules and most of the apparatus of conversation analysis.

The role of context

In all approaches to pragmatics, context plays a major role in the communication process, and so an important task for pragmatic theory is to elucidate this process (Verschueren, 1999). As pointed out in the section 'Pragmatic meaning', context contributes both to what is communicated directly and to what is communicated indirectly. In social pragmatics, it is widely accepted that the following features of the situational context have a particularly crucial influence on people's use of language:

- The participants: their roles, the amount of power differential (if any) between them, the degree of distance–closeness between them, the number of people present.
- The message content: how 'costly' or 'beneficial' the message is to the hearer and/or speaker, how face-threatening it is, whether it exceeds or stays within the rights and obligations of the relationship.
- The communicative activity (such as a job interview, a lecture, or a medical consultation): how the norms of the activity influence language behaviour such as right to talk or ask questions, discourse structure and level of formality.

Brown and Levinson's (1987) three variables, **P**, **D** and **R** have been particularly widely used in social pragmatic studies, and have been manipulated in various ways to try and find out how they influence language use.

Unfortunately, context is sometimes taken to be the concrete aspects of the environment in which an exchange takes place and that have a bearing on the communication process. But in pragmatics, a more psychological notion of context is crucial. The physical environment (the time, the place, and the objects and people present) does not impinge directly on utterance production and interpretation; it does so only indirectly via people's representations of it. For example, if you do not want your colleague in the next office to hear what you are about to say, you may speak in a low voice. However, your decision to speak in this way depends not so much on whether your colleague is actually in the next office or not as on your beliefs about his/her possible presence and ability to overhear your conversation. So in pragmatics, context can be defined as the set of assumptions (that is, mental representations capable of being true or false) that have a bearing on the production and interpretation of particular communicative acts.

One of the main problems of pragmatics is to explain the constant updating of contextual assumptions in the course of a communicative exchange. For instance, in the conversation between Kiki and Sharon, Kiki probably begins the conversation with the belief that Sharon considers her to be socially competent. Following her request for clarification in [line 3], she abandons this background contextual assumption, because she thinks that she has displayed her lack of essential social knowledge about the London club scene. The continuation of the conversation is influenced by Kiki's newly formed contextual assumption that Sharon considers her socially inadequate. In fact, the role of some linguistic items is precisely to help the addressee – they point to the right contextual assumptions (that is, those that the communicator intends the addressee(s) to exploit in the interpretation). For example, in the conversation, Kiki says that she has been clubbing in London before [line 5]; Sharon asks her which London club(s) she has been clubbing in [line 6], and Kiki (who assumes that Sharon's question implicates that she does not believe her statement in [line 5]), asks [line 7] *Why do you want to know?* Sharon's answer [line 8] begins with the word *well*, whose function is, roughly, to indicate that the answer that follows should not be interpreted in the context which Sharon presumes is most salient to Kiki; in this case, a set of assumptions about Sharon's doubts as to whether Kiki has really been clubbing in London. In effect, the word *well* means something like: *Do not interpret the utterance introduced by well in the way in which the speaker thinks you are most likely to interpret it.* So, the word *well* does not contribute to what Sharon intends to say, but rather helps Kiki access the right context for the interpretation of the utterance which follows. Linguistic elements like *well*, *anyway*, *however*, *but*, *so*, *after all*, which help the addressee to contextualize what is said by the utterance, are called semantic constraints on implicatures (see Blakemore, 1987). Other authors (for example, Mey, 2000) consider them to be similar to adverbials such as *obviously*, *unfortunately* and the like, which do not contribute to the thought expressed by the utterance, but rather provide a comment on the speaker's attitude towards that thought. For example, imagine an Arsenal football club supporter saying: *Unfortunately, Manchester United will win the Premier League again.* This utterance expresses a thought that describes a state of affairs (technically called a 'proposition'), and at the same time it includes the speaker's attitude towards that state of affairs. Hence, a comment like: *That's not true* would be taken as

challenging the claim: *Manchester United will win the Premier League*, not as disputing the Arsenal supporter's attitude towards that statement.

Pragmatics research: paradigms and methods

As the section above implies, there are two broad approaches to pragmatics, a cognitive–psychological approach and a social–psychological approach. Cognitive pragmaticists are concerned with fundamental questions such as: *What is communication?* and *How is communication possible?* They are primarily interested in exploring the relation between the decontextualized, linguistic meaning of utterances, what speakers mean by their utterances on given occasions and how listeners interpret those utterances on those given occasions. Social pragmaticists, on the other hand, tend to focus on the ways in which particular communicative exchanges between individuals are embedded in and constrained by social, cultural and other contextual factors. These two approaches tend to use different research paradigms and methods. Generally speaking, work within social pragmatics tends to take an empirical approach, and emphasizes the collection of pragmatic data, partly for descriptive purposes, and partly so that existing theories (for example, Brown and Levinson's (1987) face model of politeness) can be tested and if necessary modified. Work within the cognitive–psychological tradition, on the other hand, is less concerned with large-scale data collection, and instead tends to theorize from specific examples of communicative utterances. In fact, many key pragmatic insights were developed within philosophy; Austin, Searle and Grice, for example, were all philosophers.

In terms of data collection, pragmatics borrows from other sciences such as psychology, sociology and anthropology, and thus uses a variety of methods. For example, it uses video/audio-recording and detailed field notes to collect on-line discourse, such as authentic conversations, elicited conversations and role-played interactions; and it uses questionnaires, diaries and interviews to obtain off-line pragmatic data in which participants report, discuss and/or comment on their use of language. Some methods are more suitable than others for exploring given research questions, so it should not be thought that one method is necessarily always better than another. Moreover, the different methods can provide useful complementary information and perspectives and thus help to ensure 'triangulation' (the use of two or more different methods focusing on the same research question so that complementary and converging data can be obtained and that the conclusions can be more robust). For instance, discourse data (obtained by recording an authentic interaction) can usefully be supplemented by post-event interview data in that participants can often provide rich and illuminating insights into their use of language in the recorded interchange. They may describe a sociocultural principle that is important to them, for example, or they may comment how they felt when someone said a particular thing.

The collection of on-line data brings into focus the problem of the 'Observer's Paradox': the concern that the interactants' awareness of being observed and recorded for research purposes may actually affect their communicative behaviour and thus distort the primary research data. Many researchers have found that any such effect tends to be temporary, but as Kasper (2000: 320) points out, 'since initial observer effects are quite possible, researchers should refrain from the get-your-data-and-run type of data collection'.

Despite their thematic and methodological differences, the cognitive–psychological and the social approaches to communication should be seen as complementary. For example, the realization of communicative directness–indirectness in different cultures is an important topic in social pragmatics, yet sociopragmatic descriptions can benefit from a characterization of the reasoning processes involved in direct and indirect communication. Roughly, the more complex the reasoning involved in deriving a communicated assumption, the more indirectly communicated that assumption will be. For example, although the utterance *Could you pass me the salt?* has the form of a request for information about the hearer’s ability to pass the salt, it is routinely (perhaps conventionally) used as a request that the hearer pass the salt to the speaker. Hence, the interpretation of *Could you pass me the salt?* as a request for action does not involve a complex reasoning process, and its meaning of *request for passing the salt* is not communicated very indirectly. In contrast to more or less conventionalized indirect requests like this one, an utterance such as *I like my food salty* is not routinely used as a request that the hearer perform the action of passing the salt, so deriving this interpretation will involve a rather more complex reasoning process. Hence, *I like my food salty* is a more indirect request for action than *Could you pass me the salt?*

The distinction between direct and indirect communication is closely related to the observation that information may be communicated more or less strongly or weakly. The stronger (that is, more conclusive) the evidence the communicator presents for intending to communicate a particular assumption, the more strongly communicated that assumption will be, and vice versa. For example, when Kiki asks *Where are you going tonight?*, her utterance, by virtue of its linguistic form, presents Sharon with conclusive evidence that some information about Sharon’s plans for the evening is relevant to Kiki. In other words, it communicates strongly a request for information. The same question presents far less compelling evidence as to Kiki’s purpose in asking the question: *Kiki is genuinely interested in Sharon, Kiki is trying to avoid the embarrassment of silence, Kiki wants to show that she considers Sharon a friend, Kiki is lonely and is hoping that Sharon will invite her to come along with her*, and so on. These intentions are less well-evidenced linguistically, and so are communicated weakly, if at all. This example may suggest that information which is communicated very indirectly is also communicated weakly, and vice versa. However, this is not necessarily the case. For example, consider two answers to the question: *Would you like to have a half of my tuna sandwich?* The reply *No, thanks* would be a more direct way to decline the offer of a tuna sandwich than *I am allergic to fish*, but the latter, conveys this message more strongly (it is unlikely that a person might change their mind about not eating food which they are allergic to). For this reason, it is communicative (in)directness that should be distinguished from communicative strength. This distinction is particularly important in intercultural communication situations, because different cultures have different sociopragmatic and pragmalinguistic conventions about what, how and when to communicate more or less directly. They also have different conventions concerning the strength with which the message is communicated; about when it is appropriate to make an assertion, a suggestion or a mere hint. Cognitive pragmatics needs to spell out how the contextual evidence available to interactants combines with the linguistic evidence to help them work out what is communicated on any given occasion. If the account is sufficiently explicit and detailed, it could help with the description and classification of cultural constraints on how people select context for the interpretation

of language and how they choose linguistic expressions to convey messages more or less strongly.

Pragmatics and language learning and teaching

Why should pragmatics play an important role in learning and teaching a second or foreign language? The answer to this question is rather straightforward. People generally set out to learn another language because they want to expand their possibilities of communication. As we have seen, there is more to communication than knowledge of language. Typically, the linguistic meaning of an utterance radically falls short of specifying the message conveyed by that utterance. So, although the ability to produce grammatically well-formed utterances with coherent linguistic meanings in a given language is an essential prerequisite for successful communication, it is certainly not sufficient. As pragmatics is a discipline which investigates the different aspects of the complex relation between the linguistic meaning and contextual interpretation, it should play a major role in learning and teaching a new language. This section examines briefly some of the key aspects of language learning and language teaching which are informed by pragmatics.

The possibility (or likelihood) of pragmatic transfer

People generally learn new things by starting from what they already know. It is widely acknowledged that people's use of a second (or subsequently learnt) language can be influenced by the characteristics of their first (or earlier learnt) language (it is particularly noticeable, for instance, in people's accents). It is important, therefore, for teachers to consider the possibility of pragmatic transfer occurring (Kasper, 1992; Žegarac and Pennington, 2008).

Naturally, there can be pragmatic differences between languages, just as there can be phonological or syntactic differences. Some of these differences can be relatively 'grammatical'; for example, in phrases like *In the light of this* or *Having said that*, which refer to what has been said previously, a singular deictic (*this, that*) is used in English whereas a plural is used in Greek. Other differences are more socially based; for example, in China if you thank a close friend after they have done you a favour, it may be perceived as 'distancing' behaviour and hence inappropriate; in England, on the other hand, failure to thank would be inappropriate because it implies taking the friend for granted.

During the last 20 years or so, pragmatics have carried out contrastive research into many different pragmatic features in a very wide range of languages. This area of research is known as 'cross-cultural pragmatics'. The majority of studies have focused on speech acts across cultures; for example, many have explored the following questions:

- What cultural differences (if any) are there in the effect of context on the performance of speech acts? (For example, if two strangers slightly bump into each other, do British and Greek people evaluate this similarly in terms of degree of seriousness, and thus have similar conceptions as to whether a verbal apology is required?)

- What cultural differences (if any) are there in the impact of sociopragmatic principles on people's performance of speech acts? (For example, when responding to a compliment, is it more important to express verbal modesty in Chinese than in English?)
- What language differences (if any) are there in the influence of pragmalinguistic conventions on the performance of speech acts? (For example, when expressing disagreement, is it common to soften the impact by using an 'I agree with you but ...' structure, or by asking for further information?)

Both similarities and differences have been found across many languages and cultural groups, so this raises another question: what are the implications of the findings for foreign language teaching and learning? Researchers who are interested in this question typically work within 'interlanguage pragmatics', and explore how foreign language learners' performance compares with that of native speakers. However, there is much debate whether native speaker norms are appropriate targets. In today's globalized world, native speaker norms are often complex and varied, and people may wish to present themselves in terms of their own identities rather than simply conform to those of others. So, the ways in which pragmatic differences are handled may need to vary according to whether they are primarily pragmalinguistic differences (that is, differences in the linguistic strategies typically used to convey a given illocutionary force) or primarily sociopragmatic differences (that is, differences in the social assessments, beliefs and principles that underlie language use).

As Thomas (1983:104) points out, learners are often more sensitive about having their sociopragmatic judgements called into question than their pragmalinguistic judgements, because of their strong social basis. So teachers need to consider, for example, whether it is appropriate to train students to say '*Bless you*' when someone sneezes, whether they should ask students to address them by their first name when the students' sociocultural norm is to show respect by using the title plus last name, or whether they should encourage students to say '*thank you*' in response to a compliment when the students' sociopragmatic convention is to ritualistically reject the compliment out of modesty. Are such matters legitimate teaching points in that they help students interact more naturally with native speakers, or are they a form of language imperialism? There are no easy answers to such questions, and teachers need to think them through very carefully, perhaps in conjunction with their students.

Pragmatic proficiency and the value of language instruction

Even more fundamentally, teachers need to consider the extent to which language instruction can improve students' pragmatic proficiency. Rose (2005: 390) identifies three basic questions:

- 1 Is the target pragmatic feature teachable at all?
- 2 Is instruction in the targeted feature more effective than no instruction?
- 3 Are different teaching approaches differentially effective?

A range of studies have investigated the first two questions, and have focused on a range of pragmatic features such as routine pragmatic formulae (for example,

sumimasen in Japanese), hedging expressions (for example, *it seems to me*), speech acts (for example, requests and apologies) and strategies for performing them, discourse markers and pragmatic comprehension. The studies typically use a research design in which a single group of learners are initially tested for their performance on the pragmatic feature selected for study, then the learners are exposed to the feature for a certain period of time, and after this they are tested again to find out whether their pragmatic performance has improved or not. Rose (2005: 392) concludes that ‘the research provides ample evidence demonstrating the teachability of pragmatic features’.

However, we need to ask whether instruction is more effective than simple exposure. Schmidt (1990: 142) argues that ‘you can’t learn a foreign language (or anything else, for that matter) through subliminal perception’. He maintains that ‘noticing’ is required if the input that learners are exposed to is to become intake and thus made available to them for further processing. Rose (2005) provides a summary review of studies that have tested Schmidt’s noticing hypothesis; in other words, studies that have investigated whether pragmatic instruction (which seeks to draw learners’ attention to the targeted pragmatic feature) is more beneficial than simple exposure alone. He concludes that ‘without exception, learners receiving instruction in pragmatics outperformed those who did not’ (Rose 2005: 392) and that ‘without instruction in pragmatics, learners do not achieve sufficient ability in a range of pragmatic areas’ (Rose 2005: 397).

Nevertheless, such conclusions need some qualification. Rose also reports that in some studies, learners who received instruction on certain features nevertheless had difficulty in mastering those features, especially when those features entailed very subtle aspects of language use. Moreover, it may be that the effectiveness of instruction is affected by the proficiency level of the learners. Tateyama (2001) reports that short pragmatic routines are teachable to absolute beginners, but we suspect that more complex aspects of pragmatic use (for example, level of directness or indirectness of requests in English) may require a higher level of proficiency.

Materials and methods for developing pragmatic proficiency

Bardovi-Harlig (2001: 30) proposes that there are two main areas where teachers can usefully help students improve their pragmatic proficiency:

- 1 Expose learners to pragmatically authentic input material.
- 2 Assist learners with pragmatic comprehension.

Sometimes the constraints of the classroom and the teacher’s status can limit students’ exposure to pragmatically variable authentic language use; for example, Bardovi-Harlig and Hartford (1996) point out that teachers’ requests to students are worded in ways that reflect the teacher–student role relationship. Such wordings cannot (or should not), therefore, serve as direct models for learners. Can textbooks, therefore, provide a suitably wide range of input? Carter (1998) compared scripted dialogues in published ELT materials with corpus data and found there were significant differences. Bardovi-Harlig (2001) also found that the content of textbooks was often a poor reflection of authentic language use and argues that ‘in general, textbooks cannot be counted on as a reliable source of pragmatic input for classroom language learners’ (2001: 25). Similarly, Vellenga (2004), after analysing the pragmatic content of eight English language

textbooks from major publishers, draws the same conclusion. She also makes the following suggestion:

A pragmatically friendly textbook might involve pragmatic awareness raising activities, extralinguistic contextual information for all language samples, provision of a variety of language forms to accomplish a certain speech act to enable pragmatic choices, and rich cultural information to enable sociopragmatic choices.

Both Bardovi-Harlig (2001) and Vellenga (2004) acknowledge that more recent textbooks may be more suitable, and Vellenga calls for more research into the pragmatic information that is available in textbooks. Kasper (1997) also emphasizes the importance of research: ‘Because native speaker intuition is a notoriously unreliable source of information about the communicative practices of their own community, it is vital that teaching materials on L2 pragmatics are research-based.’

One major project that lives up to this requirement is the Language in the Workplace Project (LWP) at Victoria University of Wellington. Holmes et al. (2011) report on how they have used their LWP corpus of interactions (which were collected in professional workplaces) as a resource for developing teaching and learning materials to help migrant workers become more pragmatically/interculturally proficient. Marra, Holmes and Riddiford (2009) explain their general design principles as follows:

The diversity in the class, coupled with reasonably high levels of English proficiency, means that instruction cannot and should not be focused on specific tasks for specific positions. Instead our focus is sociopragmatic skills which serve as resources in a range of situations. Learners need to be able to manage on-going, dynamic social interaction in a wide range of settings, and this entails the ability to accurately analyse the relative weight of different social dimensions. Hence we explicitly encourage and teach tools for self-reflection and analysis of relevant contextual information... . A particular challenge in the design of the course thus involves giving adequate weight to ways of empowering the migrant employees to undertake their own analyses of what is going on in workplace interactions [...] (Newton 2007). Or, as Clark and Ivanic (1997 : 217) express it, ‘providing them with a critical analytical framework to help them reflect on their own language experiences and practices and on the language practices of others in the institutions of which they are a part and in the wider society in which they live’.

Details of how this is carried out in practice can be found in Newton (2007), Marra, Holmes and Riddiford (2009), Holmes et al. (2011) and Riddiford (2007).

Another potential source of pragmatic information for learners is dictionaries, and Kawamura (2006) argues that pragmatic information in dictionaries, both monolingual and bilingual, needs to be significantly improved. He maintains that lexicographers need to pay greater attention to pragmatic information, and suggests that more lexical items and expressions should be considered from a pragmatic perspective. For example, he recommends including relatively infrequent words and phrases if they tend to be misused frequently by foreign learners and lead to serious pragmatic failure. However, he also warns that dictionaries are typically expected to be prescriptive, and that users may thus wrongly interpret pragmatic dictionary information in this light.

Pragmatic performance and learner identity

As we noted above, it is impossible to prepare students for every communicative context and need that they will face in real life, and it is thus impractical to provide them with pre-determined strategies for dealing with such contexts and needs. But even if we were able to do so, it would be inappropriate to make this our goal. People's use of language is closely interconnected with their senses of identity, and people need to be able to present themselves in ways that they feel comfortable with. As Kachru and Nelson (1996: 89) maintain, 'If a typical American has no wish to speak like or be labelled as a British user of English, why should a Nigerian, an Indian, or a Singaporean user feel any differently?'. In fact, some learners may wish to speak like members of the target language/culture – they may wish to identify with the other social group; on the other hand, others may not wish to do so. The key point is that learners need to be able to make that choice for themselves. They need to have a range of strategies at their disposal, and to select meaningfully among them to present themselves as they personally wish.

Acknowledgement

The authors would like to thank Kelly-Jay Marshall for providing us with the dialogue that we discuss.

Hands-on activity

Read the following authentic interchange, and then carry out a pragmatic analysis of it, paying particular attention to the following features:

- Reference.
- Illocutionary force.
- Agreement/disagreement.
- Face-threatening behaviour.
- Context.
- Conversational patterns/structure.

The rice episode

Brian, an American student spending a year in Germany, has cooked a meal for Andi, a German friend, who has recently helped him with his German seminar paper. Andi has just arrived.

- 01 Brian: hallo Andi how are you?
02 Andi: yeah fine oh fine really yeah;
03 Brian: so (.) everything's ready now (.) I hope you like it (0.3) I have cooked it myself [so because]
04 Andi: [yeah fine]
05 Brian: that's what we eat in the South
06 Andi: {in a loud voice} but that's so much that is FAR TOO MUCH rice

- 07 Brian: that doesn't MATTER (0.1) I have paid for it (.) and I have INVITED you (.) [you have]
 08 Andi: [no it] DOES matter it DOES it DOES think of the many poor people who GO hungry and would like to eat something like that [well I]
 09 Brian: [I I] believe I (0.1) I [find]
 10 Andi: [I find] one should in this common world in which we do all live (0.2) the world in which we are all endowed with material goods so UNEqually we should at least on a small scale try to produce no waste no useless [waste]
 11 Brian: [well Andi] I am not I (0.2) [don't believe]
 12 Andi: produce [no waste] and always in our consciousness think that we in the rich western world ... {monologue continues for 1½ minutes}

(House, 2000: 154–155)

Transcription conventions

Meaning	Symbol	Example
Overlapping text	word [word] word [word] word	Andi: no useless [waste] Brian: [well Andi] I
Micropause	(.)	Andi: I have paid for it (.) and I
Pause of indicated length (in seconds)	(0.5)	Andi: I (0.1) I find
Emphasized word	CAPITAL LETTERS	Andi: no it DOES matter
Relevant additional information	{descriptive comment}	{in a loud voice}

Notes

- 1 University of Warwick.
- 2 University of Madeira.

Further reading

Introductions to pragmatics

Thomas, J. (1995) *Meaning in Interaction. An Introduction to Pragmatics*. London: Longman.
 Yule, G. (1996) *Pragmatics*. Oxford: Oxford University Press.

[Both of these books provide concise and extremely accessible introductions to pragmatics. Thomas (1995) is particularly rich in interesting examples.]

Cutting, J. (2007) *Pragmatics and Discourse: A Resource Book for Students* (second edition). London: Routledge.

[In addition to explaining key concepts in pragmatics, this book also includes extensive examples, classic readings and activities.]

Cummings, L. (2005) *Pragmatics: A Multidisciplinary Perspective*. Edinburgh: Edinburgh University Press.

[This book takes a cognitive perspective on pragmatics, and also considers its applications to a range of contexts, such as artificial intelligence and language pathology.]

Mey, J. (2000) *Pragmatics. An Introduction* (second edition). Oxford: Blackwell.

[This book takes a strong social perspective, and explores pragmatics in much greater depth than either Thomas (1995) or Yule (1996) but is very accessible.]

Pragmatics and culture

Bowe, H. and Martin, K. (2007) *Communication across Cultures: Mutual Understanding in a Global World*. Cambridge: Cambridge University Press.

[This book takes a pragmatic perspective on communication across cultures and is highly accessible.]

Spencer-Oatey, H. (ed.) (2008) *Culturally Speaking. Communication, Culture and Politeness Theory* (second edition). London: Continuum.

[This book comprises both theoretical and empirical chapters. There are particularly useful chapters on pragmatic transfer, pragmatic data collection and pragmatic data analysis, as well as cross-cultural (comparative) and intercultural (discourse) studies.]

Spencer-Oatey, H. and Franklin, P. (2014) Intercultural interaction. In Chapelle, C. (ed.) *Encyclopaedia of Applied Linguistics*. London: Wiley.

[This encyclopaedia entry examines intercultural interaction from a pragmatic perspective.]

Thomas, J. (1983) *Cross-cultural pragmatic failure*. *Applied Linguistics* 4(2): 91–112.

This widely-quoted journal article discusses different types of pragmatic failure and the difficulties faced by non-native speakers.

Pragmatics, language learning and teaching

Alcón, E. and Martínez-Flor, A. (eds) (2008) *Investigating Pragmatics in Foreign Language Learning, Teaching and Testing*. Clevedon: Multilingual Matters.

Culpeper, J., Mackey, A. and Taguchi, N. (2018) *Second Language Pragmatics: From Theory to Research*. Oxford: Routledge.

Ishihara, N. and Cohen, A.D. (2010) *Teaching and Learning Pragmatics*. Harlow: Longman/Pearson.

Taguchi, N. and Kim, Y. (eds) (2018) *Task-Based Approaches to Teaching and Assessing Pragmatics*. Amsterdam/Philadelphia: John Benjamins.

[These four books report many research studies into pragmatics and language learning and teaching.]

Bardovi-Harlig, K. and Mahan-Taylor, R. (2003) *Teaching Pragmatics*. Washington, DC: United States Department of State. Available at <https://americanenglish.state.gov/search/solr/pragmatics>.

[This online resource provides a large number of lessons and activities for the teaching of pragmatic aspects of language use.]

Corpus linguistics

Randi Reppen¹ and Rita Simpson-Vlach²

What is corpus linguistics?

Recently, the area of study known as ‘corpus linguistics’ has enjoyed much greater popularity, both as a means to explore actual patterns of language use and as a tool for developing materials for classroom language instruction. Corpus linguistics uses large collections of both spoken and written natural texts (*corpora* or *corpuses*, singular *corpus*) that are stored on computers. By using a variety of computer-based tools, corpus linguists can explore different questions about language use. One of the major contributions of corpus linguistics is in the area of exploring patterns of language use. Corpus linguistics provides an extremely powerful tool for the analysis of natural language and can provide tremendous insights as to how language use varies in different situations, such as spoken versus written, or formal interactions versus casual conversation.

Although corpus linguistics and the term ‘corpus’ in its present-day sense are pretty much synonymous with computerized corpora and methods, this was not always the case, and earlier corpora, of course, were often not computerized. Before the advent of computers, or at least before the proliferation of personal computers, many empirical linguistics who were interested in function and use did essentially what we now call corpus linguistics. An empirical approach to linguistic analysis is one based on naturally occurring spoken or written data as opposed to an approach that gives priority to introspection. Empirical approaches to issues in linguistics are now the accepted practice, partly as a result of computer tools and resources becoming more sophisticated and widespread. Advances in technology have led to a number of advantages for corpus linguists, including the collection of ever larger language samples, the ability for much faster and more efficient text processing and access, and the availability of easy to learn computer resources for linguistic analysis. As a result of these advances, there are typically four features that are seen as characteristic of corpus-based analyses of language:

- It is empirical, analysing the actual patterns of use in natural texts.
- It utilizes a large and principled collection of natural texts, known as a ‘corpus’, as the basis for analysis.
- It makes extensive use of computers for analysis, using both automatic and interactive techniques.
- It depends on both quantitative and qualitative analytical techniques.

(From Biber, Conrad and Reppen, 1998: 4.)

As mentioned above, a corpus refers to a large principled collection of natural texts. The use of natural texts means that language has been collected from naturally occurring sources rather than from surveys or questionnaires. In the case of spoken language, this means first recording and then transcribing the speech. The process of creating written transcripts of spoken language can be quite time-consuming, involving a series of choices based on the research interests of the corpus compilers. Even with the collection of written texts there are questions that must be addressed. For example, when creating a corpus of personal letters, the researcher must decide what to do about spelling conventions and errors. There are a number of existing corpora that are valuable resources for investigating some types of language questions. Some of the more well-known available corpora include: the British National Corpus (BNC), the Corpus of Contemporary American English (COCA), the Brown Corpus, the Lancaster/Oslo–Bergen (LOB) Corpus and the Helsinki Corpus of English Texts.

However, researchers interested in exploring aspects of language use that are not represented by readily available corpora (for example, research issues relating to a particular register or time period) will need to compile a new corpus.

The text collection process for building a corpus needs to be principled, so as to ensure representativeness and balance. The linguistic features or research questions being investigated will shape the collection of texts used in creating the corpus. For example, if the research focus is to characterize the language used in business letters, the researcher would need to collect a representative sample of business letters. After considering the task of representing all of the various types of businesses and the various kinds of correspondence that are included in the category of ‘business letters’, the researcher might decide to focus on how small businesses communicate with each other. Now, the researcher can set about the task of contacting small businesses and collecting inter-office communication. These and other issues related to the compilation and analysis of corpora will be described in greater detail in the next section of this chapter.

Because corpus linguistics uses large collections of naturally occurring language, the use of computers for analysis is imperative. Computers are tireless tools that can store large amounts of information and allow us to look at that information in various configurations. Imagine that you are interested in exploring the use of relative clauses in academic written language. Now, imagine that you needed to carry out this task by hand. As a simple example of how overwhelming such a task can be, turn to a random page in this book and note all the relative clauses that occur on that page – imagine doing this for the entire book! Just the thought of completing this task is daunting. Next, imagine that you were interested in looking at different types of relative clauses and the different contexts in which they occur. You can easily see that this is a task that is better given to a computer that can store information and sort that information in various ways. Just how the computer can accomplish such a task is described in the ‘What can a corpus tell us?’ section of this chapter.

The final characteristic of corpus-based methods stated above is an important and often overlooked one (that is, that this approach involves both quantitative and qualitative methods of analysis). Although computers make possible a wide range of sophisticated statistical techniques and accomplish tedious, mechanical tasks rapidly and accurately, human analysts are still needed to decide what information is worth searching for, to extract that information from the corpus and to interpret the findings. Thus, perhaps the greatest contribution of corpus linguistics lies in its potential to bring together aspects of

quantitative and qualitative technique. The quantitative analyses provide an accurate view of more macro-level characteristics, whereas the qualitative analyses provide the complementary micro-level perspective.

Corpus design and compilation

A corpus, as defined above, is a large and principled collection of texts stored in electronic format. Although there is no minimum size for a text collection to be considered a corpus, an early standard size set by the creators of the Brown Corpus was one million words. A number of well-known specialized corpora are much smaller than that, but there is a general assumption that for most tasks within corpus linguistics, larger corpora are more valuable, up to a certain point. Another feature of modern-day corpora is that they are usually made available to other researchers,¹ most commonly for a modest fee and occasionally free of charge. This is a significant development, as it enables researchers all over the world to access the same sets of data, which not only encourages a higher degree of accountability in data analysis, but also permits collaborative work and follow-up studies by different researchers. This section presents a summary of corpus types and some of the issues involved in designing and compiling a corpus. Because such a wide range of corpora is accessible to individual teachers and researchers, it is not necessary – or even desirable – for those interested in corpus linguistics and its applications to build their own corpus, and this section should not be taken as encouragement to do so. However, as noted above, it is possible that at some point you will be interested in research questions that cannot be properly investigated using existing corpora, and this section offers an introduction to the kinds of issues that need to be considered should you decide to compile your own corpus. Aside from that, it is important to know something about how corpora are designed and compiled in order to evaluate existing corpora and understand what sorts of analyses they are best suited for.

Types of corpora

It could be said that there are as many types of corpora as there are research topics in linguistics. The following section gives a brief overview of the most common types of corpora being used by language researchers today. General corpora, such as the Brown Corpus, the LOB Corpus, the COCA or the BNC, aim to represent language in its broadest sense and to serve as widely available resources for baseline or comparative studies of general linguistic features. Increasingly, general corpora are designed to be quite large. For example, the BNC, compiled in the 1990s, contains 100 million words, and the COCA had 560 million words in 2019. The early general corpora like Brown and LOB, at a mere one million words, seem tiny by today's standards, but they continue to be used by both applied and computational linguists, and research has shown that one million words is sufficient to obtain reliable, generalizable results for many, though not all, research questions. A general corpus is designed to be balanced and include language samples from a wide range of registers or genres, including both fiction and non-fiction in all their diversity (Biber, 1993a, 1993b). Most of the early general corpora were limited to written language, but because of advances in technology and increasing interest in spoken language among linguists, many of the modern general corpora include a spoken component, which similarly encompasses a wide variety of speech types, from casual conversations among friends and family to academic lectures and national radio broadcasts. However, because written texts are vastly easier and

cheaper to compile than transcripts of speech, very few of the large corpora are balanced in terms of speech and writing. The compilers of the BNC had originally planned to include equal amounts of speech and writing, and eventually settled for a spoken component of ten million words, or 10 per cent of the total. A few corpora exclusively dedicated to spoken discourse have been developed, but they are inevitably much smaller than modern general corpora like the BNC, for example the Cambridge and Nottingham Corpus of Discourse in English (CANCODE) (*see* Carter and McCarthy, 1997).

Although the general corpora have fostered important research over the years, specialized corpora – those designed with more specific research goals in mind – may be the most crucial ‘growth area’ for corpus linguistics, as researchers increasingly recognize the importance of register-specific descriptions and investigations of language. Specialized corpora may include both spoken and written components, as do the International Corpus of English (ICE), a corpus designed for the study of national varieties of English, and the TOEFL-2000 Spoken and Written Academic Language Corpus. More commonly, a specialized corpus focuses on a particular spoken or written variety of language. Specialized written corpora include historical corpora, for example, the Helsinki Corpus (1.5 million words dating from AD850 to 1710) and the Archer Corpus (two million words of British and American English dating from 1650 to 1990) and corpora of newspaper writing, fiction or academic prose, to name a few. Registers of speech that have been the focus of specialized spoken corpora include academic speech (the Michigan Corpus of Academic Spoken English; MICASE), teenage language (the Bergen Corpus of London Teenage Language; COLT), child language (the CHILDES database), the language of television (Quaglio, 2009) and call centre interactions (Friginal, 2009). Some spoken corpora have been coded for discourse intonation such as the Hong Kong Corpus of Spoken English (Cheng, Greaves and Warren, 2008). In addition to enhanced prosodic and acoustic transcriptions of spoken corpora, multi-modal corpora are another important type of specialized corpus. These corpora link video and audio recordings to non-linguistic features that play a crucial role in communication, such as facial expressions, hand gestures and body position (*see*, for example, Carter and Adolphs, 2008; Dahlmann and Adolphs, 2009; Knight and Adolphs, 2008).

One type of specialized corpus that is becoming increasingly important for language teachers is the so-called ‘learner’s corpus’. This is a corpus that includes spoken or written language samples produced by non-native speakers, the most well-known example being the International Corpus of Learner English (ICLE).

The worldwide web has also had an impact on the types of corpora that are available. There are an increasing number of corpora that are available online and can be searched by the tools that are provided with that site. (*See* Mark Davies’ online corpora in ‘Useful web-sites for corpus linguistics’ at the end of this chapter.)

Issues in corpus design

One of the most important factors in corpus linguistics is the design of the corpus (Biber, 1990). This factor impacts all of the analysis that can be carried out with the corpus and has serious implications for the reliability of the results. The composition of the corpus should reflect the anticipated research goals. A corpus that is intended to be used for exploring lexical questions needs to be very large to allow for accurate representation of a large number of words and of the different senses, or meanings, that a word might have. A corpus of one million words will not be large enough to provide reliable information about less

frequent lexical items. For grammatical explorations, however, the size constraints are not as great, since there are far fewer different grammatical constructions than lexical items, and therefore they tend to recur much more frequently in comparison. So, for grammatical analysis, the first generation corpora of one million words have withstood the test of time. However, it is essential that the overall design of the corpus reflects the issues being explored. For example, if a researcher is interested in comparing patterns of language found in spoken and written discourse, the corpus has to encompass a range of possible spoken and written texts, so that the information derived from the corpus accurately reflects the variation possible in the patterns being compared across the two registers.

A well-designed corpus should aim to be representative of the types of language included in it, but there are many different ways to conceive of and justify representativeness. First, you can try to be representative primarily of different registers (for example, fiction, non-fiction, casual conversation, service encounters, broadcast speech) as well as discourse modes (monologic, dialogic, multi-party interactive) and topics (national versus local news, arts versus sciences). Another category of representativeness involves the demographics of the speakers or writers (nationality, gender, age, education level, social class, native language/dialect). A third issue to consider in devising a representative sample is whether or not it should be based on production or reception. For example, e-mail messages constitute a type of writing produced by many people, whereas bestsellers and major newspapers are produced by relatively few people, but read, or consumed, by many. All these issues must be weighed when deciding how much of each category (genre, topic, speaker type, etc.) to include. It is possible that certain aspects of all of these categories will be important in creating a balanced, representative corpus. However, striving for representativeness in too many categories would necessitate an enormous corpus in order for each category to be meaningful. Once the categories and target number of texts and words from each category have been decided upon, it is important to incorporate a method of randomizing the texts or speakers and speech situations in order to avoid sampling bias on the part of the compilers.

In thinking about the research goals of a corpus, compilers must bear in mind the intended distribution of the corpus. If access to the corpus is to be limited to a relatively small group of researchers, their own research agenda would be the only factor influencing corpus design decisions. If the corpus is to be freely or widely available, decisions might be made to include more categories of information, in anticipation of the goals of other researchers who might use the corpus (*see* below for more details on encoding). Of course, no corpus can be everything to everyone; the point is that in creating more widely distributed resources, it is worthwhile to think about potential future users during the design phase. Many of the decisions made about the design of a corpus have to do with practical considerations of funding and time. Some of the questions that need to be addressed are: How much time can be allotted to the project? Is there a dedicated staff of corpus compilers or are they full-time academics? How much funding is available to support the collection and compilation of the corpus? In the case of a spoken corpus, budget is especially critical because of the tremendous amount of time and skilled labour involved in transcribing speech accurately and consistently.

Corpus compilation

When creating a corpus, data collection involves obtaining or creating electronic versions of the target texts, and storing and organizing them. Written corpora are far less labour intensive to collect than spoken corpora. Data collection for a written corpus most commonly

means using a scanner and optical character recognition (OCR) software to scan paper documents into electronic text files. Occasionally, materials for a written corpus may be keyboarded manually (for example, in the case of some historical corpora, corpora of handwritten letters, etc.). OCR is not error-free, however, so even when documents are scanned, some degree of manual proofreading and error-correction is necessary. The tremendous wealth of resources now available on the worldwide web provides an additional option for the collection of some types of written corpora or some categories of documents. For example, most newspapers and many popular periodicals are now produced in both print versions and electronic versions, making it much easier to collect a corpus of newspaper or other journalistic types of writing. Other types of documents readily available on the web that may comprise small specialized corpora or sub-sections of larger corpora include, for example, scholarly journals, government documents, business publications and consumer information, to say nothing of more informal (formerly private) kinds of writing, such as travel diaries, or the abundant archives of written-cum-spoken genres found in blogs, e-mail discussion, news groups and the like. There is a danger, of course, in relying exclusively on electronically produced texts, since it is possible that the format itself engenders particular linguistic characteristics that differentiate the language of electronic texts from that of texts produced for print. However, many texts available online are produced primarily for print publication and then posted on the web.

The data collection phase of building a spoken corpus is lengthy and expensive, as mentioned above. The first step is to decide on a transcription system (Edwards and Lampert, 1993). Most spoken corpora use an orthographic transcription system that does not attempt to capture prosodic details or phonetic variation. Some spoken corpora, however, (for example, CSAE, London–Lund and the Hong Kong Corpus of Spoken English) include a great deal of prosodic detail in the transcripts, since they were designed to be used at least partly, if not primarily, for research on phonetics or discourse-level prosodics. Another important issue in choosing a transcription system is deciding how the interactional characteristics of the speech will be represented in the transcripts; overlapping speech, back channels, pauses and non-verbal contextual events are all features of interactive speech that may be represented to varying degrees of detail in a spoken corpus. For either spoken or written corpora, an important issue during data collection is obtaining permission to use the data for the corpus. This usually involves informing speakers or copyright owners about the purposes of the corpus, how and to whom it will be available, and in the case of spoken corpora, what measures will be taken to ensure anonymity. For these reasons, it is usually impractical to use existing recordings or transcripts as part of a new spoken corpus, unless the speakers can still be contacted. (*See* Reppen (2010) for more details about building a corpus.)

Markup and annotation

A simple corpus could consist of raw text, with no additional information provided about the origins, authors, speakers, structure or contents of the texts themselves. However, encoding some of this information in the form of markup makes the corpus much richer and more useful, especially to researchers who were not involved in its compilation. Structural markup refers to the use of codes in the texts to identify structural features of the text. For example, in a written corpus, it may be desirable to identify and code structural entities such as titles,

authors, paragraphs, subheadings, chapters, etc. In a spoken corpus, turns (*see* Chapter 4, *Discourse analysis*, and Chapter 14, *Speaking and pronunciation*) and speakers are almost always identified and coded, but there are a number of other features that may be encoded as well, including, for example, contextual events or paralinguistic features. In addition to structural markup, many corpora provide information about the contents and creation of each text in what is called a header attached to the beginning of the text, or else stored in a separate database. Information that may be encoded in the header includes, for spoken corpora, demographic information about the speakers (such as gender, social class, occupation, age, native language or dialect), when and where the speech event or conversation took place, relationships among the participants and so forth. For written corpora, demographic information about the author(s), as well as title and publication details may be encoded in a header. For both spoken and written corpora, headers sometimes include classifications of the text into categories, such as register, genre, topic domain, discourse mode or formality.

In addition to headers, which provide information about the text (for example, production circumstances, participants, etc.), some corpora are also encoded with certain types of linguistic annotation. There are a number of different kinds of linguistic processing or annotation that can be carried out to make the corpus a more powerful resource. Part-of-speech tagging is the most common kind of linguistic annotation. This involves assigning a grammatical category tag to each word in the corpus. For example, the sentence: 'A goat can eat shoes' could be coded as follows: A (indefinite article) goat (noun, singular) can (modal) eat (main verb) shoes (noun, plural). Different levels of specificity can be coded, such as functional information or case, for example. Other kinds of tagging include prosodic and phonetic annotation, which are not uncommon, and syntactic parsing, which is much less common, and used especially, though not exclusively, by computational linguists. A tagged corpus allows researchers to explore and answer different types of questions. In addition to frequency of lexical items, a tagged corpus allows researchers to see what grammatical structures co-occur. A tagged corpus also addresses the problem of words that have multiple meanings or functions. For example, the word *like* can be a verb, preposition, discourse marker or adverb, depending on its use. The word *can* is a modal or a noun, but the tag in the example above identifies it as a modal in that particular sentence. With an untagged corpus, it is impossible to retrieve automatically specific uses of words with multiple meanings or functions.

What can a corpus tell us?

Word counts and basic corpus tools

There are many levels of information that can be gathered from a corpus. These levels range from simple word lists to catalogues of complex grammatical structures and interactive analyses that can reveal both linguistic and non-linguistic association patterns. Analyses can explore individual lexical or linguistic features across texts or identify clusters of features that characterize particular registers (Biber, 1988).² The tools that are used for these analyses range from basic concordancing packages to complex interactive computer programs.

The first, or most basic information that we can get from a corpus, is frequency of occurrence information. There are several reasonably priced or free concordancing tools (for example, MonoConc, WordSmith Tools, Antconc, etc.) that can easily be used to provide word frequency information. A word list is simply a list of all the words that occur in the

corpus. These lists can be arranged in alphabetic or frequency order (from most frequent to least frequent). Frequency lists from different corpora or from different parts of the same corpus (for example, spoken versus written texts or personal letters versus editorials) can be compared to discover some basic lexical differences across registers. Tables 6.1 and 6.2 show two excerpts from the MICASE word list; Table 6.1 shows the 50 most frequent words and Table 6.2 shows the 38 words with a frequency of 50 in the whole corpus (out of a total of 1.5 million words).

Table 6.1 The 50 most frequent words in the Michigan Corpus of Academic Spoken English (MICASE)

<i>N</i>	<i>Word</i>	<i>Frequency</i>	<i>N</i>	<i>Word</i>	<i>Frequency</i>
1	THE	68,036	26	BE	8874
2	AND	41,091	27	THEY	8799
3	OF	35,053	28	ON	8650
4	YOU	34,986	29	ARE	8596
5	THAT	34,085	30	IF	8440
6	TO	33,029	31	YEAH	8292
7	A	32,236	32	WAS	8179
8	I	31,483	33	JUST	7970
9	IS	23,535	34	DO	7675
10	IN	23,255	35	NOT	7638
11	IT	21,883	36	OR	7488
12	SO	17,669	37	THAT'S	7042
13	THIS	17,110	38	ABOUT	7014
14	UM	15,346	39	RIGHT	6980
15	UH	14,859	40	WITH	6726
16	HAVE	11,590	41	CAN	6350
17	IT'S	11,560	42	AT	6312
18	WE	11,383	43	AS	6229
19	WHAT	11,236	44	THERE	5991
20	LIKE	11,037	45	THINK	5796
21	BUT	10,402	46	DON'T	5650
22	KNOW	10,000	47	XX*	5646
23	FOR	9282	48	THEN	5443
24	ONE	9267	49	ALL	5289
25	OKAY	9250	50	TWO	4937

*Note: (xx) is the convention used to indicate unintelligible speech.

Table 6.2 Words with a frequency of 50 in MICASE

<i>N</i>	<i>Word</i>	<i>Frequency</i>
2039	ABSOLUTE	50
2040	BECOMING	50
2041	CAUSED	50
2042	CHARACTERISTIC	50
2043	CLASSROOM	50
2044	CONSISTENT	50
2045	CORE	50
2046	CURVES	50
2047	DAILY	50
2048	DESCRIPTION	50
2049	DETECT	50
2050	DISSERTATION	50
2051	EXECUTION	50
2052	EXPOSED	50
2053	FIGURED	50
2054	GARDEN	50
2055	GRAVITY	50
2056	HABITAT	50
2057	OPENING	50
2058	PAGES	50
2059	PHRASE	50
2060	PRESENTED	50
2061	RAISED	50
2062	RANDOMLY	50
2063	REGIONS	50
2064	REVELATION	50
2065	SELECTION	50
2066	SHORTER	50
2067	SHUTTLE	50
2068	SPLIT	50
2069	SURVEY	50
2070	TAIL	50
2071	THEORETICAL	50
2072	TRAITS	50
2073	TUMOR	50
2074	WHOA	50

Word lists derived from corpora can be useful for vocabulary instruction and test development. For example, a word list from an appropriate corpus could be used to select vocabulary words occurring within a specified target frequency range – say words occurring five to ten times per million words – to be included in a course syllabus or pool of test items. Similarly, a teacher trying to decide what modal verbs to teach and what sequence to teach them in could consult a word list from one or more corpora to find the relative frequencies of the modals.

In addition to frequency lists, concordancing packages can provide additional information about lexical co-occurrence patterns. To generate a concordance listing showing these patterns, a target word or phrase needs to be selected. Once the search word/phrase is selected, the program can search the texts in the corpus and provide a list of each occurrence of the target word in context. This display, referred to as a ‘key word in context’ (KWIC) may then be used to explore various uses or various senses of the target word. Figure 6.1 shows a screen shot of a KWIC for the target word *like* from a small corpus of children’s spoken language.

The top portion of the screen display provides context for the occurrence of *like* that is highlighted in the lower portion of the screen. The size of the windows and the amount of context can be adjusted, allowing users to adjust settings according to their needs. This small KWIC display of *like* shows that the students (fifth-graders) engaged in informal conversations were primarily using *like* as a verb and that it was often preceded by a personal pronoun and followed by an infinitive (for example, we like to talk, we like to walk, I don’t like to listen). Of course, this small display does not show all of the occurrences of *like*; other uses do occur in the corpus.

A concordance program can also provide information about words that tend to occur together in the corpus. For example, we could discover which words most frequently occur just to the right or just to the left of a particular target word, or even within two or three words to the left or right of the target word. Words that commonly occur with or in the vicinity of a target word (that is, with greater probability than random chance) are called ‘collocates’, and the resulting sequences or sets of words are called ‘collocations’. An analysis of collocations provides important information about grammatical and semantic patterns of use for individual lexical items (*see* Sinclair, 1991 for more information on collocations).

Through the use of corpus analyses we can discover patterns of use that previously were unnoticed. Words and grammatical structures that seem synonymous often have strong patterns of association or preferences for use with certain structures. For example, the nearly synonymous verbs *begin* and *start* have the same grammatical potential. That is, they can be used with the same variety of clause elements (for example, transitive, intransitive). Yet from corpus-based investigations we have learned that *start* has a strong preference for an intransitive pattern, in particular in academic prose (Biber, Conrad and Reppen, 1998). A detailed example of nearly synonymous words is provided later in this chapter in the section on ‘Examples of corpus-based classroom activities’ and in the ‘Hands-on activity’ at the end of this chapter.

Lexical phrases, or lexical bundles, is another area of collocational studies that has come to light through corpus linguistics. Like collocations, these lexical phrases or bundles are patterns that occur with a greater than random frequency (*see* Chapter 1, *An overview of applied linguistics*, for an example). *The Longman Grammar of Spoken and Written English* (Biber et al., 1999) provides a good discussion of these extended

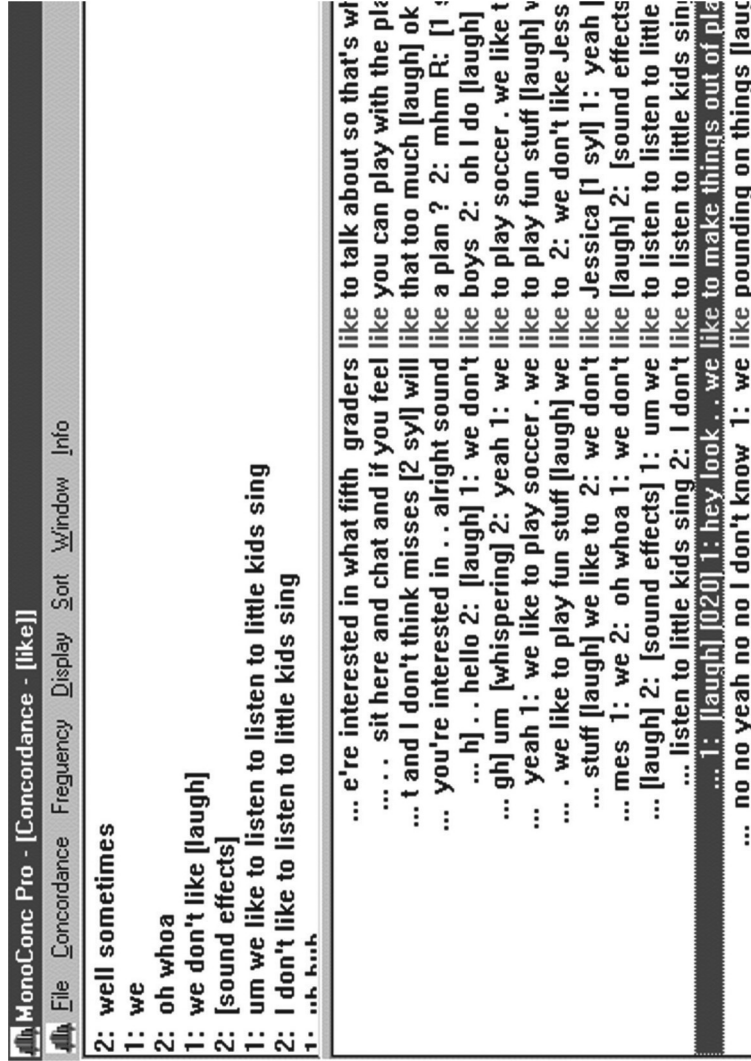


Figure 6.1 MonoConc concordance display of KWIC for the target word like

collocations and lists frequent three-, four- and five-word lexical bundle patterns by register. Without the use of sophisticated computer programs, these patterns would remain undetected.

Working with tagged texts

In order to carry out more sophisticated types of corpus analyses, it is often necessary to have a tagged corpus. As mentioned in the previous section, when a corpus is tagged, each word in the corpus is given a grammatical label. The process of assigning grammatical labels to words is complex. For example, even a simple word such as *can* falls into two grammatical categories. It can be a modal – ‘I *can* reach the book’. Or, it can be used as a noun – ‘Put the paper in the *can*’. By writing computer programs that include rules and probability information, computers can quite accurately identify the grammatical labels for many words. However, there are certain features that remain elusive. For these features, programs that work interactively with a user can result in accurate identification. These programs are similar to spellcheckers and bring problematic or ambiguous words to the screen for the user to select the correct classification. Biber, Conrad and Reppen (1998) provide a fuller description of tagged texts and interactive tagging.

Once texts have been tagged it is possible to explore a variety of complex linguistic issues. Clusters of features can be counted, thus providing a fuller picture of the texts in a register. Rather than information from a single linguistic feature, the researcher can explore how features work together in texts. For example, studies have shown that interactive spoken texts produced under time constraints have particular linguistic features associated with them which are different from informational texts. Interactive texts typically have more contractions and a greater use of first and second pronouns (for example, *I, we, you, my*), whereas informational texts have relatively few of these features.

Overview of different types of corpus studies

Over the years, corpora have been used to address a number of interesting issues. The question of language change is one that intrigues many researchers, teachers and language students. The area of historical linguistics has been well established in Europe, with numerous scholars carrying out extensive projects to see how language has changed over the centuries.

In addition to exploring changes across the centuries, scholars have used specialized corpora to gain insights into changes related to language development, both in first and second language situations. These types of studies can provide valuable insights as to the linguistic developmental changes that take place as individuals acquire their first language and also can provide important insights as to patterns of developmental changes that apply to different first language groups as they acquire a second language.

Corpora have also been used to explore similarities or differences across different national or regional varieties of English. Several collections of corpora that represent different varieties of English (Australian English, American English, British English, Indian English) have yielded interesting information about the systematic linguistic differences that occur in these different regional varieties of English.

There have been large-scale studies to explore the differences between spoken and written language. In addition to large-scale comparisons, there have been descriptions of sub-registers, such as newspaper language, or even comparisons focusing on different sections of newspapers (for example, news reportage, letters to the editor, feature articles, etc.). Many of the patterns of language use discovered through corpus studies could not have been uncovered through traditional techniques. Prior to corpus linguistics it was difficult to note patterns of use, since observing and tracking use patterns was a monumental task. In addition, many of these findings run counter to our intuitions of how we use language (for example, use of progressive aspect in conversation). For instance, a quick look at most ESL/EFL conversation textbooks will show an emphasis on the use of the progressive aspect. Although the progressive is more common in spoken language than in written, its use is relatively small when compared with simple aspect (Biber et al., 1999).

Describing the characteristics of a particular register can often provide valuable resources for teachers and students. For example, MICASE, a specialized corpus of spoken academic language, may be used to better prepare students to meet the demands of spoken language that they will encounter at university. Teachers can use this corpus evidence to develop materials for students that more accurately reflect the spoken language tasks they will face in a university setting. In the final section of this chapter, we focus on the potential pedagogical applications of corpora and corpus linguistics.

How can corpora inform language teaching?

The impact of corpus linguistic studies on classroom language teaching practices is already taking shape. The availability of corpus findings, along with the increased availability of tools for exploring corpora (for example, MonoConc, WordSmith Tools, Paul Nation's vocabulary programs, the Lextutor website³) is a considerable benefit to the language classroom. Corpus-based studies of particular language features and comprehensive works such as *The Longman Grammar of Spoken and Written English* (Biber et al., 1999) will also serve language teachers well by providing a basis for deciding which language features and structures are important and also how various features and structures are used. For the first time, teachers and materials writers can have a basis for selecting the material that is being presented and for the claims that are being made about linguistic features. Rather than basing pedagogical decisions on intuitions and/or sequences that have appeared in textbooks over the years, these decisions can now be grounded on actual patterns of language use in various situations (such as spoken or written, formal or casual situations).

There are several works that encourage teachers to explore the use of corpora in the language classroom (Flowerdew and Tong, 1994; Johns, 1994; Barnbrook, 1996; Wichmann et al., 1997; Simpson and Swales, 2001; O'Keefe, McCarthy and Carter, 2007; Reppen, 2010). *Exploring Spoken Language* by Carter and McCarthy (1997), was the first widely available textbook to combine the use of corpus material with language instruction. The challenge now is how best to translate frequency information and knowledge about patterns of language use into classroom materials.

Bringing corpora into the language classroom

Corpus-based information can be brought to bear on language teaching in two ways. First, teachers can shape instruction based on corpus-based information. They can consult corpus studies to gain information about the features that they are teaching. For example, if the focus of instruction is conversational English, teachers could read corpus investigations on spoken language to determine which features and grammatical structures are characteristic of conversational English. Instruction could then be shaped by the features that students are most likely to encounter. If the focus of instruction is a particular grammatical structure, corpus-based studies can provide a picture of the range of use of that particular structure, identifying lexical and pragmatic co-occurrence patterns associated with it. If teachers have a corpus available, they can make their own enquiries into the use of language features that they are teaching.

A second way that corpus information can be brought into the language classroom is by having learners interact with corpora. This can take place in one of two ways. If computer facilities are adequate, learners can be actively involved in exploring corpora; if adequate facilities do not exist, teachers can bring in printouts or results from corpus searches for use in the classroom. An example of this type of activity is provided in the 'Hands-on activity' at the end of this chapter.

It is worth noting here that the use of concordancing tasks in the classroom is a matter of some controversy – strongly advocated by those who favour an inductive or data-driven approach to learning (Johns, 1994), but criticized by others who argue that it is difficult to guide students appropriately and efficiently in the analysis of vast numbers of linguistic examples (Cook, 1998). Clearly, there is a need for classroom-based research and experimentation on the effectiveness of exposing language students to corpora and concordance tools. Concrete evidence about how effective these methods are will only become apparent over time, once enough teachers have experimented with the use of corpora as reference sources and learning tools.

Examples of corpus-based classroom activities

The creation of appropriate, worthwhile corpus-based teaching materials takes time, careful planning and access to a few basic tools and resources. All the activities described in this section assume access to a computer, texts and to a concordancing package, but the activities do not require a sophisticated skills or computer programming ability. Several vocabulary activities can be generated through simple frequency lists and concordance output (Donley and Reppen, 2001). If the teacher has the ability to scan or obtain an electronic version of the texts that are being read by the students, frequency lists generated from these texts may be used to identify and prioritize vocabulary words that need to be taught. If too many words are unknown, then the teacher might decide to wait and introduce the text later, when students are more prepared to cope with the vocabulary demands of the text. Frequency lists can also be a starting point for students to group words by grammatical category (for example, verb, nouns, etc.) or semantic categories. In addition, students could do activities that explore how to change words with various suffixes (for example, *nation* to *national* to *nationalize*).

Concordances of target words can be used to better understand those words' meanings and usage. Initially, concordances can be utilized to discover what a word 'means'.

However, the use of a word and its patterning characteristics also contribute to its meaning senses. For example, words often are seen as synonymous when actually, their use is not synonymous. Dictionaries often list the ‘resulting copulas’ (copulas which indicate a change of state due to some force or action) *become*, *turn*, *go* and *come* as synonyms, with meanings like ‘to become’, ‘to get to be’, ‘to result’, ‘to turn out’. However, most dictionaries provide no clues to how these four words might differ in meaning. In contrast, corpus research shows that these words differ dramatically in their typical contexts of use. In particular, *turn* almost always refers to a change of colour or physical appearance (for example, The water turned grey); *go* almost always describes a change to a negative state (as in go crazy, go bad, go wrong) and *come* is almost always used to describe a change to a more active state (as in come awake or come alive) (Biber et al., 1999). Thus, corpus activities, coupled with dictionary activities, can provide a much richer language-learning environment and one which engages the student in the process of fine-tuning word senses.

Understanding a word’s patterns of use is crucial for language learners, and native speaker intuitions often do not prove helpful in predicting the patterns. Thus, in the above example, unexpected combinations would be judged as wrong by native speakers who would have trouble understanding combinations such as go awake or come wrong, but may be at a loss to explain why or think of additional examples of the correct patterns. Although traditional dictionaries are of little help here, students and teachers can easily discover such patterns through corpus analyses. Collocational activities can be used to help advanced language learners refine the context of use and move toward native-like use.

The patterns of language use that can be discovered through corpus linguistics will continue to reshape the way we think of language. Detailed descriptions and models of this use are now being published for teachers’ benefit. Evidence from corpus research is also beginning to have a positive impact on the materials that we use to teach language. Perhaps the most exciting possibility is that corpus linguistics now gives students and teachers the ability to explore for themselves the way that various aspects of language are used, helping to guide them toward their language goals.

Hands-on activity

Imagine that you have been asked to explain the difference in use between *think of* and *think about*. First, try to decide if through experience and intuition you can come up with a pattern for when one form is preferred over the other. Next, look at the concordance lines provided below for *think of* and *think about*, taken from a corpus of informal spoken conversation. Pay special attention to what comes before and after the target words (for example, *think of/about* what?). Are there any generalizations that can be made that would help a learner know when to use *think of* and when to use *think about*? To help you, the target expressions, *think of* and *think about*, have been bolded in the concordance lines presented below.

THINK OF

Then, as he was trying to **think of** something to say to her (all yes, wedding presents. We must **think of** something. You probably don’t racking my brains for three hours to **think of** something, I simply cannot last a second catastrophe. I tried to **think of** something to say myself, but my

offered frills. Nicandra tried to **think of** something pleasing to say: only you were here, then we could **think of** something to do. ‘Christopher groaning quietly, perhaps trying to **think of** something that summed up what let said nothing. He had tried to **think of** something to say, but the only lunch?’ ‘Ah me, the young! You **think of** nothing but your stomachs. sympathy and collusion. But I can **think of** nothing to say. Perdie says, she tried to speak, but she could **think of** nothing, and her mother, shifting anything so familiar, and he could **think of** nothing on earth to say. It man in the world.’ ‘As he could **think of** nothing else, Martin repeated But try as she might, she could **think of** nothing to say like that, fierce listening. ‘Can we ourselves **think of** nothing that needs to be done?’ ‘what an idiot I was not to **think of** it before! You all right Elfie?’ no, wait a minute, come to **think of** it you ‘re finding. hmm. or him, on other occasions, come to **think of** it. We’ve been aware of each happened to those kids. And come to **think of** it, Hamelin’s rats and children like that five years ago, come to **think of** it, or even ten. It’s the wash his feet, he had seen, come to **think of** it, the moon not too remote from probably cheaper than Selina, come to **think of** it, what with the hotel mark could have. I didn’t happen to **think of** it then. ‘And when did you her pregnant. Better not even to **think of** it. Just go on hating him, and done with. Don’t let us ever **think of** it again. My family always ‘How nice. What did you **think of** it?’ Patrice held her breath,

THINK ABOUT

You wouldn’t just **think about** it it’s just gone isn’t it
 Well that’s a good way, if you **think about** it he’s got, he’s got four
 more, I mean they can wear, if you **think about** it they were suits in the
 When you **think about** it, yeah he was So what’
 it seems easier that way when you **think about** it dunnit? Mm it’s a lot be
 does that come from? Oh when you **think about** it Pledge, why do they call
 wasn’t the money really when you **think about** it because at end of day, more.
 I mean they can wear if you **think about** it they wear suits in the
 week! And why, they don’t need to **think about** it, they can talk you out of
 penetrating as lasers. ‘We might **think about** that, ‘I say at last.
 I’ll have to start and **think about** that train, Dwight.
 see it. That’s the way I like to **think about** that sort of place. It’s
 another way, but I don’t want to **think about** that for a while. ‘Timothy
 get eight to twenty-five. Now **think about** that. The district attorney

Notes

- 1 In some cases, the compilation of a corpus is funded by a publishing (or testing) company, which has a financial interest in restricting access to the corpus to a select group of key researchers.
- 2 ‘Register’ is the term we are using to describe varieties of texts that are defined by situational characteristics (for example, spoken versus written, edited versus online production). Registers can be described at various levels of specificity. For example, spoken language versus written

language constitute two broadly defined registers. A subcategory of the register of written language is the register of academic textbooks. It is also possible to further divide the category of academic textbooks according to discipline (such as biology, business, education, art history, etc.) or by level (undergraduate, graduate, freshman, sophomore, etc.).

- 3 MonoConcPro available at www.athel.com; WordSmith Tools available at www.lexically.net/wordsmith/; Vocabulary analysis programs by Paul Nation (e.g. RANGE) available at <http://www.victoria.ac.nz/lals/about/staff/paul-nation>; Lextutor available at <http://www.lexutor.ca/>.

Notes

- 1 Northern Arizona University
2 Michigan Language Assessment

Further reading

Biber, D., Conrad, S. and Reppen, R. (1998) *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge University Press.

[An introduction to the range of linguistic analyses that lend themselves to a corpus-based approach, including studies focusing on lexicography, grammar, discourse, register variation, language acquisition and historical linguistics. Includes detailed explanations of the methodologies involved in investigating different linguistic features.]

Biber, D. and Reppen, R. (eds.) (2015). *The Cambridge Handbook of English Corpus Linguistics*. Cambridge: Cambridge University Press.

[This volume provides a thorough overview of the various areas that can be explored through corpus linguistic methods. Each chapter presents a summary of relevant studies related to the chapter topic, followed by detailed example studies that showcase various corpus methods for researching language use. Topics covered include methodological considerations, detailed analyses of linguistic characteristics, analyses of varieties, translation and implications for instructional materials.]

McEnergy, T.Xiao, R. and Tono, Y. (2006) *Corpus-Based Language Studies: An Advanced Resource Book*. New York: Routledge.

A collection of relevant readings and research activities presented in an engaging manner.

Reppen, R. (2010). *Using Corpora in the Language Classroom*. Cambridge: Cambridge University Press.

[This small but comprehensive book provides details and practical examples of how to create and use corpora for language instruction. This book covers information about corpus collection, construction and conventions for both written and spoken corpora along with detailed examples of corpus classroom activities.]

Speelman, D. (2018) *Mastering Corpus Linguistics Methods: A Practical Introduction with AntConc and R*. Oxford: Wiley.

[A comprehensive introduction to qualitative and quantitative corpus-linguistics methods that focuses on the conceptual and practical approaches to carrying out corpus linguistic research. This book guides the reader through the more complex methodological approaches to answering research questions based on corpus analysis.]

Useful websites for corpus linguistics

[The pages listed below provide a useful and friendly sampler of some of the corpora and useful corpus resources that are available through the web. Of course, web address and links change over time, so please be understanding if some of these are no longer current.]

<https://lexically.net/TimJohns/Kibbitzer/timconc.htm>

[Tim Johns' Data Driven Learning Page with numerous links to corpus-based data-driven learning and teaching materials, as well as more general links related to corpora and language teaching.]

www.lexically.net/wordsmith/

[The homepage of Wordsmith Tools, a concordancing and text analysis program.]

www.laurenceanthony.net/software/antconc/

[A freeware program for doing corpus searches. AntConc can create frequency lists, and concordance searches and also create lists of n-grams.]

<https://quod.lib.umich.edu/cgi/c/corpus/corpus?c=micase;page=simple>

[Online access to transcripts of the Michigan Corpus of Academic Spoken English (MICASE), including a search facility for browsing transcripts and keyword in context (KWIC) searches.]

www.english-corpora.org

[Mark Davies' home page provides access to several online corpora including a 385+ million-word corpus of American English, historic corpora and Spanish and Portuguese corpora all with a friendly user interface.]

www.lextutor.ca

[The Compleat Lexical Tutor is a rich source of tools and resources that allow users to identify vocabulary in texts (both English and French). The site includes vocabulary assessment tools.]

www.kwicfinder.com/kfNgram/kfNgramHelp.html

[The kfNgram website has tools for analysing corpora including tools for identifying word clusters.]

Part 2

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Second language acquisition

Nina Spada¹ and Patsy M. Lightbown²

What is second language acquisition?

Second language acquisition research focuses on the developing knowledge and use of a language by children and adults who already know at least one other language. This field of research has both theoretical and practical importance. The theoretical importance is related to our understanding of how language is represented in the mind and whether there is a difference between the way language is acquired and processed and the way other kinds of information are acquired and processed. The practical importance arises from the assumption that an understanding of how languages are learned will lead to more effective teaching practices. In a broader context, a knowledge of second language acquisition may help educational policy makers set more realistic goals for programmes for both foreign language courses and the learning of the majority language by minority language children and adults.

This chapter begins with a discussion of some of the linguistic and psychological theories which have informed second language acquisition research. This is followed by a review of research findings on learners' developing knowledge and use of their second language (L2), including a discussion of how previously learned languages affect that development. The final section examines the role of instruction in L2 development.

Theories of L2 learning

Both linguistic and psychological theories have influenced research in second language acquisition. One of the fundamental differences between theories developed in these two disciplines is the role they hypothesize for internal and external factors in the learning process. Some linguists have suggested that language acquisition is based on the presence of a specialized module of the human mind containing innate knowledge of principles common to all languages. In contrast, most psychologists have argued that language is processed by general cognitive mechanisms that are responsible for a wide range of human learning and information processing and requires no specialized module.

Linguistic perspectives*Universal grammar*

The idea that there exists a universal grammar (UG) of human languages originated with Chomsky's (1968) view on first language (L1) acquisition. He was looking for an explanation of the fact that virtually all children learn language at a time in their cognitive development when they experience difficulty grasping other kinds of knowledge which appear to be far less complex than language. It was observed that even children with impaired intellectual ability were usually successful in acquiring the language they heard around them. Chomsky argued, furthermore, that the kind of information which mature speakers of a language eventually have of their L1 could not have been learned from the language they hear around them. This problem came to be called the 'logical problem of language acquisition'. Chomsky pointed out that children were exposed to samples of language that were incomplete and sometimes 'degenerate' (for example, slips of the tongue, false starts, etc.). In addition, some L1 researchers noted that parents did not provide systematic feedback when young children produced speech that did not match the adult language, and yet children would eventually leave behind their childish errors and acquire full competence in the language they were exposed to. Thus, Chomsky inferred that children must have an innate language faculty. This faculty, originally referred to as the language acquisition device (LAD) and later as UG, was described as a specialized module of the brain, pre-programmed to process language. UG was said to contain general principles underlying all languages. The child's task would be to discover how the language of his or her environment made use of those principles.

Chomsky's theory of UG was offered as an explanation for L1 acquisition and, although it has been questioned in that context (Elman et al., 1996), it is widely accepted as at least a plausible explanation for L1 acquisition. The question of whether UG can also explain L2 learning is controversial. One of the reasons for this controversy is the claim that there is a critical period for language acquisition. That is, it is suggested that while UG permits a young child to acquire language during a particular developmental period, referred to as the 'critical period' for language acquisition, UG is no longer available to older learners. Even some theorists who accept UG as the basis for L1 acquisition argue that UG is no longer available after puberty and that older L2 learners must make use of more general learning processes (Bley-Vroman, 1989). Because these are not specific to language, second language acquisition by older learners is more difficult than for younger learners and it is never complete. Other researchers have suggested that language acquisition continues to be based on UG but that, once a first language has been learned, UG is no longer neutral and open to the acquisition of any language. That is, although L2 grammars are still consistent with universal principles of all human languages, learners tend to perceive the L2 in a way that is shaped by the way their L1 realizes these principles (White, 2003).

Researchers who study second language acquisition from a UG perspective seek to discover a language user's underlying linguistic 'competence' (what a language user knows) instead of focusing on his or her linguistic 'performance' (what a language user actually says or writes or understands). Therefore, researchers have usually used indirect means of investigating that competence. For example, rather than record spontaneous conversation, the researcher may ask a language user to judge whether a

sentence is grammatical or not. In this way, it is possible to determine whether the linguistic feature of interest is part of an individual's linguistic competence, even if it is rarely or never used. Alternatively, a child might be asked to use toy animals to demonstrate a sentence such as 'The tiger is chased by the lion'. If the child's linguistic competence does not yet include passive sentences, it is likely that the toy tiger will chase the lion.³

Monitor Theory

Monitor Theory shares a number of the assumptions of the UG approach but its scope is specifically second language acquisition. As with UG, the assumption is that human beings acquire language without instruction or feedback on error. Krashen developed this theory in the 1970s and presented it in terms of five 'hypotheses' (Krashen, 1982). The fundamental hypothesis of Monitor Theory is that there is a difference between 'acquisition' and 'learning'. Acquisition is hypothesized to occur in a manner similar to L1 acquisition, that is, with the learner's focus on communicating messages and meanings; learning is described as a conscious process, one in which the learner's attention is directed to the rules and forms of the language. The 'monitor hypothesis' suggests that, although spontaneous speech originates in the 'acquired system', what has been learned may be used as a monitor to edit speech if the L2 learner has the time and the inclination to focus on the accuracy of the message. In light of research showing that L2 learners, like L1 learners, go through a series of predictable stages in their acquisition of linguistic features, Krashen (1982) proposed the 'natural order hypothesis'. The 'comprehensible input hypothesis' reflects his view that L2 learning, like L1 learning, occurs as a result of exposure to meaningful and varied linguistic input. Linguistic input will be effective in changing the learner's developing competence if it is comprehensible (with the help of contextual information) and also offers exposure to language which is slightly more complex than that which the learner has already acquired. The 'affective filter hypothesis' suggests, however, that a condition for successful acquisition is that the learner be motivated to learn the L2 and thus receptive to the comprehensible input.

Monitor Theory has been criticized for the vagueness of the hypotheses and for the fact that some of them are difficult to investigate in empirical studies (DeKeyser, 1997; McLaughlin, 1990; White, 1987). Nonetheless, it has had a significant impact on the field of L2 teaching. Many teachers and students intuitively accept the distinction between 'learning' and 'acquisition', recalling experiences of being unable to spontaneously use their L2 even though they had studied it in a classroom. This may be especially true in classrooms where the emphasis is on meta-linguistic knowledge (the ability to talk about the language) rather than on practice in using it communicatively.

Psychological perspectives

Behaviourism

For much of the first half of the twentieth century, behaviourism dominated psychology and education and, consequently, theories of L2 learning and teaching. Behaviourism was based on the view that all learning – including language learning – occurs through

a process of imitation, practice, reinforcement and habit formation. According to behaviourism, the environment is crucial not only because it is the source of the linguistic stimuli that learners need in order to form associations between the words they hear and the objects and events they represent, but also because it provides feedback on learners' performance. Behaviourists claimed that when learners correctly produce language that approximates what they are exposed to in the input, and these efforts receive positive reinforcement, habits are formed (Skinner, 1957).

Behaviourism came under attack when Chomsky (1968) questioned the notion that children learn their first language by repeating what they hear in the surrounding environment. He argued that children produce novel and creative utterances – ones that they would never have heard in their environment. Researchers asserted that children's creative use of language showed that they were not simply mimicking what they heard in the speech of others but, rather, applying rules and developing an underlying grammar. Following Chomsky's critique of behaviourist explanations for language acquisition and a number of studies of L1 acquisition, behaviourist interpretations of language acquisition fell into disfavour. It took almost 30 years, but some of the principles of behaviourism have re-surfaced and gained recognition in a different framework (*see* 'Connectionism' below).

One of the ideas associated with behaviourism was the notion that the L1 habits that learners had already established would interfere with the formation of new habits in the L2. The contrastive analysis hypothesis (CAH) was proposed to account for the role of the L1 in L2 learning. CAH predicted that where similarities existed between L1 and L2 structures, there would be no difficulty for L2 learning. Where there were differences, however, the L2 learner would experience problems (Lado, 1964). When put to the test, CAH was not fully supported. It failed to predict errors that L2 learners were observed to make, and it predicted some errors that did not occur. Researchers found that L2 learners from different backgrounds made some of the same errors and that some of these errors would not have been predicted by a contrastive analysis between learners' L1 and L2. These findings, together with the rejection of behaviourist learning theories which CAH had been associated with, led a number of second language acquisition researchers in the 1970s and 1980s to argue that there was, in fact, very little L1 influence in second language acquisition (Dulay, Burt and Krashen, 1982). Later research has tended to re-establish the importance of L1 influence, but it has also shown that the influence is complex and that it changes as the learner's competence in the second language develops (Kellerman and Sharwood Smith, 1986; Odlin, 1989).

Cognitive psychology

Since the late 1980s, there has been a revival of interest in psychological theories of language learning. In contrast to the hypotheses of linguistic theories, cognitive psychologists see no reason to assume that language acquisition requires specific brain structures used uniquely for language acquisition. Rather, they hypothesize that second language acquisition, like other learning, requires the learner's attention and effort – whether or not the learner is fully aware of what is being attended to. Some information processing theories suggest that language, like other skilled activity, is first acquired through intentional learning of what is called 'declarative knowledge' and that, through practice, the declarative knowledge can become 'proceduralized' and,

with further practice, it can become 'automatic' (DeKeyser, 2003). Other theorists make a similar contrast between 'controlled' and 'automatic' processing (Segalowitz, 2003). The difference is that controlled processing is not necessarily intentional. Controlled processing occurs when a learner is accessing information that is new or rare or complex. Controlled processing requires mental effort and takes attention away from other controlled processes. For example, a language learner who appears relatively proficient in a conversation on a familiar topic may struggle to understand an academic lecture, because the effort and attention involved in interpreting the language itself interferes with the effort and attention needed to interpret the content. Automatic processing, on the other hand, occurs quickly and with little or no attention and effort. Indeed, it is argued that we cannot prevent automatic processing and have little awareness or memory of its occurrence. Thus, once language itself is largely automatic, attention can be focused on the content. The information processing model offers a useful explanation as to why learners in the initial phases of learning seem to put so much effort into understanding and producing language.

According to the information processing model, learning occurs when, through repeated practice, declarative knowledge becomes automatic. In addition to practice, it is also hypothesized that a process referred to as 'restructuring' may result in learners appearing to have made quite sudden changes in their interlanguage systems rather than gradually increasing the speed with which they use constructions that were already present. Restructuring is a cognitive process in which previously acquired information that has been somehow stored in separate categories is integrated and this integration expands the learner's competence (McLaughlin, 1990; McLaughlin and Heredia, 1996). Sometimes the restructuring can lead learners to make errors that had not previously been present. For example, when a learner comes to understand that English question forms require inversion, there might be a period in which embedded questions (*Do you know what the children are doing?*) would be produced with inversion as well (**Do you know what are the children doing?*).

Some researchers working within information processing models of second language acquisition have argued that nothing is learned without 'noticing'. That is, in order for some feature of language to be acquired, it is not enough for the learner to be exposed to it through comprehensible input. The learner must actually notice what it is in that input that makes the meaning. This idea has raised a considerable amount of interest in the context of instructed second language learning (Schmidt, 1990, 2001).

Connectionism

Another psychological approach to understanding language learning is that taken in connectionist, emergentist and parallel distributed processing models (Ellis, 2003; Rumelhart and McClelland, 1986). These approaches are like the behaviourist approach in the sense that they hypothesize the development of strong associations between items that are frequently encountered together. According to these views, the brain creates networks which connect words or phrases to other words or phrases (as well as to events and objects) which occur at the same time. It is suggested that these links (or connections) are strengthened when learners are repeatedly exposed to linguistic stimuli in specific contexts. For example, when L2 learners produce *I go* and *she goes*, the latter does not reflect an underlying knowledge of a rule for the placement of

's' with the third person singular. Rather, the connection between *she* and *goes* is thought to be established through high-frequency exposure to these co-occurring structures in the linguistic input. The pronoun *she* activates *goes* and the pronoun *I* triggers *go* because the learner has heard these forms in combination many many times.

Research which has investigated connectionist explanations for first and second language learning has typically involved computer simulations of the learning of either artificial languages or small units of real language. Many of these studies provide evidence to support associative accounts of learning (Ellis and Schmidt, 1997). There is growing interest in this explanation for second language acquisition. Related to this approach is the observation that much of the language that even highly proficient speakers produce consists of chunks or strings of language that have a high probability of occurring together (Wray, 1999, 2007; *see also* Chapter 2, *Grammar*, and Chapter 3, *Vocabulary*). Researchers working within these frameworks are proposing that language is represented in the mind as a very large number of linguistic units with varying degrees of likelihood of co-occurrence, rather than as a set of linguistic rules for creating novel sentences.

Processability theory

One of the central questions within psychological accounts of second language acquisition is why it is that L1 and L2 learners go through a series of predictable stages in their acquisition of grammatical features. Slobin (1973) proposed 'operating principles' to help explain what L1 learners found easier or harder to process and learn. Within second language acquisition, Processability Theory represents a way to relate underlying cognitive processes to stages in the L2 learner's development (Pienemann, 1998).

Processability Theory was originally developed as a result of studies of the acquisition of German word order and, later, on the basis of research with L2 learners of English (Pienemann, 1989). In this research, L2 learners were observed to acquire certain syntactic and morphological features of the L2 in predictable stages. These features were referred to as 'developmental'. Other features, referred to as 'variational', appeared to be learned by some but not all learners and, in any case, did not appear to be learned in a fixed sequence. With respect to the developmental features, it was suggested that each stage represented a further degree of complexity in processing strings of words and grammatical markers (Pienemann, Johnston and Brindley, 1988). For example, it seemed that learners would begin by picking out the most typical word order pattern of a language and using it in all contexts. Later, they would notice words at the beginning or end of sentences or phrases and would begin to be able to move these. Only later could they manipulate elements which were less salient because they were embedded in the middle of a string of words. Because each stage reflected an increase in complexity, a learner had to grasp one stage before moving to the next, and it was not possible to 'skip a stage'. One of the pedagogical implications drawn from the research related to Processability Theory is the 'Teachability Hypothesis': that learners can only be taught what they are psycholinguistically ready to learn.

Interactionist perspectives

Some theorists who work primarily within a second language acquisition framework assume that a great deal of language learning takes place through social interaction, at least in part because interlocutors adjust their speech to make it more accessible to learners. Some of the L2 research in this framework is based on L1 research into children's interaction with their caregivers and peers. L1 studies showed that children are often exposed to a specialized variety of speech which is tailored to their linguistic and cognitive abilities (that is, child-directed speech). When native speakers engage in conversation with L2 learners, they may also adjust their language in ways intended to make it more comprehensible to the learner. Furthermore, when L2 learners interact with each other or with native speakers they use a variety of interaction techniques and adjustments in their efforts to negotiate meaning. These adjustments include modifications and simplifications in all aspects of language, including phonology, vocabulary, syntax and discourse. In an early formulation of this position for second language acquisition, Long (1985) hypothesized that, as Krashen (1982) suggests, comprehensible input is probably the essential ingredient for interlanguage development. However, in his view, it was not in simplifying the linguistic elements of speech that interlocutors helped learners acquire language. Rather, it was in modifying the interaction patterns, by paraphrasing, repeating, clarifying or otherwise working with the L2 speaker to ensure that meaning was successfully communicated. Thus, he hypothesized, interactional adjustments improve comprehension, and comprehension allows acquisition.

Considerable research has been done to document the negotiation of meaning in native/non-native interaction, and there is increasing work to investigate the effects of interaction on second language development (Mackey, 2007). Most of this work has been motivated by Long's (1996) reformulation of the interaction hypothesis that acknowledges the need for learner attention and implicit negative feedback to bring L2 learners to higher levels of lexical and syntactic performance.

Sociocultural perspectives

Theorists working within a sociocultural perspective of L2 learning operate from the assumption that there is an intimate relationship between culture and mind, and that all learning is first social then individual. It is argued that through dialogic communication, learners jointly construct knowledge and this knowledge is later internalized by the individual. Like cognitive psychologists, sociocultural theorists assume that the same general learning mechanisms apply to language learning as with other forms of knowledge. However, sociocultural theorists emphasize the integration of the social, cultural and biological elements. This theory, initially proposed by Vygotsky (1987), has been brought to the field of second language acquisition by researchers including Lantolf (2000), Swain (2000) and Ohta (2000). (*See also* Chapter 1, *An overview of applied linguistics*.)

Summary

All theories of language acquisition are meant to account for the working of the human mind, and all use metaphors to represent this invisible reality. Theorists can

draw some of their evidence from neurological research that taps language processing more directly. In general, however, second language acquisition theories must be based on other kinds of evidence – primarily the language which L2 learners produce, understand and judge to be appropriate or grammatical. In the next section, we will look at some of the findings of research on learner language. The focus of this review is on grammatical aspects of learner language – the area in which most SLA research has been carried out. While there has been increasing research in vocabulary and pragmatic development in recent years, space limitations do not permit us to review that work here, but *see* Chapter 3, *Vocabulary* and Chapter 5, *Pragmatics*.

Learner language

In the 1970s, a number of researchers began to call attention to the fact that, although the language produced by L2 learners did not conform to the target language, the ‘errors’ that learners made were not random, but reflected a systematic, if incomplete, knowledge of the L2 (Corder, 1967). The term ‘interlanguage’ (Selinker, 1972) was coined to characterize this developing linguistic system of the L2 learner.

Several error analysis studies in the 1970s classified L2 learners’ errors and found that many could not be attributed to L1 influence (Richards, 1974). For example, both L1 and L2 learners of English make similar overgeneralization errors such as *two mouses* and *she goed*. The finding that not all L2 errors could be traced to the L1 led some researchers not only to reject traditional contrastive analysis, but to claim that L2 learners did not rely on the L1 as a source of hypotheses about the L2 (Dulay and Burt, 1976). Furthermore, because of the association between contrastive analysis and behaviourist explanations of language learning, the influence of the L1 in L2 learning was either minimized or completely ignored by some researchers. The focus was instead on the similarities among all L2 learners of a particular language, regardless of L1.

Developmental sequences

In the late 1960s, and especially in the 1970s, a number of researchers studied second language acquisition in ways that were based on previous work in L1 acquisition. This was reflected in the methods which were used to investigate interlanguage, the specific linguistic features under investigation, and as we saw earlier in this chapter, the theories proposed to explain language development.

One of the most influential studies of the acquisition of L1 English was Brown’s (1973) longitudinal research on the language development of three children. One part of that study focused on how the children acquired grammatical morphemes such as possessive *’s* and past tense *-ed*. Brown and colleagues (1973) found that the children acquired these forms in a similar order. Other L1 studies showed that children acquire syntactic patterns, such as interrogative and negative sentences of the L1, in a series of stages that are common to all children learning the same L1. L1 learners also make errors which show that they are not simply repeating words or phrases exactly as they have heard others produce them. For example, a typical L1 error in English is putting an ‘s’ on *foot* to express the plural. This kind of error is based on a logical generalization since the pattern of adding ‘s’ to express plurality works with regular nouns in

English. The finding that children go through a series of predictable stages in the acquisition of their first language, and that their errors are systematic and similar among learners, is used as evidence to support the hypothesis that language learning is based at least in part on internal processes, not just on simple imitation of speech or environmental factors such as frequency of occurrence and feedback on error.

One of the important questions for early second language acquisition researchers was whether L2 learning was similar to L1 acquisition. A number of early studies focused on learners' use of the English morphemes such as the plural, past tense and progressive *-ing* that Brown and colleagues studied in L1 (Dulay and Burt, 1974; Hakuta, 1976; Larsen-Freeman, 1976). Researchers looked at the speech of L2 learners whose ages and L1 backgrounds differed and calculated the accuracy with which they produced the morphemes. They found an accuracy order that was similar regardless of the age or L1 background of the L2 learners. Even though it was not the same as the L1 acquisition order, the similarity across L2 learners suggested that L2 learning, like L1 learning, is governed partly by internal mechanisms. This does not mean that there was no evidence of L1 influence in the L2 morpheme studies, but the overall patterns were more similar than different.

L2 learners were also observed to acquire other grammatical features of the language in a predictable order. These acquisition sequences have been observed in the language of L2 learners learning a variety of target languages. For example, L2 learners of French and English acquire features such as negatives and interrogatives in a similar sequence – a sequence which is also similar to that observed in L1 learners of these languages. L2 learners of German from a variety of L1 backgrounds have been observed to acquire word order features in predictable stages. Table 7.1 shows an example of a developmental sequence for interrogatives in the acquisition of L2 English. As can be seen, at each stage, some of the questions learners produce may be grammatical within a particular context. Indeed, at Stage 1, chunk-learned whole questions may appear quite advanced. But this does not mean that the learner has mastered all aspects of question formation. As they progress to higher stages, they are able to manipulate more linguistic elements. Thus a Stage 3 question such as '*What the dog are playing?*' may be more advanced than an apparently correct question such as '*What's your name?*'

The existence of developmental patterns is widely acknowledged. Within this framework, it is possible to look at L1 influence in a different light.

L1 influence

In spite of the rejection of contrastive analysis by some second language acquisition researchers, most teachers and researchers have remained convinced that learners draw on their knowledge of other languages as they try to learn a new one. Current research shows that L1 influence is a subtle and evolving aspect of L2 development. Learners do not simply transfer all patterns from the L1 to the L2, and there are changes over time, as learners come to know more about the L2 and thus to recognize similarities between L1 and L2 that were not evident in earlier stages of L2 acquisition.

It has been observed that some aspects of language are more susceptible to L1 influence than others. For example, pronunciation and word order are more likely to show L1 influence than grammatical morphemes. Learners seem intuitively to know

Table 7.1 Developmental stages for question formation (adapted from Lightbown and Spada, 2013).

Stage 1	Single words, formulae or sentence fragments	Children? What's your name? A spot on the dog?
Stage 2	Declarative word order no inversion, no fronting:	It's a monster in the right corner? The boys throw the shoes?
Stage 3	Fronting <i>wh</i> -fronting, no inversion: <i>do</i> -fronting: other-fronting:	Where the little children are? What the dog are playing? Do you have a shoes on your picture? Does in this picture there is four astronauts? Is the picture has two planets on top?
Stage 4	Inversion in <i>wh</i>- and yes/no questions copula in <i>wh</i> - questions: auxiliary other than do in yes/no questions:	Where is the sun? Is there a fish in the water?
Stage 5	Inversion in <i>wh</i>- questions inverted <i>wh</i> - questions with do: inverted <i>wh</i> - questions with auxiliaries other than do:	How do you say [proche]? What's the boy doing?
Stage 6	Complex questions question tag: negative question: embedded question:	It's better, isn't it? Why can't you go? Can you tell me what the date is today?

that it is not possible to simply add a grammatical inflection such as *-ing* to a verb in another language, although some very young second language learners are heard to produce such hybrid forms. In addition, learners seem to be sensitive to the fact that some patterns in the L1 are idiomatic or unusual in some way and are therefore not transferable (Kellerman, 1986). Also, there is evidence that when learning a language which is very different from the L1, learners are less likely to attempt transfer (Ringbom, 1986).

One important aspect of L1 influence is the way in which it appears to interact with developmental sequences (Wode, 1981; Zobl, 1980). Although developmental sequences are common among learners from different L1 backgrounds, learners may be slowed down when they reach a developmental level at which a particular interlanguage pattern is similar to a pattern in their L1. For example, although all learners seem to pass through a stage of pre-verbal negation (*I no like that*), Spanish L1 learners tend to use this form longer than learners whose L1 does not have pre-verbal negation. L1 influence can also lead learners to create sub-stages which are not observed in learners from different L1 backgrounds. For example, when German learners of English reach the stage of placing the negative marker after the modal or auxiliary verb (*He can not play baseball.*), they may, for a time, use post-verbal negation with lexical verbs (*He plays not baseball.*) in a way that matches German negation patterns. This sub-stage would not be expected in the L2 speech of learners whose L1 does not have post-verbal negation.

Another way in which the L1 interacts with developmental sequences is in the constraints which L1 influence may place on the use of L2 patterns within a particular stage. For example, French-speaking learners of English L2 who had reached an advanced stage in the use of subject–verb inversion in questions, nevertheless failed to use (and rejected as ungrammatical) questions when the subject was a noun. That is, they used and accepted questions such as ‘*Can he play baseball?*’ but rejected sentences such as ‘*Can John play baseball?*’ This is consistent with French in that full noun subjects cannot be inverted with the verb to form questions while pronoun subjects can (Spada, Lightbown and White, 2005).

Instruction and second language acquisition

Research shows that instruction can have a significant effect on L2 acquisition, at least in terms of the rate of learning and the long-term success that learners achieve in using the language accurately. That is, instruction does not prevent learners from going through developmental stages which are similar to those of learners whose exposure to the L2 is primarily outside a classroom, but it may permit learners to move through the stages faster, and to replace some learner language characteristics with more target-like use of the L2 (Lightbown and Spada, 2013).

In light of the evidence that learners pass through developmental stages, and that much of second language acquisition is based on processes internal to the learner, teachers and researchers have raised questions about the role of instruction in second language acquisition. Krashen (1982) argued that instruction tended to lead only to what he called ‘learning’ and that instruction could potentially interfere with language ‘acquisition’. He concluded that exposure to ‘comprehensible input’ would be sufficient to allow learners to progress through developmental stages because the language that learners needed to make further progress would always be available if there was enough natural language exposure. Pienemann (1989) recommended a more precise matching of instructional input and developmental stages. Some research provides evidence that input and instruction targeted to the next stage beyond the learner’s current developmental level can be effective (Pienemann, 1989; Mackey and Philip, 1998; Spada and Lightbown, 1999). Some other research has shown, however, that teaching features which are typical of more advanced stages may hasten learners’ progress through the lower stages (Ammar and Lightbown, 2005; Hamilton, 1994). Note that all the research is consistent with the view that instruction does not permit learners to skip stages. That is, even though learners may perform well on tests of meta-linguistic knowledge or on exercises that reflect the instruction they have received, they tend to revert to their current developmental level when they use language more spontaneously.

Certain kinds of instruction may appear to alter the developmental path of L2 acquisition. This has been observed when learners are exposed to classroom input that is restricted to discrete point presentation of one grammatical form after another. In these classrooms, learners do sometimes develop unusual learner language characteristics and hypotheses about the L2, based on the fact that the input they have received is itself a distortion of the target language (Lightbown, 2000).

One way to provide learners with more natural input is through communicative and content-based language teaching. In such classes, the emphasis is on meaning, and

learners are exposed to language which is not presented according to a sequence of grammatical forms but rather according to a theme or a lesson in a school subject such as history or science. Such instructional environments allow learners to develop more effective comprehension and communication skills than are typical in more traditional language teaching approaches. Even in such richly communicative environments, however, there are limitations on the L2 input available for acquisition. These limitations arise from the fact that some language features are simply not very frequent in the 'natural' language of the classroom. Swain (1988) has reported that, even in history lessons in French immersion classes, learners may not hear the past tense used regularly. Teachers often use the historical present tense typical of narratives to make the events more engaging to the learners. Furthermore, classroom language is likely to have a restricted range of sociolinguistic and discoursal features. Lyster (1994) found that students who had had several years of French immersion were still uncertain about the use of formal and informal address forms *vous* and *tu*. Tarone and Swain (1995) comment that, in classrooms where the only proficient speaker is the teacher, speech and discourse characteristics that are typical of adolescent interaction are rare or absent. Thus, learners whose only or primary exposure to the L2 is in the classroom will inevitably have gaps in their knowledge of the language and the way it is used outside the classroom setting.

Early research in communicative and content-based classrooms revealed that while L2 learners developed relatively high levels of comprehension and 'communicative confidence', they continued to experience problems with grammatical accuracy and lexical precision (Harley and Swain, 1984; Lightbown and Spada, 1990). In classrooms, when learners are able to understand the meaning, they may overlook details of the forms required to express those meanings. When they are able to make themselves understood to their teacher and to their classmates with inaccurate language and when there are no L2 peers to serve as models, there may be little motivation to move beyond their current level of language use.

Certain types of errors may be easier for L2 learners to overcome than others. In the context of communicative interaction, learners seem to be able to benefit more from instruction and corrective feedback which focus on semantic or lexical errors than from instruction which targets syntactic errors. Semantic and lexical errors often result in a breakdown of communication and the reaction of the teacher or fellow student is often based on a genuine need for clarification. This is likely to make the information more memorable to the learners, but it is also the case that such errors usually involve a change in a single word or phrase rather than of a more systematic pattern in the learner's interlanguage. As we have seen, errors of the latter type may reflect a developmental stage which learners are not yet ready to move away from. However, instruction and feedback on those developmental features may provide learners with information that they can store as chunk-learned examples, and these may contribute to their progress when the time is right (Sharwood Smith, 1981; Lightbown, 1998).

Errors that are influenced by the L1 and do not interfere with meaning may be particularly difficult. For example, when a French-speaking learner of English says, '*She is wearing a skirt red*', the word order error does not lead to confusion. If there is no breakdown in communication, learners may never notice that more proficient speakers of English do not use this word order. Or, if they do notice that others place the adjective before the noun, they may simply assume that this is another way to say

the same thing. In these cases, instruction which includes explicit information about how L1 and L2 differ may be the only way for learners to eliminate these features from their L2 (Kupferberg and Olshtain, 1996; Spada, Lightbown and White, 2005; White, 1991).

Over the past 10–15 years, many experimental and quasi-experimental studies have been carried out to examine the contributions of form-focused instruction and corrective feedback to classroom second language acquisition. In these studies, efforts are made to draw the L2 learners' attention to different language forms under different instructional conditions. This includes instructional activities which vary along an explicit/implicit continuum – for example, the provision of meta-linguistic rules and overt signalling at the explicit end, contrasted with high-frequency exposure, input enhancement and less explicit corrective feedback (that is, recasts) at the implicit end. The overall findings of this work have indicated that learners in communicative and content-based classrooms benefit from opportunities to focus on language form, when the instructional input and/or corrective feedback is more explicit (Ellis, 2001; Norris and Ortega, 2000; Spada, 1997; Spada and Tomita, 2010).

Conclusion

Since the 1960s, second language acquisition research has become a field in its own right, with numerous conferences and journals devoted entirely to studies of L2 learning. In 1980 it was possible to read almost everything that had been written about second language acquisition theory and research and to keep up to date on new studies. Today, the field of second language acquisition has enormous scope and depth both in terms of the variety of topics under investigation and the research approaches used to investigate them. In a 1994 review of second language acquisition research, Ellis included over 1500 references to research in this area. The 2008 edition of this review refers to more than 2700 publications, and the list is far from exhaustive. In this chapter, we have touched on some of the principal topics in second language acquisition. Several other chapters in this volume refer to other areas of work in second language acquisition, including Chapter 2, *Grammar*; Chapter 3, *Vocabulary* and Chapter 8, *Psycholinguistics*.

Hands-on activity

This picture of a busy airport (Figure 7.1) was used to elicit examples of questions from a group of young learners of L2 English. Each student was given a sheet with the picture and 11 blank numbered lines corresponding to the bubbles in the cartoon picture. The instructions were to imagine what people were saying and to write the question on the lines provided. The students who wrote the questions shown on pages 122 and 123 were grade six (11- and 12-year-old) native speakers of French who began learning English in grade four (about age 9). The total amount of classroom instruction they had received was about 350 hours – 60 hours per year in regular ESL classes in grades four and five and an intensive ESL course in grade six, in which they had English classes for most of every school day for a period of five months. These questions were written when they were near the end of the five-month intensive class. The instructional approach in both the regular and intensive classes was communicative, with minimal

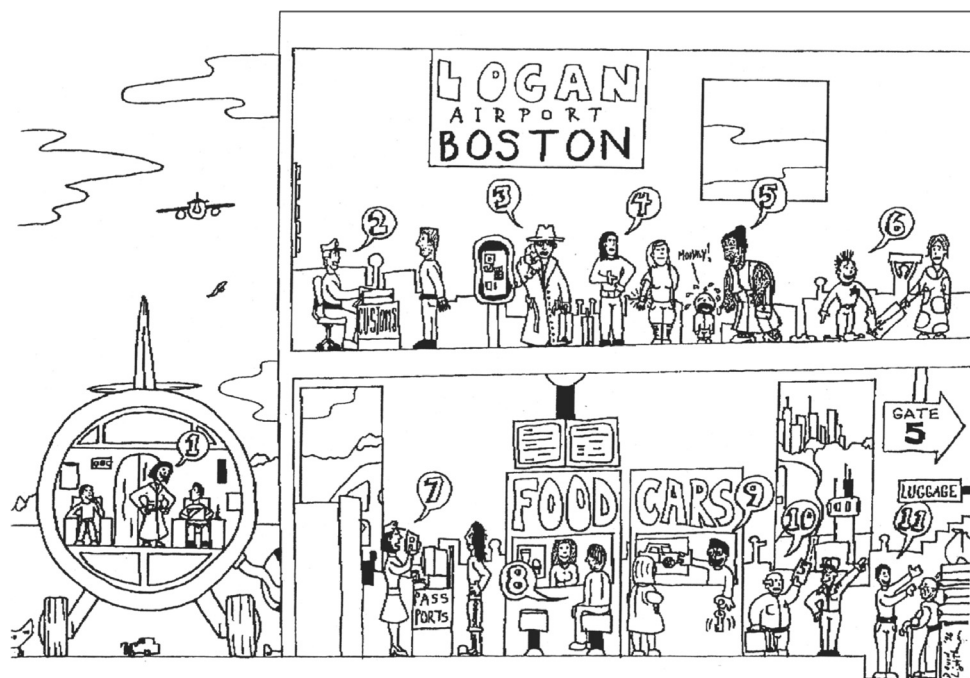


Figure 7.1 Airport cartoon used to elicit examples of questions from a group of young learners of L2 English

attention to form. Teachers provided some corrective feedback, but the emphasis was always on the exchange of meaning rather than on the accuracy of English usage. Most students had little exposure to English outside of school, although English television and pop music were certainly available to them.

- Using the information in Table 7.1, determine what stage each question represents. Remember that you are not asked to determine whether the question is grammatically correct, but which stage it corresponds to.
- In your opinion, which student appears to be the most advanced? Why? Which student is the least advanced? Why?
- Some of the questions produced on this task appear to be more advanced than the questions which the same students produced in an oral interaction task. How would you explain this?
- If you know French, look for examples of interlanguage features that you think may be influenced by the students' L1.

Asking questions at the airport

An airport is a very busy place. People ask for directions. They ask for help with their baggage. Some people need information about renting cars or taking taxis. Sometimes children get lost.

In the picture (*see* Figure 7.1), people are asking questions. For example, Number 4 seems to be asking, 'What time is it?'

On the lines below, write the question that you think each person is asking.

1 ?

-
-
-

11 ?

Student A		Stage
1	Do you need something?	1
2	Why did you bring this bomb?	2
3	Where do I put the money, boss?	3
4	Hey, short stuff. What time is it?	4
5	Why are you crying little boy?	5
6	Hey mom! It looks like your ugly skirt!	6
7	What did you find on this terrorist, agent 007?	7
8	Can I have a coke please?	8
9	Do you [have] a big unconfeterble car, Mrs?	9
10	Where's gate number 5?	10
11	Dad, are you sure you can bring this alone?	11

Student B

1	Everting is okay?	1
2	It's normal to have guns in your countries?	2
3	What's the mission for today boss?	3
4	When do you go to Quebec City?	4
5	Are you loss litle baby?	5
6	It's that your socks?	6
7	It's you on this passports?	7
8	It's that good?	8
9	Do you pay cash or on the credit card?	9
10	Where's the gate 5?	10
11	Do you pass a go [good?] time at the logan airport?	11

Student C

1	Do you want something to drink?	1
2	What do you have in your trunk?	2
3	Where do I have to go?	3
4	Do you have the hour?	4
5	Do you want milk?	5

6	Do you like my new shoes?	6
7	Do you have your passport?	7
8	Do you have beer?	8
9	Do you like this car?	9
10	Mister, do you know where is the gate 5?	10
11	Can I know witch one is my trunk?	11

Notes

- 1 OISE/Univeristy of Toronto.
- 2 Concordia University.
- 3 Note that the distinction between competence and performance is not the same as the distinction between comprehension and production. In communicative contexts, learners are often able to understand language that is, in the purely linguistic sense, well beyond their current competence. For example, if there is an accompanying picture, a sentence such as ‘The boy was hit by the ball’ may be interpreted correctly. However, when such a sentence is encountered outside an illustrative context, a young child or a second language learner may be uncertain about whether the boy or the ball was hit. That is, they can guess the meaning with contextual help, but their linguistic competence does not yet include the passive construction.

Further reading

Doughty, C. J. and Long, M. (eds.) (2003) *The Handbook of Second Language Acquisition*. Oxford: Blackwell.

[Researchers with a number of different theoretical orientations contribute chapters on research and theory in second language acquisition.]

Ellis, R. (2008) *The Study of Second Language Acquisition* (second edition). Oxford: Oxford University Press.

[This book provides a comprehensive overview of research and theory in second language acquisition and serves as a useful reference for students and applied linguists.]

Gass, S., Behney, J. and Plonsky, L. (2018) *Second Language Acquisition: An Introductory Course* (fifth edition). New York: Routledge.

[This course book on second language acquisition is intended for students in linguistics and applied linguistics.]

Lantolf, J., Poehner, M., and Swain, M. (Eds.) (2018). *The Routledge Handbook of Sociocultural Theory and Second Language Development*. New York: Routledge.

[This book provides an overview of second language acquisition research from a sociocultural perspective.]

Lightbown, P.M. and Spada, N. (2013) *How Languages are Learned* (fourth edition). Oxford: Oxford University Press.

[This is a basic introduction to second language learning and its relevance to second language teaching written for teachers.]

Loewen, S. (2015). *Instructed second language acquisition*. New York: Routledge.

[This book reviews theory and research about the effects of instruction on second language learning.]

Mitchell, R., Myles, F. and Marsden, E. (2013) *Second Language Learning Theories* (third edition). New York: Routledge.

[A review and critical commentary of the major theories influencing second language acquisition research is provided for students of linguistics and applied linguistics.]

Ortega, L. (2013) *Understanding Second Language Acquisition*, New York: Routledge.

[This book provides a thorough and accessible overview of theory and research in the field of SLA.]

Psycholinguistics¹

*Emily N. Mech, Andrea Takahesu Tabori, Judith F. Kroll,²
and Kees de Bot³*

What is psycholinguistics?

Psycholinguistics is the study of the cognitive processes that support the acquisition, comprehension and production of language. Traditionally, psycholinguists investigated these processes in healthy monolingual or native speakers whose performance was taken to reflect the universal principles engaged by all language users. Although findings from neuropsychological studies of patients with brain damage were viewed historically as providing important converging evidence for evaluating universal principles, the primary focus was on how language was acquired and processed. Studies of language learning typically examined young children learning their first language and studies of language processing typically investigated comprehension and production in healthy young adults.

In the past two decades, the study of psycholinguistics has undergone a radical transformation. Two major factors have shaped the changes that have occurred in the field. One is that variation in language experience is now seen as the rule rather than the exception. More people in the world are bilingual or multilingual than monolingual. Far from representing a complication to language learning and language processing, multilingualism provides a lens through which the interactions between language, cognition and learning mechanisms can be observed. Likewise, information about how language processing changes across the lifespan, in healthy children and adults and also in the presence of developmental or acquired language disorders, has become a primary source of evidence for psycholinguistics.

The second factor concerns the methods that are used to investigate language learning and language processing. There has been nothing short of a revolution in the availability of new tools to examine language processes in the mind and the brain. Some of these new tools reflect technological advances in neuroscience that enable sensitive measures of the timing and location of brain activity that occur during language processing. Other tools enable the manipulation of large data sets that provide statistical insights into patterns of language use that cannot be seen easily in the context of individual studies.

Taken together, these new developments have expanded the scope of psycholinguistics to enable the exploration of language development and language use from multiple perspectives. In this chapter we take a modest approach to consider the evidence that we consider primary in accounting for the critical features of language processing for healthy young adults who actively use two languages. We draw on data from studies

that use a wide range of methods, including measures of brain activity. At the end of the chapter we consider some of the broader implications of what we have discussed for language use across the lifespan and for both healthy individuals and for those facing pathology. We also point the reader to useful resources in the literature that address the areas of the field that we have not examined in detail.

Characterizing variation in language experience

A primary goal of psycholinguistics is to characterize variation in language experience to better understand how linguistic experiences shape both linguistic and cognitive processing (e.g., Fricke et al., 2018; Pakulak and Neville, 2010; Prat, 2011). In order to adequately understand the effects of individual variation on language and cognitive processing, first we must understand the language experiences of the individuals being studied. However, this is a difficult task, as individuals not only differ from each other, but experiences with language are fluid over time, and depend on a variety of internal and external factors (e.g., Luk and Bialystok, 2013; Grosjean, 1998).

For example, second language (L2) proficiency, L2 age of acquisition, L2 usage and exposure, and the ability to read and write in the L2 can vary dramatically across participants who might all be considered to be bilinguals (e.g., Luk and Bialystok, 2013; Bialystok and Hakuta, 1994; Fishman and Cooper, 1969; Hakuta, Bialystok and Wiley, 2003). Monolinguals also vary in their proficiency even in one language, as not all monolinguals have the same vocabulary size, are equally proficient readers, or are exposed to speech and text of equivalent complexity (e.g., King and Just, 1991; Tanner and Van Hell, 2014). Increasingly, ‘true’ monolinguals are becoming rarer and rarer, as the world becomes more globalized and as students are required to take foreign language classes as a part of their school curricula. Many people considered to be ‘monolinguals’ actually have low proficiency in another language (e.g., Gollan, Montoya and Werner, 2002). Further complicating matters, the environmental language context has been demonstrated to impact linguistic processing and should be considered as a meaningful aspect of language experience.

Several different environmental language contexts have been described and proposed to impact linguistic and cognitive processing (e.g., Green and Abutalebi, 2013). The Adaptive Control Hypothesis suggests that single language environments are those in which one primary language is consistently heard and used in each environment in which the bilingual speaker is immersed. For example, a bilingual in the United States might only use English at school or in the workplace, and perhaps only a home language when at home. Dual language environments have been described to be contexts in which more than one language is utilized, but each language is used with different speakers. Dense codeswitching environments reflect interactive contexts in which all speakers are bilingual in the same languages and therefore can switch freely between languages. These varied interactional contexts have been proposed to place differing demands on bilingual speakers, and therefore lead to differing linguistic and cognitive outcomes (Green and Abutalebi, 2013). Furthermore, the environmental context of language use matters not only for proficient bilinguals, but also for second language learners. Immersion in a country where the L2 is spoken has been demonstrated to dynamically improve fluency for L2 learners, over and above language fluency gained

by learning within the classroom (e.g., Linck, Kroll and Sunderman, 2009; Freed, Segalowitz and Dewey, 2004).

Early language environmental language exposure has also been demonstrated to have profound and lasting consequences. Simply overhearing another language in childhood even without being able to speak or understand it has been associated with better learning outcomes when studying that language as a second language after childhood (e.g., Au et al., 2002; Knightly et al., 2003). Additionally, international adoptees who have been exposed to the language of their native country before adoption but then are only exposed to the language of the country of their adoption have been studied to examine the effects of early but discontinued exposure to a language. For example, in one fMRI study, the neural processing of lexical and musical tones was compared in Chinese children adopted into French-speaking homes who had not been exposed to Chinese after their adoption at one year of age, Chinese-French bilinguals and French monolinguals. Incredibly, the pattern of neural activation of the adoptees to the lexical tones was remarkably similar to the bilinguals, even though the adoptees were not able to produce or comprehend Chinese (Pierce et al., 2014). These findings demonstrate how impactful early language experiences can be on later language processing and learning as well as highlighting the necessity to appropriately characterize variation in language experience.

While neuroplasticity on the basis of early language experience has been well documented, increasing evidence suggests that learning a second language even after the first has been acquired can also lead to neuroplastic effects. One way to measure whether learning a second language influences neural processing is electroencephalography (EEG). EEG measures fluctuations in electrical potential across the scalp which is produced by postsynaptic potentials in cortical neurons. Continuous EEG data can be averaged and time-locked to an experimental manipulation, such as a word appearing on a screen, resulting in an Event-Related Potential (ERP) that is taken to index an aspect of cognitive processing. In a series of experiments, McLaughlin, Osterhout and colleagues tracked learners' behavioural sensitivity to lexical and grammatical violations in the very beginning stages of learning a second language in a classroom. Across several experiments, they demonstrated that the L2 learners, but not non-learner controls, showed neural sensitivity demonstrated by the N400 ERP component to semantic and grammatical violations relative to non-violations (McLaughlin, Osterhout and Kim, 2004; Osterhout et al., 2006). Additionally, in many native language speakers, a P600 ERP component is observable and larger for grammatical violations than acceptable grammatical constructions. Early in learning, many second language learners demonstrate an N400 ERP component for grammatical violations in the second language. However, longitudinal results suggest that as learners gain proficiency, the second language is grammaticalized and violations that initially elicited N400s begin to elicit P600 components (for review see Osterhout, et al., 2008). These results from tracking the neurophysiological response to second language violations in the initial stages of second language learning suggest functional neuroplasticity related to learning.

This range of findings demonstrates the enormous challenge in characterizing language experience. It is often not clear how the distinction should be made in terms of who is considered a bilingual and who is considered a monolingual. Is someone who is proficient in two languages but learned their second language in a classroom considered a bilingual? How proficient must one be in a second language to be bilingual? Is

there an age before which a second language must be acquired for a person to be considered bilingual? These questions raise important concerns, as the way in which researchers set the criteria for who is included as a bilingual and who is included as a monolingual will have a huge impact on the findings of any group level comparison (e. g., Grosjean, 1998). Given this complexity, there has been a significant push in the literature to respect these individual differences in language experience by characterizing language experience through utilizing continuous measures instead of simply comparing dichotomous groups. Taking an individual differences approach allows a more nuanced understanding of what aspects of language experience vary among people and are related to differing linguistic and cognitive consequences (e.g., Fricke et al., 2018; Takahesu Tabori, Mech and Atagi, 2018; Laine and Lehtonen, 2018; Luk and Bialystok, 2013; Pierce et al., 2017). Additionally, continuous measures of language experience can more readily be compared across studies. Several methods have been utilized within the field to enable the appropriate characterization of language experience. In the following section, we describe a few of the primary methods that have been utilized to measure and characterize language experience.

Methods to characterize language experience

One method that has been widely utilized to measure language experience has been language history questionnaires. In the typical language history questionnaire, participants are asked what languages they know or are learning, the age at which they acquired each of their languages, their proficiency in their languages, as well as any immersion or codeswitching experiences. Many questionnaires also ask about the contexts in which the participants learned their languages, the amount of exposure the participants currently have to each language and the proportion of time the participants use each language (e.g., Li, Sepanski and Zhao, 2006; Flege, MacKay and Piske, 2002; Surraín and Luk, 2017). These questions are designed to provide a rich background of an individual's language experiences with the goal of examining how differing experiences relate to performance on another linguistic or cognitive experimental task. However, while language history questionnaires offer a direct method by which to ask participants about their language experiences, several issues are associated with this type of self-reported data. For instance, across studies and researchers, different questionnaires have been used with varied questions, wordings and rating scales, which has made direct comparisons across studies difficult (Schwarz, 1999; Dunn and Fox Tree, 2009; Zell and Krizan, 2014; Grosjean, 1998). One solution to this lack of uniformity has been the creation of standardized language history questionnaires (e.g., LEAP-Q; Marian, Blumenfeld and Kaushanskaya, 2007). While employing standardized measures allows for greater ability to compare self-report data across studies and researchers, it is not a perfect solution as bias in self-report is not consistent across individuals and cultures (e.g., Hoshino and Kroll, 2008; Tomoschuk, Ferreira and Gollan, 2018). For example, self-ratings of proficiency have been found to differ between Spanish-English and Chinese-English bilinguals such that Chinese-English bilinguals who rated themselves as being highly proficient (e.g., a seven on a seven-point scale) scored higher on an objective measure of language proficiency than Spanish-English bilinguals who rated themselves at the same level of proficiency (Tomoschuk, Ferreira and Gollan,

2018). Therefore, while language history questionnaires are immensely valuable to understand descriptive aspects of an individual's language experience, additional methodology is necessary to enable more appropriate comparison across individuals.

Another method by which to characterize an individual's language experience is to administer an online, lab-based task that taps into some aspect of linguistic processing ability. Verbal fluency tasks have been widely utilized to assess lexical access and have been additionally utilized as a proxy for language proficiency (e.g., Blumenfeld, Bobb and Marian, 2016; Sandoval et al., 2010). Two kinds of verbal fluency tasks have been widely administered: semantic and letter fluency (Benton and Hamsher, 1976). In a semantic verbal fluency task, the participant is presented with a category (e.g., animals) and is instructed to name as many things that belong in that category as they can within the time limit. By comparing how many items each participant produces, the order in which they produce category exemplars, whether participants erroneously name items or repeat previously mentioned words, or whether participants are naming items in sub-categories (e.g., farm animals, pets, jungle animals), the size and nature of an individual's semantic network and the ease of their lexical access can be inferred (e.g., Taler et al., 2013; Sandoval et al., 2010; Blumenfeld, Bobb and Marian, 2016; Troyer, Moscovitch and Winocur, 1997). In letter fluency tasks, participants are presented with a single letter (e.g., 'f') and are instructed to name as many words that start with that letter as they can within the time frame of one minute. This task is often considered by participants to be more difficult and has been proposed to both reflect lexical access as well more cognitive control processes (e.g., Blumenfeld, Bobb and Marian, 2016; Luo, Luk and Bialystok, 2010; Troyer, Moscovitch and Winocur, 1997). The advantages of these tasks are that they are remarkably quick to administer in the lab and they provide a directly comparable metric by which to compare participants. Additionally, verbal fluency tasks can be easily adapted to any language, which is advantageous in research comparing bilinguals from a variety of language backgrounds. While verbal fluency tasks cannot describe a participant's past language ability, when combined with questionnaire data, it provides a useful language profile to characterize language experience.

Verbal fluency tasks require participants to produce lexical items constrained by semantic category or by letter, but picture naming tasks have also been used as an online measure of lexical access and knowledge. Picture naming tasks are aptly named; participants are presented with pictures and are instructed to name them in a given language. Participants can name pictures within a task entirely in one language, or they can be instructed to name the pictures in a given language according to a cue given within the experiment. One standardized picture naming task that has been widely utilized to measure language ability is the Multilingual International Naming Test (MINT) (e.g., Gollan et al., 2012; Ivanova, Salmon and Gollan, 2013; Sheng, Lu and Gollan, 2014). In this task, 68 pictures are presented that are progressively more difficult to name, and the number of correctly named pictures can be compared across people and languages. While verbal fluency and picture naming both require participants to access and produce a word, the differing constraints of each task may reflect diverse linguistic and cognitive processes (Zirnstein, van Hell and Kroll, 2018).

Section summary

A fundamental goal of psycholinguistic research is to appropriately characterize language experience and compare how varied experiences relate to linguistic and cognitive processing. In this section, evidence was reviewed suggesting a profound impact of early language exposure, interactive environmental language contexts, and second language learning on several aspects of linguistic and cognitive processing. As the enormous variety of individual differences in language experience leads to difficulty in classifying individuals as monolinguals or bilinguals, methods were suggested that enable comparison of language experience based on continuous measures rather than group comparisons. In the following sections, the consequences of bilingual language experience on linguistic and cognitive processing will be discussed in greater detail.

Dual language activation

One of the most important discoveries about bilingualism is that bilinguals' two languages are active and competing even when bilinguals are only speaking or listening to one of their languages. Initially, it had been proposed that only beginning learners of a second language (L2) activated their native language (L1) while using their second language in order to access meaning in the L2 (Kroll and Stewart, 1994). However, recent imaging research reveals that bilinguals' two languages are largely represented in the same areas of the brain (Perani and Abutalebi, 2005). The more widespread use of cognitive neuroscience methods has enabled us to examine language processing more sensitively than by assessing behaviour alone. Recent research suggests that even highly proficient bilinguals continue to activate the L1 and that the L2 is also activated during L1 use. This dual language activation is pervasive and can be observed at lexical, phonological and syntactic levels. In the next section, we review the evidence showing that bilinguals co-activate their two languages at these different levels of processing.

Lexicon

Dual language activation has been investigated at the lexical level extensively by using experiments in which bilinguals are performing a task in a single language with a hidden manipulation that indexes the co-activation of the lexicon of the language that is not in use. One manipulation that has been widely used to index language co-activation is using words with cross-language overlap, such as cognates, or translation equivalent words that have similar phonological and/or orthographic forms across languages. For example, the word *car* in English and its translation equivalent *carro* in Spanish are cognates. It has been shown that bilinguals are faster to process cognates relative to non-cognates. This cognate facilitation effect has been shown in a number of studies using single-language lexical decision tasks (Cristoffanini, Kirsner and Milech, 1986; Dijkstra, Grainger and Van Heuven, 1999; Dijkstra et al., 2010; Sanchez-Casas, Davis and Garcia-Albea, 1992). In these tasks, participants make a speeded decision such as whether a word is real or not or whether a word belongs to semantic category. The cognate facilitation effect has also been demonstrated when bilinguals make lexical decisions in the sentence context (Duyck et al., 2007; Schwartz and Kroll, 2006; Van Assche et al., 2009). Cognate facilitation has also been found in production tasks, such as picture and word naming (Costa, Caramazza

and Sebastian-Galles, 2000; Schwartz, Kroll and Diaz, 2007). Because bilinguals are not likely to be able to think about cognate status while performing these speeded tasks, the fact that cognates are processed more quickly is thought to reflect the underlying architecture of the bilingual lexicon. The Bilingual Interactive Activation plus (BIA+; Dijkstra and Van Heuven, 2002) model has used orthographic and semantic similarity to capture bilingual lexical organization. According to this model of bilingual language comprehension, bilinguals have a single integrated lexicon for both languages and both languages compete for selection.

Techniques such as eyetracking and ERPs have been used to implicitly measure dual language activation of the language not in use. Because eyetracking measures eyegaze *during* language processing, it has been shown to be a very sensitive measure of online co-activation. In a seminal study, Spivey and Marian (1999) asked Russian-English bilinguals to participate in experimental sessions that were conducted either entirely in English or entirely in Russian. In the English session, bilinguals were presented with an array of four objects and were then asked to put one of the objects in a particular location ('put the stamp below the cross') while wearing a headmounted eyetracker. In the array, there was a target object (the stamp) and three other distractors. Two of the distractors were semantically and phonologically unrelated to the target item (*ball*, *apple*). The other distractor was an interlingual distractor (*marker*), an object with a name that began with the same sounds as the translation of the target item in Russian (stamp in Russian is *marka*). If the Russian-English bilinguals activated the Russian translation of the stamp (*marka*) while doing the task in English, then they should look more towards the interlingual distractor (*marker*) compared to a control object. The results showed that the Russian-English bilinguals looked significantly more at the interlingual distractors while performing the task both in English and Russian, suggesting that while doing the task both in the L1 and the L2, the other language's lexicon was unconsciously activated.

Subsequent experiments using the same method (Blumenfeld and Marian, 2007; Marian and Spivey, 2003), have found the same pattern consistent with dual language activation for bilinguals who were being recruited to participate in a single language session. This is significant because the bilinguals' other language was never mentioned to the participants, ensuring that co-activation could not have been artificially induced by involving both languages in the same experiment or by participants expecting to use both of their languages. These experiments suggested that bilinguals co-activated their languages as evidenced by their looking patterns.

Given the evidence that both of bilinguals' languages are active even when they are in a single language mode, one critical point to interpret those data is the stage at which the non-target language was activated. One possibility is that bilinguals activate both languages in parallel from very early stages of language processing in a way that both languages compete. A second possibility is that the non-target language comes online much later due to its association to the target language. To adjudicate between these two possibilities, much more temporally sensitive measures have to be used to assess the locus of the co-activation of the non-target language. Using ERPs, a measure of neural activity in response to experimental manipulations with excellent temporal resolution, Thierry and Wu (2007) found that highly proficient Chinese-English bilinguals implicitly co-activated their native language while performing a lexical decision task in English. In this study, the bilinguals performed a lexical decision about a pair of

words (whether the second word was related in meaning to the first word). Unbeknown to the participants, the experimenters had also manipulated whether the translation of each pair of words shared a Chinese character. The ERP record revealed a modulation of an N400 component not only by the translation manipulation (correct, incorrect translation), but by character repetition in Chinese (repeated, non-repeated characters). Using ERPs, this study showed that the activation of L1 translations during L2 processing occurred spontaneously and very quickly after processing the L1 – the N400 component peaks roughly 400 milliseconds after the onset of the stimulus. Importantly, although the Chinese manipulation involved character repetition, Chinese orthography is very different from English orthography, suggesting that dual language activation can occur regardless of language similarity. Consistent with this idea, dual language activation has even been found for bimodal bilinguals, who know one signed and one spoken language (Morford et al., 2011; Shook and Marian, 2012), suggesting that spontaneous dual language activation is not limited to languages that share the same modality.

Phonology

The question of how bilinguals represent speech sounds in their two languages has been investigated extensively in perception and production. Three influential frameworks have been proposed for understanding how the sound systems of two different languages are incorporated into the bilingual mind: the Speech Learning Model (SLM; Flege, 2007), the Perceptual Assimilation Model (PAM; Best and Tyler, 2007) and the Native Language Magnet Theory (NLMT; Kuhl, 1993; Kuhl et al., 2007). The SLM was proposed to account for the differences in perception and production in late L2 learners. The SLM posits that bilinguals represent sounds as being the same across languages when they are blocked from forming a new L2 category. If bilinguals have a single category for an L1 and an L2 sound, their category will be different from monolingual norms because the category will tend to be somewhere in the middle of the two languages. However, bilinguals can also form separate categories for each language, which may result in bilinguals' categories being farther apart than for monolinguals in their two languages. This greater distance is thought to be a way for bilinguals to maintain their categories distinctly from one another. Similar to the SLM, the NLMT seeks to account for differences in perception and production of the L2 between children and adult L2 speakers. The NLMT is grounded upon the discovery that infants are able to discriminate the sounds of all languages but tune to the language(s) they hear by the end of the first year of life (Kuhl et al., 1992). After the first year of life, the L2 sounds are perceived through the perceptual system tuned for the L1, resulting in non-native-like L2 perception. PAM primarily addresses the differences in perception between L1 and L2 focusing on the factors that may cause bilinguals to form one or different categories for sounds in the two languages. These theories thus address fundamental questions about the factors that shape the organization of bilinguals' phonological representations.

A number of studies have also explored whether bilinguals experience online cross-language interaction at the phonological level. One approach has been to conduct acoustic analyses of bilingual speech for words that have phonological overlap (cognates). Studies that have compared the acoustics of cognates and non-cognates produced by bilinguals show that speech in the L2 is more similar to speech in the L1 for

cognates than for non-cognates (Amengual, 2012; Mora and Nadeu, 2009; Jacobs, Fricke and Kroll, 2016). This finding shows that dual language activation can be readily captured at the phonological level by phonological overlap across languages, in the same way as lexical experiments. It is worth noting that the influence of the L1 on L2 production is not surprising given that theories such as NLMT emphasize that native language categories constrain the formation of L2 categories. However, what is striking about these experiments is that they provide evidence that the heightened lexical co-activation induced by cognates results in greater phonetic convergence for cognates than for non-cognates even though the same sounds are being compared. Thus, even though the phonological categories are theorized to be the same for cognates and non-cognates for any given sound, the phonetic realization of the sounds in words that induce more or less co-activation (cognates versus non-cognates) reveals a dynamic pattern of dual language activation during speech.

In addition to the effects of L1 on L2, other research has investigated how speech in the L1 is affected by exposure to the L2. Chang (2012) conducted a longitudinal study in which he followed native English speakers studying Korean abroad. He showed that the quality of vowels and consonants in their English began to show influence of Korean as they had increased exposure to Korean. In a subsequent study, Chang demonstrated that the effects of the L2 on L1 pronunciation are still observable but of a smaller magnitude for more proficient bilinguals (Chang, 2013), suggesting that there is rapid tuning of the L1 to the L2 and a more stable pattern of convergence over time.

In the domain of perception, historically there has been extensive research that has examined how accurately bilinguals discriminate different contrasts in their L2, particularly as a function of their L2 age of acquisition and native language. However, since perception is categorical, the effects of language co-activation on perception have been investigated differently. One approach that has been used is to induce the activation of one language or the other by a phonetic context that is L1 or L2 specific and seeing whether a different sound is perceived as a result of the manipulation. Several studies show that bilingual perception is flexible as a function of language context (Bohn and Flege, 1993; Elman, Diehl and Buchwald, 1977; Gonzales and Lotto, 2013; Hazan and Boulakia, 1993). Bilinguals thus show sensitivity to a subtle phonetic cue that invokes one of their languages. These results suggest that similar to speech, perception is flexible and influenced by language activation.

Syntax

To investigate whether syntactic structures across the two languages influence one another, bilingualism researchers typically select bilinguals whose two languages have equivalent structures but very different preferences for use. Many studies evaluate how exposure to certain structures of one language (either naturalistically or in an experimental setting) can affect preferences of use in the other language. One paradigm that has been used to capture cross-language influence is syntactic priming (sometimes called structural priming). Syntactic priming is the tendency individuals show to repeat the same syntactic structures to which they have been recently exposed. Syntactic priming has been studied in monolinguals at length (Pickering and Branigan, 1999) and in bilingualism research this measure of cross-language influence has been used to examine whether bilinguals co-activate their two languages during language

production. These studies rely on different methods to prime the target structure, such as an interaction between a confederate and the participant in a communication game (e.g., Hartsuiker, Pickering and Veltkamp, 2004) or by providing target structures via the computer and prompting the participant to respond (e.g., Shin and Christianson, 2009). The constructions produced by the participant are then coded for whether they are convergent with the structures primed in the other language. Several studies have shown that syntactic priming occurs from the L1 to the L2 (Hartsuiker, Pickering and Veltkamp, 2004; Shin and Christianson, 2009), and from the L2 to the L1 as well as in both directions (Hatzidaki, Branigan and Pickering, 2011; Vasilyeva et al., 2010). That bilinguals show syntactic priming effects suggests that the syntaxes of the two languages can influence one another. One criticism of syntactic priming studies is that the paradigm artificially induces convergence across languages. The extent to which the effects observed in the laboratory generalize to everyday communication is not clear from these paradigms.

Bilingualism researchers have also investigated cross-language syntactic influence using other methods that do not explicitly involve the two languages. For example, Dussias and Sagarra (2007) asked Spanish monolinguals, Spanish-English bilinguals with more L2 exposure, and Spanish-English bilinguals with limited L2 immersion experience to read syntactically ambiguous sentences in Spanish while their eyegaze patterns were recorded. The sentences included a relative clause with a complex noun phrase such as: *An armed robber shot the sister of the actor who was on the balcony*. This sentence is temporarily ambiguous because the relative clause can modify the second noun (sister) or the third noun (actor). English speakers prefer attachment to the latter noun, leading to the interpretation that the person on the balcony was the actor. However, Spanish speakers prefer attachment to the initial noun, leading to the interpretation that the person on the balcony was the sister. If the Spanish-English bilinguals co-activated the syntactic preferences of their L2 (English) while reading in their L1 (Spanish), we might expect bilinguals' parsing preferences in Spanish to be less like that of the Spanish monolinguals (to favour more attachment to the latter noun), particularly for the bilinguals who had extensive L2 immersion experience. The results showed that the Spanish monolinguals preferred attachment to the initial noun. The bilinguals with less immersion experience performed identically to the Spanish monolinguals, but the Spanish-English bilinguals with more immersion experience preferred attachment to the latter noun. Thus, the results suggest that bilinguals' parsing preferences in the L1 had been shaped by their experience with their L2. Those who had been in an English-dominant environment for a longer period of time parsed Spanish sentences in a more English-like way than bilinguals who had limited immersion experience with English. Importantly, this study demonstrates that bilinguals' patterns of language use change language processing in bilinguals to be more similar to the L1 or the L2.

Further evidence for the co-activation of the two languages in naturalistic settings comes from codeswitching, or the fluid alternation between the two languages. Codeswitching is not a universal phenomenon, since codeswitching is only widespread in some language communities (Poplack, 1980). What is remarkable about codeswitching is that it follows certain patterns; habitual codeswitchers do not codeswitch randomly in ways that violate the rules of their languages (Deuchar, 2005; Poplack, 1980). That some bilinguals switch fluidly from one language to the other during speech suggests that they are able to use the co-activation of their two languages opportunistically to

express their ideas in a structured manner. Recent research suggests that bilinguals who codeswitch adapt to codeswitching patterns, demonstrating sensitivity to switching cues (Fricke, Kroll and Dussias, 2016) and facilitated processing of switches (Beatty-Martinez and Dussias, 2017) unlike non-codeswitching bilinguals. Taken together, these studies show that using the two languages in a context where both languages are widely used by the larger community may give rise to codeswitching, a behaviour that capitalizes on dual language activation of the syntax of the two languages.

Section summary

Research demonstrates that bilinguals' two languages are active even when they are only doing a task in one of their languages. In addition to behavioural studies, techniques such as eyetracking, ERPs and acoustic analyses of speech provide strong evidence for dual language activation at different levels of processing. We have highlighted several experiments that not only illustrate dual language activation, but also that this co-activation is highly dynamic. Factors such as bilinguals' experience in particular language contexts and their level of proficiency affect the degree of cross-language influence they experience (Chang, 2012; Dussias and Sagarra, 2007; Jacobs, Fricke and Kroll, 2016). Using variation in bilingual language experience is a valuable tool for understanding how experience shapes language processes.

Language selection

Given the evidence that bilinguals' two languages are active and competing for selection, how bilinguals come to select a language for speech has been of great interest to bilingualism researchers. Historically, there have been two views of bilingual language selection (for a review see Kroll et al., 2014). The first and most widely accepted is that bilingual language selection is *language non-selective*, meaning that both languages compete for selection. Models of bilingual comprehension (Dijkstra and Van Heuven, 2002) and production (Poulishse and Bongaerts, 1994) that assume non-selectivity posit that bilinguals' two languages compete until the last stages of processing. The non-selective view of language selection follows from all of the findings that bilinguals' two languages influence each other even when they are only speaking or listening to one of their languages. The second view is that bilingual language selection is *language selective*, or that bilinguals only consider the target language for speech (Costa, Miozzo and Caramazza, 1999). This account assumes that bilinguals have a way of avoiding dual language competition by using cues to select the target language. However, there is limited evidence for bilinguals' ability to bypass language competition. As we have seen, by and large the literature suggests that bilinguals' two languages interact.

One of the most influential accounts of bilingual language selection has been the Inhibitory Control Model (ICM; Green, 1998). According to this account, although bilinguals' two languages compete for selection and inhibition, some mechanism is applied to suppress the non-target language, resulting in the selection of the target language. Since the proposal of this ICM, there has been a wealth of research investigating how inhibition might be implemented, particularly in language production. Behavioural evidence for the role of inhibition in bilingual language production comes from studies that have used language-switching paradigms such as naming pictures or

numerals (e.g., Meuter and Allport, 1999 but see Bobb and Wodniecka, 2013 for alternative explanations of this finding). These studies typically find that there is a switch-cost asymmetry. While the dominant language is produced faster than the non-dominant language when there is no switching involved, in the context of switching the dominant language is produced disproportionately slower than the nondominant language. This pattern is consistent with inhibition because when speaking in non-dominant language, the dominant language has to be strongly inhibited. However, speaking in the dominant language should involve minimal interference from the non-dominant language, since its activation is relatively lower. Thus, when switching from the non-dominant to the dominant language, the bilingual goes from strongly inhibiting the dominant language to being required to speak in the dominant language, which results in slower times to produce the dominant language. On the other hand, switching from the dominant language involves little to no inhibition, resulting in small switch costs for the non-dominant language. Language asymmetries in bilingual switching have been replicated in different switching paradigms (Christoffels, Firk and Schiller, 2007; Kleinman and Gollan, 2018; Misra et al., 2012).

Neuroimaging research using switching tasks also demonstrated that when switching between languages bilinguals engage a network of brain areas that are not only associated with traditional language processing areas but also with executive functions such as inhibition and conflict monitoring (Abutalebi and Green, 2007). These findings suggest that bilingual language selection mechanisms not only encompass areas of the brain that monolinguals use for language production, but additional areas are recruited to resolve dual language competition. Other fMRI studies that have compared production under different switching conditions also suggest that there may be different components of inhibition for language selection depending on the context of switching (Guo et al., 2011; Rossi et al., 2018).

Section summary

The research on language production has been particularly important for understanding the consequences of bilingualism for cognition more generally. The requirement to select a language for speech is thought to be what drives cognitive and neural adaptation in bilinguals because the constraint to produce one language forces bilinguals to select between their languages (Emmorey et al., 2008). In the next section, we consider the consequences of bilingual experience for cognition.

Cognitive consequences of bilingualism

Traditionally, language was seen as a special domain, separate and distinct from the rest of cognition. However, recent findings suggest that language and other cognitive processes are not modular and impenetrable, such that differences in language experience can reliably relate to differences in cognition. A recent surge of research investigating the impact of variation of language experience, and especially bilingual language experience, has proposed that the demands imposed by differing aspects of language processing, such as the need to select which language to speak, relate to differing strengths of the cognitive system to switch, select and manage conflict within and

outside of strictly linguistic tasks (for review see Kroll, Bobb and Hoshino, 2014). The fundamental logic behind this line of research is that language experience has far-reaching consequences, and that cognition is flexible and adaptive based on experience. The investigated scope of the cognitive consequences of variation of language experience has been broad, with research investigating how bilingualism impacts cognitive control, learning and development, memory, and even visual attention (e.g., Sebastián-Gallés et al., 2012; Singh et al., 2015; Weikum et al., 2007; Fan et al., 2015; Liberman et al., 2017; Kaushanskaya and Marian, 2009a; Schroeder and Marian, 2012; Antoniou et al., 2015).

A great deal of work investigating the impact of variation in language experience on cognitive processing has been done in infants and children who are developing linguistic and cognitive skills in monolingual and bilingual environments. For example, infants raised in bilingual households are exposed to more than one language, and this has been proposed to impact the way in which these infants deploy attention to a speaker's face (e.g., Pons, Bosch and Lewkowicz, 2015). Work with monolingual infants suggests a developmental trajectory in which infants primarily attend to the eyes of a speaker at around four months of age but shift to primarily attend to the mouth of a speaker at eight months of age: a developmental milestone that corresponds to when babies begin to babble (Lewkowicz and Hansen-Tift, 2012). However, bilingual babies have been found to attend to the mouth of a speaker earlier in development, and this pattern of attending preferably to the mouth rather than the eyes is protracted longer across the developmental trajectory in the first year of life than it is for monolinguals (Pons, Bosch and Lewkowicz, 2015). This finding suggests that early language experience is related to visual attention. In fact, these differing outcomes in monolingual and bilingual infants may be adaptive as bilinguals may glean more language-specific information from the mouth which may be critical to learn two different language systems (Pons, Bosch and Lewkowicz, 2015).

Further, early language experience has been related to perspective-taking skills which are crucial for communicative development. For example, Fan and colleagues recruited monolingual, bilingual and multilingually exposed children who were not bilingual themselves but heard many languages in their environment. These children were given a perspective-taking task as part of an eyetracking paradigm, which required them to look to objects in a grid that were described by the experimenter. However, part of the grid was covered so that the experimenter could not see everything visible to the child. The critical manipulation was whether the child would be able to take the perspective of the person moving the objects and adjust what they looked for based on what the person giving directions could or could not see. The results suggested that both the bilinguals and the multilingually exposed children were more likely to look at the correct object, suggesting that they were more able to take the perspective of the experimenter. These results demonstrate how variation in language experiences may impact linguistic and cognitive development (Fan et al., 2015).

In young adults, effects of bilingual language experience have been found for new language learning. In a series of experiments, Kaushanskaya and colleagues found that bilingual language experience impacted the learning of a new language (Kaushanskaya and Marian, 2009a, 2009b). Spanish-English bilinguals, Chinese-English bilinguals and English-speaking monolinguals learned a novel language that was constructed to have phonemes that were either present in Spanish, English or absent in each of the

bilinguals' languages. Learning was assessed with a recall and recognition test immediately following learning as well as a week after the learning took place. Both the Spanish-English and Chinese-English bilinguals out-performed monolinguals on immediate and delayed tests, but they did not differ from each other (Kaushanskaya and Marian, 2009a). Bilingualism has also been demonstrated to facilitate novel word learning in unimodal and bimodal learning conditions (Kaushanskaya and Marian, 2009b). The consistent finding that bilingualism facilitates word learning (e.g., Bradley, King and Hernandez, 2013; Kaushanskaya and Marian, 2009a, 2009b; Nair, Biedermann and Nickels, 2016; Van Hell and Mahn, 1997) has been proposed to arise from language regulation skill from negotiating dual language activation and appropriately selecting which language to speak (Bogulski, Bice and Kroll, 2018).

A lifetime of using two languages has been proposed to have different outcomes for aging bilinguals than a lifetime of using a single language for monolinguals. When comparing older adults, a main area of concern is cognitive decline and cognitive reserve. Cognitive decline is the natural slowing of cognitive processing that has been observed with the neurobiological declines associated with age. Cognitive reserve is the preservation of cognitive functioning even in the midst of age-related neural decline. There is a great degree of variation in the amount of decline and reserve that is observed across individuals. One area of research has investigated how bilingual language experience may relate to the cognitive reserve that is witnessed in some aging adults (for review see Gold, 2015).

In a large study with 648 monolingual and bilingual patients with Alzheimer's disease, Alladi and colleagues investigated what factors may relate to the age of onset of Alzheimer's symptoms. Compellingly, the authors found an effect of bilingualism even when effects of education, sex, occupation and city vs. rural location of residence were controlled. Specifically, the authors found that on average, bilinguals first showed symptoms of Alzheimer's 4.5 years later than monolinguals. Importantly, bilingualism did not prevent the neural pathology associated with Alzheimer's disease. Rather, bilingual language experience provided a protection, a degree of cognitive reserve, that preserved cognitive functioning even while the brain was subjected to neurobiological pathology and decline (Alladi et al., 2013). Cognitive reserve related to bilingualism has been observed in many different studies and suggests that a lifetime of using two languages can preserve cognitive functioning even in the face of disease (Gold, 2015).

The assumption that guided early research on these issues was whether the demand to manage two languages that were active and competing for selection would impact performance on tasks measuring cognitive control. Many of the initial findings suggested that bilinguals had smaller conflict scores than monolinguals on executive function tasks such as the Simon, Stroop and Flanker, leading to the conclusion that bilinguals had an advantage in cognitive control relative to monolinguals (e.g., Bialystok et al., 2004; Bialystok, Martin and Viswanathan, 2005; Bialystok, Craik and Ryan, 2006; Bialystok and Martin, 2004; Bialystok and Viswanathan, 2009; for reviews see Bialystok et al., 2009; Kroll, Bobb and Hoshino, 2014). However, in the years following these initial studies, a controversy emerged when the result that bilinguals were advantaged in cognitive control relative to monolinguals did not replicate reliably in young adults (de Bruin, Treccani and Della Sala, 2015; Paap, 2014; Paap and Greenberg, 2013; Valian, 2015; Von Bastian, Souza and Gade, 2016; but see Baum and Titone, 2014; Fricke et al., 2018). Several explanations for why these results have not

reliably been reproduced have been proposed. First, much of this work compared monolingual and bilingual groups rather than using continuous measures of language experience. Given group comparisons, it is difficult to assess what aspect(s) of language experience could have been driving the results and whether it varied to the same degree across studies that replicated or did not replicate the effect. Another explanation that has been given is that young adults are at peak cognitive performance, and the tasks utilized to study effects of bilingualism on executive function are not always difficult enough to find reliable group differences in young adult populations (e.g., Costa et al., 2009).

While research concerning the impact of bilingualism on cognition is plentiful, the exact scope and nature of these effects is not well understood, particularly with respect to identifying the conditions that would be predicted to produce benefits and conditions that would not (e.g., Fricke et al., 2018; Laine and Lehtonen, 2018; Takahesu Tabori, Mech and Atagi, 2018). Recent studies suggest that the interactional context of language use may be important. Bilinguals differ in whether they live in contexts in which the two languages are used separately or whether everyone in the community is similarly bilingual. In some locations, virtually everyone becomes bilingual but only after early childhood, whereas in other locations, two languages are acquired from birth. In a recent study, Pot, Keijzer and de Bot (2018) tested over 300 older adults in the Netherlands, all of whom were bilingual or multilingual, but differed in the contexts in which they used each language. They found that lifelong bilingualism itself and high proficiency were not the factors that determined the presence of benefits to cognitive performance. Rather, whether speakers were required to switch languages for different individuals with whom they interacted appeared to predict how well they performed on the flanker task – a measure of executive function. This type of result suggests that the interactional contexts, and perhaps the social contexts in which languages are used, may be important in defining the conditions that give rise to enhancements to cognitive control mechanisms.

Section summary

In this section, the impact of bilingual language experience on cognition was demonstrated to be far-reaching – impacting domains such as attention, learning and memory across the lifespan. In fact, a lifetime of navigating the demands of using and processing two languages has even been proposed to lead to cognitive reserve across natural aging as well in the face of Alzheimer’s disease. Investigations of the cognitive consequences of bilingualism are burgeoning, and an important goal for future research is to characterize the scope and theoretical underpinnings of these consequences.

Conclusion

In this chapter we have reviewed some of the highlights of the recent research on language processing across the lifespan, focusing on the way that language is used by the most common language users: individuals who speak two or more languages. Not only is second language learning and bilingualism of interest in its own right, but critically for psycholinguists, it reveals the dynamics of a language system that is adaptive, exploiting features of the environment and of language users themselves that enable or

constrain the use of both languages. The new research reveals a language system that changes over time and place as the context imposes different demands on the cognitive system. That conclusion impacts not only bilingual speakers but all language users. The new research agenda will require that we take this approach across the lifespan, for new language learning as well as language use, and for speakers whose language experience may be challenged by pathology, enhanced by multiple language skill, and required to adapt to shifts in the environment. The presence of new methods for examining brain activity, for tracking the trajectory of new learning, and for aggregating statistics across large data sets, creates an exciting opportunity to ask questions that were not possible to ask in the past.

Hands-on activity

We illustrate one psycholinguistic approach to studying parallel language activation by asking you to interpret the data from a study conducted by Blumenfeld and Marian (2011). As previously discussed in the dual language activation section, Marian and colleagues developed an implicit measure of parallel language activation using the visual world paradigm. Blumenfeld and Marian (2011) tested a group of English monolinguals and English-Spanish bilinguals on a version of the visual world paradigm. Both groups completed the task in their L1 (English) and the competitors were words in English that had phonological overlap with English target words. Participants were presented with pictures of four objects and heard a word corresponding to a target object shown in the array (e.g., *plum*). They were asked to look at the target object and to press a button to select the target. The eyegaze of the participants was measured, and the response latencies for selecting the target object were recorded. Participants also completed an auditory version of the Stroop task, a task commonly used to measure selective attention.

In this version of the visual world paradigm, Blumenfeld and Marian used a negative priming manipulation across trials. Negative priming occurs when a distractor on one trial becomes a target in the following trial. In this study, negative priming was examined by placing the location of a target in the same location that a distractor occupied on the previous trial. For example, negative priming could occur if on one trial an English phonological distractor (e.g., *plug*) appeared at the bottom left of the array and then on the next trial a target object (e.g., *mop*) also appeared in the bottom left of the array. The logic of using negative priming was that if participants were inhibiting the phonological distractor there might be residual suppression of the location the phonological distractor occupied, resulting in a slowdown in selecting a target on the next trial. Following this logic, on trials where no phonological competitor was presented, there should be no negative priming.

In this experiment, monolinguals and bilinguals performed the task solely in English; both the targets and competitors were English words – Spanish was not involved. Given that both groups were doing the task in the same language, the researchers were able to compare the same measure of parallel activation for both groups. There were two research questions of interest. The first was to examine whether monolinguals and bilinguals resolve within-language competition differently in auditory comprehension. The second was to examine whether the

relationship between language competition and inhibitory control would be the same for both groups.

The results of the study revealed that monolinguals, but not bilinguals, showed evidence of negative priming. These unexpected results suggested that monolinguals, but not bilinguals, experienced competition from the previous phonological distractor. However, one way to think about these results is that monolinguals experienced greater conflict than bilinguals when presented with the same processing demands. Both groups performed equally on the Stroop task. However, the correlation between negative priming and the Stroop congruency effect was only significant for bilinguals; bilinguals who experienced less interference in the Stroop task also experienced less negative priming in the visual world paradigm.

Questions:

- 1 Is there any evidence to support the hypothesis that bilingual language experience impacted processing demands in this auditory comprehension task?
- 2 How might you interpret the result that bilinguals who experienced less interference in the Stroop task also experienced less negative priming in the visual world paradigm?
- 3 One interpretation of the data is that monolinguals inhibited the distractor to a greater extent than bilinguals which led to a greater carry-over effect of inhibition resulting in negative priming. Could there be other interpretations of the same result? If so, what is another interpretation of this data?
- 4 What are the real-life implications of the discovery that monolinguals and bilinguals experience different processing demands in this visual world paradigm? How can this experiment inform our knowledge of how bilingual language experience shapes linguistic and cognitive processing?

Notes

- 1 This chapter is an update of: De Bot, K. and Kroll, J. F. (2010) Psycholinguistics. In N. Schmitt (ed.) *Introduction to Applied Linguistics, Second Edition*. London: Hodder Education, pp. 124–142. The writing of this chapter was supported in part by NSF Grants BCS-1535124 and OISE-1545900 and NIH Grant HD082796 to J. F. Kroll.
- 2 University of California, Riverside.
- 3 University of Groningen.

Further reading

[Given the depth and breadth of research on bilingualism and second language learning, the research highlighted in this chapter only begins to introduce the reader to the extent of the work on the effects of language experience on the linguistic and cognitive systems. We have suggested additional readings below to orient the interested reader to more research covering topics related to the bilingual mind and brain.]

- Baum, S. and Titone, D. (2014) *Moving toward a neuroplasticity view of bilingualism, executive control, and aging*. *Applied Psycholinguistics* 35: 857–894.
- Bhatia, T. K. and Ritchie, W. C. (eds.) (2004) *The Handbook of Bilingualism*. Malden, MA: Blackwell.

- de Groot, A. M. B. (2011) *Language and Cognition in Bilinguals and Multilinguals: An Introduction*. New York: Psychology Press.
- Dussias, P. E. (2010) *Uses of eye-tracking data in second language sentence processing research*. *Annual Review of Applied Linguistics* 30:149–166.
- Kroll, J. F. and de Groot, A. M. B. (2005) *Handbook of Bilingualism: Psycholinguistic Approaches*. New York: Oxford University Press.
- Moreno, E. M., Rodríguez-Fornells, A. and Laine, M. (2008) *Event-related potentials (ERPs) in the study of bilingual language processing*. *Journal of Neurolinguistics* 21: 477–508.

Sociolinguistics

Carmen Llamas¹ and Peter Stockwell²

What is sociolinguistics?

The most obvious definition of ‘sociolinguistics’ is that it is the study of language in society. However, if it was as easy as that, then almost every language event would form part of the field of sociolinguistics. After all, there is a social and contextual dimension to every naturally occurring use of language, and it is always these social factors that determine the choice and form of what is written or said or understood. If sociolinguistics is not to encompass all linguistics, psychology and social theory, then we need a more precise and complex definition.

So, sociolinguistics is the study of the linguistic indicators of culture and power. This is much more specific. This allows us to focus on language but also allows us to emphasize the social force of language events in the world. It allows us to use the tools of linguistics as outlined in the first part of this book (grammar, vocabulary, corpus linguistics, discourse analysis and pragmatics), as well as phonology, but it also encourages us to see the influences of ethnicity, gender, ideology and social rank on language events. Above all, this definition allows sociolinguists to be descriptive of pieces of language in the world, whilst encouraging us to recognize that we are all included in that world too. It could even be argued that sociolinguists have a special responsibility to use their privileged knowledge to influence the direction of, for example, government language policies, educational practices, media representations and so on.

Many sociolinguists have argued strongly for this ethically-involved position. However, we must recognize that the majority of sociolinguistic studies are primarily descriptive and aim towards a scientific objectivity, even when dealing with very complex social influences on language. That is, most studies focus on giving an account of social aspects of language in the real world that is as precise and systematic an account as possible within the current state of knowledge. Sociolinguistics is thus progressive as a discipline in the sense that new studies and new thinking are continually testing and developing our understanding of the way language and society work in relation to each other. This means we need a definition of sociolinguistics that covers the central concerns of the majority of the discipline.

So, finally and centrally, sociolinguistics is the study of language variation and language change. This definition foregrounds the essential features of language: societies differ from each other and change over time, and language is bound up with these processes. The two dimensions can be seen as complementary axes: an historical or ‘diachronic’ axis which is concerned with the ways in which language use has changed

over time; and a snapshot of a moment in time, usually contemporary, on the ‘synchronic’ axis. All the tools of linguistics may be deployed to focus in on particular features along these two dimensions, as we will outline in the rest of this chapter.

Issues in sociolinguistics

Sociolinguistics is a fieldwork-based discipline. Researchers collect examples of language usage in their naturally occurring environments and study them in relation to the findings of other sociolinguists’ research work. In this sense it is truly an example of applied linguistics: there is no introspection, nor intuitive conclusions, nor impressionistic evaluation involved. This means it is relatively easy for researchers new to the discipline to engage in genuine and valuable sociolinguistic research at an early stage in their study. Indeed, this sort of practical investigation would be the best way to develop your own thinking and knowledge of sociolinguistics.

In order to demonstrate this fact, we introduce the key ideas in the field by illustration, using the sociolinguistic fieldwork data of Carmen Llamas. This research concentrates on the area of Teesside in the north-east of England, although the techniques Llamas uses and several of her findings are connected to many published sociolinguistic studies (Wolfram and Schilling-Estes, 1998; Foulkes and Docherty, 1999; Kerswill, Llamas and Upton, 1999; Llamas, 2001, 2006, 2007a; Llamas and Watt, 2009).

Categorizing the ways people speak

Idiolect and sociolect

Individuals speak in characteristic ways that might be peculiar to them in certain circumstances: we call this pattern their ‘idiolect’. However, people often use language in ways that they share with many other people: most generally we can call these patterns ‘sociolects’. In part, the sociolects that individuals use help us to define them as a coherent social group.

Sociolinguistics is mainly interested in the different forms of sociolect, in suggesting patterns and frameworks by which such sociolects seem to operate. It is a process of generalization away from the detail of specific data. In doing this, sociolinguistics does not deny the value of individual experience; indeed, the fact that social patterns are made explicit can be of immense value in understanding the place of individuals in society.

Standard, non-standard and codification

An example of the potential conflict that might result from these patterns can be seen in the tension – felt in almost all languages around the world – between the ‘standard’ form and ‘non-standard’ varieties. Standardization is a process that is apparent in almost all modern nations, in which one variety of a particular language is taken up (by government, the education system, newspapers and other media) and promoted as the ‘standard’ form. This often involves prescribing its use in the classroom and public examinations, reporting the workings of government in this form, printing national publications and any formal or prestigious material through its medium, and treating it

as the ‘correct’ and ‘proper’ form of the language (when, technically, there is no such thing). ‘Codification’ is a prominent feature of standard forms: grammar books and dictionaries are written promoting the form; texts of religious or cultural significance and canonical literature in the form are valued; and the variety is taught to children in schools (*see* Pennycook, 1994; Bex and Watts, 1999; Milroy and Milroy, 1999; Mugglestone, 2003).

Prestige, stigmatization and language loyalty

By contrast, other non-standard forms of the language can be treated as ‘poor’ or ‘incorrect’ varieties: they are ‘stigmatized’. Standard forms receive ‘prestige’. It is easy to measure the relative prestige or stigma of a variety by asking the following questions:

- Has the variety been ‘standardized’ and codified institutionally?
- Is the variety spoken by a ‘living community’ of speakers?
- Do the speakers have a sense of the long ‘history’ of their variety?
- Do the speakers consider their variety to be independent of other forms and ‘autonomous’?
- Do the speakers use the variety for all social functions and in all contexts or does it have a ‘reduced scope’ of usage?
- Do the speakers consider their variety ‘pure’ or a ‘mixture’ of other forms?
- Are there ‘unofficial’ rules of the variety, even where there is no codified grammar book; is there a sense of a ‘good’ and ‘bad’ form?

(List adapted from Bell, 1976.)

You will notice that these factors of prestige and stigmatization depend very much on speakers’ attitudes to their own variety. This is an important feature of socio-linguistic enquiry. People’s attitude to their own language often affects the form of that language. For example, stigmatized varieties of language often survive even under institutional pressure because groups have a ‘language loyalty’ that preserves the varieties in the face of the standardized form (*see* Garrett, Coupland and Williams, 2003).

Dialect, accent and language planning

A standardized variety is usually a regional ‘dialect’, which has been elevated in prestige and often loses its regional associations as a result. A dialect refers to the characteristic patterns of words and word-order (lexico-grammar) which are used by a group of speakers. The standard form of a language is an institutionally-valued dialect, which has been selected by historical accident or by deliberate ‘language planning’ by governments to be held up as the standard language. Dialect usually refers just to the form of the lexico-grammar of the variety as it could be written down, rather than its pattern of pronunciation. The latter is called ‘accent’.

An accent can also be standardized and stigmatized. It is important to realize that accent and dialect are separate concepts. In principle, any dialect can be spoken in any accent, for example, the dialect known as Standard UK English can be heard in all of the regional accents of Britain. In practice, non-standard dialects tend to be spoken in

specific local accents: it would be very strange (though possible) to hear a Liverpool dialect spoken in a New York accent, for instance. However, we often hear regional dialects spoken in foreign accents when they are being learned by non-native speakers. It is also important to realize that every form of spoken language is uttered as a dialect and in an accent. When people say they have no accent, they usually mean that they are speaking in a standardized and prestigious accent.

Speech communities

The way people speak often serves to define them as a group. We can talk of the ‘speech community’, which might correspond with the group as defined by other non-linguistic means: nationality, age range, gender, town or city population, political allegiance and so on. As we will see in this chapter, the coherence generated by all these factors – including the linguistic factor – can operate as a self-serving reinforcement of all sorts of social values to do with local or community or ethnic identity. Language variants may also be maintained and reinforced, even against standardization pressure, in this way.

Descriptive tools of language variation

Any single piece of language is an integrated whole, but in order to investigate its different aspects we must explore it in convenient categories. Traditionally, linguistics has categorized the different dimensions of language as a ‘rank scale’ from the smallest units of individual sounds or letters up to the largest scale of whole texts and discourses. Each of these levels often corresponds with a linguistic sub-discipline, as follows:

<i>Language element</i>		<i>Linguistic sub-discipline</i>
discourse		discourse analysis
text		text linguistics
utterance		pragmatics
sentence	} meaning →	semantics
clause		&
phrase	} structure →	syntax
word/lexeme		lexicology
morpheme		morphology
sound/phoneme		phonology
letter/grapheme		graphology

(For an overview of all these dimensions, see McGregor, 2009; Jackson and Stockwell, 2010; Mullany and Stockwell, 2010.) You will have noticed that some of the chapters in the first part of this book cover several of these sub-disciplines. Like second

language acquisition and psycholinguistics in this part of the book, the sub-discipline of sociolinguistics is not confined to one of these levels; instead, it investigates different levels from a sociolinguistic perspective.

Although sociolinguistic variation occurs throughout the language system, sociolinguistic studies have focused on particular types of patterns, especially at the phonological level. Phonological variation is a useful level to study since it is easier to find an occurrence of a particular sound rather than a word, phrase or grammatical structure; also, phonological variation is often below the level of awareness of speakers and so is less affected by self-conscious alteration. However, sociolinguistic exploration has also been undertaken at the grammatical, lexical, discursive and whole-language levels.

The linguistic variable

The main tool in sociolinguistics has been the concept of the ‘linguistic variable’. This is any single feature of language which could be realized by different choices. In the word *farm*, for example, some people do not pronounce the /r/ and some do, and there are also variations in the ways the /r/ can be pronounced. This is a linguistic variable which is strongly determined by geographical location: non-/r/-pronouncers are likely to be from England, Wales, Australia, Massachusetts or the southern states of the USA. Furthermore, you could pronounce the /r/ as a sort of ‘tap’ against the back of the teeth (almost like a /d/), in which case you are likely to be from the Scottish Highlands or the west of Ireland.

The linguistic variable feature could be a sound, or a word, or a phrase, or a pattern of discourse and so on. For example, common words for round bread products include the lexical variants: *bun, roll, cob, bap, barm, fadge, stotty, cake, batch, loaf* and no doubt many others. You might not even recognize some of these, but their use is determined by the social factor of geographical location. Do you *park your car, rank it* or *file it*? Do you buy sugar in a *bag*, or a *sack*, or a *poke*? Do you *call someone* or *phone them up* or *ring them* or *give them a phone* or *give them a bell* or *give them a buzz*? All of these will vary depending on where you live, and who you are talking to.

Phonological variation

Although the linguistic variable can be from any level of the linguistic rank structure, it is variation in ‘accent’ that has provided the major focus of sociolinguistic studies so far. This is partly because observing and recording occurrences of individual sounds is very much easier than waiting around all day for a particular word, structure or discourse pattern to appear, or setting up a complicated and artificial test situation. Phonological variables also have the advantage that they are usually below the level of conscious awareness, so the recorded data can be relied on to be naturalistic.

People ordinarily talk of ‘broad’ or ‘strong’ accents and describe sounds as ‘precise’ or ‘clipped’ or a ‘drawl’. However, in order to be able to describe accents systematically and precisely, sociolinguists use the International Phonetic Alphabet (IPA). This is a system of special letters, each one of which corresponds with a very particular sound. The full IPA covers every speech sound it is possible to make with the human mouth and throat (see Ball and Rahilly, 1999; Collins and Mees, 2008). Table 9.1 lists a selection of some symbols which you might find useful in sociolinguistics.

Table 9.1 Selected International Phonetic Alphabet (IPA) symbols

Consonants	
p – <u>p</u> it	tʃ – <u>ch</u> ange
b – <u>b</u> it	dʒ – <u>jud</u> ge
t – <u>t</u> en	m – <u>m</u> an
d – <u>d</u> en	n – <u>m</u> an
k – <u>c</u> at	ŋ – <u>sing</u>
g – <u>g</u> et	l – <u>l</u> et
f – <u>f</u> ish	r – <u>ri</u> de, <u>par</u> rot (‘trilled r’)
v – <u>v</u> an	r – <u>ru</u> bbish (Scots) (‘tapped r’)
θ – <u>th</u> igh	ɹ – <u>fa</u> rm (US) (‘approximant r’)
ð – <u>th</u> y	ʊ – ‘very’ as ‘vehwy’
s – <u>s</u> et	w – <u>w</u> et
z – <u>z</u> en	j – <u>y</u> et
ʃ – <u>sh</u> ip	ʔ – bu‘er, ‘butter’ pronounced without the /t/ (glottalstop)
ʒ – lei <u>s</u> ure	x – lo <u>ch</u> (Scots)
h – <u>h</u> en	
Vowels (Monophthongs)	(Diphthongs)
ɪ – <u>p</u> it	aɪ – <u>bi</u> te, <u>ni</u> ght
ɛ – <u>p</u> et	əɪ – <u>ni</u> ght (Scots, Canadian)
æ – <u>p</u> at	eɪ – <u>ba</u> it
ɒ – <u>p</u> ot (British accent)	ɔɪ – <u>bo</u> y
ʌ – <u>pu</u> tt (British), <u>co</u> lor (US)	əʊ – <u>ro</u> e
ʊ – <u>pu</u> t	aʊ – <u>ho</u> use
ə – <u>pa</u> tter (British)	ʊə – <u>se</u> wer, <u>po</u> or (British)
o – <u>ea</u> u (French), <u>lo</u> w (N England)	ɪə – <u>ea</u> r (British)
ɑ – <u>ca</u> lm (Scouse), <u>fa</u> rm (Teesside)	eə – <u>ai</u> r (British)
y – <u>tu</u> (French), <u>sch</u> ool (Scouse)	
ø – <u>pe</u> u (French), <u>bo</u> at (Geordie)	
i: – <u>be</u> an	
ɜ: – <u>bu</u> rn	
ɑ: – <u>ba</u> rn	
ɔ: – <u>bo</u> rn	
u: – <u>bo</u> on	
e: – <u>ba</u> it (Northern England)	

Grammatical variation

Linguistic variables operating at a grammatical level have also been studied in sociolinguistics. For example, variations in the morphology of subject–verb agreement have been observed among the speech of British schoolchildren. The third person morpheme ‘-s’ (*he goes, she knows*) was used by some children for all verb agreements (*I goes, I knows*). It was noted that this non-standard pattern tended to be used with a greater frequency by boys than girls, and seemed to be a marker of group solidarity among the boys.

Centrality in the social group and speech community is often marked by the frequent use of certain realizations of linguistic variables. A major feature of African–American vernacular English (AAVE) is the non-use of the verb ‘to be’ in some contexts: *he a big man, you the teacher*. This is known as ‘zero copula’, and is the grammatical form to use when the verb could be contracted in general American English or standard British English: *he’s a big man, you’re the teacher*. By contrast, African–American vernacular has developed an invariant ‘be’ to signal habitual states: *he be busy, she be running all day*.

A common grammatical variable that AAVE shares with many other non-standard grammars is the requirement for ‘negative concord’: that is, in a negated sentence, every element must be negated (*Ain’t nobody going to help you, don’t nobody know me*). This can be used for heavy emphasis (*Ain’t no cat can’t get in no coop*), where standard Englishes would need to use a few more phrases to achieve the same effect (*There isn’t a single cat that can get into any coop at all*) (see Labov, 1972; Kochman, 1981).

Lexical variation

Dialectal variation depends largely on different lexical items being used from region to region. Traditionally, ‘dialectologists’ were able to draw lines across maps in order to delineate the boundaries where different words or phrases were used. When making tea, you might *stew, mash, brew* or *draw* the tea in boiling water. Most local areas have specific lexical items that serve to identify their speakers: your nose is a *neb* in Yorkshire; a *square* is to Philadelphians what a *block* is to a New Yorker; an American *resume* is a British *CV*, which is South African *biodata*; South African *robots* are British *traffic lights*; American police *batons* are British *truncheons* which are Indian *lathis* and so on.

Phrasal variations include the Irish and Scottish *Is that you?* when an English person would say *Are you finished?* and an American would say *Are you done?* or *Are you through?* Prepositional variation is very difficult to explain: why do Americans *talk with* and *meet with* when British people *talk to* and just *meet*? Something *in back of* the house in America is *behind* or *at the back of* it in Britain. There are dozens of others, usually consequences of historical divergence or interference from other languages.

Discoursal variation

Variability in discourse organization is a very fruitful area of investigation at the moment. Strategies of conversational structure can be observed and analysed, for example, and it is easy to see how politicians can be trained to exploit techniques for ‘keeping their turn’ (see Chapter 14, *Speaking and pronunciation*) and dominating the discussion. Alternatively, the different ways that men and women organize narratives or

conduct conversations or arguments have been investigated to show up apparently different objectives in speech.

Aspects of politeness and social solidarity represent another dimension of discourse organization that can be explored (*see* Chapter 5, *Pragmatics*). Again, gender studies have led the way here, and insights into how politeness (and impoliteness) works have been generalized cross-culturally in comparative studies. The discursal end of sociolinguistics is considered by some researchers to belong to pragmatics.

Linguistic variation

Lastly, the entire language can be treated as a variable. Bilingual or multilingual individuals can often move from one language to another within a single utterance and sometimes even within a sentence. This is called ‘code-switching’, and the shift into another language can be used to indicate that a different ‘domain’ of experience is being signalled.

Sometimes entire speech communities share two or more languages, as in Switzerland (German, French, Italian) or Canada (French, English). Where there is a functional division between the languages’ usage, for example when one is used for formal or printed contexts and the other just in speech, then a situation of ‘diglossia’ is said to exist. One variety becomes the H (as in High German) and the other the L (Low German) variety. For example, classical Arabic, the language of the Koran, is the H variety that can be read by all Arabic speakers, but in different Arab countries a range of different L varieties of Arabic is spoken.

Sociolinguistics explores aspects of such situations, as well as deliberate attempts by governments and authorities to engage in language planning: the promotion and standardization of one variety of language, and attempted interventions in linguistic usage (such as Noah Webster’s dictionary with its new spellings of ‘American English’ words, or prohibitions by the Academie Française of Anglicisms such as *le weekend* or *le hot-dog* in French).

Lastly, sociolinguists explore the birth and death of languages, for example in the development of ‘pidgin’ languages. These are new languages, often based on two or more languages in contact, with their own systematic grammatical rules. When some pidgins become the first languages of a new generation, they are called ‘creoles’ (such as South African Afrikaans, Jamaican Patwa, West African Krio, Louisiana Creole and many others). Creolists have provided insights into the processes of development of all languages, by investigating new and emerging creoles (*see* Holm, 1988, 1989; Kouwenberg and Singler, 2005; Mufwene, 2001; Romaine, 1988; Sebba, 1997).

Social factors that correlate with language variation

In the section above, it was very difficult for us to talk about linguistic variables without mentioning the social factors with which they may correlate. This is the whole point of sociolinguistics. In investigation, a linguistic variable is set against the social variable in order to work out the influence of that social aspect on language. A range of social variables has been focused upon in sociolinguistic studies (*see* Llamas, Mullany and Stockwell, 2007; Milroy and Milroy, 1993).

Geographical and social mobility

Dialects within a language are often localized geographically. We can speak of 'dialect chains' where the shift from one dialect to the next is not sudden between one town or county or state and the next. Instead, dialects merge and overlap across distances. Even at national boundaries, speakers on either side of the border can sometimes understand each others' dialects (such as neighbouring Dutch and Germans) better than speakers within their own 'language' community (northern Germans and Bavarian Germans, for example).

If dialect chains complicate the dialect map, towns and cities complicate matters further. The migration of people into urban areas disrupted neat dialect divisions, and the study of 'urban dialectology' was only achieved by the realization that there is social stratification in urban areas on the basis of class. Increasing geographical mobility has been matched over the last century in the Western world by increasing social mobility. The self-consciousness that this brings can be observed in people of certain social groups aiming for a more prestigious form of language than they would naturally use, for example, 'overdoing' an upper-middle class accent in formal situations. This is called 'hypercorrection'.

The counterpart of hypercorrection is the phenomenon observed when some people use stigmatized forms of language (as a sort of 'streetwise' accent signal): this is known as 'covert prestige'. Factors such as these are major influences on language loyalty and language change.

Gender and power

The influence of gender and asymmetries in power relations have been a major aspect of sociolinguistic discussion in recent years. The notion of a 'genderlect' has been proposed to account for some of the apparently systematic differences in the ways men and women use language. These differences can be observed across the whole range of linguistic variables, from plans of narrative and discourse organization, to the different accents that men and women have even from the same area (*see* Coates and Cameron, 1986; Cameron, 1995; Crawford, 1995; Mills, 1995; Holmes and Meyerhoff, 2003; Coates, 2004).

Age

Older people and younger people use language differently. When corresponding features of these speakers are compared, such differences can reveal evidence of changes in the language over time. In other words, the 'snapshot' of current usage across the age ranges can suggest historical language changes. This is the 'apparent time hypothesis'; it gives us the ability to observe potential change in progress, which was not thought possible in the past (*see* Llamas, 2007b).

Audience

Taking into account the audience and reception of language use provides insights into the ways speakers behave. Most conversations have a 'recipient design', that is, speakers plan their utterances with the addressee in mind. This factor often results in speakers adjusting their accent, style or language towards their addressees. This phenomenon is

called ‘accommodation’ and it seems that such convergence of accents is an important cause of language change over time (*see* Auer, 2007).

Identity

This is an important social factor. Not only do linguistic patterns signal social and individual identity, but people’s conscious awareness of their personal, ethnic, geographical, political and family identities is often a factor in their language use. Allegiance and membership of different social groups can be expressed by language patterns, and sometimes those groups are even defined by these patterns, whether this is a language or style or jargon (*see* Eckert, 2000; Dyer, 2007; Llamas and Watt, 2009; Mullany, 2007).

Social network relations

It has been recognized that the relative strength of relations between individuals within a social group (their ‘social network’) is also important in understanding how linguistic features are maintained, reinforced and spread. Whether individuals have strong or weak ties to the group can be used as a measure of their sociolinguistic influence (*see* Milroy, 1987; Milroy and Milroy, 1999).

Working with sociolinguistic data

Collecting and analysing sociolinguistic data

When collecting data, the fieldworker must be aware of a range of issues involved in ‘sampling’ and the ‘representativeness’ of the population surveyed. A variety of techniques have been developed by sociolinguists to gain access to the least monitored forms of speech, below the level of common self-awareness.

Among the ‘experimental’ forms of elicitation that can be used are interviews, questionnaires (spoken or written), ‘thinking-out-loud protocols/think-aloud protocols’ (TOL/TAP) given with a passage to read, role-play and storytelling. Linguists have also investigated speech styles by use of a series of elicitation techniques that have increasing degrees of informant self-awareness, for example, starting with an informal conversation, then giving a reading passage, then a list of words to read, and finally a list of potential minimal pairs (such as *moon/moan*, *which/witch* or *cot/caught*). Another example of an innovative technique was used by Llamas in her fieldwork: ‘a sense relation network’ sheet (also known as a ‘semantic map’) intended to elicit local speech variants.

It is a fact of sociolinguistic research that if people are aware they are being observed, they often alter their linguistic behaviour. This is the ‘observer’s paradox’, and several of the methods above were developed in order to minimize its impact on the data collected. The ‘ethical’ consequences of data collection must also be considered, in relation to the informants’ rights of privacy.

Interpreting sociolinguistic data

Now that we have introduced some of the key concepts involved in sociolinguistics and we have considered factors to bear in mind when collecting sociolinguistic data, we

must think about how we interpret the data we collect. As well as discovering variation, we must attempt to explain what motivates this variation. Some questions we must think about include:

- Why does language variation exist (particularly variation between speakers from the same speech community)?
- What function does the variation serve?
- How do languages change?
- What processes are involved?
- Does the data we collect from one speech community have wider implications?

In this section we shall use aspects of Llamas's research on Teesside English to consider what linguistic data can tell us about the nature and function of language variation and change. Before looking at data from the Teesside study, however, we shall consider some models and frameworks we work within when interpreting language variation and change. This will allow us insight into decisions made in the design of the Teesside study and the research questions it addresses.

Models and frameworks

The axiom underlying our initial definition of sociolinguistics is that language is variable at all times. Variation means there is the potential for change, and the causes and effects of language change are, therefore, central concerns of sociolinguistics. In seeking the motivation for language change, we must consider whether the changes are internal or external to the linguistic system. Internal changes are 'system-based', brought about by pressures internal to the linguistic system. For example, vowel changes affecting a number of northern cities in the USA are often explained from the perspective of a 'chain shift model'. In this framework, changes in vowel sounds are co-ordinated, that is, movement of one vowel triggers movement of another and another and so on down the chain. Within sociolinguistics, external changes are 'speaker-based', brought about by speakers adopting forms from other varieties. The Teesside study focuses on variation in the realization of certain consonants and considers the variation to be speaker-based. The motivation for the variation is thus seen as social and external to the linguistic system.

Unprecedented changes have been witnessed in spoken British English in recent years, most of which appear to be best accounted for by factors external to the linguistic system. A 'dialect levelling model' of change has been used to account for data in a number of studies. 'Dialect' or 'accent levelling' involves the eradication of locally marked forms in a variety. Large-scale homogenization appears to be taking place in spoken British English: differences between accents are becoming less marked. A 'gravity model' of 'diffusion', which involves the spreading of variants from an identifiable local base into other geographical localities, also appears to be underway. Many of the spreading features in British English are thought to be moving northwards from a south-eastern epicentre. Forms associated with London English are now found in urban centres far from the capital.

Both levelling and diffusion come about through the 'dialect contact' caused by geographical and social mobility. As people increasingly travel and move across society,

One of the linguistic variables included in the study was intervocalic /r/ (as in *carry*, *area*, *a real* and *to reach*). Three variants of /r/ were analysed in the data:

- The alveolar tap [ɾ].
- The alveolar approximant [ɹ].
- The labio-dental approximant [ʋ].

Note: Whereas phonemes are represented in slashes, for example /r/, the various slightly different ways of pronouncing a phoneme are represented by square brackets, for example [ɾ], these are called ‘allophones’ (see Celce-Murcia, Brinton and Goodwin, 1996, and Collins and Mees, 2008, for a description of phonemes and allophones and how they are produced in the vocal tract).

- [ɾ] This tap may be considered the ‘localized variant’ which is found in northern England and Scotland.
- [ɹ] This alveolar approximant is the non-localized, or ‘standard variant’.
- [ʋ] This labio-dental is the ‘spreading variant’ which is currently spreading rapidly from the south of England.

Figure 9.1 reveals whether use of the localized variant, the standard variant and the spreading variant can be correlated with any of the social groups of speakers.

What Figure 9.1 shows is that there is a great deal of variation in the use of variants of /r/ among the speakers of the sample. This variation is both gender-correlated and age-correlated.

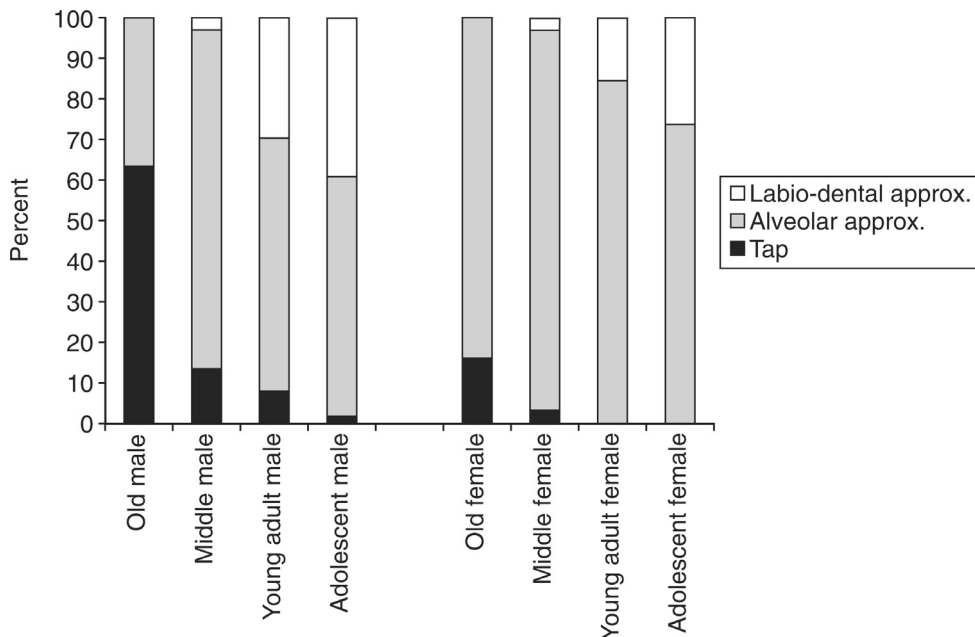


Figure 9.1 Distribution of variants of /r/ in Middlesbrough English

If we consider the age variation first, the data suggest that use of the localized variant [r] is in steady and dramatic decline (it is used by the old speakers, but almost rejected categorically by the young speakers). The age-correlated variation also suggests that [ʊ] is a new variant which has appeared in MbE very recently (it is used to a considerable extent by the young speakers, but not found at all in the speech of the old). What we have, then, is evidence suggesting change in progress in MbE. This change appears to involve the processes of both levelling and diffusion.

There also seems to be a gender difference between the initiators of these processes of change. The findings indicate that the females lead in the levelling out of variants, with males following (note the much lower female use of [r]). Males, on the other hand, lead in the diffusion of new variants into the vernacular, with females following (note the higher use of [ʊ] among young males).

It seems, then, from the data for /r/ that MbE is indeed undergoing a process of levelling and features which are spreading from the south-east of England are appearing in the speech of the young in Middlesbrough. Does this mean that MbE is becoming like accents of the south-east of England? Let's look at another variable.

Intervocalic, word-medial /p/ was also taken as a variable in the study (as in 'paper'). Three allophones of /p/ were under investigation:

- The standard variant is the released bilabial stop [p].
- Another possible variant is the glottal stop [ʔ].
- The variant local to the north-east of England is a glottalized [p̚] (this represents a simultaneous glottal stop and 'p' sound).

Given the dialect levelling in evidence in the variable /r/, we may expect the same to be true of /p/ with a marked decline revealed in the use of [ʔp]. Let us see.

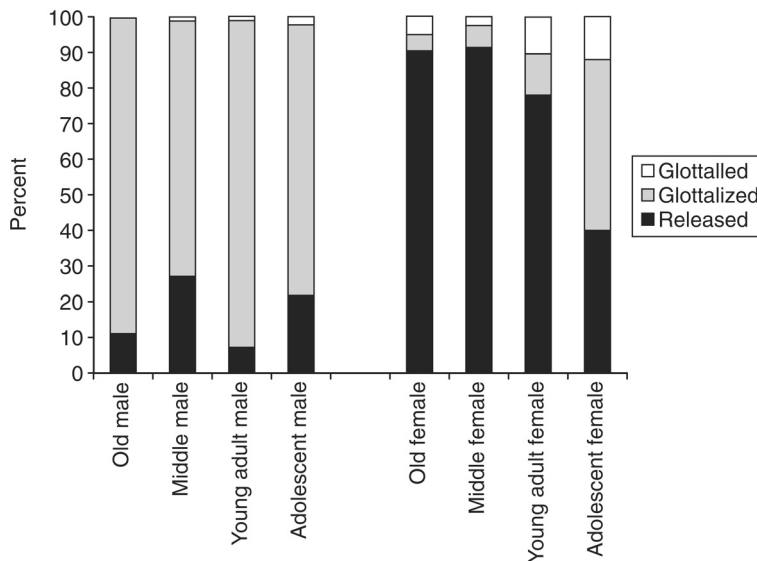


Figure 9.2 Distribution of variants of /p/ in Middlesbrough English

The most immediately striking thing we see in Figure 9.2 is the marked gender difference. The women show a clear preference for the standard variant [p], whereas the men favour the localized [ʔp]. This type of gender-correlated variation has been found repeatedly in sociolinguistic studies. If we look closely at the data, however, we notice that the young women are acting quite differently from the old and middle-aged women. The young women demonstrate a much higher use of the localized north-eastern [ʔp]. Such is the increase in usage that [ʔp] is the preferred variant of the adolescent women compared with a 4.6 per cent use among the old female speakers. Far from being levelled out then, use of the localized variant of /p/ appears to be on the increase. Also, an increase is revealed in use of the glottal stop, in particular among the young female speakers. Again, we have evidence which suggests change in progress in MbE as well as the existence of sharply differentiated genderlects.

It is clear, then, from looking at just two linguistic variables and co-varying them with two social variables, that socially meaningful language variation can be detected, and from the evidence of variation we can infer patterns of change. Evidence from /r/ and /p/ both suggest that change is in progress in MbE. In both variables we also see that men speak differently from women of the same speech community, indeed, in many cases of the same family. The variation in language is clearly not random or free. Rather, it appears to be systematic and to be constrained by social factors.

Although the groups we are working with are made up of individuals (a fact we should not forget), the individual speakers appear to systematically prefer or disprefer variants that are available to them depending on whether they are male or female, young or old. In this way speakers realize their sociolinguistic identity and are able to project the linguistic identity they choose to the outside world. Gaining insight into the motivation for these choices is also part of our job as sociolinguists. The different variants must carry symbolic meaning to the speakers whether or not the speakers would be able to explain what that meaning is. By analysing other factors – how mobile the speakers are, how they evaluate the variants under consideration – we may find answers to some of the questions posed by our findings:

- Why are some variants adopted from other varieties and others not?
- Why are some variants in decline and others increasing?
- Why are some variants preferred by female speakers and others by males?

The data we have looked at have revealed another important fact to us. Although the increasing variants we have seen, [ʊ] and [ʔp], are different – one is new to MbE and the other is local to MbE – one thing they have in common is that they are both non-standard forms. The changes in progress that are suggested by the evident variation in the data, then, do not represent a movement of MbE towards the standard variety. This is true of many other localities and many other variables. The ‘covert prestige’ carried by non-standard forms seems to be exercising more and more influence on language variation and change. This suggests we should re-evaluate the influence of the standard variety, for example Received Pronunciation (RP) in British English, and to question its status as a model to be imitated in language teaching.

Applications of sociolinguistics

Many sociolinguistic studies have a practical application as their main objective. Sociolinguistics has informed the thinking of government policy on education and

language planning across the world, with insights from the field finding their way directly into teacher-training courses and educational programmes, especially in the UK and USA. Teachers who are aware of the sociolinguistic context have insights at their disposal which can make them better teachers. For example, what was once regarded as 'bad' grammar can be seen as a systematic non-standard dialect, and corrective teaching can be replaced by an awareness of multidialectalism. This can give students a greater repertoire in their performance, including access to the prestigious standard forms, and a greater confidence in their own language abilities. It encourages us to recognize diversity as richness. Lippi-Green (1997), for example, contains a wealth of information on how language prejudice and ideological planning have operated in the USA.

There are many other uses of sociolinguistics. Film actors imitating accents will have been trained using insights from sociolinguistics. Criminals have been caught by pinpointing their accent origins. Politicians, advertisers and assertiveness trainers all learn discourse patterns that convey their message most effectively. In addition, sociolinguistic studies have contributed greatly to our understanding of how languages change. For example, Labov (1994, 2001) and Milroy (1992) demonstrate a sociolinguistic view of the historical development of English. This not only helps us to 'read' the past but also offers us guidance on the likely social implications in the future.

Finally, the methods developed in sociolinguistics have led the way in the consideration of research ethics and in the use of naturalistic data in linguistic study. Sociolinguistics reveals the complexity of context when language is studied in its real, applied setting, and it also suggests ways of understanding this context and the richness of language uses.

Hands-on activity

The passage below is a humorous attempt to imitate the spoken vernacular of Middlesbrough in written form (and also pokes some gentle fun at sociolinguists). We have chosen this passage as it is likely to be unfamiliar to most of the readers of this book. However, you do not need to understand the passage at first to be able to use it as sociolinguistic data. First, draw a large table divided as follows:

Middlesbrough English

Standard English

Phonological examples

(Any novel spellings that seem to be used to represent the accent)

Lexical examples

(Any words you do not recognize, or which seem to be used in an unusual way)

Grammatical examples

(Including strange idioms, as well as unusual phrases and syntactic ordering that you find odd)

Discoursal examples

(Anything which seems to be trying to capture spoken discourse)

Then go through the passage, systematically trying to identify as many representations of the Middlesbrough accent and dialect as you can, in these four categories. At this stage you do not need to know exactly what the non-standard forms mean. Here is the passage:

NOW YOU'RE TALKIN'

EE, well us Teessiders have finally been recognised by the posh Cockneys coz of the class way what we talk, eh?

It was on the telly news and everything. Did yer see it, eh?

What it is, right, there's this new dictionary out this week – which is good news like coz I've finished reading the other one now, like, and – get this – we only get a mention!

Honest. They reckon more new words and phrases are made up on Teesside than anywhere else ... well me and the lads in the Streetfighters Arms do anyway, like.

Hey, this dictionary, it's huge! Its been genetically modified I reckon. It's not like them rubbishy efforts at school with all the mucky words underlined in red and that.

This one's got 18,000 smart official new words in it. I didn't know there were that many words in the world, me – mind, to be fair I reckon Our Lass gets through at least that many when she's got a right cob on with us, like!

I swear down dead, it's got all these top Teessidisms in it like 'ee', 'gadgie' and 'parmo' – words what we're learning the rest of the country, like.

Not that they're new words or owt like, just ones what all the eggheads down Oxford have finally figured out what we've been saying all along, eh? The boffins reckon it shows Teesside has 'a dynamic and vibrant regional vernacular'. That's rubbish, that is. Mind, if you want to hear some choice new words for next year's book yer wanna get yerselves round Our House when Boro lose!

So anyroad like, I was just gobsmacked when Our Tony walked into the Streetfighters and plonked his show-off copy of The Guardian on the bar.

He said he'd got something to show us like and that it was the new 'lingua gadgia' but like I said, I don't give a hoot about no Italian cars.

Anyroad, it turns out it was this thing about all these new words and that.

And there we were on page eight like: 'ee', a North-eastern alternative to 'oh'; 'gadgie', a Teesside version of 'bloke' derived from ancient romany; and 'parmo', a late night breaded pork and cheese dish claimed to be of Italian origin but actually peculiar to Middlesbrough.

That's right, that is, like. When we went down to Wembley the fest time we all went down the West End and had a right chew on in this little Italian when they wouldn't serve us a parmo.

I mean, they said they'd never heard of it! Said we were making it up.

Cheeky nowts.

Mind, to be fair, they haven't even heard of it in Stockton, although that is Durham and over there they can't even tell a 'croggie' from a 'tan'!

Evening Gazette, 12 June, 1999 (Reprinted with permission)

You should now have a list of words and phrases that cause you problems in understanding. Some of your difficulties, of course, will also be a result of not having enough contextual local knowledge. So, for example:

- Teessiders – people mainly from the Teesside towns of Middlesbrough and Stockton.
- Cockneys – people from east London, but used here to mean anyone from England south of Teesside.
- Streetfighters Arms – an invented pub name.
- Boro – nickname for the local football team.
- *The Guardian* – a quality broadsheet national newspaper with a reputation for being read by educated liberals.
- Wembley – the national football stadium where cup finals are played.
- West End – the main entertainment district in London.
- little Italian – here meaning an Italian restaurant.
- Durham – a cathedral city north of the river Tees; Stockton used to be in County Durham and Middlesbrough in Yorkshire.

You can now try to fill in the second column in your table, by guessing, from context, the equivalent expressions in standard English. Our interpretations are presented in Chapter 18, *Suggested solutions*.

Can you imagine a similar passage written in your own local dialect? You could analyse your dialect in a similar way, breaking it down into its different categories, and deciding where and when it would be most appropriate to use certain features.

Notes

- 1 University of York.
- 2 University of Nottingham.

Further reading

There are some very good book-length introductions to sociolinguistics, such as the following: Holmes, J. and Wilson, N. (2017) *An Introduction to Sociolinguistics* (fifth edition). New York: Routledge.

[This is a good survey of the field with some excellent illustrations and case-studies.]

Stockwell, P. (2007) *Sociolinguistics: A Resource Book for Students* (second edition). London: Routledge.

[This is a very readable ‘flexi-text’ which takes students from key concepts rapidly to their own explorations, and also contains some key readings by leading sociolinguists.]

Wardhaugh, R. and Fuller, J.M. (2015) *An Introduction to Sociolinguistics* (seventh edition). Oxford: Blackwell.

[This is probably the standard textbook in the area: comprehensive and authoritative. For other good introductions, see also Downes (1994) and Trudgill (2000).]

The following are more advanced books or collections:

Bailey, B., Cameron, R. and Lucas, C. (2015) *The Oxford Handbook of Sociolinguistics*. Oxford: Oxford University Press.

[This handbook presents a wide variety of chapters across the study of language and society including the major theoretical approaches in the research field.]

Chambers, J.K. (2003) *Sociolinguistic Theory: Linguistic Variation and Its Social Significance* (second edition). Oxford: Blackwell.

[This is an advanced reference work which focuses on the consequences of sociolinguistic studies on linguistic theory.]

Coupland, N. and Jaworski, A. (1997) *Sociolinguistics: A Reader and Coursebook*. Basingstoke: Macmillan.

[This is an excellent resource for key texts in sociolinguistics; its range of articles covers the broad range of approaches and it provides a good orientation in the field.]

For other good collections and comprehensive surveys, see also Hudson, 1996; Chambers and Trudgill, 1998; Wolfram and Schilling-Estes, 1998; Labov, 2001.

Focus on the language learner

Styles, strategies and motivation¹

Andrew D. Cohen² and Alastair Henry³

Introduction: Learner characteristics

Success in learning a foreign or second language (L2) depends on a variety of factors such as the duration and intensity of the language course, the characteristics and abilities of the teacher, the appropriateness of the teaching methodology, the quality of the textbook, the size and composition of the learner group, the number of practice opportunities, and last but not least, the characteristics of the language learner. This chapter will focus on the last factor, that is, on the impact of the most important learner features on language learning achievement.

The importance of learner characteristics cannot be overestimated. When students embark on the study of an L2, they are not merely ‘empty vessels’ that will need to be filled by the wise words of the teacher; instead, they carry a considerable ‘personal baggage’ to the language course that will have a significant bearing on how learning proceeds. Past research in applied linguistics has identified a number of key components of this learner ‘baggage’ and has also provided clear evidence that these components determine how fast and how well we are likely to master the L2. In this chapter we will first briefly look at learner characteristics which are largely beyond the teacher’s control, and then concentrate on three factors that teachers can actively address to increase the effectiveness of instruction: learning styles, learner strategies and motivation.

Characteristics outside the teacher’s control

Age and gender

What are the chief learner characteristics – or as researchers like to call them, ‘individual differences’ – that influence language learning success? It is appropriate to start with the two main demographic variables: the learner’s age and gender. The former has been the subject of a great deal of research over the last 50 years (see, for example, Pfenninger and Singleton, 2017). The traditional view has been that the younger we start to learn a second language, the better chance for success we have. Previously, this advantage was explained in terms of a ‘critical period’, where a person needed to learn the L2 in the period roughly before puberty, or lose the ability to become native-like altogether. However, recent research shows that ‘the younger the better’ principle is only valid in environments where

there is a constant and natural exposure to the L2 (for example, learning French in France); in typical classroom environments where the amount of exposure is relatively small, older learners seem to have the advantage over their younger peers: that is, here, older is better. Also, age seems to have a much greater effect on pronunciation than on other linguistic abilities, such as grammar or vocabulary. Even here, it seems that some late-starting learners have been able to develop native-like pronunciation. Thus, although the ‘age factor’ may have some physiological basis in the way the brain handles language, there are also likely to be several other age-related factors at work, including the amount and pattern of L2 input, the amount of verbal analytical ability and the motivation to learn the L2 (*see* Birdsong, 2006, for an overview).

The second factor, the learner’s gender, is important because research has consistently found that females outdo their male peers when it comes to language learning. However, because this factor is beyond the teacher’s control, we will not dwell on it here. Also, it needs to be pointed out that gender issues have assumed a new prominence as traditional gender categories have been replaced by new ones. This shift in views and in behaviour calls into question traditional research based on biological gender and invites us to take a new look at social gender in its many ramifications and how it may influence language learning (*see* Jones, 2016).

Language aptitude

Let us now turn to what is probably the best-known individual difference variable in language learning: ‘language aptitude’. This factor has been referred to under different names, for example: a special ‘ability’, ‘gift’, ‘knack’, ‘feel’ or ‘flair’ for languages, and everybody – learners, teachers and researchers alike – will agree that it is a very important attribute of learning effectiveness. It is best seen as the language-related aspect of intelligence, and it determines the rate of learning and the amount of energy the progress is likely to require of the learner. Someone with a high aptitude will pick up the L2 relatively easily, whereas for another person the same level of proficiency can only be achieved by means of hard work and persistence. Having said this, it is important to note that language aptitude does *not* determine whether or not someone can learn a language. If a learner is not a natural language learner, this can be compensated for by various other factors such as high motivation or the use of effective language learner strategies. Indeed, the majority of people *are* able to achieve at least a working knowledge of an L2 regardless of their aptitude – so where there is a will, there is most likely a way.

Chapter 10 of a new volume on individual differences by Griffiths and Soruç (forthcoming) is devoted to the issue of aptitude. That chapter includes a section where co-author Cohen, a hyperpolyglot currently working on a thirteenth language (Mandarin), reflects on what aptitude means for him.

Now let us look first at learning styles, then at strategies, and finally at motivation.

Learning styles

Researchers both in educational psychology and the L2 field have observed that various learners approach learning in a significantly different manner, and the concept of ‘learning styles’ has been used to refer to these differences. Indeed, we learn in different ways and what suits one learner may be inadequate for another. While learning styles

seem to be relatively stable, teachers can modify the learning tasks they use in their classes in a way that may bring the best out of particular learners with particular learning style preferences. It is also possible that learners over time can be encouraged to engage in ‘style-stretching’ so as to incorporate approaches to learning they were resisting in the past. For example, let us say that a given reader may have been so global in her approach to reading academic texts that she was missing specific details that could have assisted her in deriving meaning from the texts. With proper encouragement from the teacher, she can become more versed at maintaining her global perspective, whilst paying more attention to details as well.

Learning style researchers have attempted to develop a framework that can usefully describe learners’ style preferences, so that instruction can match these. Although numerous distinctions are emerging from the literature, three categories of style preferences are considered particularly relevant and useful to understanding the process of language learning: sensory/perceptual, cognitive and personality-related preferences (Reid, 1995; Ehrman, 1996; Dörnyei and Ryan, 2015). The following are some examples from a list in Cohen and Weaver (2006), which has continued to be used over the years as a textbook in the Center for Advanced Research on Language Learning (CARLA) summer institute on styles, strategies and motivation:

Sensory/perceptual style preferences:

- Being more visual, more auditory or more tactile/kinaesthetic (hands-on).

Cognitive style preferences:

- Being more global or more particular/detail-oriented.
- Being more of a synthesizer and/or being analytic.
- Being more deductive or more inductive.

Personality-related style preferences:

- Being more extroverted or more introverted.
- Being more abstract and intuitive or more concrete and thinking in step-by-step sequence.
- Preferring to keep all options open or being more closure-oriented.

The ‘Hands-on activity’ at the end of this chapter includes a self-assessment instrument and detailed explanations to illustrate what these style dimensions involve in actual learning. Let us look at an example to illustrate how styles may play a role in language learning and language use (*see also* Cohen, 2003, 2012). Suppose an instructor assigns a task of reading a 500-word text about a new ‘dot.com’ organization on the market and then completing three activities that accompany the text. The learners are to write out the main point of the passage in one or two sentences, respond to an inference item (‘From what is reported about the dot.com’s weaknesses, what can be inferred about the rival dot.com’s strengths?’) and summarize the key points of the passage. In this example, we would suppose that certain style variables are going to be activated more than others – let us say, for the sake of illustration, that they are the following style contrasts: concrete–sequential versus abstract–intuitive, analytic versus synthesizing and global versus particular/detail-oriented. In this instance, we might

expect that those learners who are more concrete–sequential are the ones who will check the headings and sub-headings in the text to get a sense of its organization, whereas the more abstract–intuitive learners will skip around the text, looking for key words here and there but without a sequential pattern motivating their search. Both types of learners arrive at the main idea, but possibly using different strategic approaches.

With regard to the sub-task calling for inference, learners with a more abstract–intuitive preference may take some clues from the text, but they may be most comfortable relying on their background knowledge and opinions to infer what is *not* stated in the text about the strengths of the rival dot.com. The more concrete–sequential learners, on the other hand, may focus more exclusively on the clues in the text and remain somewhat frustrated that the answer to the question is elusive for them since it cannot be found in the text itself. Finally, the more global and synthesizing learners may enjoy a summarization task because they are predisposed to using strategies for integrating material into a summary, whereas analytic learners may find it more difficult because they are more predisposed to look carefully at specific details. The style preferences are presented as dichotomies in the discussion above, but clearly many learners do not favour one learning style to the exclusion of all others. This means that many learners operate somewhere in the middle ground between the extreme positions, for example, usually being a global learner, but at times focusing on details depending on the task.

As an outgrowth of a course taught by Cohen at the University of Minnesota for over ten years, ‘Practical Language Learning for International Communication’, a database of case studies of students was amassed. This collection provides descriptions of learners’ style preferences, strategy choices and motivational fluctuation emerging in the performance of L2 tasks. Three samples are provided in Cohen (2012: 143–146), and descriptions of 20 cases are provided at <https://sites.google.com/a/umn.edu/andrewcohen/projects> (accessed 23 June, 2018).

Learner strategies

Strategy definitions

When learning and using an L2, learners may employ a number of strategies which are usually aimed at improving their performance. L2 researchers first noticed the importance of various learning strategies when they were examining the ‘good language learner’ in the 1970s (*see* Rubin, 1975). Studies of good language learners over the years have indicated that it is not merely a high degree of language aptitude and of motivation (to be discussed later in the chapter) that causes some learners to excel, but also the students’ own active and creative participation in the learning process through the application of individualized learner strategies. Research has found that the ‘good language learner’ is in command of a rich and sufficiently personalized repertoire of such strategies (*see* Cohen and Macaro, 2007; Cohen, 2011; Oxford, 2018).

According to Oxford (2018), there exist at least 33 different definitions of language learner strategies (LLS), many being similar to each other in nature. This plethora of definitions is an indication of just how reluctant experts have been to agree on one common definition for this construct. Oxford (2018: 48) offers a comprehensive definition of 116 words, intended to provide closure at the definitional level. Among other

things, she includes in her definition that strategies are contextually specific thoughts and actions that can be both mental and physical; that they can be combined in clusters or chains; that they can have cognitive, emotional and social roles to play as determined by the individual; and that their use in self-regulation is complex in nature. So what characterizes this definition is an effort to include various approaches to LLS definition. It would appear that this new definition of LLS invites us to deal with strategies in a more rigorous way than in the past, where a one-size-fits-all approach often was used when describing strategies.

Language learning and language use strategies

One helpful distinction for defining language learner strategies is between language learning and language use strategies.

‘Language learning strategies’ – referring to the conscious and semi-conscious thoughts and behaviours used by learners with the explicit goal of improving their knowledge and understanding of a target language.

‘Language use strategies’ – referring to strategies for using the language that has been learned, however incompletely, including four sub-sets of strategies:

- ‘Retrieval strategies’ (strategies used to call up language material from storage, for example, calling up the correct verb in its appropriate tense or retrieving the meaning of a word when it is heard or read).
- ‘Rehearsal strategies’ (strategies for practicing target language structures, for example, rehearsing the subjunctive form for several Spanish verbs in preparation for using them communicatively in a request in Spanish to a teacher or boss to be excused for the day).
- ‘Communication strategies’ (strategies used to convey a message that is both meaningful and informative for the listener or reader, for example, when we want to explain technical information for which we do not have the specialized vocabulary).
- ‘Cover strategies’ (strategies for creating an appearance of language ability so as not to look unprepared, foolish or even stupid, for example, using a memorized and partially understood phrase in a classroom drill in order to keep the action going, or laughing at a joke that you did not understand at all).

Communication strategies received considerable attention in the early research literature (Faerch and Kasper, 1983; Tarone and Yule, 1989; Poulisse, 1990; Dörnyei and Scott, 1997; Kasper and Kellerman, 1997). Communication strategies have primarily been viewed as the verbal (or non-verbal) first-aid devices which may be used to deal with problems or breakdowns in communication. These devices enable learners to stay active partners in communication even when things do not go well. They may, for example, use communication strategies to steer the conversation away from problematic areas, to express their meaning in creative ways (for example, by paraphrasing a word or concept), to create more time for them to think and to negotiate the difficult parts of their communication with their conversation partner until everything is clear. Thus, these strategies extend the learners’ communicative means beyond the constraints of target-language proficiency and consequently help to increase their linguistic

confidence as well. Moreover, communication strategies also include conversational interaction strategies and strategies for maintaining the floor which learners who are not experiencing gaps in their knowledge may use.

Researchers have adopted several different categorization schemes in order to classify the relevant problem-solving strategies (Dörnyei and Scott, 1997; Cohen, 2011). Table 10.1 summarizes the most well-known categories and strategy types.

Table 10.1 Some commonly used communication strategies

Avoidance or reduction strategies

Message abandonment: leaving a message unfinished because of some language difficulty

Topic avoidance: avoiding topic areas or concepts which pose language difficulties

Message replacement: substituting the original message with a new one because of not feeling capable of executing it.

Achievement or compensatory strategies

Circumlocution: describing or exemplifying the target word you cannot remember (for example, ‘the thing you open bottles with’ for *corkscrew*)

Approximation: using an alternative term which expresses the meaning of the word you cannot remember as closely as possible (for example, *ship* for ‘sailing boat’)

Use of all-purpose words: extending a general, ‘empty’ lexical item to contexts where specific words are lacking (for example, the overuse of *thing, stuff, make, do* as well as using words like ‘thingie’, ‘what-do-you-call-it’, ‘what’s-his-name’, etc.)

Word-coinage: creating a non-existing L2 word based on a supposed rule (for example, ‘vegetarianist’ for *vegetarian*)

Use of non-linguistic means: mime, gesture, facial expression or sound imitation

Literal translation: translating literally a lexical item, an idiom, a compound word or structure from L1 to L2

Foreignizing: using an L1 word by adjusting it towards the L2 phonologically (that is, with a L2 pronunciation) and/or morphologically (for example, adding a L2 suffix to it)

Code switching: including an L1 word with L1 pronunciation or an L3 word with L3 pronunciation in L2 speech.

Stalling or time-gaining strategies

Use of fillers and other hesitation devices: using filling words or gambits to fill pauses and to gain time to think (for example, *well, now let me see, as a matter of fact*, etc.)

Repetition: repeating a word or a string of words immediately after they were said (either by the speaker or the conversation partner).

Interactional strategies

Appeal for help: turning to the conversation partner for help either directly (for example, ‘What do you call ...?’) or indirectly (e.g., rising intonation, pause, eye contact, puzzled expression)

Asking for repetition: requesting repetition when not hearing or understanding something properly (for example, ‘Sorry’, ‘Pardon’)

Asking for clarification: requesting explanation of an unfamiliar meaning structure (for example, ‘What do you mean?’, ‘The what?’)

Asking for confirmation: requesting confirmation that one heard or understood something correctly (for example, ‘You mean’, ‘Do you mean?’)

Expressing non-understanding: expressing that one did not understand something properly either verbally or non-verbally (for example, ‘Sorry, I don’t understand’, ‘I think I’ve lost the thread’)

Interpretive summary: extended paraphrase of the interlocutor’s message to check that the speaker has understood correctly (for example, ‘So what you are saying is ...’, ‘Let me get this right; you are saying that ...’).

It is important to note that communication strategies may or may not have any impact on learning. For example, learners may use a vocabulary item encountered for the first time in a given lesson to communicate a thought, without any intention of trying to learn the word. In contrast, they may insert the new vocabulary item into their communication expressly in order to promote their learning of it.

Cognitive, metacognitive, affective and social strategies

Aside from classifying strategies as focusing on the learning or the use of language, there are two other notable approaches to categorizing strategies. One is to categorize them into one of four groups according to whether they are cognitive, metacognitive, affective or social (Chamot, 1987; Oxford, 1990). Another is to group them according to the skill area to which they relate (Cohen, 1990; Paige et al., 2006). Let us first describe the four-way grouping, and then provide an illustrative classification of strategies according to skill area.

'Cognitive strategies' encompass the language learning strategies of identification, grouping, retention and storage of language material, as well as the language use strategies of retrieval, rehearsal and comprehension or production of words, phrases and other elements of the L2. In short, they cover many of the processes or mental manipulations that learners go through in both learning and using the target language. 'Metacognitive strategies' are those processes which learners consciously use in order to supervise or manage their language learning. Such strategies allow learners to control their own cognition by planning what they will do, checking how it is going and then evaluating how it went.

'Affective strategies' serve to regulate emotions, motivation and attitudes (for example, strategies for reduction of anxiety and for self-encouragement). So, for example, before a job interview in the L2, a learner may engage in positive self-talk about focusing on the message rather than on the inevitable grammatical errors that will emerge. Such strategies also include the venting of emotion (e.g., cursing) when a task proves to be frustratingly difficult, prompting some other course of action. Finally, 'social strategies' include the actions which learners choose to take in order to interact with other learners and with native speakers (for example, asking questions to clarify social roles and relationships or cooperating with others in order to complete tasks). Such strategies are usually directed at increasing the learners' exposure to L2 communication and to interactive practice. For example, an American learner of Japanese in Hawaii may develop and then consciously select a series of strategies for starting conversations with Japanese tourists in Waikiki, a daunting challenge since rules for starting conversations with strangers differ across the two cultures.

There is one obvious problem relating to this kind of classification of strategies. A learner's use of what is ostensibly a single strategy may actually represent a continual shifting or 'dance' from one of these categories to another. For example, let us say that a given learner, Herbert, practises a gracious self-introduction for a job interview. On one level, Herbert's strategy is a cognitive one since he is rehearsing pragmatic behaviour in order that it be done gracefully, appropriately and without too many grammatical errors. If Herbert is doing it as a conscious planning strategy, it may also represent a metacognitive strategy, especially during the moments when he thinks to himself that this is what he wants to do. The strategy may also serve as an affective

strategy since Herbert could be choosing it as a means of reducing anxiety regarding the imminent interview. Finally, the rehearsal of self-introductions can serve as a social strategy in that the better Herbert is at self-introductions, the easier it may be for him to introduce himself to others, the more motivated he may feel to do so, and consequently the more encounters he may be motivated to have with speakers of the L2.

A recent close-order analysis of the functions of strategies found that metacognitive, cognitive, affective and social functions indeed fluctuated not only during the use of a single strategy, but also when learners moved from one strategy to another in sequences, in pairs and in clusters (Cohen and Wang, 2018). Such close-order research can help language educators pinpoint instances of success and failure, which can then lead to selective intervention. It seems logical that if learners know just what functions (i.e., metacognitive, cognitive, social or affective) are being engaged at each moment that a given strategy is being deployed, they may do better at managing their own learning. Analysis of these strategy functions should, for example, help learners and teachers alike to better understand the elusive, but often crucial, affective function of strategies (e.g., satisfaction or frustration) and the subsequent choice of other functions that they trigger.

Classifying strategies according to skill areas

Yet another type of classification of strategies is by skill area. Whereas the skills most associated with language learning tend to be the four basic ones – the receptive skills of listening and reading, along with the productive ones of speaking and writing, there are other key skills as well. They include vocabulary learning, the learning of grammar and the use of translation. One caveat here is that the labels used to describe these sub-skills are the same labels given for LLS. The problem is that LLS are frequently referred to by means of vague labels such as ‘use a dictionary’, ‘find a mnemonic device’ or ‘look for clues in the context’. Presumably, these labels are intended to trigger in the mind of the learner a specific strategy to deploy in the given case for the given task. But there appears to be limited research as to just what the labels actually mean for learners, and in addition, there is generally not much attention paid to what happens on a moment-by-moment basis during the use of that strategy. It seems that the labels reflect a continuum from more skill-like to more strategy-like behaviour.

For example, there are sub-skills associated with vocabulary learning which cross-cut the four basic skills. There are also strategies associated with the learning of grammar (*see* Oxford and Lee, 2007; Cohen and Pinilla-Herrera, 2009; for examples of grammar strategies for learning Spanish, *see* www.carla.umn.edu/strategies/sp_grammar/ (accessed 31 March, 2019)). Then, there is the strategic use of translation, perhaps a less conspicuous skill area for strategizing, but undoubtedly an area that learners draw on. By translation, we are not referring to figurative or polished translation, but rather to the kind of literal or rough translation that most learners engage in from time to time, or even extensively, in order to function in all four of the basic skill areas (*see* Cohen, Oxford and Chi, 2002a, for a skill-based language strategy survey). Table 10.2 shows the skill-related strategy categories, along with representative examples of specific strategies.

Table 10.2 A brief sampling of strategies associated with different skill areas

Listening strategies

Strategies to increase exposure to the new language:

Listening to a talk show on the radio, watching a TV show, going to see a movie in the new language, or attending some out-of-class event conducted in the target language

Strategies to become more familiar with the sounds in the new language:

Looking for associations between the sound of a word or phrase in the new language and the sound of a familiar word

Imitating the way native speakers talk

Strategies for better understanding the new language in conversation

Before listening to the language:

Deciding to pay special attention to specific language aspects, for example, the way the speaker pronounces certain sounds

When listening in the language:

Listening for word and sentence stress to see what natives emphasize when they speak Practising 'skim listening' by paying attention to some parts and ignoring others

If some or most of what someone says in the language is not understood:

Making educated guesses and inferences about the topic based on what has already been said
Looking to the speaker's gestures and general body language as a clue to meaning.

Reading strategy use

With regard to reading habits in the target language:

Making a real effort to find reading material that is at or near one's level

As basic reading strategies:

Planning how to read a text, monitor to see how the reading is going and then check to see how much of it was understood

Making ongoing summaries either in one's mind or in the margins of the text

When encountering unknown words and structures:

Guessing the approximate meaning by using clues from the surrounding context

Using a dictionary so as to get a detailed sense of what individual words mean.

Speaking strategy use

In order to practise for speaking:

Practising new grammatical structures in different situations to check out one's confidence level with the structures

Asking oneself how a native speaker might say something and then attempting to practise saying it that way

In order to engage in conversations:

Initiating conversations in the new language as often as possible

Asking questions as a way to be sure to be involved in the conversation

When not able to think of a word or expression:

Looking for a different way to express the idea; for example, using a synonym or describing the idea or object being talked about

Using words from one's native language, perhaps adding vowels or consonants so that they seem like words in the target language.

Writing strategy use

As basic writing strategies:

Planning how to write an academic essay, monitoring to see how the writing is going and then checking to see how well the product fits the intentions

Making an effort to write different kinds of texts in the target language (for example, personal notes, messages, letters and course papers)

While writing an essay:

Reviewing what one has already written before continuing to write new material in an essay

Postponing editing of the writing until all the ideas are written down

Once a draft essay has been written:

Revising the essay once or twice to improve the language and content

Looking for ways to get feedback from others, such as having a native writer put the text in his or her own words and then comparing it to one's original version.

Vocabulary strategies

To memorize new words:

Analysing words to identify the structure and/or meaning of a part or several parts of them

Making a mental image of new words whose meaning can be depicted

In order to review vocabulary:

Going over new words often at first to make sure they are learned

Going back periodically to refresh one's memory about words previously learned

In order to recall vocabulary:

Making an effort to remember the situation where the word was heard or seen in writing, and if written, trying to remember the page or sign it was written on

As a way of making use of new vocabulary:

Using words just learned in order to see if they work

Using familiar words in different combinations to make new sentences.

Grammar strategies

In order to master a verb tense:

Memorizing preterite endings by means of a chant or a song

Using an acronym to remember when to use the imperfect tense

In order to remember pronoun position:

Using a model sentence

Using a phrase as a mnemonic device

In order to check for number and adjective agreement:

Underlining all nouns and their respective adjectives in the same colour (e.g., green) to ensure agreement

Envisioning agreement as in a polynomial to make sure that all the elements of the sentence agree with the subject.

Strategic use of translation

In order to enhance language learning and use:

Planning out what one wants to say or write in the L1 and then translating it into the target language

While listening to others, translating parts of what they have said into one's own L1 to help store the concepts

To work directly in the target language as much as possible:

Making an effort to put one's native language out of mind and to think only in the target language

Being cautious about transferring words or concepts directly from the L1 to the target language.

Motivation

While style preferences and language strategies are clearly important contributors to the acquisition of language skills, so too is motivation. Motivation can be promoted consciously, which is good news for L2 teachers. By employing principled methods, it is possible to generate motivation and to channel it in positive directions. For this reason, developing the capacity to motivate learners is an important aspect of a language teacher's methodological repertoire.

Motivation as a dynamic process

In the last decade or so, SLA has witnessed a dynamic turn (see Chapter 7, *Second language acquisition*). Motivation research is at the forefront of this reorientation. From its inception, L2 motivation has been understood as constantly fluctuating, and conceptualized as 'a dynamically changing and evolving mental process' (Dörnyei and Skehan, 2005: 8). Models have also embraced the complexity of the motivational process in terms of dynamic interactions between different components. In this regard, Dörnyei and Ottó's (1998) modelling of L2 motivation as a *process* marks an important step towards the situation today where the evolution and development of motivation is recognized as *non-linear* and studies attempt to investigate motivation as a process *in motion* (MacIntyre, Dörnyei and Henry, 2015).

While a person's motivation to learn another language can be understood as a continuous process of change, where feedback loops integrate learner internal and learner external contexts, Dörnyei (2005) argues that at least three distinct phases of the motivational process can be recognized:

- First, motivation needs to be *generated*. The motivational dimension related to this initial phase can be referred to as 'choice motivation' because the motivation that is generated then leads to the selection of the goal or task to be pursued.
- Second, the generated motivation needs to be actively *maintained* and *protected* while the particular action lasts. This motivational dimension has been referred to as 'executive motivation' (or 'volition'), and it is particularly relevant to learning in classroom settings, where students are exposed to a great number of distracting influences, such as off-task thoughts, irrelevant distractions from others, anxiety about the tasks or physical conditions that make it difficult to complete the task.
- Finally, there is a third phase following the completion of the action – termed 'motivational retrospection' – which concerns learners' *retrospective evaluation* of how things went. The way students process their past experiences in this retrospective phase will determine the kind of activities they will be motivated to pursue in the future.

These three phases are associated with largely different motives. That is, people will be influenced by different factors while they are still contemplating an action compared to those that influence them once they have embarked on some action. And similarly, when we look back at something and evaluate it, a new set of motivational components may well become relevant. Bearing this in mind, we will first look at theories that explain *how* learner motivation arises ('choice motivation'), theories that explain how it

is *maintained* over time ('executive motivation'), and finally issues relating to the ways in which effort directed to learning is *evaluated* ('motivational retrospection'). Thereafter we shift focus to examine how learners' motivation can be stimulated and supported by things that can be done by language teachers.

Motivation to learn an L2

Motivation to acquire skills in another language differs from motivation that relates to other educational objectives. As Williams (1994: 77) has observed, developing skills in another language is *not* the same as developing skills in mathematics, or developing a knowledge of history. The investment required of the learner is of a fundamentally different nature:

There is no question that learning a foreign language is different to learning other subjects. This is mainly because of the social nature of such a venture. Language, after all, belongs to a person's whole social being: it is part of one's identity, and is used to convey this identity to other people. The learning of a foreign language involves far more than simply learning skills, or a system of rules, or a grammar; it involves an alteration in self-image, the adoption of new social and cultural behaviours and ways of being, and therefore has a significant impact on the social nature of the learner.

It is this recognition that underpins the two theories of L2 motivation that have dominated the field, both of which have been developed to specifically explain the distinct nature of effort expended in learning a language. The model which gave birth to the field, and which provides the theoretical touchstone for nearly all subsequent work, is Gardner's Socio-Educational Model of Second Language Acquisition (Gardner, 1985, 2010). Within this theory, three concepts in particular have become well-known.

- 'Integrative orientation', which reflects a positive disposition toward the L2 group and the desire to interact with and even become similar to valued members of that community.
- 'Instrumental orientation', where language learning is primarily associated with the potential pragmatic gains of L2 proficiency, such as getting a better job or a higher salary.
- The 'integrative motive', which is a complex construct made up of three main components: (a) *integrativeness* (subsuming integrative orientation, interest in foreign languages and attitudes toward the L2 community); (b) *attitudes toward the learning situation* (comprising attitudes toward the teacher and the course); and (c) *motivation* (made up of motivational intensity, desire and attitudes towards learning the language).

The key innovation in Gardner's model – and which sets it apart from theories of motivation in mainstream psychology – is *integrativeness*. While the construct has been demonstrated to have strong validity in contexts where the L2 and communities of L2 speakers are tangible entities, in situations where there is no close nexus between the target language (TL) and particular groups of its speakers, the construct fares less well.

The world encountered by post-millennial language learners is one characterized by fluidity, diversity and hybridity. For many language learners, aspirations are more likely to be linked to the acquisition of a global identity than an identity linked to a specific TL-speaking community. Based on this, Dörnyei (2005, 2009) developed the L2 Motivational Self System model.

Dörnyei's model comprises three elements. The *Ideal L2 Self* is the L2-specific facet of the learner's self-concept. If the person the learner wants to become is someone who speaks the L2, motivation can be generated from a desire to reduce the discrepancy between the currently less proficient self, and the idealized version. In essence, the Ideal L2 Self is a reconceptualization of the function that the learner's L2 identity has in generating motivation. In Dörnyei's construct, focus is shifted away from an externally oriented identification (i.e., with a group or groups of TL-speakers), to one that is internally oriented (i.e., the TL-speaker that the learner wants to become). The second component is the *Ought-to L2 Self*. This refers to the attributes the individual feels that he or she needs, or is obligated to obtain. Here, motivation derives from the desire to conform to socially generated expectations. The third component of the model is the *L2 Learning Experience*. This encompasses motivation that derives from the environment in which the language is learnt. Not unlike Gardner's model, the L2 Learning Experience subsumes aspects such as the impact of the teacher, the curriculum, the course materials, the peer group and the classroom social climate.

In addition to providing better explanatory qualities than integrativeness in situations where the L2 is disassociated from particular L2-speaking communities, not least in the case of global languages such as English, the Ideal L2 Self represents a shift in L2 motivation research in another sense. This is because it bridges between 'choice' and 'executive' forms of motivation. Not only can the Ideal L2 Self *account* for learners' motivation, it also offers a means for *generating* motivation, a point to which we will return later in this section.

In addition to identity, another important aspect of 'choice' motivation involves the 'expectancy of success and perceived coping potential'. This refers to the learner's confidence in being able to carry out the tasks associated with L2 learning. A key element of this aspect, 'linguistic self-confidence', has been identified as a significant motivational subsystem in L2 acquisition (Clément, 1980; Clément, Dörnyei and Noels, 1994). Importantly, what matters in foreign languages learning is not so much the objective level of one's language abilities, but rather the subjective perceptions of assurance and trust in oneself. As Sampasivam and Clément (2014) have argued, because it is through positive contact situations with the L2 that learners develop L2 self-confidence, a primary means of achieving a desired L2 self is through situations that enable learners to experience successes in their TL use.

It is also easy to see that the learners' initial beliefs about L2 learning will affect motivation, since unrealistic beliefs about the amount of time it will take to attain a certain level of language functioning will inevitably lead to disappointment. Similarly, whether or not the learner receives positive or negative messages from the larger environment (for example, media, friends) plays an important role in reinforcing or blocking one's initial commitment. One of the most important beliefs about L2 learning relates to the sources of success. For learners who believe that L2 aptitude is a fixed commodity, and who possess an 'L2 entity mindset', the encountering of obstacles can undermine the effort that is invested in learning (Ryan and Mercer, 2012). However, for

those who have or are able to develop an ‘L2 incremental mindset’, where success is viewed as a product of perseverance and dedicated personal involvement, more adaptive goals are adopted and the effort expended on learning can increase (Lou and Noels, 2016).

The most important aspect of ‘executive motivation’ is related to the perceived quality of the learning experience. Although the ‘quality of the learning experience’ factor provides a broad coverage of a range of classroom-specific issues, it is useful to look at the motivational role of the participants in any given learning experience separately. First and foremost is the teacher, whose motivational influence is crucial in every aspect of learning. In a state-of-the-art article on the motivational dimension of language teaching where over 200 studies are reviewed, Lamb (2017) argues that the aspects of teacher behaviour that appear to have the greatest impact on the motivation of language learners are those that involve interpersonal qualities, and which ‘relate to the human side of teaching’ (p. 330). Of similar importance are group dynamics. As Dörnyei and Murphey (2003) explain, the success of individual learners is highly dependent on the classroom social climate, the roles of the teacher and other students, and the quality of cooperation and communication. A number of studies (e.g., Chang, 2010; Koga, 2010) have found correlations between a positive classroom climate and students’ motivation.

A second important constituent of executive motivation is ‘autonomy’ (or as it is often called in psychology, ‘self determination’). Research by Noels and colleagues (Noels, Clément and Pelletier, 1999; Noels, 2001) indicates that the teachers’ orientation towards autonomy, namely whether they are ‘autonomy-supporting’ or ‘controlling’, plays an important role in shaping their students’ motivation, with the former leading to increased student involvement and commitment. In recent research, Joe, Hiver and Al-Hoorie (2017) found correlations between the classroom social climate and the satisfaction of learners’ basic psychological needs of autonomy and relatedness. They were able to show how a positive interpersonal environment in the classroom had a positive influence on the development of more autonomous (self-determined) forms of motivation. This in turn predicted willingness to enter into communication and higher achievement.

The last main phase of the motivational process, ‘motivational retrospection’, involves the process whereby learners look back and evaluate how things went. Various characteristics will strongly influence learners’ overall impressions about the past – some learners will gain a positive impetus even from less-than-positive experiences, whereas others may not be completely satisfied even with outstanding performance. From a practical point of view, however, the feedback, the praise and the grades that learners receive are likely to be the most significant determinants of their final self-evaluation. For example, Busse (2013) reports that students find feedback highly important for self-efficacy and motivation. Consequently she argues that it is essential for teachers to achieve a balance between encouragement and constructive criticism. One very important function of the retrospective stage is for learners to consolidate and extend the repertoire of personally useful strategies, which will in turn function as a source of inspiration for future learning. For this reason, self-assessment and explicit strategy instruction can play an important role as an aspect of ‘motivational retrospection’. For example Lam (2014) found that when this takes place, EFL students can become more self-regulated, strategic and resourceful when working with writing tasks.

Although the influence of assessment on motivation remains under-investigated (Lamb, 2017), studies such as those by Busse (2013) and Lam (2014) indicate how strategies and motivation are very closely linked.

Motivating learners

The ultimate purpose of research in applied linguistics is to provide knowledge and insights that are useful to stakeholders in language learning – the people who *learn* and who *teach* second languages – and which can improve their experiences (Ortega, 2005). In this regard motivation research, like strategy research, stands in generally good stead (Ortega, 2018). This having been said, empirical work has tended to favour the investigation of motivational antecedents and the ways in which motivation is generated ('choice motivation'). Far fewer studies have focused on how it can be nurtured and maintained, and how learners' motivation can be supported in practical ways ('executive and retrospection motivation') (Boo, Dörnyei and Ryan, 2015). However, given the growth in popularity of L2 motivation as a research topic, and the surge in publications in recent years (Dörnyei and Ryan, 2015), systematic research is now beginning to take place into practical, *motivating* techniques. As Ushioda (2011) has observed, it may only be now that 'motivation theory is catching up with what many effective teachers have long been doing in their classrooms, and finding ways of analyzing and theorizing this practice' (p. 17).

Using the choice motivation/executive motivation/motivational retrospection model as an organizing framework, Dörnyei (2005: 111–113) identifies four principal aspects of motivational teaching practice:

- 'Creating the basic motivational conditions' (establishing rapport with the students; fostering a pleasant and supportive classroom atmosphere; developing a cohesive learner group with appropriate group norms).
- 'Generating initial student motivation' (enhancing the learners' L2-related values and attitudes; increasing the learners' expectancy of success; increasing the learners' goal-orientedness; making teaching materials relevant to the learners; creating realistic learner beliefs).
- 'Maintaining and protecting motivation' (making learning stimulating; setting specific learner goals; presenting tasks in a motivating way; protecting the learners' self-esteem and increasing their self-confidence; allowing learners to maintain a positive social image; creating learner autonomy; promoting cooperation among the learners; promoting self-motivating strategies).
- 'Encouraging positive retrospective self-evaluation' (providing motivational feedback; promoting motivational attributions; increasing learner satisfaction; offering rewards and grades in a motivating manner).

Following his development of the L2 Motivational Self System, and as a supplement to the four principles of motivational teaching practice, Dörnyei (2009) has proposed a multi-componential action plan that teachers can use to support students in developing effective visions of an Ideal L2 Self. This vision-enhancement program consists of six components:

- 1 Creating the vision: constructing an Ideal L2 Self in situations where it may be lacking.
- 2 Strengthening the vision: using imagery enhancement techniques to enhance the Ideal L2 self.
- 3 Substantiating the vision: making the Ideal L2 self plausible through calibration with realistic goals.
- 4 Operationalizing the vision: developing plans of action that comprise proximal sub-goals.
- 5 Keeping the vision alive: activating the vision through effective cues such as films, music and cultural activities.
- 6 Counterbalancing the vision: enabling learners to contemplate the undesirability of failure.

These ideas have been fully expanded in practitioner-oriented books (Hadfield and Dörnyei, 2013; Dörnyei and Kubanyiova, 2014), where guidelines for guided-imagery training and practical activities for developing L2-visions are described. The proposals have also been investigated in a series of intervention studies. Magid (2014) and Chan (2014) describe how the use of guided imagery techniques can enable students to develop effective visualizations of themselves using English in the future and stronger ideal L2 selves. Similar findings are reported in studies by Sampson (2012) and Munezane (2013). MacKay (2014) reports how in her study students believed that they benefited from vision-directed activities, even if measurable increases in motivation were not found. In a recent paper, Adolphs and colleagues (2018) report on the use of a technology-based design to create digital versions of learners' ideal L2 selves. They also explain why this approach has promising potential for priming effective visualization processes.

Motivation as relationally constituted

Interpersonal relationships in classrooms impact on motivation, engagement and achievement. Positive relationships with teachers and peers provide the 'cornerstones of young people's capacity to function effectively in social, affective, and academic domains' (Martin and Dowson, 2009: 351). In his state-of-the-art review, Lamb (2017: 330) identifies the teacher–student relationship as of paramount importance for the evolution and maintenance of motivation. Reviewing a now substantial body of research on the nature and effects of teachers' motivational strategies, Lamb shows how the strategies that are consistently ranked as important by both students and teachers are those that emphasize interpersonal connections:

[L]earners have to respect the teacher as a professional, and ideally like them as a person; the teacher has to understand the needs, goals and desires that learners bring to class from their lives outside and from prior experiences of learning; they have to create a group dynamic which accommodates and excites all of them; they need the professional dedication to continually respond to, and sometimes try to change, those needs, goals and desires.

Although SLA research is only beginning to focus on the *effects* of teacher–student and peer relationships on language learners' motivation and achievement, findings support

Lamb's identification of the centrality of relationships. This is particularly the case in instructional contexts where the focus of learning is directed to interpersonal communication. In addition to the aforementioned study by Joe, Hiver and Al-Hoorie (2017), who found that the perception of having a caring teacher and supportive peers promoted motivationally positive experiences of relatedness, Henry and Thorsen (2018) have shown how motivation can emerge through moments of close personal contact with a teacher. Studying a language teacher's motivational practice at the micro-level of teacher–student interactions, they offer an account of the ways in which motivational relationships are constructed and maintained.

Finally, as Lamb (2017) has suggested, in effective teaching, language learners experience being in control of events. This involves creating a classroom social climate that triggers experiences of affiliation and group cohesion, and which can promote perceptions of competence and autonomy (Joe, Hiver and Al-Hoorie, 2017). In this regard, teaching practice that is conducive to developing motivation and engagement is likely to involve the creation of spaces for choice, opportunities for extended forms of collaborative working, and possibilities to act in ways that are experienced as self-authentic. In practical terms, it involves enabling students to work with materials and end-products in ways that they find relevant and meaningful (Dörnyei, Henry and Muir, 2016).

Pedagogical implications: The intersection of styles, strategies and motivation

Steps for style and strategies instruction

Research has found that it is possible to teach learners to enhance their strategy use, that is, to help them to be more conscious and systematic about the strategies that they already use and to add new strategies to their repertoire (Dörnyei, 1995; Cohen, 2011; Cohen and Weaver, 2006; Rubin et al., 2007; Chamot, 2008). The earlier discussion of learning styles underscored the importance of having learners determine their style preferences and be more cognizant of the fit between their style preferences and the strategies that they select for language learning and language use tasks. The following are steps that teachers can take to make their instruction style- and strategies-based, along with motivating learners to engage themselves in this type of awareness-raising:

- Raise learner awareness about learning style preferences and language learner strategies at the outset in order to generate motivation to be more conscious about style preferences and more proactive about the use of language strategies.
- Find out which styles the learners favour, and which strategies the students may already use or may wish to add to their repertoire.
- Suggest and model what 'style-stretching' might look like, as well as modelling new strategies.
- Provide a rationale for strategy use, since learners are likely to apply strategies or develop new ones only if they become convinced about their usefulness.
- Provide guided exercises or experiences to help students put the strategies into practice.
- Encourage students to enhance their current strategy repertoire.

- Encourage students to be willing to use such strategies even when it may mean taking risks.
- Highlight cross-cultural differences in how strategies (especially communicative strategies) might be employed (for example, when it is appropriate to use filled pauses in a language, such as the use of, say, *eto* and *ano* in Japanese, since their usage is different from that of *uh* or *umm* in English; see Erard, 2007).
- Organize ‘sharing sessions’: from time to time ask students to share information about their learning style preferences and about the strategies they have generated or found particularly useful. Because of their direct involvement in the learning process, students often have fresh insights they can share with their peers. In addition, personalized learning strategies are sometimes amusing to hear about and students may enjoy sharing them, especially when they see that their peers are doing some of the same things.

The use of style and strategy surveys

There are advantages to having learners actively diagnose for themselves their style and language strategy preferences, using one of the available learning style surveys such as the *Learning Style Survey* (Cohen, Oxford and Chi, 2002b), which is more focused on language learning than some of the other instruments (cf. also the shortened version of this instrument appearing at the end of this chapter). In addition, teachers can administer language strategy questionnaires that cover strategy use in terms of:

- Skill areas, such as in Table 10.2.
- Communication strategies such as those listed in Table 10.1.
- Strategies classified according to their cognitive, metacognitive, affective or social function, as in Oxford’s *Strategy Inventory for Language Learning* (Oxford, 1990: 283–291).

A key factor is to make the interrelationship of styles, strategies and motivation a matter of explicit discussion early on, rather than to assume that ‘things will come automatically’ or that learners know what to do in each instance. If learners are made aware of the importance of these individual difference variables, and are given tools for dealing with them, they are likely to take more responsibility of their own learning and will adopt those attitudes and techniques that characterize the good language learner.

The use of a motivational temperature measure

In response to the rather static social psychological approach to motivation, Dörnyei popularized the notion of motivation as a dynamic process (see Dörnyei, 2001a, 2001b). It was in the spirit of this view that an instrument was constructed, ‘Taking My Motivational Temperature on a Language Task’ (Cohen and Dörnyei, 2001), with the intention that it be administered before, during and after learners do a language task in or out of class, on their own or in a group. The construction of this instrument was largely an effort by Cohen, based on his reading of Dörnyei’s publications on the topic of motivation. For at least a decade he had hundreds of undergraduate students at the University of Minnesota use this instrument on themselves and on three of their peers,

with relatively good success. There is no easy way to validate the instrument since many of the items on it are presumed to function independently of each other. It is especially interesting to see how motivational states combine with styles and strategies in the completion of language tasks (*see* Cohen, 2012).

Self-motivating strategies

‘Self-motivating strategies’ may play a role in empowering learners to be more committed and enthusiastic language learners. Even under adverse conditions in certain classrooms and without any teacher assistance, some learners are more successful at staying committed to the goals they have set for themselves than others are. How do they do it? The answer is that they apply certain self-management skills as a means for overcoming environmental distractions or distracting emotional or physical needs/states; in short, they motivate themselves. And if they can do so, surely others can do so as well, particularly if teachers and other language educators provide some coaching.

Dörnyei (2001b) draws on Kuhl’s (1987) and Corno and Kanfer’s (1993) research to suggest that self-motivating strategies are made up of five main classes, which are listed below with two illustrative strategies for each:

- 1 Commitment control strategies for helping to preserve or increase the learners’ original goal commitment:
 - Keeping in mind favourable expectations or positive incentives and rewards (for example, a film director fantasizing about receiving an Oscar).
 - Focusing on what would happen if the original intention failed.
- 2 ‘Metacognitive control strategies’ for monitoring and controlling concentration, and for curtailing unnecessary procrastination:
 - Identifying recurring distractions and developing defensive routines.
 - Focusing on the first steps to take.
- 3 ‘Satiation control strategies’ for eliminating boredom and adding extra attraction or interest to the task:
 - Adding a twist to the task (for example, reordering certain sequences or setting artificial records and trying to break them).
 - Using fantasy to liven up the task (for example, treating the task as a game, creating imaginary scenarios).
- 4 ‘Emotion control strategies’ for managing disruptive emotional states or moods, and for generating emotions that will be conducive to implementing one’s intentions (note that these strategies are often similar to ‘affective learning strategies’ discussed earlier):
 - Self-encouragement.
 - Using relaxation and meditation techniques.

- 5 'Environmental control strategies' for eliminating negative environmental influences and exploiting positive environmental influences by making the environment an ally in the pursuit of a difficult goal:
 - Eliminating negative environmental influences (such as sources of interference: for example, noise, friends; and environmental temptations: for example, a packet of cigarettes).
 - Creating positive environmental influences (for example, making a promise or a public commitment to do or not to do something, asking friends to help you or not to allow you to do something).

Raising learners' awareness of self-motivation strategies, in particular drawing attention to specific strategies that are especially useful in a given situation, may have a significant 'empowering effect' on the students.

Conclusion

The individual difference variables of learning style, strategies and motivation are inter-related in numerous ways. If students with certain style preferences succeed in finding learning strategies that particularly suit them (for example, an auditory learner taking the initiative to tape-record portions of a class session and then playing them back in order to review vocabulary and fix the words more solidly in memory), such actions may also enhance their interest in the task and expectancy of success, which will in turn increase their motivation to complete the task successfully and will ideally have a positive influence on their performance with other tasks as well. Similarly, effective and well-personalized communication strategies (such as when the extroverted learner keeps a conversation going with a well-placed paraphrase when the target-language word for, say, '*insight*' escapes her) can increase the learners' linguistic self-confidence and generate increased satisfaction in their L2 use. Finally, a teacher who keeps learner self-motivating strategies firmly in mind can check periodically to make sure that these and other strategies are in the learners' repertoire and that everything is being done to assist learners in keeping their motivational level high. Given the numerous other pedagogical issues to consider in the classroom, teachers may not feel that there is time to engage in this kind of top-down motivation, style and strategy planning for a given course. In reality, it may be just such planning which makes the teaching of a language course more productive for both the teacher and the students, as well as more enjoyable.

Hands-on activity

The following is a shortened version of the 'Learning Style Survey' (Cohen, Oxford, and Chi, 2002b), designed to assess language learners' general approach to learning. Your task is to fill in the survey, then total your points, and based on your scores, consider your overall learning preferences. In the 'Interpretations of the style survey results' section, we provide specific guidelines on how to interpret your scores.

For each item, circle your immediate response:

- 0 = Never
- 1 = Rarely

- 2 = Sometimes
- 3 = Often
- 4 = Always

Part 1: How I use my physical senses

I remember something better if I write it down	0 1 2 3 4
I understand lecturers better when they write on the board	0 1 2 3 4
Charts, diagrams and maps help me understand what someone says	0 1 2 3 4

Visual – Total

I remember things better if I discuss them with someone	0 1 2 3 4
I prefer to learn by listening to a lecture rather than reading	0 1 2 3 4
I like to listen to music when I study or work	0 1 2 3 4

Auditory – Total

I need frequent breaks when I work or study	0 1 2 3 4
If I have a choice between sitting and standing, I'd rather stand	0 1 2 3 4
I think better when I move around (for example, pacing or tapping my feet)	0 1 2 3 4

Tactile – Total

Part 2: How I expose myself to learning situations

I learn better when I work or study with others than by myself	0 1 2 3 4
I meet new people easily by jumping into the conversation	0 1 2 3 4
It is easy for me to approach strangers	0 1 2 3 4

Extroverted – Total

I am energized by the inner world (what I'm thinking inside)	0 1 2 3 4
I prefer individual or one-on-one games and activities	0 1 2 3 4
When I am in a large group, I tend to keep silent and just listen	0 1 2 3 4

Introverted – Total

Part 3: How I handle possibilities

I have a creative imagination	0 1 2 3 4
I add many original ideas during class discussions	0 1 2 3 4
I am open-minded to new suggestions from my peers	0 1 2 3 4

Random–Intuitive – Total

Part 1: How I use my physical senses

I read instruction manuals (for example, for laptops) before using the device 0 1 2 3 4

I trust concrete facts instead of new, untested ideas 0 1 2 3 4

I prefer things presented in a step-by-step way 0 1 2 3 4

Concrete-Sequential – Total

Part 4: How I approach tasks

My notes and other school materials are carefully organized 0 1 2 3 4

I write lists of everything I need to do each day 0 1 2 3 4

I enjoy a sense of structure in the classroom 0 1 2 3 4

Closure-oriented – Total

I gather lots of information, and then I make last-minute decisions 0 1 2 3 4

I prefer fun or open activities rather than structured activities 0 1 2 3 4

My schedule is flexible for changes 0 1 2 3 4

Open – Total

Part 5: How I deal with ideas

I can summarize information easily 0 1 2 3 4

I enjoy tasks where I have to pull together ideas to form one large idea 0 1 2 3 4

By looking at the whole situation, I can easily understand someone 0 1 2 3 4

Synthesizing – Total

I prefer to focus on grammar rules 0 1 2 3 4

I enjoy activities where I have to compare or contrast two things 0 1 2 3 4

I'm good at solving complicated mysteries and puzzles 0 1 2 3 4

Analytic – Total

Part 6: How I deal with input

It is easy for me to see the overall plan or big picture 0 1 2 3 4

I get the main idea, and that's enough for me 0 1 2 3 4

When I tell an old story, I tend to forget lots of specific details 0 1 2 3 4

Global – Total

I need very specific examples in order to understand fully 0 1 2 3 4

I can easily break down big ideas into their smaller parts 0 1 2 3 4

I pay attention to specific facts or information 0 1 2 3 4

Particular – Total

Interpretations of style survey results

The following are general descriptions of your learning style preferences. It does not describe you all of the time, but gives you an idea of your tendencies when you learn.

Part 1: How I use my physical senses

If you are a visual person, you rely more on the sense of sight, and you learn best through visual means (books, video, charts, pictures). If you are an auditory person, you prefer listening and speaking activities (discussions, debates, audio tapes, role-plays, lectures). If you are a tactile/kinesthetic person, you benefit from doing projects, working with objects and moving around the room (games, building models, conducting experiments).

Part 2: How I expose myself to learning situations

If you are extroverted, you enjoy a wide range of social, interactive learning tasks (games, conversations, discussions, debates, role-plays, simulations). If you are introverted, you like to do more independent work (studying or reading by yourself or learning with the computer) or enjoy working with one other person you know well.

Part 3: How I handle possibilities

If you are a random–intuitive, you are more future-oriented, prefer what can be over what is, like to speculate about possibilities, enjoy abstract thinking and avoid step-by-step instruction. If your preference is concrete–sequential, you are present-oriented, prefer one-step-at-a-time activities, and want to know where you are going in your learning at every moment.

Part 4: How I approach tasks

If you are more closure-oriented, you focus carefully on all learning tasks, meet deadlines, plan ahead for assignments and want explicit directions. If you are more open in your orientation, you enjoy discovery learning (in which you pick up information naturally) and prefer to relax and enjoy your learning without concern for deadlines or rules.

Part 5: How I deal with ideas

If you are a synthesizing person, you can summarize material well, enjoy guessing meanings and predicting outcomes, and notice similarities quickly. If you are analytic, you can pull ideas apart, do well on logical analysis and contrast tasks, and tend to focus on grammar rules.

Part 6: How I deal with input

If you are a global person, you enjoy getting the main idea and are comfortable communicating even if you don't know all the words or concepts. If you are a particular person, you focus more on details, and remember specific information about a topic well.

Notes

- 1 This chapter was originally written jointly with Zoltán Dörnyei, who was responsible for the section on motivation. Andrew Cohen then prepared the second version on his own. In the nine years since the second version appeared, there has been considerable activity in the areas of language learner strategies and of motivation to learn languages. This co-authored revision for the new Routledge printing reflects an effort to provide an updating of both research on language learner strategies and on L2 motivation.
- 2 University of Minnesota.
- 3 University West, Sweden

Further reading.

Cohen, A. D. and Macaro, E. (2007) *Language Learner Strategies: 30 Years of Research and Practice*. Oxford, UK: Oxford University Press.

[This book provides a re-examination of key issues such as strategies in context, strategy instruction and strategy research methods by numerous experts in the field. It offers an overview of what is known from empirical research about listening, reading, speaking, writing, vocabulary and grammar strategies, and it proposes a research agenda for the next decades.]

Cohen, A. D. and Weaver, S. J. (2006) *Styles- and Strategies-Based Instruction: A Teachers' Guide*. Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

[Styles- and strategies-based instruction helps students become more aware of their learning style preferences and gives them a set of strategies to maximize their language learning ability. This guide helps teachers to identify the individual needs of their students and incorporate opportunities for students to practice a wide range of strategies for both language learning and language use. For many years this volume has been used successfully in CARLA summer institutes.]

Dörnyei, Z. (2001) *Motivational Strategies in the Language Classroom*. Cambridge: Cambridge University Press.

[Written for practicing teachers, this book is the first publication that is entirely devoted to discussing L2 motivational strategies, that is, practical techniques to generate and maintain student motivation in the language classroom.]

Dörnyei, Z., Henry, A. and Muir, C. (2016). *Motivational Currents in Language Learning: Frameworks for Focused Interventions*. New York: Routledge.

[This book provides a detailed theoretical explication of the theory of directed motivational currents (DMCs), and the motivational processes involved in high-intensity sustained learning. The book explains how practitioners can draw on the DMC construct in creating optimal conditions for motivation to emerge and be maintained in language developing projects.]

Dörnyei, Z. and Kubanyiova, M. (2014). *Motivating Learners, Motivating Teachers*. Cambridge: Cambridge University Press.

[In this book Dörnyei and Kubanyiova map out the theory of L2 vision, and describe the ways in which visualization can be used as tool by both learners and teachers of languages. Importantly, the authors provide a comprehensive array of strategies for developing effective L2 vision, which can be used to generate, support and maintain learners' motivation.]

Dörnyei, Z., and Ryan, S. (2015) *The Psychology of the Language Learner Revisited*. New York: Routledge.

[In the ten years following the appearance of the original volume, the focus of inquiry into the psychology of SLA shifted from the analysis of various characteristics within individuals towards a greater consideration of individuals' dynamic interactions with diverse contexts. This revised edition reflects on these developments by challenging some of the assumptions upon which the original text was based, situating the discussion within a very different theoretical framework. A noticeable change in this co-authored volume is that whereas the original volume was critical of LLS, the revised edition provides a more sympathetic picture, more consistent with the view taken by numerous LLS experts around the world.]

Dörnyei, Z. and Ushioda, E. (2011) *Teaching and Researching Motivation* (second edition). Harlow: Longman.

[This is an accessible overview of L2 motivation research, with a balanced treatment of both theoretical and practical issues. It also provides research guidelines and over 150 questionnaire items for those who would like to conduct their own investigations.]

Paige, R. M., Cohen, A. D., Kappler, B., Chi, J. C. and Lassegard, J. P. (2006) *Maximizing Study Abroad: A Students' Guide to Strategies for Language and Culture Learning and Use* (second edition). Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

[Aimed at students who want to make the most of their study abroad experience, this flexible and user-friendly guide helps students identify and use a wide variety of language- and culture-learning strategies. The guide begins with three inventories designed to help students be more aware of how they currently learn language and culture. The guide then provides students with tools and creative activities that they can use to enhance their favoured learning strategies and to try out unfamiliar ones. Students can use this guide as they prepare for study abroad, during their experience, and once they return to maximize their experience. This guide continues to be a bestseller at CARLA, with well over 80,000 copies sold over the years.]

Forensic linguistics and language and the law

Tatiana Tkacukova¹

What is forensic linguistics and language and the law?

Forensic linguistics is a rapidly growing sub-field of applied linguistics; it is now well-established as a field of linguistic inquiry with its own professional organization International Association of Forensic Linguists, peer-reviewed journal *International Journal of Speech, Language and the Law*, annual summer school International Summer School in Forensic Linguistic Analysis, research centres (e.g., Centre for Forensic Linguistics, Aston University), and a constantly increasing number of study programs on offer (e.g., Aston University, University of Cardiff, Hofstra University). In its broadest sense, forensic linguistics is the study of language in legal and investigative settings. The field can further be categorized into three overlapping areas (Coulthard and Johnson, 2010; Coulthard et al., 2011; Perkins and Grant, 2013; Oxburgh et al., 2016b):

- 1 investigative forensic linguistics (e.g., comparative authorship analysis, socio-linguistic profiling, determining disputed meaning, analysing disputed interactions, trademark and copyright infringement, plagiarism, deception detection, language analysis for the determination of origin, native language identification);
- 2 the study of the written language of law (e.g., readability and comprehensibility of legal language, ambiguity in legal language, interpreting legislation, issues in legal translation, language policy);
- 3 the study of communication in the legal process (e.g., police interviewing techniques, courtroom discourse, vulnerable victims/witnesses, legal-lay communication, court interpreting).

The three streams often focus on all levels of linguistic analysis (i.e., lexis, grammar, syntax, discourse), while drawing on general linguistics and applied linguistic studies (socio-linguistics, pragmatics, discourse analysis, psycholinguistics, conversation analysis, first/second language acquisition) as well as non-linguistic disciplines (law, criminology, psychology, forensic sciences). Given the interdisciplinarity and breadth of topics, the wider field of forensic linguistics and language and the law aims to enhance access to justice through the provision of linguistic expertise in criminal and civil cases, impact best practices in the legal sphere, and improve communication in legal and investigative settings. This chapter presents recent developments in all three streams while placing more emphasis on the latter area, i.e.,

communication in the legal process, as it is closely related to pedagogical implications of applied linguistics and the main focus of this edited collection, thus strengthening intersections with other chapters.

Investigative forensic linguistics

Investigative forensic linguists provide ‘advice and opinions for investigative and evidential purposes’ (Coulthard et al., 2011: 536). The field is therefore constantly developing its methodology base, combining quantitative and qualitative approaches and establishing innovative methods to tackle new research challenges. Despite these developments, forensic linguistic methods are sometimes perceived as less scientific than methods of other forensic sciences. Interestingly though, a closely related field of forensic phonetics (see the website of the professional organization International Association for Forensic Phonetics and Acoustics) is considered to be more scientific because the provision of acoustic and articulatory analysis involves research methods which in their nature resemble more exact forensic sciences. As a result, in the UK, forensic phonetics is classed under the Forensic Science Regulator as a field of digital forensics (i.e., forensic phoneticians need to meet the quality standards of the regulator), whereas forensic linguistics research methods cannot be easily mapped out onto the strict requirements of the Forensic Science Regulator (Forensic Language Analysis, 2015). Since it is essential to be ‘cognizant of the needs of the court when undertaking any investigative work’ (Coulthard et al., 2011: 536), investigative forensic linguists have been developing valid and reliable research methodology to ensure their expertise conforms to the practice directions of the applicable jurisdiction (e.g., the Daubert criteria in the US, the UK Law Commission criteria, the Criminal Procedure Rules of the Ministry of Justice in England and Wales) and can therefore be admitted in court (Grant, 2013: 468; Forensic Language Analysis, 2015). The challenge is that investigative work can be extremely varied and each case may require developing its own methodological approach.

Perhaps one of the most well-known and methodologically interesting areas of investigative forensic linguistics is comparative authorship analysis; such cases typically involve a disputed/anonymous text or texts and a set of undisputed texts for comparative purposes. The objective is to determine whether the anonymous or disputed text(s) could have been authored by the author of undisputed texts; in case there are more suspects, several sets of their sole-authored undisputed texts would be compared to the disputed text(s). Typologically, anonymous texts under investigation vary from ransom notes and suicide notes through wills to extortion letters and terrorist conspiracy communication; in recent years the need to examine shorter texts such as text messages, e-mails or social networks (e.g., Twitter feeds) has been on the increase (Coulthard et al., 2011: 536). To ensure the comparative analysis can be conducted, it is important to have a large enough database of the known texts in the genre as similar as possible to that of the disputed text(s). Unless these criteria are met (i.e., adequate quantity and representativeness of texts as well as their genre comparability), forensic linguists cannot contribute much to the investigation as the analysis would not be reliable (Grant, 2013: 473). Interestingly though, the length of the text is not an issue: text messages or Twitter feeds, for instance, offer a rich source of syntactic, grammatical and lexical idiosyncrasies (e.g., omission of auxiliary verbs or other word classes, irregular spellings, language play), which can reinforce their function for investigative purposes (Grant, 2013: 474–475).

The starting point for authorship analysis has traditionally been the premise that every native speaker has an idiolect and uses language in unique and distinct ways (see Chapter 9, *Sociolinguistics*). Forensic linguists have therefore worked with ‘the assumption that (...) idiolect will manifest itself through distinctive and idiosyncratic choices in speech and writing’ (Coulthard and Johnson, 2007: 161). The theory ‘has not thus far been supported by empirical research’ (Kredens, 2002: 405) and it is applied by forensic linguists to various degrees. One approach stems from the cognitive theory of idiolect (also referred to as stylometry), which relies on quantitatively measurable aspects of individual’s cognitive capacity (Grant, 2010: 510), such as syntactic and sentential complexity, vocabulary richness, word frequency, content analysis, readability measures, use of punctuation and errors in punctuation, grammar, spelling or word forms (Chaski, 2001: 1). The clear advantage of the approach is its quantifiability that is often perceived as more objective (Grant, 2013: 470). Another approach is more qualitative in its essence, i.e., a stylistic theory of idiolect (Grant, 2010: 512). It provides an explanation as to how and why the language of individuals varies: our linguistic experiences help us develop distinctive features in our language use (Grant, 2010: 512). As opposed to the stylometric approach, the stylistic approach to idiolect does not work with universally pre-determined features; it becomes the task of the forensic linguist to identify distinctive features upon the qualitative examination of the texts, which makes this approach more suitable for shorter texts (Grant, 2013: 471).

One such example of utilization of the stylistic approach comes from the case of Jenny Nicholl, a nineteen-year-old teenager from Richmond in the UK, who disappeared in June 2005. She was killed by her lover David Hodgson, who subsequently sent four messages from her phone to her friends and relatives during the period nine to 14 days after her disappearance. The forensic linguist Malcolm Coulthard was asked by the police to analyse these four text messages sent from Jenny’s phone as well as 11 text messages she sent previously and seven text messages sent by David Hodgson for comparative purposes. Coulthard analysed Jenny’s undisputed messages and Hodgson’s messages separately in order to identify a series of consistent and distinctive lexical choices for both (Grant, 2010: 515–517; Grant, 2013: 475–476; Perkins and Grant, 2013): Jenny was more likely to use ‘my’ and ‘myself’ whereas Hodgson tended to use pronouns ‘me’ and ‘meself’ characteristic of North Yorkshire variety; Jenny used ‘im’ whereas Hodgson used ‘I am’; Jenny used ‘am not’ or ‘I’m not’ whereas Hodgson used ‘aint’; Jenny used ‘2’ for ‘to’ without space afterwards but this feature was missing from Hodgson’s texts; Jenny used ‘cu’ for ‘see you’ whereas Hodgson used ‘cya’. The comparison of these features alongside a few other ones in the three text messages of unknown authorship helped Coulthard come to the conclusion that the text messages sent after Jenny’s disappearance were consistent with Hodgson’s style, but not compatible with Jenny’s style (Grant, 2010: 515). Although the body was never found, David Hodgson was convicted of murder based on such circumstantial evidence as mobile company records, car hire records and forensic linguistic evidence. Coulthard had a unique opportunity to present his evidence in court with a PowerPoint presentation highlighting all the distinctive features in Jenny’s texts and how they appeared in the suspect texts (Coulthard, 2010). In this case, Coulthard did not only ‘describe consistent patterns of written style within an author’s text, [but] also attempted to account for the level of intra-author variation in writing style’ (Perkins and Grant, 2013), i.e., by showing the differences between the two authors in relation to the same features.

This descriptive approach nonetheless relied on the expert's identification and selection of the lexical features for the analysis (Grant, 2013: 476).

Grant (2013) built on Coulthard's methodology and proposed a more robust quantified methodology tested on the case of Amanda Birks. In January 2009, Amanda supposedly died in a fire in the attic of her house under suspicious circumstances. On the morning of the day, she and her husband, Christopher Birks, were seen in the house by an employee of their joint company. In the afternoon, several text messages were sent from her phone to her husband, employees and relatives. The messages suggested that she and her husband were experiencing marital problems and that she would go to bed early, 'relaxing with candles' in the attic room (Grant, 2013: 468). In the evening, Christopher Birks called a fire brigade before rescuing his children from the house. When the fire brigade arrived, they were told that Amanda was trapped in the attic room, but they were only able to recover Amanda's burnt body, which made it difficult to assess the cause or manner of death. Forensic examination of her body revealed that she went to bed in her day-time clothes and that she did not inhale any carbon monoxide from fumes; the burglar alarm log showed that there was no movement in the house during the afternoon. The police also suspected that the text messages sent in the afternoon could have been written by somebody else. Grant was asked to examine Amanda's undisputed text messages sent to 11 different recipients a few days prior and 203 text messages by her husband to ten different recipients in order to determine the authorship of the disputed messages sent in the afternoon on the day of the fire.

Similarly to Coulthard, Grant (2013: 478–483) started by identifying consistent features for both of the authors using corpus linguistics tools (word lists) and identifying lexical items, spelling choices, use of spaces, letter/number substitutions, and any abbreviations and initialisms. To avoid potential subjectivity and selectivity of the analysis, Grant, however, only incorporated features which occurred in both sets of undisputed text messages at least ten times, which left him with 28 features. The following step was to determine discriminatory features, i.e., features that were used predominantly by one of the authors but not the other one. The benchmark set was for the feature to occur at least twice as often in one of the author's messages than in the other author's messages, which further reduced the number of features to 18 (e.g., Amanda used 't' for 'the', but it was rare in her husband's messages; Amanda used 'ad' for 'had' but this did not occur in her husband's messages; her husband used '2' for 'to' without space, but this feature did not occur in her messages). The features helped 'demonstrate a relative consistency of habit and a pairwise distinctiveness which thus can be used to stylistically discriminate between messages' (Grant, 2013: 480). To demonstrate the degree of distinctiveness, Grant (2013) used Jaccard's coefficient (i.e., a binary correlation used in forensic psychology as a similarity/distance measure) to test a random sample of 100 text messages for both authors in contrast to the disputed texts. The results showed that disputed texts were much closer in style to the husband's messages. The final stage included a qualitative comparison of individual disputed messages to the list of the 18 distinctive features, which showed that the disputed messages were distinctive from those authored by Amanda but consistent with the style of those written by her husband. Christopher Birks was subsequently charged and sentenced for murder of his wife and the endangerment of the lives of his children and firefighters (Grant, 2013: 468).

By building on different areas of applied linguistics, forensic linguists have helped in investigations and testified for prosecution and defence in different types of cases. Drawing on sociolinguistic research, Shuy analysed a ransom note and concluded that the author was an educated man from Akron, Ohio trying to disguise himself (he made spelling mistakes in simple words, but spelt more complex words correctly and included dialectal lexis), which provided the police with enough information to find the suspect (Perkins and Grant, 2013). In trademark litigation, linguists are called in to testify on the likelihood of confusion in relation to sight, sound and meaning and the strength of the mark (Butters, 2010: 353). Butters (2010) reports on the case of *Circuit City Stores, Inc. v. Speedy Car-X, Inc.* when he provided expert evidence in court that customers were unlikely to confuse CarMax (a chain of second-hand car shops established by Circuit City) with CAR-X (a car servicing company). As a result, Circuit City was allowed to continue using CarMax trademark. Linguists also contribute to deception detection cases by analysing verbal cues (Vrij, Taylor and Picornell, 2016) and consistency in presentation of facts. Shuy (1998: 79–86) reports on a case when he was able to show that a man suspected of killing his wife was consistent in his statements to the police revealing potentially incriminating motive, but denying the knowledge or memory of allegedly killing his wife, which contributed to the police dropping the charges.

Similarly, Coulthard's expert testimony helped to overturn a guilty verdict post-humously when he showed that the statement of the executed teenager Derek Bentley given at the police station was not a verbatim record, but a combination of questioning and response turns presented as an incriminating monologue (Coulthard and Johnson, 2007: 173–180). The case of Patrick Molloy also involved fabricated evidence by the police in which Coulthard was able to show that the handwritten record of the police interview was constructed on the basis of a forced confession and was not authored by the defendant (Coulthard et al., 2011: 540). The two cases are from a time when statements were produced on the basis of contemporaneously handwritten transcripts of interviews. The introduction of routine tape-recording as part of the Police and Criminal Evidence Act 1984 alongside the enforcement of the protocol for non-coercive police interviews contributed to the fact that since then there have not been cases of coerced confessions in the UK (Grant, 2010: 219).

The cases referred to in this section illustrate an important role that linguists play when working with the police, prosecution and defence teams on facilitating access to justice. The last two cases also show how strong the link is between the three streams of forensic linguistics, i.e., investigative forensic linguistics, written legal language and communication in the legal process. These links will become even more evident when jury instructions or police caution are explored in further sections.

Written legal language

Whereas in the field of investigative forensics, linguists are constantly proactively pushing for their evidence to be accepted by courts, linguistic expertise in relation to written legal language is perhaps more readily accepted. Recent edited volumes (Gibbons and Turrell, 2008; Coulthard and Johnson, 2010; Tiersma and Solan, 2012; Solan, Ainsworth and Shuy, 2015) showcase an incredible breadth of research topics in the area: history of legal language, syntactic and lexical complexity of legalese, ambiguity and interpretation of legal language, reforming written legal language and the 'Plain Language Movement', legal translation challenges, language policy, and multilingual

jurisdictions. The focus of these research studies revolves around the obscurity of legalese and its syntactic, grammatical, semantic and lexical complexities.

The main features of impersonal and decontextualized legislative writing have been shown to include: sentences that are nine times longer than sentences in academic writing (Bhatia, 1993: 106), nominal phrases (e.g., 'treatment' instead of 'to treat'); prepositional phrases (e.g., 'by virtue of'); binominal and multi-nominal expressions (e.g., 'acknowledge and confess' or 'give, devise and bequest'); complex sentences with several subordinate clauses (Hiltunen, 2012: 43); minimal use of punctuation to avoid ambiguity (Hiltunen, 2012: 48); initial case descriptions prolonging the subject; qualifications specifying conditions in which the provision applies; syntactic discontinuities (Bhatia, 2004: Chapter 5). The Plain Language Movement and its UK-based Plain English Campaign, have been advocating for improving readability and overall presentation and organization of legal documents and different forms of institutional communication since the 1970s. With the example of two insurance documents from 1963 and 2008, Coulthard et al. (2011: 532–535) show a shift towards a more personable style, including the introduction of numbered sections as a co-reference device creating a hypertext document. The syntactic and lexical complexity of the language is nevertheless retained and the authors suggest it is due to the fact that legal language needs to remain context-free.

Adler (2012) argues for the need to further implement the plain language drafting strategies, which include organizational, design-related, grammatical, syntactic and lexical simplifications. Although legalese does present seemingly unnecessary psycholinguistic challenges to lay readers in relation to processing and overall comprehension of the information, it is the complex nature of reality that legislative documents reflect which influences their content and form (Bhatia, 2004: 209). This is the very reason Bhatia (2004) advocates for two versions of legal documents: an 'easified' version for the wider specialist public retaining the original integrity of the text while improving its processing, and a simplified version for the wider audience explaining everything clearly. According to the author, 'easification' devices include clarification of cognitive structuring, reducing information load at a particular point, indicating legislative intentions and illustrating legislative issues (Bhatia, 2004: 209–218). Tkacukova (2016) illustrates 'easification' processes on the example of a court form for financial remedy proceedings filled in as part of divorce proceedings in England and Wales. The author argues that a closer interdisciplinary cooperation with linguists would be beneficial for drafting the court forms, which function for court purposes and elicit legally relevant information but are primarily filled in by lay people.

What is equally important is that understanding and using legal concepts does not only involve linguistic competence, but also such skills as 'the ability to identify the pertinent legal rules, principles, and doctrines, to recognize the relevant facts and classify them into the pertinent legal categories, and to engage in a particular type of interpretation and reasoning' (Assy, 2011: 378). It is discursive competence and practice that play an important role in the ability to actively engage with law (Tkacukova, 2016). The acquisition of discursive competence in professional and institutional settings involves the following aspects: textual competence, generic competence and social competence (Bhatia, 2004: 144). Textual competence is directly related to language and can be broken down into linguistic competence (ability to use specialized language) and

communicative competence (ability to interpret and produce contextually relevant texts). Generic competence helps interpret and produce generic conventions of professional practice to achieve desired professional aims (e.g., producing a logical, well-organized and coherent witness statement meeting all formal requirements). Social competence defines one's social identity and institutional role via the ability to communicate effectively in social and institutional contexts (e.g., effective negotiation strategies). Despite the fact that neither social nor generic competence are of linguistic nature, they contribute to discourse development and help accomplish professional aims, which is consequently reflected in linguistic performance (Bhatia, 2004: 144). Developing discursive competence requires professional training and experience and as such needs to be reflected in pedagogical approaches towards an 'English for Specific Purposes' curriculum. Embedding employability into the curriculum and planning the teaching provision around task-based learning and communities of practice is an effective way of supporting the development of students' discursive competence.

Communication in the legal process

The study of communication in the legal process focuses mostly on legal-lay spoken interactions, but also communication at the intersection of written and spoken genres. For instance, juror instructions are customarily read out loud by the judge and as such they tend to include complexities characteristic of written legal language. What makes jury instructions even more complex is that they are being perceived through the spoken medium, thus causing even more challenges to the comprehension process. Due to syntactic and lexical complexities and the fact that written text is being read out, jurors often experience problems understanding instructions (Marder, 2012). Since the recipients are lay members of the public, the techniques of the Plain Language Movement become important to ensure the text is accessible. One example of a successful linguistic intervention is Tiersma's involvement in the simplification of juror instructions in California (Schane, 2006: 4); Table 11.1 shows the beginning of the older version alongside the new one:

Table 11.1 Simplification of juror instructions

Old California instruction: BAJI 2.00	New instruction: No. 202
Evidence consists of testimony, writings, material objects or other things presented to the senses and offered to prove whether a text exist or does not exist.	Evidence can come in many forms. It can be testimony about what someone saw or heard or smelled. It can be an exhibit admitted into evidence. It can be someone's opinion.
Evidence is either direct or circumstantial.	Direct evidence can prove a fact by itself. For
Direct evidence is evidence that directly proves a fact. It is evidence which by itself, if found to be true, establishes that fact.	example, if a witness testifies she saw a jet plane flying across the sky, that testimony is direct evidence that a plane flew across the sky. Some evidence proves a fact indirectly.
Circumstantial evidence is evidence that, if found to be true, proves a fact from which an inference of the existence of another fact may be drawn.	For example, a witness testifies that he saw only the white trail that jet planes often leave. This indirect evidence is sometimes referred to as 'circumstantial evidence.' In either
	instance, the witness's testimony is evidence that a jet plane flew across the sky.

The new version is easier to follow as the text clearly specifies and illustrates different types of evidence. Similar to jury instructions, police caution is another area where it is essential to ensure mutual understanding. The police recite the caution when arresting a person or beginning an interview, but since there is a lot at stake for detainees, the police may need to check their understanding or explain the official wording in a clear way (Rock, 2012: 313). An example of a successful cooperation between linguists and legal professionals is Gibbons' contribution to the revisions of the New South Wales Police Code of Practice drafted with the aim to encourage use of interpreters, improve police interviews and enhance the intelligibility of the scripts for police cautioning (Gibbons, 2001). Despite these individual achievements, jury instructions and police caution need to be further explored in different jurisdictions with linguistic advice as part of the process (Rock, 2012: 325).

Since numerous legal-lay interactions happen on a daily basis, the research on communication issues in investigative and legal settings plays an increasingly important role in facilitating access to justice through raising the awareness of legal professionals and the wider public to the role language plays in defining power relations and imbalances in interactions, eliciting narratives and confessions or detecting deception. Recent edited volumes (Tiersma and Solan, 2012; Coulthard and Johnson, 2010; Heffer, Rock and Conley, 2013; Oxburgh et al., 2016b) cover topics on police interviewing, communication in court, communication with suspects and defendants, communication with victims/witnesses, engagement with vulnerable victims/witnesses, self-representation, and interpreting in legal settings.

Given the significance of legal-lay interactions for access to justice, the study of communication in the legal process bears direct pedagogical implications for teaching English as a second language as well as secondary school curriculum on citizenship education, for instance. Whether lay people are communicating in their first language or not, they need to be aware of the role language plays in the legal process, how to communicate effectively and ensure their voice is heard, when to require a legal representative and/or interpreter, what consequences different wordings can have, what the aim of the police interview is and how it is used in court, how to present your story during examination-in-chief and resist coercive questioning during cross-examination. In order to include these essential aspects on the curriculum, the teaching staff need to be aware of the recent research on police interviewing and courtroom discourse (both presented below).

Police interviewing discourse

The previously mentioned Police and Criminal Evidence Act 1984 has set the tone for ethical and fair police interviewing and prompted the move from a confession-seeking objective of police interviewing to a more balanced information-elicitation and search-for-the-truth approach; the UK model of ethical police interviewing is now being adapted in other jurisdictions (Grant, 2010: 219). The task of the interviewer is to be a neutral participant fulfilling an 'inquisitorial role rather than the traditional prosecutor one' (Williamson, 1994 qtd. in Milne and Bull, 1999: 158). The understanding of the police interviewing process as a complex activity involving several interlocutors (Milne and Bull, 1999: 55) has given rise to the PEACE framework in the early 1990s (Dando et al., 2016: 80). PEACE is the mnemonic acronym for the five stages of the interview

process: Planning and preparation; Engaging and explanation; Account, clarification and challenge; Closure; and Evaluation. While the first and the last stages involve the police interviewers only, the three stages in between concern the interviewing process itself. The interview thus progresses in the following stages:

- 1 eliciting an open account through open topic-initiation questions (Grant et al., 2016: 22), including TED questions (Tell, Explain, Describe);
- 2 challenging the account through presenting conflicting evidence and asking topic facilitation questions (Grant et al., 2016: 22), such as closed-ended and clarification questions;
- 3 summarizing the evidence elicited and giving an opportunity to the interviewee to add anything else.

There are several approaches stemming from the PEACE model depending on the types of interviewees: cooperative witnesses/victims, reluctant witnesses/victims and suspects. For a witness/victim centred interview, the Cognitive Interview (CI) approach, is most appropriate for cooperative witnesses/victims; the aim is to build rapport and help witnesses/victims trigger recollection by asking open-ended questions and helping them recreate relevant cognitive contexts linked to the events (Dando et al., 2016: 82). With uncooperative or reluctant witnesses/victims, it is important to employ conversational skills to gradually encourage the disclosure of information, hence the Conversation Management (CM) approach; an important part of the approach is explanation of the process as well as active listening and effective questioning techniques (Dando et al., 2016: 93). When interviewing suspects it is equally important to start with open-ended questions to build rapport and gain their trust and only then move on to account clarification and challenge, i.e., to follow the PEACE model (Oxburgh et al., 2016a: 144). Despite the differences in approaches taken depending on the type of interviewee, the prevailing aspect is the ethical considerations behind the interviewing techniques in order to eliminate cases of miscarriages of justice and raise the public's confidence in the work of the police.

Research on investigative interviewing lies at the intersection of forensic psychology and forensic linguistics. Forensic linguistics draws upon conversation analysis, discourse analysis, corpus linguistics and pragmatics when researching topics which have traditionally been dominated by forensic psychology (e.g., investigative interviewing techniques, suggestibility of interviewing questions, strategies for building rapport, deception detection techniques, interviewing vulnerable witnesses/victims). Applied linguistic research has thus brought a better understanding of different types of interviewing questions and the fact that the function of questions is as important as their grammatical structure (Oxburgh, Myklebust and Grant, 2010; Grant et al., 2016). Patterns of cooperation between two interviewers were also found to have an impact on the interviewing process, which means that the training materials need to bring more clarity on the roles two interviewers have during the process (Tkacukova and Oxburgh, forthcoming). The journey of police interviews from the police station to court has brought the linguists' attention to the analysis of intertextuality (Rock, 2013) and audience design (Haworth, 2013). This leads to two points which need to be further explored: the interviewees need to be aware of the fact that police interviews are not a single event conversation, but they can potentially be used in court (see section 'Pedagogical

implications’); legal professionals need to be aware of the dangers related to the current use of interviews (i.e., audio recordings are transcribed and can then be read out in court) with several transformations between spoken and written form and the susceptibility of the process to re-interpretations and (un)conscious changes in meaning (Haworth, 2010). A further research strand is on vulnerable witnesses/victims (e.g., children, rape victims, non-native speakers of the target language, people with visual or auditory impairments, learning difficulties or mental health problems) which aims to improve the process of communication. The introduction of regulated intermediaries to assist vulnerable victims is a very good example of effective involvement of professionals in legal proceedings to ensure unimpeded communication (for more information, please see <http://www.theadvocatesgaweway.org>). What links the above-mentioned research topics is pursuit for effective communication under fair and transparent conditions during the stages of police interviewing. The communication process during adversarial court proceedings (i.e., Anglo-American common law legal system), however, presupposes imbalances in power and can be even more difficult for lay people to participate in.

Courtroom discourse

An essential principle of the adversarial legal system is witness examination, which consists of examination-in-chief, cross-examination and sometimes re-examination. Through examining witnesses, the two parties present their versions of events to the judge and/or jury. While examination-in-chief is conducted by a friendly counsel, cross-examination can often turn into a very intimidating experience as it is conducted by an opposing counsel. The main aim of a cross-examiner is to discredit the testimonies of witnesses by casting doubt on their credibility or their presentation of events (Gibbons, 2003: 112). This is achieved by controlling witness responses and limiting their interactional space through coercive questioning. Cross-examination questioning turns (e.g., leading questions, questions with an embedded message implying alternative interpretations) present an opportunity for counsels to communicate their interpretation of evidence to the judge and/or jurors (Hobbs, 2002: 416). The right to ask questions is a discursive tool (Thornborrow, 2002) that provides cross-examiners with an opportunity to control not only witness replies and formulation of facts, but also turn-taking management, topics and their sequence as well as (re)interpretation of facts (Tkacukova, 2016). This makes it difficult for witnesses to resist pressure put on them or gain a more powerful position in order to tell the court their side of the story. Even the physical arrangements of courtrooms (e.g., the positioning of the judge on a dais, a symbolic display of emblazoned arms, ceremonial dress code of robes and wigs worn by legal professionals, long distances between the participants) put emphasis on the power of the judge and the authoritativeness of the judicial process.

Given the constant imbalance in power relations between legal and lay participants as well as the gravity of court cases, courtroom discourse presents an impactful topic for researchers. For instance, research on court interpreting highlights the role language plays in court proceedings: pragmatics and implied meanings are an essential part of communication in court, but can be difficult to relay in constrained and stressful situations in which court interpreters work (Hale, 1999). Providing interpreters with evidence-based training opportunities will help them overcome cross-linguistic challenges between languages as well as better understand court discourse and their role in it

(Hale, 2010). Although training interpreters is a long-term goal, some achievements have been made in other areas. Studies on vulnerable victims/witnesses have led to the implementation of several changes when dealing with children or vulnerable adults, such as conducting witness examination via video-link to a friendlier environment, asking grammatically, syntactically and lexically simple questions, modifying the procedure, and using the services of an intermediary (Gibbons, 2003: 231; O'Mahony, Marchant and Fadden, 2016). Another change was introduced to the process of cross-examining sexual assault victims; the defence in the UK, for instance, can no longer ask the victim about their previous sexual experience without a court-approved application to do so (Henderson, Heffer and Kebbell, 2016: 194). To protect rape victims further, defendants representing themselves without a lawyer are not allowed to cross-examine the victims directly (Henderson, Heffer and Kebbell, 2016: 194). Behind these changes lies the recognition of the fact that the principle of cross-examination can easily turn into a tool for distorting the truth instead of revealing it (Riding, 1999: 415–418). To rectify this, Henderson, Heffer and Kebbell (2016: 194–200) advocate for such reforms as pre-recorded cross-examination and wider witness education programs.

Legal-lay communication is at the heart of courtroom discourse as lay people do not only come to court as witnesses, victims or defendants, but also jury or litigants in person (self-represented litigants acting on their own behalf without a lawyer). A common problem for lay people is the way narratives unfold in legal settings. Narrativization happens on several levels: witnesses come to court to tell their stories, i.e., satellite narratives, which are then utilized by counsels into master narratives by combining satellite narratives with opening statements and closing arguments (Snedaker, 1991 qtd. in Gibbons, 2003: 155). While master narratives form a general frame, satellite narratives complete the gaps in master narratives. Master narratives are thus formed gradually; it is only at the final stage of closing arguments that all narratives are integrated into one master narrative.

The challenge for lay people lies in the fact that master narratives are non-linear and multi-perspectival (Cotterill, 2003: 25). Coulthard and Johnson (2007: 111) emphasize that in courtroom discourse, narrative construction is linked to 'narrative disjunction'. Narrative fragmentation is caused by several factors: witness testimonies on related issues do not necessarily follow each other because 'legal coherence' is preferred to 'narrative coherence' for planning the order of hearings (Harris, 2005: 216); witness testimonies are elicited through the question/answer interaction pattern; counsels control witness testimonies and can either elicit a coherent narration or inconsistent details that disrupt the coherence of the opposing party's narrative (Gibbons, 2003: 158; Coulthard and Johnson, 2007: 111). The last two aspects are problematic for witnesses as they cannot present their evidence in their own words and they are limited in the type of turns they are allowed to contribute, i.e., responses to questions. Another important aspect is narrative evolution (Cotterill, 2003: 149). Before witnesses come to court to give their evidence, they repeat and re-tell their narratives several times during police interviews because of the necessity to check for inconsistencies. In court, witnesses repeat their testimonies several times during examination-in-chief, cross-examination, and possibly further re-examinations. In addition, all interviews and testimonies are recorded for later hearings or appeals. In this way, multiple courtroom narratives become open-ended for further interpretations.

Narrative fragmentation also presents a challenge for the jury who have to make a mental reconstruction of the events alongside discerning facts from fiction. While witness

testimonies are factual narratives since witnesses are called to court to present facts, opening statements and closing arguments are fictional narratives since they provide an opportunity for counsels to present their interpretation of events (Coulthard and Johnson, 2007: 99). Jury instructions discussed above thus present an opportunity to clarify legal aspects to the jury, but the challenge is that the clarity of instructions depends on the way the judge manages to communicate the crucial information.

Fragmentation of narratives is equally problematic for litigants in person (also referred to as self-represented litigants, i.e., people who act on their own behalf without a lawyer in legal proceedings) who find themselves in the position of having to construct master narratives without the experience or skills in eliciting satellite narratives through the question/answer interaction pattern. For instance, instead of asking closed coercive questions during cross-examination, litigants in person were found to ask more open-ended questions, which is counter-productive for their narrativization techniques (Tkacukova, 2010). In addition, their limited knowledge of court processes and procedures means that they are not always clear on the narrative evolution and cannot plan their court strategy in advance, resulting in incoherent master narratives (Tkacukova, 2016). On the other hand, litigants in person with previous court experience claim that experiencing court processes and procedures is beneficial for any consequential court cases. Wider educational programs for lay people would undoubtedly help witnesses, victims, defendants, members of the jury and litigants in person and therefore have a positive effect on access to justice.

Pedagogical implications

This chapter has illustrated how forensic linguistics raises legal professionals' awareness of best practices for effective communication. Raising the awareness of the general public is equally important, especially as part of the secondary school curriculum and foreign language teaching programs (classes on General English and English for Specific Purposes). Without the basic understanding of the role language, power and narrativization play in legal settings, lay people may find the system alienating and discouraging. It is therefore extremely important to support young people and adults in developing not only general language competence but also discursive competence, i.e., the ability to communicate effectively in legal settings. Irrespective of whether the person is communicating in their mother tongue or foreign language, they need to understand legal processes and procedures as well as have linguistic and discursive skills to ensure their version of the narrative is heard and they can follow the process (be it in the role of a victim, witness, defendant, litigant in person, a litigation friend, or the jury).

Understandably though, when communication happens in a foreign language, potential complications multiply. Coulthard and Johnson (2007: 137) discuss a case when the police failed to call in an interpreter despite the fact that the detainee explicitly said he could not understand English properly and he could not express himself clearly during the interview. While in this case it is clear that the detainee needed an interpreter, some situations are less clear-cut. Eades (2002) discusses problems Aboriginal witnesses experience in Australian courts due to differences in cultural expectations during interaction: pausing before answering questions to show they are considering a response and using 'yes' as a gratuitous response to a question even if they do not agree or do not understand the question itself. Such interaction conventions are, however, highly unusual in mainstream Australian culture and may be

perceived as an attempt to deceive the audience. Cross-cultural communication skills are therefore an additional competence for non-native speakers to acquire.

When it comes to efficient ways of acquiring the competences and skills required in legal settings, Katrnakova (2018) discusses the uses of video conferencing as a collaboration between Aberystwyth University, Masaryk University and University of Helsinki. Regular video conferencing sessions are planned as part of the English language teaching curriculum for undergraduate law students and visiting Erasmus students at the three universities. A combination of tasks for asynchronous and synchronous communication leading to a mock trial allows students in different locations to follow legal processes and procedures as part of the judiciary, jury, defence legal team, prosecution legal team, or as police officers, experts, witnesses, press representatives or defendants. The project allows students to: create a community of practice; work on realistic tasks directly related to employability; use English as a lingua franca for goal-oriented, intercultural communication; practise General English and English for Specific Purposes; develop specific discursive competences and acquire a better understanding of legal processes and procedures. A shift towards integrating discursive and professional practices (Bhatia, 2008) into the curriculum for young people and adults will enable them to function efficiently in pursuing access to justice if they ever find themselves in such a situation.

Hands-on activity

Police interviewing

Police interviewers often cover several topics within the interview related to one or more incidents. Analyse the following extract of one of the topics from a police interview with a suspect interviewed in relation to a sexual assault on his daughter. Analyse the types of questions asked and their function, and identify the PEACE stages in the interview (adapted from Tkacukova and Oxburgh, forthcoming). Identify and explain the role of *so*-prefaced questions and third turns (third turns follow Q/A exchanges and offer an acknowledging/ironic/sympathetic/etc. reaction to the response):

INT: Ok. This incident that you remember. That you've just described about 1 o'clock in the morning. Erm ... tell me a bit more about that incident. So it was about one o'clock in the morning and she woke you up?

SUS: She woke us both up yeah.

INT: And ... yeah ... and you said that...

SUS: It probably happened like once or twice when she was ill.

INT: Right.

SUS: She's yeah very ... I mean once or twice it happened but erm ... she woke me ... she woke me and (mother's name) up, said she'd been sick and I'd just go in there and clear it all up.

INT: Ok. So you would go in there and sort of clear it all up?

SUS: Yeah, yeah.

INT: Ermm ... And what would that entail? Clearing up that ...?

SUS: well I'd go on ... I'd go in there with some disinfectant and a cloth and emm mop the floor and dry the floor and change her bedding, get some new bedding and clean it out ... put it on the duvet ... and maybe the pillows had gone now and it's on her

pyjamas so I put her in new pyjamas on her and erm literally she's lifted up back into bed and I say, 'Are you ok?' 'Yeah, I feel better now daddy.' I just lay on top of the bed and put my arm round her and make sure she's comfy and make sure she's fine. Until she went off.

INT: Ok. So what you've described there is sort of ... after cleaning up you'd lay on the bed with her until she's gone off?

SUS: Yeah, yeah.

INT: Does that mean going to ... gone to sleep?

SUS: Gone to sleep, yeah.

INT: And then once she was asleep what would you do?

SUS: Well normally I'd, like I did then, I'd just get up and go back to my own bedroom.

INT: Right.

SUS: Or in some cases I'd just fall asleep for a few hours and just woke up like 4 or 5 in the morning or something. About there ... occasionally.

INT: Ok. So when you lay on the bed where would she be?

SUS: She'd be ... She'd be facing me.

INT: Right. And whereabouts were you ... would you be?

SUS: I would just be laid there ... I'd move her over.

INT: Right. And how ... how would ... what would the arrangement sort of be in the bed. I mean ... I take it she was sort of ...

SUS: She was under the covers, I'd lay on top of the covers yeah.

INT: Right.

SUS: Yeah.

INT: And what kind of age would (victim's name) have been when this was ... when these incidents occurred?

SUS: Maybe 5–6.

INT: Right.

SUS: They happened more than once. Maybe two or three times when she was bad.

INT: Yeah.

SUS: And just basically over a couple of years ... I just dealt with it all. (mother's name) didn't get involved with it.

INT: Ok.

SUS: She couldn't deal with the smell and stuff like that you know?

INT: Right.

SUS: Had a weak stomach.

INT: Ok. Ok. Ok so during ... during that time was there any instan ... was there anything that you wo ... that you would do other than what you've described?

SUS: No.

IT: Anything that...no?

SUS: No.

For further examples of audio/video recordings and transcripts of police interviews and court hearings, explore such databases as Famous Trials (<http://www.famous-trials.com/>) with materials from the Enron Company trial or O. J. Simpson trial. You could also search archives of public inquiries into specific cases, such as Harold Shipman's murders of his patients, including trial transcripts and audio recordings of police interviews:

<http://webarchive.nationalarchives.gov.uk/20090808154959/http://www.the-shipman-inquiry.org.uk/trialtrans.asp>
http://news.bbc.co.uk/1/hi/in_depth/uk/2000/the_shipman_murders/the_shipman_files/613286.stm.

Note

1 Birmingham University.

Further reading

Coulthard, M. and Johnson, A. (eds.) (2010) *The Routledge Handbook of Forensic Linguistics*. London and New York: Routledge.

[This edited collection includes a comprehensive introduction to forensic linguistics by the editors and a wide range of original chapters by forensic linguists. The handbook is suitable for anyone interested in an in-depth exploration of forensic linguistics, including the language of the law and legal process as well as the applications of linguistic expertise in the legal process.]

Coulthard, M., Johnson, A. and Wright, D. (2016) *An Introduction to Forensic Linguistics: Language in Evidence*. London and New York: Routledge.

[The book is suitable for anyone interested in finding out more about forensic linguistics; it is helpfully divided into two parts with the first part covering the language of the legal process, including theoretical and methodological approaches, and the second part focusing on language as evidence, including authorship attribution, forensic phonetics, plagiarism investigation and the role of a forensic linguist. The book includes useful activities alongside a list of further readings at the end of each chapter. Heffer, C., Rock, F. and Conley, J. (eds.) (2013) *Legal-Lay Communication: Textual Travels in the Law*. Oxford: Oxford University Press.]

[This edited book illustrates different aspects within the language of legal proceedings with a specific focus on legal-lay communication. The collection of studies brings together a wide range of research topics and methodological approaches to discuss current research on police interviewing, courtroom discourse and judicial discourse.]

Oxburgh, G., Myklebust, T., Grant, T. and Milne, R. (eds.) (2016) *Communication In Investigative and Legal Contexts: Integrated Approaches from Forensic Psychology, Linguistics and Law Enforcement*. Chichester: John Wiley and Sons.

[This edited collection demonstrates the importance of communication in investigative and legal settings. Individual chapters discuss existing research and practices related to language and memory, communication with victims and witnesses, communication with suspects and communication in police and court settings.]

Tiersma, P. M. and Solan, L.M. (eds.) (2012) *The Oxford Handbook of Language and Law*. Oxford: Oxford University Press.

[This book provides a detailed account of existing research and methodological approaches used in the interface of linguistics and law. The collection includes overview chapters, case studies and theoretical descriptions focusing on a wide range of topics: the history and structure of legal language, meaning and interpretation of legal language, multilingualism and language rights, courtroom discourse, forensic identification, intellectual property and linguistics, and legal translation and interpretation.]

Multilingualism

Shelley K. Taylor¹

Introduction

In the ‘early days’ (i.e., the 1960s), applied linguistics was primarily informed by the field of linguistics. Research on first language acquisition, computational linguistics, forensic linguistics, speech therapy, neurolinguistics and second language acquisition (SLA) predominated (Cook and Wei, 2009). Five decades later, first language acquisition and SLA have carved their own niches, topics such as multilingualism and language education have come to the fore, and linguistics is but one of several fields that informs applied linguistics. As do other topics in applied linguistics, multilingualism focuses on language ‘problems’ seen *au sens large* (in broad perspective). Those discussed in the present chapter include: the meaning and roots of multilingualism, varying contexts and norms, educational responses, and future concerns.

What is multilingualism and what are its roots?

The first issue to discuss in terms of what multilingualism is and encompasses involves defining ‘language’ in multilingualism and the role of ideologies. Next, the notion of multilingualism as an evolving construct along with names and implications is discussed, followed by stumbling blocks in inclusive ideologies, and domains of language use.

Defining ‘language’ in multilingualism and the role of ideologies

One immediate response to the former question is: knowledge of several languages, but that brings up the question of what even is a language? To some, the notion itself is fuzzy. First, some varieties may be seen on a continuum in relation to a ‘standard’ national language. Language varieties have often been referred to disparagingly (as ‘dialects’), i.e., not seen as ‘legitimate’ languages. While some varieties may be less related to a standard national language than others (e.g., Friuli and standard Italian), some groups may accentuate the differences for purposes of identity claims and claims to language rights. Weber and Horner (2012) cite as an example, unionists in Northern Ireland who situate the variety of English they speak (Ulster-Scots) as a different ‘language’ than the English spoken by nationalists in Northern Ireland in an attempt to identify more closely with Great Britain than to a reunified Ireland (p. 30). Some people might see someone who speaks Ulster-Scots, understands

standard English and knows French as multilingual, but another person who conflates the two varieties of English may just view the speaker as bilingual.

To others, the standard/variety distinction is not fuzzy at all, although it may still be used to validate a concerted effort to deny recognition of a language. For instance, different varieties of Kurdish are spoken in Turkey, Iran, Iraq, Syria and Georgia, and it is estimated that one-quarter of the population of Turkey speak Kurmanji (the variety of Kurdish most widely spoken there). In the past, neither the considerable number of Kurmanji speakers, nor the fact that it is an Indo-European language (whereas Turkish is a Turkic language), stopped Turkish nationalists from calling Kurdish as a whole a ‘dialect’ spoken by people ‘who forgot their mother tongue’ (i.e., Turkish). Neither did it stop the Turkification process, which involved forcible relocation from primarily Kurdish regions to areas mainly populated by Turkish-speakers, or the policy of educating children through the medium of Turkish while stigmatizing their mother tongue. In both respects, the goal was cultural/linguistic assimilation in support of a one-nation-one-language ideology; i.e., the belief that silencing Kurdish was in the best interests of Turkish society (Hassanpour, 1992; Üngör, 2012).

Blommaert (2008) observes that institutions can freeze conditions for ‘voice’ by narrowly defining languages (as in the Kurdish example, above) and language varieties, thus stigmatizing some and legitimizing others. Piller (2015) discusses the ideological bases on which language varieties are deemed (il-) legitimate, and Otsuji and Pennycook (2010) discuss ideologies and processes involved in individuals pushing the boundaries of fixed languages in fluid local practices.

Multilingualism as an evolving construct: names and implications

Extending the discussion, Kontra, Lewis and Skutnabb-Kangas (2016) suggest that questioning whether languages exist undermines groups’ agency when they name ‘their’ language and ‘their’ mother tongue, and link them to ‘their’ identity. Blackledge and Creese (2008) also refer to the passionate beliefs people sometimes hold about links between ‘their’ languages and identities. Questioning whether languages exist can lead to more social friction than adopting multilingual language policies that recognize ethnic and linguistic pluralism as resources for nation-building and protecting minority rights (Hornberger, 2002; Skutnabb-Kangas, 2000). Therefore, naming and having the power to name languages as (il-) legitimate are important. In answer to the questions: ‘What’s in a name?’ and ‘Why name a language?’, Skutnabb-Kangas and Phillipson’s (2017) work suggests that it is to recognize language rights and combat the invisibilization of minority languages in society and in institutions such as schools – institutions that have the power to (not) transfer minority languages to the next generation.

Also with regard to naming, in the past few decades, researchers have explicitly renamed the term ‘bilingual’ for pragmatic purposes. When they realized that the stigma attached to the name closed doors on innovative educational programming, they began a renaming process; replacing bilingual with ‘dual language education’ and ‘emergent bilinguals’ in the US (Smith, 2000), and ‘multilingual children’ in Denmark (Holmen, 2008). The latter accounts, in part, for increased use of the term ‘multilingualism’ and its offshoots (e.g., plurilingualism).

The definition of multilingualism adopted for purposes of this chapter is based on the Council of Europe's (2001) distinction between societal multilingualism and individual plurilingualism:

Plurilingual ... competence refers to the ability to use languages for the purposes of communication ..., where a person, viewed as a social agent has proficiency, of varying degrees, in several languages. ... This is not seen as the superposition or juxtaposition of distinct competences, but rather as the existence of a complex or even composite competence on which the user may draw.

(Council of Europe, 2001: 68)

The purpose of the researchers involved in developing the key notions behind the construct of *plurilingualism* for the Council of Europe (2001) was to counter binary images such as monolingualism and bilingualism, and balanced and unbalanced proficiency in languages (Coste, Moore and Zarate, 2009). They observed that learner self-definitions based on these binaries sometimes prevented them from valorizing their partial competences in languages, or daring to lay claim to languages in which their proficiency was deemed lacking as part of their personal linguistic repertoires (Coste, Moore and Zarate, 2009: 10).

The construct of *plurilingual* social actors was intended to go beyond the idea of bi- or multilinguals striving to attain 'native-speaker' (or native-like) proficiency in two or more linguistic codes (Coste, Moore and Zarate, 2009: 19). Just as Norton Peirce's (1995) notion of 'investment' stresses identities changing over time and space (Norton, 2013), plurilingualism does not describe fixed competences (be they reciprocal or not reciprocal; horizontal or vertical) as individuals 'develop competences in a number of languages from desire or necessity, in order to meet the need to communicate with others. Plurilingualism is constructed as individuals pursue their lives, it is a reflection of their social paths' (Coste, Moore and Zarate, 2009: 17).

There are clear links between the dynamic nature of plurilingualism and the dynamic model of multilingualism (DMM) (Herdina and Jessner, 2002). The DMM aims to explain shared properties of language in the brain, represent languages as one complex system in which the languages an individual knows are interdependent and non-linear (not separate and fixed) and predict multilingual development across languages. As the DMM stresses non-linearity, reversibility, instability, interdependence, complexity and change of quality, it meshes well with Larsen-Freeman's (1997; 2017) focus on the dialectical interplay between moving parts in specific contexts in dynamic systems theory; Cummins' (1981) interdependence hypothesis; and Norton Peirce (1995), Norton (2013), and Coste, Moore and Zarate's (2009) work on change occurring over time and space, depending on social actors' life circumstances. It also complements and supports those aspects of Bialystok's work that suggest one linguistic code is not turned off when another one is in use; rather, a learner's executive control manages which resource(s) to draw on at appropriate times, (dis-) allowing multiple codes (or translanguageing) to meet speakers' social needs (Bialystok, Craik and Luk, 2008). Like Herdina and Jessner (2002), Bialystok sees plurilinguals' brains as functioning differently than monolinguals, as did Peal and Lambert (1962) much earlier.

The DMM also meshes well with Otheguy, Garcia and Reid's (2015) work on translanguageing, which they define as 'the deployment of a speaker's full linguistic

repertoire without regard for watchful adherence to the socially and politically defined boundaries of named ... languages' (p. 281). When applied to educational contexts, translanguaging reframes education as a space for plural language practices. Otheguy, Garcia and Reid (2015) refer to the amalgams of individuals' linguistic histories (or repertoires) as their 'idiolects'. Their notion of *idiolects* explains how even people who consider themselves 'monolingual' have complex, multifaceted linguistic histories (idiolects) in a way that supports Piccardo's (2013) assertion that everyone is plurilingual; i.e., they can draw on the different registers, varieties or genres of language their life paths expose them to (as parent/guardian or some form of family member, perhaps with adherence to some sport, or as aficionados of 'fan fiction' or online gaming, or as members of various communities of practice).

Recognizing the dynamic interrelatedness of languages, and drawing on plurilinguals' ability to transcend Otheguy, Garcia and Reid's (2015) 'defined boundaries' (p. 281) between the languages, language varieties, etc. that they know does not suggest that plurilinguals cannot distinguish between the various elements of their linguistic repertoires (see Jørgensen, 2008: 174). Bialystok, Craik and Luk (2008) suggest that plurilinguals' executive control manages which resource(s) to draw on and when, allowing them to translanguange. That is, they can draw on the bricolage of languages understood in their speech communities. Kontra, Lewis and Skutnabb-Kangas (2016) discuss languages as both processes and as concrete, providing the following analogy: There is no more 'contradiction between treating languages as processes and, at the same time, as concrete' than there was in Albert Einstein, Max Planck and Niels Bohr's experiments, which showed that 'light could behave both as waves and as a particle' (Kontra, Lewis and Skutnabb-Kangas, 2016: 8). That is, though languages change (processes), they can be captured in the sense that they can be named and documented in dictionaries, and written in books; therefore, they are also concrete.

The main implication for educators is that they should view the varying competences that students have in the languages in their linguistic repertoires as resources to be drawn on, not deficits. Second/foreign language (L2/FL) educators commonly learned in their teacher education courses to only speak the target language in classroom time for fear of negative transfer from the other languages in their repertoires. Cummins (2005: 588) refers to the latter view as the 'language separation ideology'. Also, the 'end goal' for L2/FL educators was for students to become balanced bilinguals (i.e., to have balanced competencies across all languages), which Heller (1999: 271) refers to as 'parallel monolingualism' (or students with full monolingual competences in L_x and L_y in one body), which is rarely attainable and, as discussed, does not recognize the value of partial competences. Rather, educators should recognize the dynamic nature of plurilingual bricolage (creative use of the languages in their students' repertoires as needed or desired), and encourage translanguaging as a useful resource supporting learning.

As yet, there is no consensus in the research community on whether to use the term multilingualism or plurilingualism to describe individual social actors (Cummins, 2017). In some cases, choice of term is influenced by geography (plurilingualism in Europe, multilingualism elsewhere except for growing use of the term plurilingualism in Canada); others use the term plurilingualism for its specific attributes (Coste, Moore and Zarate, 2009). Contributors to a recent book on plurilingualism used varying terms while adopting a common, plurilingual stance (Choi and Ollerhead, 2018); while others describe a translanguaging stance (Menken and Sanchez, 2019). Despite the absence of

consensus, there is growing openness to drawing on multilingualism in teaching by ‘softening the boundaries between languages’ (Cenoz and Gorter, 2013).

Stumbling blocks in inclusive multilingual ideologies

Educational researchers have developed ‘proposals for action’ (Cummins, 2005), and practitioners have implemented a variety of approaches to ‘make space for plurilingualism’ (Taylor and Snoddon, 2013); however, the contexts and purposes of these attempts must be qualified in light of unequal power relations between languages. For instance, the ideological divides between L2/FL educators who do (not) adopt plurilingual or translanguing pedagogies may be influenced by their (lack of) access to professional development, personal ideologies (e.g., the one-nation-one-language ideology) or systemic constraints due to national ideologies. These influences and constraints may be seen as stumbling blocks to educators’ (and countries’) will or ability to act on inclusive orientations to multilingualism in teaching and in institutions.

While all languages (and language varieties) in linguistic repertoires are equally important when seen within the parameters of the construct of plurilingualism, they are not equally valued societally. Therefore, learners should be aware of the tenets and limits of plurilingualism; of how language hierarchies and conventions are positioned in language ideologies, and of how power relations can (de-) legitimize languages (Taylor, Despaigne and Faez, 2018). That is, while impressing the value of partial competences and language varieties (e.g., Ulster-Scots) on learners, educators should also encourage them to reflect on shared aspects of their linguistic repertoires, develop language awareness and, more importantly still, develop critical language awareness. Also, in disseminating work on plurilingualism, researchers should be cognizant of the social context in which multilingualism research is interpreted and its uptake, and counter any related misinformation and misuse against groups.

Though stumbling blocks exist, rather than attempting to seek ‘perfection’ (balanced bilingualism), learners benefit by understanding that partial competences are valuable parts of the multiplicity of languages and language varieties in their linguistic repertoire; they should not be stigmatized, imperfect as they may be at a given moment. Though partial, they may represent functional competences used to meet objectives, perhaps unrelated to, or which are not the result of, formal schooling, or they may be of great symbolic value (e.g., moribund Indigenous languages still used by communities for prayers and other purposes). These competences may be acquired in or out of school, as formal learning in educational contexts represents but one of many possible life and social paths (e.g., individual and family histories, networks, romantic choices), and other trajectories taken over the course of a lifetime.

Domains of language use

The Council of Europe (2001) describes four domains in which individuals may use their linguistic repertoire over the course of a lifetime, including the:

- Personal domain: language used in one’s home life with family and friends, and while engaging in individual practices (reading for pleasure, pursuing special interests, etc.);

- Public domain: language used while acting as a member of the general public, and engaging in transactions of various kinds for different purposes;
- Occupational domain: language used while engaging in a profession; and
- Educational domain: language used while engaging in learning, especially in educational institutions (Council of Europe, 2001: 45).

(See the ‘Hands-on activity’ on ‘language domains’).

A retrospective view: multilingualism then and now

A distinction has been made between earlier work on multilingualism as a noun, and more recent work on multilingualism as an adjective. With regard to its use as a noun, it was primarily used to describe the societal make-up of linguistic groups and policies to manage linguistic diversity for purposes of language policy-making and policy planning perspectives (e.g., status planning, acquisition planning, etc.). Hence, Davis’ (1994) book examines issues such as economic transition and language status change; political, socioeconomic and language development; language use in government and public domains (as well as social interactions); schooling (practices, examinations, etc.); and linguistic expectations in elite as opposed to working class families. She concludes by discussing policy intent, implementation, experience, etc. A quick review of the subject heading ‘multilingualism’ in library catalogues reveals that earlier books on multilingualism devoted a good deal of space to multilingualism as a noun, specifically country and regional profiles of multilingualism. This trend is evident in the papers included in the seventeenth issue of the *Annual Review of Applied Linguistics* (Grabe, 1997), and continues to this day (see Bhatia and Ritchie, 2013; García, Lin and May, 2017); however, more recent work also situates ‘multilingual’ as adjective. This shift (from ‘multilingualism’ as noun to adjective) reflects a shift in focus: from a focus on societal multilingualism through country and regional profiles to a focus on individuals, processes, literacies, etc. Belcher and Connor’s (2001) overview of the field’s expanding foci includes:

- aspects of academics’ multilingual lives (multi- and transliterate experiences),
- trilingualism,
- ‘straddling worlds’,
- introspection, and
- frustrations of ‘citizens of the world’.

Current work on multilingualism in postmodern perspectives involves translanguaging, translanguaging pedagogies (including translation and translation of self), reflexive translanguaging/transdisciplinary practices (discussed below), and discussion of how monolingualism limits interactions, business opportunities and diplomacy (Gramling and Warner, 2016: 81).

Varying contexts and norms

This section discusses language hierarchies, multilingualism in complex linguistic contexts, changing attitudes and multilingualism today.

Language hierarchies

Multilingualism has been around for 5000 years, as has bilingual education; similarly, societal multilingualism predates monolingualism (Gramling, 2016; Mackey, 1978). Western images of ‘going off to finishing school in France’ equated Europe with elitism that included multilingual skills and proximity to high culture. Today, people generally associate educated, mobile elites with ‘knowledge exchange’ and, thus, the need for plurilingual/pluricultural competences. In de Swaan’s (2001) view, there is nothing random about how multilingual connections are formed between language groups (who knows which language and why?); rather, he asserts, ‘they constitute a surprisingly strong and efficient network that ties ... the six billion inhabitants of the earth’ (p. 1). How? De Swaan (2001) contends that ‘people who speak more than one language and thus ensure communication between different groups’ have done the heavy lifting; that is, the same ‘multilingualism that has kept humanity, separated by so many languages, together’.

Multilingualism in complex linguistic contexts

Researchers dealing with highly complex linguistic contexts in South Asia today (e.g., Nepal, India and Sri Lanka) describe cases of plurilingualism that resemble the European elite in the past; however, the individuals described fall into the category of ‘folk’ bilinguals proposed by Romaine (1999). She argued that the majority of what was known about child bilingualism (i.e., before 2000) involved children from middle class and privileged backgrounds. Elite bilingual education programs commonly involve a major European language (e.g., English) or another language of wider communication (e.g., Mandarin) – languages that enjoy privilege and are sought out by families. Less has been known about how the majority of ‘folk’ multilingual children’s formal and informal experiences develop their linguistic repertoires. The latter include immigrant children in immigrant and refugee receiving countries, Indigenous children, and ‘tribal’ children in South Asia. Hall, Smith and Wicaksono (2011) suggest that the elite/‘folk’ distinction is useful in describing the context of schooling in the broad sense, including affordances children have access to in the home and in educational institutions.

Whereas in the past, non-elite members of European society were largely monolinguals who could somewhat understand the vernaculars spoken in neighbouring villages, the non-elite individuals described by Canagarajah (2013), Mohanty (2009; 2014), and Mohanty, Panda and Pal (2010) became plurilingual due to their frequent encounters with different vernaculars in the home (e.g., caretakers, house staff, etc.), and close to home (e.g., the marketplace). These South Asian non-elite multilinguals developed complex multilingual systems by participating in local practices shaped, in part, by sociolinguistic realities and, in part, by national language policies. In the course of a discussion I had with Ajit Mohanty about India (a diglossic, multilingual country where English has increasingly gained status as a ‘high’ language in ‘high’ domains such as formal education, government and employment), when I mentioned that some Canadians still find official (English/French) bilingualism ‘challenging,’ he commented that given India’s four-language, multilingual-language education model and, giving languages used in his state of Odisha, India as an example – (a) Hindi (the official language), (b) English, (c) the state language (Odia) and (d) one of the Odisha-tribal languages (e.g., Saora, Kui, or one of the 19 other tribal languages) – he

doubted whether any Indian would find bilingualism, bilingual language policy or bilingual education complicated.

Other contexts such as Singapore have long experienced complex linguistic situations (and more recently a quadrilingual teaching model; Silver and Bokhorst-Heng, 2015). With regard to South Asia, Canagarajah (2013) notes that multilingual ('translanguaging') practices have gone on since precolonial times. He stresses that these practices occurred in rural settings long before sociolinguists began investigating practices resulting from naturally occurring multilingual language contact in urban settings in the West. Rather, Canagarajah (2013) contends that translanguaging practices grew out of the need for 'interpretive practices, negotiation strategies, and communicative relationships between multilingual people in contact zones'. That is, people living in precolonial South Asia developed norms that worked locally for them (facilitating mutual intelligibility and meaning-making).

Changing attitudes

Hakuta (1986) empathizes with anyone who tries to figure out whether bilingualism (never mind multilingualism) is harmful, based on the research literature. Prior to the 1960s, research suggested that children who grew up in bilingual environments were 'handicapped'. Eugenics played havoc on some researchers' views on bilingualism, particularly in the US of the early 1900s. The Eugenics movement led researchers to develop more hostile attitudes to ('folk') immigrants from some non-English-speaking countries than others.

Hakuta (1986) describes how the earlier, pejorative perception of bilingualism resulted from a new wave of immigrants from southern and eastern Europe, whereas earlier migrations were from northern Europe. IQ tests intended to show racial inferiority were administered in English regardless of testees' English proficiency. The results were used to vindicate claims of racial inferiority (between Mediterranean and Nordic 'races'), and led to the 'bilingual handicap' myth. The claim was that the test-takers were of inferior genetic stock, and that supposed language *handicaps* 'proved' their inferior intelligence. Then the tide shifted, due to more equitable, methodologically sound research that contradicted the validity of the bilingual handicap studies and suggested bilinguals enjoy a general intellectual advantage.

In Canada, public belief in the value of bilingualism grew in the wake of a study by Peal and Lambert (1962). They paid close attention to the composition of the two groups of students compared (10-year-old monolingual and bilingual subjects from the same school system, from comparable socioeconomic backgrounds). The researchers found that the structures of intellect for bilinguals and monolinguals differ, with bilinguals appearing to have a more diversified set of mental abilities than monolinguals (concept formation, abstract thinking, as well as flexibility in thinking; Peal and Lambert, 1962: 14). They argued that, on the basis of their large sample size: 'it appears that our bilinguals, instead of suffering from "mental confusion" or a "language handicap" are profiting from a "language asset"'; a finding that constituted 'a clear reversal of previously reported findings' (Peal and Lambert, 1962: 15, 20). Their research and other work invalidated Eugenics-oriented research for its unfair comparisons of elite and folk bilinguals whose affordances and learning conditions were unequal (thus incomparable). Peal and Lambert's (1962) bilingual asset hypothesis was validated in

research involving learners from different language groups, ages and backgrounds across Canada, Switzerland, Israel, South Africa and the United States (Hakuta, 1986: 35), ushering in a new era for models of bilingual education, and later for multilingual education.

Politics also played a role in Anglophone parents in Canada demanding value-added L2 programs for their children to learn French, and the rise of French immersion programs across the country (Rebuffot, 1993). With the rise in status of French through its entrenchment in official language policy, Anglophone parents began to equate official (English/French) bilingualism with linguistic capital for their children (i.e., heightened future job prospects in the federal government). Their interest in the benefits of bilingualism, and support for childhood bilingualism at home and school, continued to grow in Canada and, the more the research and program successes became known, internationally (Baker, 2000; Chumak-Horbatsch, 2012; Cunningham, 2011; Lanza, 2007; McCardle and Hoff, 2006; Rodriguez, Carrasquillo and Lee, 2014). Parental inquiries into how to gain the ‘bilingual edge’ for their children even sparked King and Mackey’s (2007) desire to address the issue in the popular press as opposed to the research literature alone. Other offshoots of viewing bi/multilingualism as enrichment (if not necessity) include: (a) a growth in demand for English instruction at earlier and earlier ages for multilingual students (Cook and Singleton, 2014), and (b) in the absence of medical evidence, professionals and lay-people alike seeking a linguistic solution to Alzheimer’s disease, and turning to Bialystok’s pioneering work on the bilingual edge in battling cognitive impairment in seniors (Bialystok, Craik and Luk, 2008). Her work has also been widely taken up in the research literature and the popular press.

Multilingualism today

Given the hurdles listed above, one might wonder why and how Simons and Fennig (2018) report in the *Ethnologue: Languages of the World* that there are 7097 living languages (two less than in their 2017 report). The figure supports the extent of linguistic diversity and a glance at the country charts in the *Ethnologue* reveal that it is worldwide. Indeed, there is broad consensus that more individuals are currently multilingual than monolingual (e.g., Cook and Singleton, 2014), but how can this be so?

In fact, Grabe (1997) notes that despite seemingly ‘best efforts’ by politicians in English-speaking countries to enforce English monolingualism worldwide, ‘the nations of the world are overwhelmingly multilingual’, and likely to stay so (p. vii). With the degree of migration worldwide, this view is all the more relevant today. Migration is increasingly being viewed as an important policy issue due to its impact on all countries and links to globalization. The International Organization for Migration/IOM, (2018) recognizes the links between migration, geopolitics, trade and cultural exchange, and the opportunities they afford, as the ‘plus-side’ of migration. That said, the IOM (2018) also stresses the ‘down-side’; namely, migration and displacement resulting from ‘conflict, persecution, environmental degradation and change, and a profound lack of human security and opportunity’ (p. 1). The IOM (2018) further reports that there were 244 million international migrants (approximately 3 per cent of the world’s population) in 2015, and 40.3 million internally displaced persons and 22.5 million refugees in the world in 2016 (p. 2). ‘People on the move’ (refugees) are not necessarily welcome in

receiving countries; nor are their languages. It is within this context that national language policies and language-in-education policies are currently being developed – policies that have an impact on multilingual communities in host societies, individuals’ plurilingual development, medium-of-instruction offerings, literacy rates for minority language speakers and language commodification.

Educational responses to multilingualism at the K-12 level

The responses discussed include everything from submersion to translanguaging, making multilingual education the norm, and multilingualism and economics. As background however, relatively few minority languages are taught in heritage language programs outside of official school time, used as the medium of instruction in bilingual/dual language education or immersion programs, or even taught as ‘foreign’ or ‘international’ languages in the West (Cummins, 2017). ‘Multilingual language education’ (MLE) programs (*discussed below*) have made major inroads in parts of Asia and South Asia, African countries, Papua New Guinea, etc. (Heugh, 2009; Malone, 2005), and UNESCO, the British Council and other bodies (Salzburg Global Fellows) recommend MLE. Nevertheless, the lure of ‘goddess English’, as opposed to instruction through the medium of minority mother tongues, is still strong (Taylor, 2014).

From submersion to translanguaging

Submersion

In North America, ‘transitional’ approaches to bilingual education (i.e., teaching through the medium of a minority language until its speakers have enough competence in a majority language to transition to its use as a medium of instruction) are the most common alternative to mainstream ‘submersion’. Nonetheless, the most common approach to teaching minority language (multilingual) children internationally is through ‘sink or swim’ (submersion) approaches; i.e., enrolling them in mainstream classrooms where teaching is through the medium of the dominant language – be that French in two Canadian provinces (Quebec and New Brunswick), English throughout the rest of the country and in the US, the UK, Australia and New Zealand, etc., Danish in Denmark, Nepali in Nepal, Turkish in Turkey, etc. The submersion approach is prevalent because minority languages are deemed irrelevant, or hindrances to learning the dominant language and academic success (i.e., the language separation ideology; Cummins, 2005); parents may believe that English-medium instruction is in their children’s best interests, rather than MLE for tribal/minority populations (Taylor, 2014), and the one-nation-one-language ideology still exists (Piller, 2015). The net result is that students are discouraged from using or maintaining the languages in their linguistic repertoires rather than encouraged to use them as a ‘cognitive bridge’ (Cummins, 2005: 585) or tool (Mohanty, 2018).

Translanguaging

Practices such as translanguaging counter this trend, but even educators interested in adopting such practices balk at how to proceed in highly multilingual classrooms (i.e., in which learners know a variety of languages). In those cases, it is a common phenomenon internationally (in Belgium, Nepal, the US, Canada, etc.) for teachers to be unsure of how to draw holistically on students' plurilingual repertoires to enhance their learning. Trend-setting alternatives exist, involving practices that draw on students' diverse linguistic competences, heighten their multilingual awareness, and develop their discursive and pragmatic knowledge (Cummins, 2018).

The notion of translanguaging has been especially influential in the last decade, beginning with the release of *Bilingual Education in the 21st Century: A Global Perspective* (García, 2009), which highlighted the construct of translanguaging originally proposed by Williams (1996). Slembrouck and Rosier (2018) summarize the evolution of the notion from including (but transcending) aspects of code-switching, to shuttling between different aspects of plurilinguals' linguistic repertoires and, finally, to drawing on knowledge of their full linguistic histories to constitute their repertoires (pp. 167–168).

Despite psycholinguistic support for plurilingualism and sociolinguistic interest in the notion of translanguaging, there is no consensus on how to best draw on either to support multilingualism in educational settings. Additionally, L2/FL teaching practices are still strongly influenced by monolingual ideologies (e.g., language separation). Nonetheless, educators have begun developing translanguaging practices and including them in their mainstream classroom teaching repertoires. These practices include: (a) creating multimodal/multi-language 'texts', (b) code-meshing (e.g., drawing on more than one written code in written texts through poetry and digital storytelling), and (c) drawing on multiple languages and language varieties in readers' theatre (see Canagarajah, 2011; Dewilde, 2017; Stille and Cummins, 2013; Yaman Ntelioglou et al., 2014). Attempts to draw on students' knowledge of their heritage languages have also been made through linking K-12 L2/FL and heritage language learners with minority language community members from the same linguistic groups (including through intergenerational initiatives; Cordella and Huang, 2016).

Making multilingual education the norm

Monolingual instructional assumptions are still the norm in English language teaching (ELT) as may be seen in the practice of separating L2 medium instruction from other languages in student repertoires or not allowing translations (Cummins, 2017). That said, language teaching bodies and organizations (Salzburg Global Fellows, TESOL, the British Council, UNESCO) are increasingly recognizing multilingualism in ELT – especially the value of drawing on the languages students know as learning resources. For example, in Coleman (2011), the British Council emphasizes the role of mother tongue instruction in ELT in developing countries in Africa and Asia. TESOL, an international association for teachers of English, also supports this stance, and is increasingly valorizing the 'SOL' (speakers of other languages) component of the association. For instance, TESOL foregrounded the role of multilingualism in the international 'Summit on the Future of the ELT Profession' that it hosted in Athens,

Greece in 2017. The *Action Agenda* that came out of the summit recommends including ‘practices that recognize multilingualism’ as an action step to achieve a key priority (TESOL, 2018a: 3); namely, redesigning ELT to valorize multilingualism by acknowledging linguistic diversity and different varieties of English as an international language while drawing on learners’ diverse experiences.

The information cited in the Salzburg Global Fellows’ (2018) *Statement for a Multilingual World* – namely, 40 per cent of people have no access to education in a language they understand (UNESCO, 2016) – supports Coleman (2011) and TESOL’s (2018a) stances, as do MLE researchers. While countries frame migration as a problem and multilingualism as part of the reason for minority language students’ academic underachievement, UNESCO (2003) locates the ‘problem’ with countries failing to adapt to global realities of societal multilingualism. It supports inclusive policies on multilingualism, and describes societal multilingualism as a way of life – not as a problem to be solved. It counters the claim that multilingualism leads to learning deficits with the argument that if multilingual students underachieve academically, countries are to blame for failing to meet student needs.

MLE

One vehicle for making multilingual education the norm is MLE. The goal of this model of multilingual education is to provide instruction in a language children understand in the primary grades for as much of their elementary schooling as possible. Otherwise, their rate of educational achievement is much lower than that of same-age peers who enter school already knowing the language of instruction (Heugh, 2009). For instance, 55 per cent of Grade 5 students who entered school knowing the language of schooling learned the basics of reading in the Côte d’Ivoire, whereas only 25 per cent of their Grade 5 peers with a different mother tongue did so (UNESCO, 2016).

The main tenets of MLE include: (a) at least six years of mother-tongue-based instruction, beginning in primary school; (b) language-in-education policies that valorize all mother tongues, especially in the early years; and (c) teachers who understand minority language children’s mother tongues. (For more detailed discussion of these and three other key tenets of MLE, see Skutnabb-Kangas, 1995).

Normalization efforts in ‘mainstream’ programs in the West

The third criteria of MLE programs that is often not met (i.e., teachers knowing students’ mother tongues) is also a problem in Western countries where literacy rates are higher. In a recent publication for K-12 education, TESOL (2018b) endorses ‘making multilingualism the norm’ (p. 100). The publication serves as a good starting point for addressing the problem of how to shift educator mindsets from monolingual to multilingual norms, which is a recurrent challenge across contexts (Ziegler, 2013), and provides resources for educators willing to make the shift.

Multilingualism and economics

Language-in-education and multilingual provisions in schooling are also of interest to parents of children whose mother tongue is the same as the language of schooling.

Heller (2003) has discussed the link between multilingualism and economics in terms of language as ‘commodity’. Just as Anglophone parents sought out French immersion programs nearly half a century ago as a way for their children to learn more French in Canadian schools and possibly gain employment perks (as described above), Smala, Bergas Paz and Lindgard (2013) describe education as increasingly disassociated from humanistic educational pursuits, and linked (like commodities) to social and economic advantages. They observed this phenomenon in parents competing for spots for their children in immersion programs taught in languages associated with higher economic and social status due to a link with the global marketplace (i.e., jobs requiring knowledge of Chinese, German and Spanish). This phenomenon has also heightened the status of bilingualism as both dominant and minority language group parents vie for spots to enrol their children in particular immersion programs to gain value-added linguistic skills to compete in the global market place by gaining a ‘bilingual edge’ (King and Mackey, 2007). Smala, Bergas Paz and Lindgard (2013) conclude that the shift to seeing language competences as commodity in the (multilingual) global village turns notions of English as the dominant *lingua franca* on its head. Therefore, there are links between multilingualism, economics and politics in terms of which programs are (not) designed for which student populations, which students are deemed as good (or bad) candidates, and why (Taylor, 1992).

An eye to the future

The Salzburg Global Fellows (2018) is an independent non-profit organization founded in 1947. In late 2017, it convened a session involving 50 Fellows from 25 countries entitled: ‘Springboard for Talent: Language Learning and Integration in a Globalized World’ (Salzburg Global Fellows, 2018). The session, part of the Salzburg Global Fellows’ multi-year series on ‘Education for Tomorrow’s World’, was held in partnership with ETS, the Qatar Foundation and Microsoft, and was supported by The ERSTE Foundation. By the end of the session, the Fellows produced a statement for a multilingual world:

- stressing how multilingual policies can sustain language diversity and drive economic, social and political change;
- urging individuals, corporations, institutions and governments to adopt a ‘multilingual mindset’ promoting linguistic diversity as norm, and to develop policies that advance multilingualism; and
- advocating for the development of technologies to support positive societal attitudes to multilingualism and plurilingualism (Salzburg Global Fellows, 2018).

The involvement of Microsoft, ETS and the Qatar Foundation as partners in a venture intended to push the limits beyond a sole emphasis on global English, and to recognize multilingualism as the new global literacy is noteworthy. It speaks to the new age multilingualism has entered into (e.g., linking linguistic and semiotic repertoires); however, more is needed. The statement calls for greater participation among individuals, corporations, institutions and governments:

- for the survival of 33 per cent of the world’s languages, that are endangered so they may be part of their speakers’ future plurilingualism (Moseley, 2010);

- for the 40 per cent of people who do not have access to education in a language they understand and are caught in the cycle of illiteracy (Mohanty, 2009; UNESCO, 2016); and
- for the UN (2015) to meet its sustainable development goals, especially with regard to education (e.g., 103 million youth worldwide lack basic literacy skills, of whom 60 per cent are women).

The future of multilingualism may lie in how the applied linguistic ‘problem’ of societal multilingualism and individual plurilingualism is defined (Cook and Wei, 2009). In UNESCO’s (2003) view the problem is the result of a refusal at some level (societal/national/international) to adapt language-in-education policies to global realities (migration, linguistic diversity) and provide the necessary supports. Another view describes the problem as an inconvenience to be overcome by technology such as machine translation (The Economist, 2013). A move to machine translation rather than formal and informal language teaching and learning has more ramifications than L2/FL educators’ livelihoods and students needing to seek out correct bandwidths for particular hand-held translation devices. Stripping languages to their essentials for easy translation (e.g., identifying ‘senones’ or sequential triplets of phonemes) rather than focusing on linguistic traditions, memories, emotions, traditional indigenous knowledge and cultural values encoded in languages, could relegate them to the margins of folklore (Smolicz, 1980; The Economist, 2013). This begs the questions of how multilingualism will be defined in the future (as problem or resource), and by whom? One must not lose sight of agency (learners, language communities, etc.), including educator agency (e.g., willingness) to: advocate for silenced plurilingual students in their charge, draw on machine translation for translanguaging that develops students’ written competences and fosters their literary expression, and pursue other creative practices that have already taken root (Mary and Young, 2017; Vogel, Ascenzi-Moreno and García, 2018).

To be sure, multilingualism is a growing area of interest in applied linguistics. This chapter illustrates how it can be discussed among individuals, groups, societies, states and the digital world by those concerned, educators, policy-makers and key stakeholders; it can be desired and contested as can its constructs and practices. Finally, it can also bring social actors and entities that seem worlds apart together to manage similar issues as multilingualism concerns us all.

Hands-on activity

Language domains activity

Interview a peer! Using the questions below as a guide, find out more about the languages your classmates or family members know, and their impressions of their competences in them.

Interview Guide:

- 1 Which languages do you know?
- 2 Do you have competences in all four language domains in any (or all) of the languages that you know, or did circumstances prevent you from gaining them (e.g., perhaps more bookish competences in one language, more subject-specific

competences in another and very informal competences in yet another)? For instance, some people who learn languages at university think their academic language is strong, but their colloquial language is weak. They look forward to learning more colloquial terms, which they can do if they begin a relationship with someone who speaks that language (i.e., in the personal domain) or work in that language (in the occupational domain). Can you provide examples for the languages in your repertoire?

- 3 You may have already touched on this in the last question, but are there some domains in which you always (or never) use your languages?
- 4 Do you relate differently to languages you learned in one domain or another?
- 5 Which of the four language domains were you familiar with before?
- 6 Would you have thought of your (partial) competences in the languages in your linguistic repertoire if you had not reviewed these four domains? (Would you have overlooked some because you did not dare say you 'knew' them?)
- 7 Would you describe yourself as multilingual or plurilingual? What is your preferred term, and why?
- 8 At what point would you have described yourself as 'knowing' a language before hearing about plurilingualism (e.g., when you could read a novel in that language or understand a movie in it; or when you could figure out directions in that language as a tourist)?
- 9 Have you ever felt you would never know an L2/FL well enough to say you 'spoke' it or 'knew' it?
- 10 Now that you have learned about changes in linguistic repertoires over time, what are your views on lifelong language learning? What are your views on domains of language use, and L2/FL learning?

Notes

- 1 Western University.

Further reading

Bhatia, T. K. and Ritchie, W. C. (2013) *The Handbook of Bilingualism and Multilingualism* (second edition). Malden, MA: Wiley-Blackwell.

[Broad overview of research on multilingualism, ranging from neurological and psychological aspects (multilingual language use, memory cognition and emotion, multilingual repertoires) to societal aspects (media, education, literacy and law), and global perspectives.]

Conteh, J. and Meier, G. (eds.) (2014) *The Multilingual Turn in Languages Education: Opportunities and Challenges*. Bristol, England: Multilingual Matters.

[Draws on research on multilingualism that integrates theory and practice with regard to learners' and teachers' multi-faceted knowledge base (including plurilingualism), and the possibilities of implementing a multilingual 'turn' (curriculum and activities) in L2/FL classrooms.]

Coulmas, F. (2018) *An Introduction to Multilingualism*. New York: Oxford University Press.

[This book provides an interdisciplinary look at multilingualism at a variety of individual and societal levels (across individuals, institutions, cities, nations and cyberspace) at a time of changing demographics and constructs (mother tongue, native speaker and speech community) when multilingualism is increasingly being framed as a social problem (e.g., in integration discourse).]

García, O., Lin, A. and May, S. (eds.) (2017) *Encyclopedia of Language and Education* (third edition): *Bilingual Education*. Vol. 5. New York: Springer Science, Business Media LLC.

[This volume reviews key concepts in multilingual education and sociopolitical issues (including language rights), multicompetence perspectives on language proficiency development, identity and transnational issues, emerging practices (e.g., translanguaging), as well as global perspectives.]

May, S. (ed.) (2014) *The Multilingual Turn: Implications for SLA, TESOL and Bilingual Education*. New York: Routledge.

[The contributors draw on multidisciplinary influences to bridge the fields of TESOL and bilingual education, proposing constructs (translingualism, heteroglossia, etc.) at odds with psychological constructs of SLA (nativeness, interlanguage, competence and fossilization), while framing the 'turn' in constructs in a way that situates multilingualism within applied linguistics.]

Skutnabb-Kangas, T. and Phillipson, R. (eds.) (2017) *Language Rights*. London/New York: Routledge.

[The seminal texts included in these four volumes provide the breadth and depth needed to understand the complexities of principles, language policies in education, language endangerment and revitalization, and the challenge of implementing policies and laws that recognize multilingualism, and protect individuals and communities from linguistic injustices.]

Van Avermaet, P., Slembrouck, S., Van Gorp, K., Sierens, S. and Maryns, K. (eds.) (2018) *The Multilingual Edge of Education*. New York: Palgrave Macmillan.

[This book challenges traditional monolingual approaches to teaching students in urban classrooms who are increasingly linguistically diverse by drawing on multilingual strategies (e.g., translingual practices) to disrupt inequalities, valorize student multilingualism and effect school improvement.]

Part 3

Language skills and assessment



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Listening

Tony Lynch¹ and David Mendelsohn²

What is listening?

Listening involves making sense of spoken language, normally accompanied by other sounds and visual input, with the help of our relevant prior knowledge and the context in which we are listening. Rather than thinking of listening as a single process, it is more accurate to conceive of it as a bundle of related processes – recognition of the sounds uttered by the speaker, perception of intonation patterns showing information focus, interpretation of the relevance of what is being said to the current topic and so on.

Usually we are unaware of these processes in our own language; achieving comprehension seems relatively effortless unless we encounter unhelpful conditions, such as poor acoustics or an unfamiliar accent. Under more demanding conditions, we may become more conscious of listening processes, and the same thing applies in trying to understand a second or foreign language (L2). Not the least of the problems we face as listeners is the fact that we generally get only one chance to process the (linguistic and other) input, and have to do so in real-time. Only sometimes do we get the chance to ask the speaker to repeat or rephrase.

Traditionally, listening was viewed as a passive process, in which our ears were receivers into which information was poured, and all the listener had to do was passively register the message. Today we recognize that listening is an ‘active’ process, and that good listeners are just as active when listening as speakers are when speaking.

Active listening is also an interpretive process. Listening used to be thought of as the exact decoding of the message. In fact, listening involves subtle interpretation. This has long been recognized in reading, but it has taken a long time for it to be accepted in terms of listening. Its acceptance impacts directly on our notion of ‘correctness’ – it requires an acknowledgement of the inherent variation in listeners’ comprehension of what they hear, and of the importance of context and non-linguistic variables in this interpretation.

Finally, it is important to note that listening is not merely an auditory version of reading, just as speech is not simply a spoken version of writing. Among the unique features of listening are the following:

- Its usually ephemeral, one-shot nature.
- The presence of a rich prosody (stress, intonation, rhythm, loudness and more), which is absent from the written language.

- The presence of characteristics of natural fast speech, such as assimilation, making it markedly different from written language, for example, /gðmmt/ for *government*.
- The frequent need to process and respond almost immediately.

Issues in listening

Models of listening

We have come a long way in our understanding of how people manage to make sense of what they hear. The last half-century has seen the development of successive theories or models of comprehension, reflecting contemporary knowledge, concerns and technology. We will summarize four of the most important.

Communication theory model

‘Communication theory’ or, more precisely, ‘the mathematical theory of communication’ (Shannon and Weaver, 1949), was intended to make telecommunications systems more efficient. CT has given us terms such as ‘transmission’, ‘signal’, ‘reception’ and ‘noise’. Since it was developed to solve an engineering problem, human participation in the process of communication was peripheral: ‘[T]he concern was with intelligibility rather than perception, and the results were used to evaluate equipment rather than listeners’ (Licklider and Miller, 1951: 1040). CT researchers themselves had warned against assuming that their work reflected human comprehension; nevertheless, CT stimulated thinking about the ways in which comprehension could *not* be characterized in terms of straightforward reception of a message.

Information processing model

The second type of comprehension model, ‘information processing’, was strongly influenced by research in computing and artificial intelligence. Central to information processing are the concepts of input, processing and output, with the human being seen as a limited processor, so that when doing complex tasks, we have to devote more attention to one aspect of the task and less to another. Typical information processing models are ‘Perception, Parsing and Utilization’ (Anderson, 1985) and ‘Identify, Search, File and Use’ (Brown, 1995a). Although both imply ‘stages’ of understanding, it is now recognized that listeners are only able to achieve real-time processing by resorting to parallel distributed processing. This entails integrating information from multiple sources simultaneously, and working ‘bottom-up’ (looking for clues in linguistic input) and ‘top-down’ (activating background knowledge and exploiting context).

Social/contextual model

A third type of listening model is the social/contextual, in which human beings are considered much more than (relatively limited) processors, and comprehension is seen as ‘a cognitive process ... that unites the social and the individual’ (Ohta, 2000: 54). In the Social/Contextual model, in contrast to communications theory and information

processing, we are seen as participants in and creators of meaning, and meanings are achieved in the interactional space between us and not just inside our individual heads. Even in highly constrained contexts, such as those investigated in controlled experiments, conversational partners negotiate meanings and work towards a 'mutual cognitive environment' (Sperber and Wilson, 1995: 61). Context is assigned a primary role by writers adopting the social-constructive view of language, such as van Lier (1996, 2000), who has argued against the widespread use of computing metaphors such as 'input' and 'output' on the grounds that they are misleading and belie the active participation of the successful listener in interaction.

Situated action model

Finally, a more speculative alternative to information processing models comes from work on the evolution of language and society. Evolutionary psychologists argue that humans spend much of their time trying to understand in order to do things ('situated action'), rather than to archive information in memory, as information processing approaches assume. Barsalou (1999) claims that language evolved from the need to control the actions of others in activities such as hunting, gathering and simple industry: '[T]he foundational properties of human language today reflect those evolutionary pressures then. Formal education and science have occurred much too recently to have had such impact' (Barsalou, 1999: 66). Supporters of the situated action model do not entirely rule out an archival function for comprehension, but emphasize that our daily interactions are more often oriented towards future action, for example, where to shop for fresh food or how best to treat a child with a sinus infection.

These four comprehension models are complementary rather than mutually exclusive. Even the most limited, the communication theory model, adequately describes certain limited listening tasks, such as taking down someone's mobile number. As we investigate the full range of listening tasks, we find that the different elements required for successful listening are best explained by a combination of the comprehension models available.

Types of listening

We can divide listening into two main modes: one-way listening and two-way ('reciprocal' or 'interactional') listening. These modes intersect with two principal functions of language: 'transaction' and 'interaction' (Brown and Yule, 1983). Transaction has as its main purpose the transfer of information, while the primary function of interaction is the maintenance of social relations. While it is true, particularly in speech, that virtually all communication involves elements of both, in most situations one of the two purposes is dominant.

One-way listening

Popular opinion has traditionally linked listening to the transactional function of language and this has strongly influenced the teaching of listening to L2 learners. Until recently it also resulted in an almost exclusive use of monologue for listening practice.

It is certainly true that one-way, transactional listening is important, first and foremost in academic settings such as lectures and school lessons. This could be termed

'listening in order to learn'. Pedagogic discourse has certain well-defined characteristics: density of cognitive content; a tendency towards decontextualization; rather formal language (more like writing); and the need to do something with what has been heard, such as take notes on the content.

Other common situations in which one-way listening takes place are watching a film or television or listening to the radio, where the purpose is rather different. Here, the language being listened to is likely to be of the 'spoken' variety, although there can be a range of styles from the more formal and prepared (such as a newsreader's script) to the more informal and spontaneous (such as a sports commentary).

Two-way listening

Despite the fact that most of our everyday listening occurs in two-way interactions, research studies and pedagogic publications have tended to emphasize one-way, non-reciprocal listening. There is, however, a continuing strand of research into how listeners cope in interactive conversation – notably under the influence of work done at the University of Edinburgh (Brown and Yule, 1983; Brown, 1995b; Lynch, 1995, 1997; Yule 1997).

Two-way listening might be more accurately termed 'listening-and-speaking' (Oprandy, 1994) because it involves dialogue or discussion, where different features come into play. The listener's involvement, or potential involvement, in a speaking role brings costs as well as benefits: the costs include the requirement to respond appropriately, the time pressure in processing what is being said, and the risk of misinterpreting the interlocutor; the communicative benefits include the opportunity to get doubts cleared up straight away and problems resolved.

The question of whether the listener is 'able' to intervene to resolve problems as they occur raises the issue of whether in the particular communicative setting they feel 'entitled' to do so. In Bell's (1984) framework there are four listener roles in discourse:

- Participant – someone who is being spoken to and has the same speaking rights as others present.
- Addressee – someone who is being spoken to but has limited rights to speak.
- Auditor – someone who is being spoken to but is not expected to respond.
- Overhearer – someone who is not being spoken to and has no right to speak.

These roles vary both between cultures and within the same culture, and represent norms rather than rules. The use of mobile phones (at excessive volume) seems to be altering listener roles, particularly on public transport. Lynch (2009) reports an incident on a Scottish bus in which one passenger was speaking so loudly that an Overhearer felt 'entitled' to become a Participant in the conversation, with the apparent approval of the other Overhearers present.

Processes of listening

As we listen, we engage in 'bottom-up' and 'top-down' processing. A competent listener uses both of these in order to achieve effective comprehension of spoken language, and a key factor in successful listening is the individual's ability to integrate

information gathered via the two. The balance of researchers' interest in the two processes has shifted over time, as illustrated by special issues on comprehension brought out by two leading journals two decades apart. In 1986, a thematic issue of *Applied Linguistics* on comprehension contained five papers, of which four addressed issues of context and background knowledge (top-down); by contrast, a 2008 special issue of *System* on listening featured eight papers, five of them focusing on the 'bottom' level in the understanding of spoken language.

Bottom-up processing

Bottom-up processing involves piecing together the parts of what is being heard in a linear fashion, one by one, in sequence. This used to be seen as a complete and accurate description of successful listening – 'listener as tape recorder' (Anderson and Lynch, 1988: 9). Even if, as we will argue, top-down processing is important, bottom-up processing is indispensable; listeners always have to do some bottom-up processing of what they hear at the acoustic level – for example, discriminating between similar sounds (Byrnes, 1984; Brown, 1990) – in order to facilitate subsequent top-down processing.

Listeners vary in terms of how they integrate cues at bottom and top levels. Field (2004) reported an experiment in which L2 learners of English were played a series of sentences whose final word was chosen to be unfamiliar and phonologically similar to a more common word. This was designed to provide a meaningful context for the unfamiliar word, but a contradictory one for the common word – for example, *They're lazy in that office; they like to shirk* (instead of *work*). The results were striking. Of the students who offered an answer, just under half rejected the phonetic/acoustic (bottom) evidence and matched it roughly to a word they did know. The others – more than half of the group – identified the item as unfamiliar and attempted to transcribe its sound shape. Field called these two strategies 'lexical' and 'phonological', respectively. The fact that the 'lexical' listeners wrote down words that were not only semantically inappropriate but also grammatically incorrect underlines the risk of a strategy that is neither bottom-up nor top-down, but 'potentially overrules contextual information and modifies perceptual' (Field, 2004: 373).

Top-down processing

Top-down processing is in some ways the converse of bottom-up: holistic, going from whole to part, and focused on interpretation of meaning rather than recognition of sounds, words and sentences. Listeners actively formulate hypotheses as to the speaker's meaning, and confirm or modify them where necessary. Top-down processing has been said to involve the listener as 'active model-builder' (Anderson and Lynch, 1988: 11).

In top-down processing we rely on what we already know to help make sense of what we hear. The term 'schema' (plural 'schemata') is used to refer to the prior knowledge and experience that we have in memory and can call on in the process of comprehension. Schemata are of two types: 'content schemata' and 'rhetorical schemata'.

Content schemata are networks of knowledge on different topics, for example, earthquakes, and comprise knowledge gained from personal and second-hand experience. When we hear someone talking about a topic that we are able to link to an existing content schema, we find comprehension very much easier.

Rhetorical schemata (also known as formal or textual schemata) are based on our knowledge of the structure and organization of discourse genres, for example, an academic lecture or a sermon. An awareness of the genre we are listening to makes it easier to engage in top-down processing strategies, such as predicting and inferencing. Predicting is defined as guessing at the rest of a message based on only part of the information – the information might be only partial because either only part of the discourse has been heard so far, or only part has been comprehended. Inferencing is more subtle and in a sense operates at a higher level: ‘everything is comprehensible, but there is meaning to the discourse that exceeds the understanding of each of the utterances or part of it. Adding these together, only by inferencing will the whole be comprehended’ (Mendelsohn, 1994: 105). Inferencing can be thought of as ‘listening between the lines’.

Listening skills

The convention is to refer to ‘the four language skills’, but it is clear that each of these comprises a large number of sub-skills, whose value and relevance vary from one situation to another. Richards (1983) was one of the first to categorize the sub-skills required in different listening situations; he came up with 33 micro-skills for conversational listening (CL) and a further 18 for academic listening to lectures (AL). His analysis raises a number of interesting questions, of which we will briefly mention two.

The first question is: What is the relationship between conversational and academic micro-skills? Richards implied it was incremental: that all conversational listening micro-skills are required for academic listening, but that certain more specialized academic listening micro-skills (such as ‘coping with different styles of lecturing’) are required only in the lecture hall – making a possible academic listening total of 51 micro-skills. On the other hand, some micro-skills listed in both sets, such as ‘identifying and reconstructing topics’ (CL) and ‘identifying the lecture topic and following its development’ (AL), appear to rely on the same comprehension processes.

Second, there is the question of the internal ordering of the micro-skills. Richards used the term ‘taxonomies’ of listening skill, which implied that the relationship within each set was hierarchical. That leads us to ask whether the successful use of some micro-skills depends on prior success in using others. Presumably it does; for example, one can hardly deduce the meaning of a word (conversational listening micro-skill 12) until you have distinguished its boundaries, for example, recognized its phonological form from the rest of the speech stream (conversational listening micro-skill 8).

Richards’ analysis has been extremely influential in helping language teachers to distinguish and prioritize the components of different types of listening, and his article is still widely cited in discussion of materials design. His micro-skill taxonomies were later reshaped and developed by Rost (1990), who emphasized the importance of identifying ‘clusters’ of listening micro-skills. As Rost pointed out, his proposal for clustered practice also reflected wider doubts as to whether learning a complex skill can be effectively helped by step-by-step practice of its components, and whether learners can re-synthesize them in actual use.

Rost’s clusters of micro-skills are shown in Table 13.1, which makes clear his key distinction between ‘enabling skills’ (those employed in order to perceive what the speaker is saying and to interpret what they intend to mean) and ‘enacting skills’ (those employed to respond appropriately to the message).

Table 13.1 Micro-skill clusters in listening comprehension

ENABLING SKILLS
Perception

1. Recognizing prominence within utterances, including
 - Discriminating sounds in words, especially phonemic contrasts
 - Discriminating strong and weak forms, phonetic change at word boundaries
 - Identifying use of stress and pitch (information units, emphasis, etc.)
-

Interpretation

2. Formulating content sense of an utterance, including
 - Deducing the meaning of unfamiliar words
 - Inferring implicit information
 - Inferring links between propositions
 3. Formulating a conceptual framework linking utterances, including
 - Recognizing discourse markers (clarifying, contrasting)
 - Constructing a theme over a stretch of discourse
 - Predicting content
 - Identifying elements that help you to form an overall schema
 - Maintaining and updating the context
 4. Interpreting (possible) speaker intentions, including
 - Identifying an 'interpersonal frame' speaker-to-hearer
 - Monitoring changes in prosody and establishing (in)consistencies
 - Noting contradictions, inadequate information, ambiguities
 - Differentiating between fact and opinion
-

ENACTING SKILLS

5. Making an appropriate response (based on 1–4 above), including
 - Selecting key points for the current task
 - Transcoding information into written form (for example, notes)
 - Identifying which points need clarification
 - Integrating information with that from other sources
 - Providing appropriate feedback to the speaker
-

Source: adapted from Rost (1990: 152–153)

Rost's (1990) division of listening into perception, interpretation and response shows parallels with the information processing models we mentioned earlier: 'Perception, Parsing and Understanding' (Anderson, 1985) and 'Identify, Search, File and Use' (Brown, 1995a). It helps us to distinguish between the levels of comprehension success and to pinpoint failure. In the 'Hands-on activity' at the end of this chapter we will be using Rost's (1990) micro-skill clusters (*see above*) to help us categorize areas of success and failure in an individual L2 learner's understanding of a listening text.

Listening strategies

Interest in strategy use and strategy instruction derives from research over the years into ways of facilitating language learning (Rubin, 1975; Wenden and Rubin, 1987; O'Malley and Chamot, 1990; Oxford, 1990; *see also* Chapter 10, *Focus on the language learner: Styles, strategies and motivation*). Chamot (1987: 71) provides a good basic definition of learning strategies: 'techniques, approaches, or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information'. Research into strategy use has led to the development of a 'strategy-based approach' to

teaching listening comprehension (Mendelsohn, 1994). As we stated in the opening section, people are usually not conscious of how they listen in their first language unless they encounter difficulty. So what L2 learners need to do when listening is to make conscious use of the strategies they unconsciously use in their first language.

Learning strategies are usually divided into meta-cognitive, cognitive and social/affective strategies – a tripartite classification developed by O'Malley et al. (1985). Table 13.2 brings together the listening strategies that researchers have identified in L2 contexts.

Skilful listeners use these strategies in combination, varying their use according to the needs of the specific situation – a process that has been described as 'orchestration' (Vandergrift, 2003). Research into L2 listening strategy use has recently tended to focus on meta-cognitive strategies and the work done by Vandergrift et al. (2006) is of particular potential interest for the language teacher. This team developed, tested and validated a Meta-cognitive Awareness Listening Questionnaire (MALQ), which they trialled with L2 listeners in Canada, Singapore and the Netherlands. When the listeners' self-report responses were correlated with their performances on listening tests, five factors were found to be associated with

Table 13.2 Listening strategies

<i>Cognitive</i>	<i>Meta-cognitive</i>	<i>Social/affective</i>
Predicting / Inferencing <ul style="list-style-type: none"> • from the text • from the voice • from the body language • between discourse parts Elaboration <ul style="list-style-type: none"> • from personal experience • from world knowledge • from academic learning • from imagination Contextualization Imagery Summarization <ul style="list-style-type: none"> • mental • physical (notes) Translation Repetition Transfer from other language(s) Deduction Fixation <ul style="list-style-type: none"> • stopping to think about spelling • stopping to think about meaning • stopping to memorize 	Planning <ul style="list-style-type: none"> • advance organization • self-management Comprehension monitoring <ul style="list-style-type: none"> • confirming comprehension • identifying words not understood Directed attention <ul style="list-style-type: none"> • concentrating • persevering despite problems Selective attention <ul style="list-style-type: none"> • listening for familiar words • listening for the overall message • noticing the information structure • noticing repetition and reformulation • listening to specific parts Evaluation <ul style="list-style-type: none"> • checking interpretation against predictions • checking interpretation against knowledge • checking interpretation against context 	Questioning (two-way tasks) <ul style="list-style-type: none"> • asking for clarification • asking for repetition • using comprehension check Cooperation <ul style="list-style-type: none"> • working with other learners Anxiety reduction <ul style="list-style-type: none"> • encouraging yourself • comparing yourself with others • focusing on success Relaxation <ul style="list-style-type: none"> • using physical techniques • using visualization

(Based on Goh, 2002; Vandergrift, 2003; and Kondo and Yang, 2004.)

success in listening: ‘Problem-solving’ (guessing and monitoring those guesses); ‘Planning and Elaboration’ (preparing for listening and assessing success); avoiding ‘Mental Translation’; ‘Person Knowledge’ (confidence or anxiety, self-perception as a listener); and ‘Directed Attention’ (ways of concentrating on aspects of the task).

How do we gain insights into listening?

Settings

Experiments

Experimental investigation has tended to concentrate on quantifiable aspects, such as the effects of prosody on speech recognition. From experiments we know that the characteristic patterning of speech in our L1 provides a metrical template that influences the way we process L2 speech. Speakers of French, for example, have been shown to rely on syllable patterns to segment the stream of spoken French, whereas speakers of English use stress patterns rather than syllable patterns to parse L1 speech (Cutler, 2001). Delabatie and Bradley (1995) found that maintaining these unconscious L1 metrical habits caused listeners problems up to relatively advanced levels of L2 proficiency.

Experimental approaches are well-suited to assessing the effects of other quantitative features on L2 comprehension. In the case of speed of speaking, for example, the absolute rate of speaking seems to matter less than the position and frequency of pauses. However, since real-life listening occurs in a specific social and cognitive context, other approaches are necessary to study the processes of making sense of ‘meaning’, as opposed to recognizing form.

Pedagogic tasks

As we mentioned earlier, the literature on L2 listening has tended to focus on pedagogic settings, such as the lecture theatre (Chaudron and Richards, 1986; Flowerdew, 1994; Vidal, 2003; Carrell, Dunkel and Mollaun, 2004). Among the main findings have been the beneficial effects on L2 comprehension of content redundancy, pausing, macro-level signposting and visual support. Foreign language classroom studies that have explored listening within an interactive setting (Yule and Powers, 1994; Lynch, 1997) have emphasized the additional complexities for the listener of having, in Rost’s (1990) terms, to ‘enact’ a response, by contributing relevantly and coherently at an appropriate point in the discourse.

Test performances

Researchers with access to candidates’ performances in listening in worldwide tests such as IELTS and TOEFL have been able to investigate listening skills on a very large scale. Tsui and Fullilove (1998) sampled 150,000 item performances by Chinese learners of English to investigate whether skill in bottom-up processing (rather than top-down) makes some listeners more successful than others. They compared performances on questions where the correct answer matched the likely content schema with items where the answer conflicted with the schema. Candidates who got the correct answer

for non-matching schema items tended to be more skilled listeners; presumably, the less skilled could rely on guessing for the matching items, but not for non-matching ones. Bottom-up processing seemed therefore to be more important than top-down processing in discriminating between candidates' listening performance.

Ethnographic research

Although test-based studies have the advantage of scale, what they gain in terms of statistical robustness has to be weighed against what they may lose in lifelikeness. Observation of actual listening behaviour – such as misunderstandings in conversation – can yield rich data for analysis. One context in which such misunderstandings are common is the daily life of immigrants or migrant workers, as shown by an extensive ethnographic study of immigrant listeners in five European countries (Bremer et al., 1996). The study was based on real-life or naturalistic encounters with native speakers in a variety of gate-keeper roles, such as job interviewer and social security officer. In some cases, misunderstandings were found to have primarily linguistic causes, but in most cases the miscommunications the research team analysed were rooted in non-shared expectations of members of different cultures, rather than simply in gaps in linguistic knowledge. We will be analysing just such an intercultural misunderstanding in the second 'Hands-on activity' at the end of this chapter.

Methods

The fact that comprehension occurs largely unobserved means that it can be very difficult to establish the 'process' by which listeners have reached their interpretations, even if we have evidence of the 'product' (what they understood). However, for the listening researcher or language teacher it is vital to establish the source of listening problems: 'Until the teacher is provided with some sort of method of investigating the student's problems, the teacher is really not in a position of being able to help the student "do better"' (Brown, 1986: 286). Investigations of the routes by which listeners achieve understanding have adopted three main methods: 'observation', 'introspection' and 'retrospection'.

Observation

Observation takes many forms, from informal noticing of real-life examples of misunderstandings (Bond and Garnes, 1980) to experiments designed to create ambiguities and referential conflicts (Brown, 1986). Numerous studies have investigated communication on map-based tasks (Brown et al., 1984; Brown, 1986; Yule and Powers, 1994). By adjusting the degree of difficulty built in to the tasks at specific 'trouble spots', the researcher can adjust the amount of negotiation required to resolve the problems. However, even in the most controlled of experiments the researcher cannot be certain of the cause of the listener's doubts, or the current state of the listener's mental model.

Introspection

One way of supplementing the information available from observation is to use introspection (comments by the listener at the time of listening or immediately afterwards).

This form of inquiry is also known as the ‘think-aloud protocol’. A particularly enlightening study was carried out by Ross (1997), who tested the view that listeners at different levels of L2 proficiency adopt different processing strategies. The task Ross set his Japanese students was to listen to a recorded message in English and match it with one of a number of icons. He then asked them to introspect about the reasons behind their icon selection. He found that weaker listeners tended to focus on a key word, produce an initial mental model and stick to it, without searching for confirming clues; the more proficient listeners also identified the key word but continued actively to search for further clues in the rest of the message.

Introspection studies are open to three main criticisms. First, the demands of on-line reporting may lead listeners to listen differently from normal. Second, the data obtained can be greatly influenced by the listeners’ skill in verbalizing mental processes, especially if the self-reporting is done in the L2. Third, listeners’ reports may reflect prior knowledge, rather than their listening. These last two problems can be reduced, for example, by allowing subjects to report in L1, or by selecting unfamiliar topics, but researchers using introspective approaches have had greater difficulty in addressing the problem of interference in normal comprehension processes.

Retrospection

An alternative method of throwing light on listening is retrospection, in which the listener is asked to recall the experience of comprehending some time later, usually prompted by memory support such as reviewing a recording of the original conversation. Wu (1998) used a retrospective approach to investigate the relationship between linguistic processing and listeners’ use of background knowledge. Chinese learners of English were played a three-minute text twice – once all the way through as they completed multiple-choice questions on content and then in sections. After each section, they were asked to recall their route to comprehension and their strategies for dealing with problems. Wu concluded that linguistic (bottom-up) processing was basic to successful comprehension; failure or partial success at the linguistic level can lead listeners to allow schematic knowledge to dominate their interpretation – as in other studies we have mentioned (Ross, 1997; Tsui and Fullilove, 1998).

As with introspection tasks, there is a risk of ‘contamination’ in retrospection: subjects asked to recall how they understood a text may elaborate what they actually understood first time. However, as with the listening models we discussed earlier, the three methods summarized in this section – observation, introspection and retrospection – need not be mutually exclusive. Applying them in judicious combination is probably the best approach to finding out how individuals listen and how they deal with comprehension problems.

From theory to practice: issues in teaching L2 listening

The point of contact between theory and application is to be found in the work on learning strategies. We have already mentioned Mendelsohn’s (1994) strategy-based approach. Field (1998: 12) suggests what he calls a ‘diagnostic approach’, in which a listening lesson would involve pre-listening, listening and then an extended post-listening session ‘in which gaps in the learners’ listening skills could be examined and

redressed through short micro-listening exercises'. Despite minor differences, Mendelsohn and Field are both advocating teaching learners how to listen.

Berne (1996, 1998) examined the relationship between the theory and the practice of acquiring listening competence, and found that – other than the mutual interest in listening strategies mentioned above – there was a disturbing mismatch between researchers' and classroom practitioners' interests. Better communication between the two sides is essential to help close this gap (for further discussion on this point, *see* Mendelsohn, 1998, 2001).

Difficulty factors in listening

An examination of traditional listening comprehension materials for L2 learners shows that the selection of texts was not systematically based on criteria of difficulty. This resulted in a situation in which the materials used to teach listening were often unsuitable, and the tasks assigned after listening were inappropriate for the text or for the particular needs of the learners in question. Attention was usually given primarily to the appropriacy of the 'topic' rather than to other aspects.

Research over the past number of years has attempted to define which factors contribute to making a particular listening passage difficult or easy to comprehend. Building on literature surveys such as Rubin (1994), Brown (1995a) and Anderson and Lynch (1988), Buck (2001) distilled researchers' findings into the following list of characteristics that affect listening:

Table 13.3 Sources of difficulty in second language listening

INPUT CHARACTERISTICS

Language

- Speech rate
- Unfamiliar accent
- Number of speakers
- Similarity of voices
- Use of less frequent vocabulary
- Grammatical complexity
- Embedded idea units
- Complex pronoun reference

Explicitness

- Implicit ideas
- Lack of redundancy

Organization

- Events narrated out of natural time order
- Examples preceding the point they illustrate

Content

- Unfamiliar topics
- Number of things and people referred to
- Unclear indication of the relative importance of protagonists in the text
- Shifting relationships between protagonists
- Abstract content

Context

- Lack of visual or other support

TASK CHARACTERISTICS

Tasks tend to be **more difficult** when they require:

- Processing of more details
 - Integration of information from different parts of the text
 - Recall of gist (for example, writing a summary) rather than exact content
 - Separation of fact from opinion
 - Recall of non-central or irrelevant details
 - A delayed response, rather than an immediate one
-

Source: Adapted from Buck, 2001: 149–151.

Authenticity of text and task***Authenticity of text***

The debate over the use of authentic materials in language teaching has occupied methodologists for at least three decades (Geddes and White, 1979; Porter and Roberts, 1981). ‘Authentic’ in this context is generally defined as ‘not designed or recorded for non-native speakers, or for language learning purposes’. Early in the professional debate over authenticity of learning materials, Widdowson proposed a separation of two different aspects of language in use: ‘genuineness’ and ‘authenticity’ (Widdowson, 1979). He argued that a text was ‘genuine’ if it contained the sort of language typical of that genre in actual use, and that it did not matter (for learners or teachers) whether it had occurred in real communication. The term ‘authentic’, on the other hand, Widdowson reserved for the appropriacy of the response from the listener or reader. In other words, genuineness was related to text; authenticity was related to task. A text could therefore be genuine even if it had been ‘invented’ for teaching purposes rather than ‘discovered’ in actual use.

Although most classroom practitioners would agree that authenticity is desirable (Rings, 1986; Field, 1998; Mendelsohn, 2001), some have gone too far in their demand for authenticity. Recently Richards criticized what he called the ‘myth’ of authenticity (Richards, 2007); echoing Widdowson’s article of three decades ago, Richards argued that it is unrealistic and unnecessary to base L2 instruction on ‘authentic’ texts, since authentic listening texts are largely unusable, given the logistical difficulties of recording conversations, as well as the legal and ethical problems of getting informed consent of the people recorded. Both Widdowson and Richards take the position that authenticity is the ‘end’ of language teaching, but need not be the ‘means’. Listening teachers need to bring learners to the point where they can understand, interpret and respond to L2 listening input in the way that the original speaker intended. However, we should not be over-concerned with finding real texts; ‘realistic’ texts will do just as well, provided they are used in a way that helps learners to respond to them appropriately.

Authenticity of task

With the advent of a primarily communicative focus in L2 instruction, many materials developers and teachers have aimed to make learning tasks as realistic as possible. One example of this is the ‘information gap’ task, which cannot be completed unless the

learners share the relevant different bits of information in their possession. However, similar caveats are required here to those stated in the discussion of text authenticity above: that is, it may be necessary to help learners approach fully authentic tasks gradually, rather than trying to make tasks lifelike from the beginning.

Strategy instruction

Strategy instruction is not revolutionary or faddish. Neither is it something that should be viewed as an 'add-on' to what happens in the listening lesson. Strategy instruction is at the root of teaching learners how to tackle a listening text. It involves showing learners the clues to getting at meaning when gaps in their competence make that difficult. Moreover, strategy instruction can contribute significantly to learner autonomy.

Mendelsohn (1994), as part of his strategy-based approach, offers examples of strategies to determine setting (S), interpersonal relationships (I), mood (M) and topic (T) (SIMT) arguing that this facilitates comprehension. Setting relates to 'where' and 'when', interpersonal relations relate to 'who', mood and atmosphere relate to 'how' things are being said (the tone), and topic relates to 'what' is being said and 'why'. One example of a strategy to determine mood and atmosphere is training students to listen for changes in voice quality. They might hear the following dialogue twice: the first time with normal voice, the second, with 'whispery voice':

A: Jane, have you met the new office secretary?

B: No, not yet. Why?

A: She's really nice. Did you know that she's pregnant?(Mendelsohn, 1994: 90)

They would then discuss the difference in meaning between the two dialogues and hopefully come to the conclusion that when the last line is whispered, it implies secrecy and not merely a statement of fact.

Two notes of caution should be sounded about strategy instruction. First, if strategy instruction is to be effective, it requires thorough preparation of teacher and students, and it needs to be provided over an extended period with plenty of practice. A number of research projects testing the effectiveness of strategy instruction have found it made no significant difference, which may well have been due to insufficient training. On the other hand, in a long-term study designed to meet the conditions described above, Thompson and Rubin (1996) found that strategy instruction was very effective, and they helpfully discuss in detail the conditions that support listening improvement. Our second caveat on strategy instruction is that it should not be regarded as the answer to 'everything'. A successful listener is not simply someone that is good at compensating for their weaknesses by skilful use of top-down strategies, but someone who also possesses and uses form-oriented L2 listening skills effectively in bottom-up processing. Some of the most important features of listening are discussed in the following section.

Skills training

As we noted earlier, a certain level of linguistic proficiency is required in order to handle listening comprehension. This includes a minimum level of mastery of the

features of the sound system, but also of the grammatical system (at sentence level) and of discourse. As Brown (1990: 11–12) states, despite the current emphasis on top-down processing, ‘you still need to be able to monitor the incoming acoustic signals so that you know which of your predictions is being confirmed and which is not’.

This mastery of basic linguistic competence as it relates to listening to spoken English should be assessed through diagnostic testing and, if necessary, taught early on in a listening course, and prior to the detailed strategy instruction. (For more detail, *see* Mendelsohn, 1994: Chapter 5.) Some of the features that need to be practised are:

- Discriminating between similar sounds.
- Coping with and processing ‘fast speech’.
- Processing stress and intonational differences.
- Processing the meaning of different discourse markers.
- Understanding communicative functions and the non-one-to-one equivalence between form and function.

Conclusion

Listening processes are complex, and listening comprehension is difficult in a second or foreign language. Until relatively recently, teachers either did not teach listening at all, or attempted to teach it, but did so rather ineffectively; arguably, learners who learned to comprehend the spoken language did so ‘in spite of the teaching’, not because of it. We have made substantial progress in the past 40 or so years in our understanding of listening, and how we should go about teaching the relevant skills and strategies. It now remains for materials writers and teachers not only to endorse the importance of a strategic approach to L2 listening instruction, but also to strike a balance between practice-focused listening skills work and practice in the use of strategies that will enhance their comprehension of the target language.

Hands-on activity

There are obvious practical constraints on representing the ‘process’ of listening on the printed page. We have chosen two different sorts of listening data for you to analyse: the first comes from a dictation exercise done by an L2 learner of English; the second is an example of misunderstanding observed in real life.

A classroom example

For our purposes here, the advantage of using a dictation example is that it shows precisely what the learner understood and allows us to speculate as to how he reached that interpretation.

On the left-hand side below are the ten sentences of an English for Academic Purposes dictation about the problems of talking to native speakers. The text was recorded onto a cassette at slightly less than conversational speed but with natural pronunciation and assimilation. The learners were told the topic of the text, which they would hear as

separate sentences, and were asked to write down what they heard, in 30-second pauses between the sentences. On the right-hand side is the version of the text produced by an intermediate-level Japanese learner of English.

<i>Original version</i>	<i>Learner version</i>
1. Conversing with native speakers can cause a range of difficulties.	Convergent is very difficult.
2. However, many of them have practical solutions.	However, many be made practical solution.
3. One thing you have to get used to is uncertainty.	One thing you have to get on seventy.
4. For instance, you may not be able to decipher every word.	Whatever may be you're able to decide everywhere.
5. But then you can use the context to guess.	But then you can get contact the guest.
6. Another problem is the cultural assumptions in what is said.	Another problem is consumption in what he said.
7. You may catch the words but fail to grasp their meaning.	You might catch the dog while wandering.
8. In either case, you want to get your doubts cleared up.	You may want to be done clear-up.
9. Requesting repetition and clarification is natural in our mother tongue	Repetition and indication is natural in another tongue.
10. In the foreign language it is more demanding but beneficial.	In the language, there is more demand than benefit.

Question 1: Listening sub-skills

Look back to Table 13.1 on p. 229. Compare the two versions of the dictation text, and look for points where the learner had problems in applying the following sub-skills:

- Discriminating sounds in words
- Recognizing word boundaries
- Deducing the meaning of unfamiliar words

Question 2: Overall comprehension

What did the learner appear to think the text was about? Does his text give you any clue about his own professional field?

The real-life example

Tony Lynch heard this during an interview on BBC television in 1999. The setting was a mosque in Glasgow, where Muslims were celebrating the end of the Ramadan fast. A BBC Scotland TV reporter was sitting at a table with two Pakistani men (father and son) and had just taken his first mouthful of their celebration meal.

REPORTER: Wow, this is hot!

INTERVIEWEE: Well, when we break the fast, we like to eat something tasty.

REPORTER: This is certainly... tasty (*laughs awkwardly; looks briefly towards the camera*). I don't suppose you have a carry-out, do you?

INTERVIEWEE: (*laughs*) No, I'm a doctor, a general practitioner. (Note: In Scotland, 'carry-out' is used to refer either to a take-away meal or to the premises where the meal is made and sold.)

Question 3: Intercultural misunderstanding

What was the misunderstanding, and how can you explain it?

Notes

1 University of Edinburgh.

2 University of York.

Further reading

Field, J. (ed.) (2008) *Special issue on listening. System* 36(1).

[A collection of eight papers reflecting current research into (first and second language) listening processes. Most of the contributors address bottom-level (perception) issues in listening, but there are also papers on listening strategy use and the testing and teaching of listening skills.]

Flowerdew, J. and Miller, L. (2005) *Second Language Listening: Theory and Practice*. Cambridge: Cambridge University Press.

[The authors discuss a pedagogic model of listening that broadens the scope of listening tasks to offer a range of 'listening' – individualized, cross-cultural, social, affective, contextualized, strategic, intertextual and critical.]

Lynch, T. (2009) *Teaching Second Language Listening*. Oxford: Oxford University Press.

[This book draws on current research to suggest ways of evaluating and designing L2 classroom listening activities. In particular, it highlights ways of focusing on the learner in listening: involving learners in the design of listening activities for use in the classroom and the self-access centre, and suggesting how learners can develop their listening skills beyond the classroom.]

Vandergrift, L. (2007) *Recent developments in second and foreign listening comprehension research. Language Teaching* 40: 191–210.

[A comprehensive round-up of research since the turn of the century into the cognitive, social and affective factors that influence L2 listening. It offers an integrated strategic approach to instruction and discusses recent investigations of multi-media applications in listening.]

Vandergrift, L. and Goh, C.C.M. (2012) *Teaching and Learning Second Language Listening: Metacognition in Action*. New York: Routledge.

[Supported by research and grounded in listening theory, this book presents a comprehensive treatment of second language listening. With emphasis on metacognition, the text provides practical ideas for learner-centred listening activities.]

Speaking and pronunciation

Anne Burns¹ and Barbara Seidlhofer²

What are speaking and pronunciation?

We take as our starting point the notion of spoken language in use, drawing on insights from discourse analysis which make it clear that language is used to negotiate and achieve meaning in social contexts and so cannot be divorced from those contexts (*see* Chapter 4, *Discourse analysis*). Corpus linguistic research over the last decade and a half, involving computer analysis of large bodies of naturally produced language has also greatly influenced the way in which spoken language and the patterns of its grammar are understood (*see* Chapter 6, *Corpus linguistics*; O’Keeffe, McCarthy and Carter, 2007). This perspective takes us beyond a purely psycholinguistic model of speech, where underlying mental processes are highlighted (Levelt, 1989). The perspective also takes us beyond the focus on the sentence, which has traditionally been the unit of analysis in much grammatical analysis and language teaching. In our discussion here, ‘sentences’ as formal grammatical units are irrelevant; rather, we are concerned with spoken ‘utterances’, which could be anything from ‘yeah’ to an extended monologue. We would argue that this more contextualized perspective represents a shift from what has been a prevailing model of spoken language in second language teaching – one that is essentially sentence- and form-based – to one that takes text and function as a starting point (*see* McCarthy and Carter, 1994; Burns, 2001; Hughes, 2006; Thornbury and Slade, 2006).

‘Speaking’ is so much part of daily life that we tend to take it for granted. However, learning speaking, whether in a first or other language, involves developing subtle and detailed knowledge about why, how and when to communicate, and complex skills for producing and managing interaction, such as asking a question or obtaining a turn. One of the most important aspects of everyday talk is that it always takes place in cultural and social contexts. We speak in order to carry out various social activities and, although we may not always be consciously aware of doing so, we attune our language and the meanings we wish to exchange to our specific purposes for speaking in that context.

Zooming in on speaking more closely, we can make further intriguing discoveries about other things we are usually unaware of when talking to somebody. Every time we open our mouths to say anything at all, even a short utterance such as ‘*Thank you!*’, several things happen all at once that fall within the scope of pronunciation: we can say ‘*Thank you!*’ loudly or softly, quickly or slowly, with a certain voice quality, with a certain speech melody; we can stress either the first or the second syllable, and there are

different ways of pronouncing the individual sounds which make up the utterance. All these elements together make up the way we sound to our interlocutors, and so are crucial factors in conveying meaning when we talk. For language teaching this means that every lesson involving the spoken language is (also) a pronunciation lesson (*see* Gilbert, 2008 for a very accessible discussion of the interrelatedness of factors involved in speaking and listening).

The way we sound to our interlocutors is not a trivial or unimportant matter; it is how we project our identity as individuals and how we indicate our membership of particular communities as social beings – like the way we look, the way we sound influences how we get judged by fellow humans. At the same time, and sometimes even in conflict with this ‘identity’ function, our pronunciation is also responsible for ‘intelligibility’ – whether or not we can get our message across. The issue of intelligibility is one that second or foreign language learners are keenly aware of. In pronunciation learning and teaching, matters are complicated by the fact that many of these things normally happen subconsciously and so are not really accessible to conscious analysis and intervention. Overall, then, the significance of understanding what makes up ‘pronunciation’ is far-reaching, and a basic knowledge in this area can be a valuable and powerful resource for language teachers and learners alike (*see also* Seidlhofer, 2001).

Issues in speaking

Spoken interaction involves producing and negotiating language rather differently from the way it is used in writing. Speakers and listeners (‘interlocutors’) are involved simultaneously in both producing and processing spoken interactions. They are under time constraints which mean that they must process language as they go, with no opportunities to go back and make changes. Speakers must also take account of relationships with others, adjusting their language according to the meanings they wish to get across, and responding to verbal or non-verbal signals from their listeners that they are being understood. Many spoken interactions consist of commenting on immediate actions or events, or casually moving from one topic to another. However, it is also true that some types of speech may be more planned in advance (such as meetings) or written to be spoken (such as news broadcasts). Differences between spoken and written language are probably best thought about as a ‘cline’ or ‘continuum’, rather than a sharp division (*see* Cook, 1989; Halliday, 1989; Cornbleet and Carter, 2001).

We can see some of the features that result from ‘online’ processing of speech in the following text. Here, two female Australian friends, Anne and Jane, talk about a time when Anne’s neighbour, Stan, was bitten by a poisonous insect, a funnel web spider. We will use this text throughout the chapter for illustration.

A funnel web spider jumped out ...

A = Anne, J = Jane

- A1: years ago when I was married, about I don’t know how long ago about 10 or 12 years ago I lived in Mosman and I had a really nice neighbour called Stan ... sometimes he used to cut the grass outside our place and sometimes we’d cut the grass outside his place ... and one weekend, I was away when this happened, but he told me about it much later, this weekend Stan cut the

- grass outside the front and was clipping along the edges of our garden with a little axe.
- J1: mmm ...
- A2: and a funnel web spider jumped out and ...
- J2: a funnel web!
- A3: yeah, and bit him on the fleshy part of his thumb ... and unbelievably he banged the spider with the axe or something, took off his belt, wrapped his belt around his arm, went in and got a jar, put the spider in the jar and walked to the corner ... you ... do you remember Rosebery Street almost went up to Military Road?
- J3: yes, yes
- A4: on that corner was a doctor's surgery – he walked up to the doctor's surgery
- J4: good heavens
- A5: and um ...
- J5: did the doctor have an antivenene? [American spelling: antivenin]
- A6: no, the doctor called an ambulance and they put him in, took him straight to North Shore [hospital] and ...
- J6: aaah
- A7: and that's ... he said the pain was excruciating, it was like someone had turned a blowtorch on his hand
- J7: what the poison goes straight up the arm into their ...
- A8: I don't know if it was the poison or the fangs of the spider or whatever it was that caused the pain but he said it was just like a blowtorch
- J8: ahh
- A9: and then he had antivenene in hospital but two weeks later his hand was still numb
- J9: good heavens!
- A10: he was terribly lucky
- J10: ohhh
- A11: I mean I would never have reacted that way would you?
- J11: my God, doesn't it give you the creeps?
- A12: yes, absolutely dreadful

(From de Silva Joyce and Burns, 1999: 98–99.)

Anne produces her first turn (A1) fluently, mainly by using a series of clauses linked by the co-ordinating conjunction *and* (*but* is also a common spoken conjunction). Informal spoken language tends to contain many clauses that are independent of each other, in contrast to written language, which typically contains more dependent clauses. We can also notice diversions and backtracking as Anne processes the information she wants to deliver, *'I was away when this happened'*. Anne's utterance also contains 'formulaic expressions' (see Schmitt and 2004; Seidlhofer, 2009), wordings that commonly go together and are used as a kind of shorthand in familiar situations, for example, *'I don't know how long ago'*. 'Ellipsis', the omission of parts of structures that would usually be expected, also eases the pressure in speaking production. Anne refers to *'outside the front'*, in the expectation that Jane will understand from the context and her previous reference to *'our place'* that she means the front of the house.

Genres of speaking

One way we can think about spoken discourse at a macro-level is to consider the concept of discourse types, or ‘genres’. In daily life, we use this concept repeatedly to identify the kinds of interactions in which we are involved, for example speeches, jokes, doctor’s consultations, etc. (see Chapter 4, *Discourse analysis*, for more on genres). Martin and Rothery (1980–1981) define genre as a ‘staged, goal-oriented, social process’, indicating that:

- 1 a genre evolves within a culture and its social institutions (hence social)
 - 2 social processes are purposeful (hence goal-oriented)
 - 3 it usually takes a number of steps to achieve one’s purpose (hence staged)
- (Painter, 2001: 168)

Within particular social contexts, having identified genres with their different purposes, speakers also anticipate the various kinds of interactions and language they might use in relation to a genre. Purposeful language variation will involve recognizing the overall shape or structure of the text, but also selecting from the vast repertoire of language resources available to us, the language features and patterns appropriate to a particular spoken ‘transaction or interaction’.

Transactional communication is primarily motivated by an exchange of goods and service, for example, booking a flight at a travel agent or phoning a careers’ centre for information, whereas the motivation for interactional communication is primarily to create and maintain social relationships, for example, casual conversations between friends (see also Dalton and Seidlhofer, 1994: 9–12, 53). We say ‘primarily’ because in reality talk in daily life is often a mixture of the two.

Work by Slade (1997) on casual conversation distinguished between ‘chat’, highly interactive multiple speaker sequences of conversation, and ‘chunks’, sequences where primarily one speaker holds the floor. Chunks are more readily analysable for their generic structures as they tend to follow predictable patterns (see Eggins and Slade, 1997; Burns, 2001; Thornbury and Slade, 2006 for further discussion). The spider text is an example of a complete chunk where Anne is the speaker who has gained an extended series of turns. The text she and Jane produce is an example of ‘story telling’ (Slade, 1997), a genre that is very commonly found in casual conversations. To sum up, the text is i) more chunk than chat; ii) interactional.

Generic structure

Generic or schematic structure (Martin, 2001) refers to the overall way in which a text unfolds. The spider text is a personal ‘narrative’ (an entertaining story involving the resolution of a crisis), which typically shows the structure (Labov and Waletzky, 1967: 39):

(Abstract)^Orientation^Complication^Evaluation^Resolution^(Coda)
 [() = optional elements; ^ = followed by]

Genres contain both obligatory and optional elements; Abstract and Coda will not be present in all instances of narrative. However, the obligatory elements are the key elements and must be present for a text to be defined and recognized as reflective of a particular genre.

The Abstract, which summarizes or encapsulates the main point, usually signals the start of a story – a classic example might be ‘*Did I ever tell you about ... [my neighbour’s encounter with a funnel web spider?]*. This is followed by the Orientation – the who, what, where, when – that orients the listener to the situation, place and time. In the text Anne begins the story at the Orientation stage, indicating the main player, Stan, and the time and place, but towards the end of her first long utterance (A1) she shifts towards the Complication. The Complication, the main part of the narrative, presents events in time sequence which leads up to a problem or crisis. ‘*And one weekend, I was away when this happened ...*’ begins Anne’s move towards the Complication, which culminates in the crisis, ‘*And a funnel web spider jumped out ...*’ (A2) and the surrounding events (A3).

The Evaluation shows the speakers’ reactions to the story and we can see this in Anne’s (A7, A8, A10) and Jane’s (J6, J7, J8, J9, J10) utterances. The Resolution stage reveals how the story’s main players resolve the crisis (A4–A6). In this text, as with other narratives, the Evaluation may appear at any stage, running through the text, sustaining the story and reflecting its personal and social significance to the speakers. We can see that Resolution and Evaluation are interspersed. In the concluding stage of Coda the story is brought full circle; Coda makes a point about the text as a whole and reorients the speakers to the present (A11, J10, A12).

We can go further than providing an analysis of the overall generic structure. Different stages of a genre are characterized by typical lexical (vocabulary) and grammatical (grammatical structures) patterns. Table 14.1 illustrates some of the linguistic choices that characterize a narrative.

The information above is valuable in language teaching and learning because language learners who wish to speak fluently and coherently must have an understanding, at least implicitly, of the organization of the genres in which they will be interacting, and of the linguistic features which realize the generic structure.

Exchange

Texts do not, of course, emerge intact as finished products; Anne and Jane must negotiate their narrative together dynamically at a micro-level, turn by turn. Exchange structure analysis (*see* Chapter 4, *Discourse analysis*) provides a way of showing ‘how speakers can keep taking turns’ (Eggins and Slade, 1997: 44). The ‘classic’ Initiation (I)–Response (R)–Follow-up (F) exchange (Sinclair and Coulthard, 1975) is illustrated in the following:

- J7: What the poison goes straight up the arm into their ... (Initiation)
 A8: I don’t know if it was the poison ... just like a blowtorch (Response)
 J7: Aah (Follow-up)

The function of follow-ups is to acknowledge information supplied in the response, show our social and emotional reactions to the topic and indicate ‘convergence’ (Widdowson, 1979) or shared understanding. Formulaic expressions (*Isn’t that great, terrible ...*, etc.) are common in follow-ups:

- J11: My God, doesn’t it give you the creeps?
 A11: Yes, absolutely dreadful

Table 14.1 Characteristic choices that characterize a narrative

<i>Stage</i>	<i>Lexico-grammatical features</i>
Abstract	
Signals the story and the reason for telling it	(No abstract stage in the text)
Orientation (A1)	
Orients the listener to the story by giving details of time, location, characters, etc.	Expressions of time/place – who, what, where, when: <i>in Mosman, one weekend, outside his place</i> Past tense verbs (<i>was, had</i>) Use of nouns and pronouns for participants (<i>I, Stan, he, our</i>)
Complication (A2–A3)	
Introduces the problem	Events sequenced in time Past tense action verbs (<i>bit, banged, took off</i>) Expressions of place (<i>on the fleshy part of his thumb</i>) and manner (<i>with the axe</i>)
Evaluation (J6–J8)	
Establishes the significance of the story and builds suspense	Action suspended through evaluation of events and suspense-building Repetition (<i>it was just like a blowtorch</i>) Intensifiers (<i>excruciating, terribly</i>) Confirmation check (<i>what, the poison goes ...?</i>)
Resolution (A4–J6, A9–J10)	
Explains resolution of problem	Events are time-sequenced Past tense action verbs Normality restored (<i>he was terribly lucky</i>)
Coda (A11–A12)	
Comments on the overall story and brings it back to present	Evaluation of story through: Vocabulary expressing speakers' attitude (<i>absolutely dreadful</i>) Return to present (<i>doesn't it give you the creeps?</i>)

However, in many interactions, follow-ups are delayed by a more protracted series of responses when, for example, further clarifications or checks are sought.

Learner exchanges in classrooms may omit the follow-up, making them sound stilted and interview-like, and so learners should be helped to produce more natural exchange patterns. One way of doing this is to explore similar expressions in other languages. By giving learners opportunities to observe and use this core aspect of spoken interaction, their repertoire of discourse skills should be usefully extended.

Turn-taking and turn types

Jointly constructing the interaction means that speakers must also judge when and how to take a turn (Sacks, Schegloff and Jefferson, 1974: *see also* Hutchby and

Woofitt, 2008). One possibility for obtaining a turn is to self-select. Jane does this in J5, taking advantage of a slight break in the flow of Anne's story (A5) (*see also* comments below on pitch and volume). Turns can be difficult to get when there is high competition, urgency or disagreement and speakers must attune to local transition points in the conversation such as pauses, or signals that turns are ending (for example, laughter, fillers such as 'so' or 'anyway'). Another turn-taking opportunity comes when the current speaker nominates the next. This may be done directly – 'What do you think, Jane?' – or through the type of turn the speaker selects. In A11, Anne poses a question, thereby offering Jane the opportunity to respond. 'Adjacency pairs' are major types of turns occurring together that enable speakers to allocate or give up turns. Question/answer is one of the most common, although there are many others, for instance, 'Hello/Hi' (greeting/greeting); 'Close the window/OK' (request/grant). Not all responses are preferred (or positive); some are dispreferred, and in English typically accompanied by some kind of justification or explanation, as in this invented example:

Anne: Did I ever tell you about my neighbour's encounter with a funnel web?

Jane: No ... look, I'd love to hear about it some other time, but I have to rush to catch my train right now ...

In a narrative, it is the storyteller (here Anne) who gets more turns than the other speakers. However, the listener's role is also important. Although their turn-taking rights are limited, it would seem very odd if listeners remained passive and silent; Jane's contributions play an important part in showing she is on track (J1) (backchannelling), predicting what will come up (J5) – 'Did the doctor have any *antivenene*?' – and assisting Anne to evaluate the significance of the events (J8), without which the entertainment value (the 'so what?') of the story would be absent.

Topic management

Closely related to turn-taking is the way speakers manage and negotiate topics. Speakers must ensure mutual understanding, selecting appropriate levels of explicitness (cf. Grice, 1975) and using discourse strategies, such as clarifying, checking, summarizing and adapting to points made by other speakers. Observe how Anne:

- Checks mutual knowledge with Jane (A3).
- Assumes it elsewhere with the reference to North Shore [Hospital] (A6).
- Provides further information (A4) on the basis of her response (J3).

Jane's 'backchannels' (J1, J8) provide Anne with feedback that she is negotiating the topic successfully.

Repetition (McCarthy, 1998) is another discourse device used to manage topic negotiation. Speakers repeat each other's words to move the topic forward. Too much exact repetition tends to reflect non-co-operative situations where the interaction gets held up. Socially co-operative interaction, such as in the spider text, is typified by

repetition as in A2/J2 (*'a funnel web spider'*), J5/A9 (*'antivenene'*), A7/A8 (*'the pain was excruciating, like a blowtorch'*), J7/A8 (*'the poison'*).

Knowledge about turn-taking and topic management can help learners understand the changing roles that speakers take up in conversation and the way meaning is negotiated at the micro-level of each turn.

Issues in pronunciation

In addition to what we have observed about the workings of spoken discourse so far, there is another level at which we can analyse speaking: 'pronunciation' and the role it plays in getting our meaning across, both transactionally and interactionally. Pronunciation is a term used to capture all aspects of how we employ speech sounds for communicating.

Revisiting some of the aspects of speaking we described above, then, we can fine-tune our analysis to a consideration of how the actual sounds we produce contribute to communication. In so doing, we shall move from larger to smaller units, attempting to explain and illustrate some of the most important concepts and terms as we go along. We shall consider elements of pronunciation that extend over entire utterances (whether these are long texts or just one word) and thus go beyond individual sound segments – which is why they are called 'suprasegmental' (or 'prosodic') features. Also, acts of speech are physical acts which often involve the whole body, so pronunciation does not work in isolation from other factors: in addition to employing our voice, we also use eye movement, mime and gesture. As Abercrombie (1972: 64) puts it, 'we speak with our vocal organs, but we converse with our entire bodies'.

Tone units/chunking

To start with, there are certain patterns to how speakers use their voices to structure what they say, thus providing important signposts for listeners as to how to process what they hear. A good example is the way we usually say telephone numbers in certain groups, and the variation in these patterns we can observe in different lingua-cultures. These patterns are achieved by chunking utterances into what is called 'sense or tone groups' or 'tone units', which indicate what, from the speaker's point of view, 'belongs together'. Observe how Anne's first long sentence (A1) can be chunked into:

//Years ago // when I was married // about I don't know how long ago // about 10 or 12 years ago // I lived in Mosman // and I had a really nice neighbour called Stan //.

Tone groups are characterized by 'pitch movement' (also called 'tone'), that is, the voice going up and down, and sometimes set off by pauses. Some of the chunking is very obvious, but in other cases there is more than one possibility, so that if readers were to read this utterance out loud, some would say:

// I lived in Mosman // and I had a really nice neighbour called Stan //

as two units, whereas others would divide it up into three:

// I lived in Mosman // and I had a really nice neighbour // called Stan //

Prominence

Staying with the same utterance for a moment, Anne makes certain syllables more salient than others, that is to say, she gives them ‘prominence’. To do this, she uses pitch movement on the syllables highlighted by small capitals: Mosman, NEIGHbour, sTAN; she also pronounces these syllables slightly more loudly. In any tone unit, the syllable on which the major pitch movement takes place, or begins, is called ‘tonic syllable’ – the syllable with the greatest prominence. Analysing her ‘intonation’, or speech melody, thus helps us recognize how she uses the prosodic feature of ‘pitch’ (perceptual label for ‘high’/‘low’), sometimes in combination with slightly increased loudness and vowel length, to foreground what is important. Signalling prominence is clearly an extremely important factor in getting our message across.

Turn-taking

Next, it always seems to be very clear to both interlocutors in our example when they should speak, when they should be silent, and when and how (not) to yield the floor to the other person. For the precise timing of this turn-taking, ‘pitch’ and ‘loudness’ are particularly important. Thus Jane’s back-channel signal ‘*Mmm*’ (J1) is fairly low in pitch and volume, indicating that she is listening, not bidding for a turn or interrupting. Her next utterance, however, ‘*A funnel web!*’ is spoken much more loudly and with considerable pitch movement, reaching fairly high pitch on the first syllable of *funnel*. Anne’s subsequent ‘*Yeah*’ may be seen as her acknowledgement of this much more noticeable interjection by Jane before she continues her story. A little later, Anne’s ‘*And um*’ (A5) is again at relatively low pitch and volume, giving the impression that she is hesitating, trying to think of what she wants to say next. This offers Jane an ‘opening’ for putting her question in (J5). In this sense, then, Anne’s low pitch functions as a turn-yielding device, whereas the higher pitch of Jane’s ‘*Did*’ signals a bid for a turn.

Introducing and ending topics

We can also look at pitch level from the point of view of speakers’ topic management, which is closely bound up with turn-taking mechanisms. It is easy to imagine Anne’s initial ‘*And*’ (A5) being pronounced quite differently: emphatically, dramatically, to heighten Jane’s anticipation of what happened next, with higher pitch and higher volume, and even some pitch movement on this one syllable. In that case Jane would have been very unlikely to come in with her question (J5). Consider, for instance, how Anne introduces the topic of the spider (A2):

// And a funnel web spider jumped out and //

where she jumps to ‘high pitch’ on the first prominent syllable of the tone unit. ‘High pitch’ (and ‘low’ pitch) are, of course, not absolute values but mean high (or low) in comparison to the immediately preceding tone unit, in this case higher than the concluding tone unit in A1, where ‘... with a little *AXE*’ finishes on a relatively low pitch to end that topical segment. Pitch level, then, can be used to indicate relationships between successive tone units in terms of the informational value speakers attribute to

them. A particularly useful example of this is the function of intonation in conveying 'contrastive stress'. Notice, for instance, how in A1, Anne stresses pronouns, which would normally be unstressed, to convey this contrast:

// Sometimes HE used to cut the grass outside OUR place // and sometimes WE'D cut the grass outside HIS place //

Thus, contrastive stress is a very important signpost for listeners.

Social meanings and roles/degrees of involvement

Dramatic pitch movement is often a sign of strong emotional involvement: in our text, for instance, Jane's // Good HEAVENS // (J4 and J9) and her // doesn't it give you the CREEPS // as well as Anne's '*unbelievably*' and //absolutely DREADFUL // display such pitch movement. But emotional involvement and attitudinal meaning are notoriously difficult to generalize in any helpful way, as they are so highly dependent on context, situation and relationships. This is why descriptions of 'intonational meaning' can hardly go beyond ad hoc observations (O'Connor and Arnold, 1973).

In contrast, Brazil's (1997) model of the communicative role of intonation is a powerful one, as it works with a limited set of possible choices to capture the state of play in discourse as it is negotiated moment by moment by the interlocutors. A central concept for Brazil is that of 'common ground', 'what knowledge speakers [think they] share about the world, about each other's experiences, attitudes and emotions' (Brazil, Coulthard and Johns, 1980: 15). According to Brazil (1997), it is this assessment as to what is shared and what is not that determines the speaker's choice of tone. The basic options are: tones ending in a rise ('fall-rise' or 'rise') for a part of the message which the speaker regards as part of the existing common ground, and tones ending in a fall ('fall' or 'rise-fall') for what they see as adding to the common ground. Anne's first utterance illustrates this distinction: in // Years ago when I was married //, '*married*' will end in a rise if she assumes that Jane knows about this, and in a fall if she thinks this is new to Jane. // called Stan //, on the other hand, is clearly new, and therefore ends in a fall. The distinction between end-rising and end-falling tones is thus a distinction between invoking 'the togetherness aspect of the conversational relationship' as opposed to expressing 'unassimilated viewpoints' (Brazil, 1997: Chapter 4).

In this sense, then, intonation is the most important means by which interlocutors negotiate their mutual relationship and indicate how they view the topic under discussion. During the interaction, intonation enables participants to constantly check and establish common ground in order to achieve convergence and conversational solidarity or, alternatively, to assert conversational dominance.

Stress and unstress

We have seen that the way we signal prominence in tone units by stressing important words is a crucial prosodic device for getting our meaning across. So which words get stressed is to a great extent a matter of speaker choice in the constantly evolving state of play in the participants' conversation. However, speakers are not entirely free in their stress-placement: there are also certain grammatical and lexical constraints.

Generally speaking, so-called ‘content words’ (nouns, verbs, adjectives, etc.) tend to be the main carriers of meaning and so often get selected for prominence. In contrast, so-called ‘function words’ (articles, prepositions, pronouns and conjunctions) mainly serve to indicate grammatical relationships and are usually unstressed in utterances (except when they carry contrastive stress). In A9, for example, the stressed words include *antivenene*, *numb* and *later*, and the unstressed ones *And*, *he*, *in*, *but* and *was*. It is important to realize, however, that for natural conversation these are general tendencies, not invariable rules, and that within any particular word, the syllable(s) to be stressed is relatively fixed.

Sound segments

Having moved from the larger units of intonation to the smaller ones of stress in words, we can now consider the smallest units we can isolate intuitively; the individual sounds which make up utterances. However, it has to be emphasized that speech is a continuous stream without clear-cut borderlines between individual sounds, and when we speak, rather than producing carefully enunciated ‘citation forms’ of individual words, we tend to minimize our articulatory effort by making sounds more like each other (‘assimilation’), sometimes leaving sounds out altogether (‘elision’) and sometimes inserting a sound to make for a smoother transition (‘linking’). The strangely persistent notion that pronunciation only has to do with individual sounds and how they are articulated is probably due to a human tendency to simplify and idealize in our effort to understand complex processes.

Individual sounds, then, are just one part of the story, but an important one. As all foreign language learners know, we find some sounds easy and others difficult when we study a new language. This is so because different languages select different parts of the sound spectrum (‘vowels and consonants’) for linguistic use. During first language acquisition, we come to regard the sounds of our mother tongue as ‘normal’, thus acquiring a kind of mental ‘filter’ which predisposes us to regard certain sounds as significant and others as not. To many learners of English, for instance, the so-called ‘th-sounds’ seem rather peculiar, whereas for English speakers, the ‘tones’ of, say, Mandarin Chinese and the ‘clicks’ of certain African languages are equally unfamiliar. On the other hand, most languages have o-like, i-like and e-like sounds. How exactly speech sounds get produced and received as physiological and acoustic events is explored in the field of ‘phonetics’. How they are utilized, how they are organized into a system of sounds in a particular language is the domain of ‘phonology’. Each distinctive sound within the system, for example /p/ or /b/, is called a ‘phoneme’ (see Chapter 9, *Sociolinguistics*, for a listing of the IPA representations of most of the phonemes of English).

What is not represented in the phoneme system is the actual phonetic realization of these distinctive sounds, which are called ‘allophones’. As in our handwriting, where the actual letters we write vary and are often quite different from the ‘ideal’ shape, no two realizations of a phoneme, even by the same person, are ever exactly the same. In addition, there are individual and dialectal differences between the ‘accents’ of different speakers of the same language, that is, users of the same phoneme inventory. Also, certain sounds are pronounced differently depending on the position they occur in, such as the three occurrences of /l/ in A9: many English speakers would use a so-called

‘clear l’ in *later* and a ‘dark l’ in *hospital* and *still* – however, the way this phoneme is realized does not make any difference to the meaning. We can thus say that we ‘think in phonemes’ but ‘speak in allophones’ (Dalton and Seidlhofer, 1994: Chapter 2).

Implications for Pedagogy

In this section we raise a series of questions typically asked, in our experience, about teaching speaking and pronunciation, and offer some practical suggestions. These suggestions assume ideas related to general learning theory that need to be taken into account, such as the tenet that perception needs to precede production and achievability, that is, success in little steps is important to counter the insecurity of learning another language. This factor also highlights the teacher’s role in ‘scaffolding’ manageable learning opportunities by providing more explicit support and input in initial learning through activities that give guided practice and strategically withdraw support as students become more able to complete tasks independently.

Should speaking activities focus on texts or sentences?

There may be good reasons for focusing on sentence-level study. Cook (1989: 4ff) lists the following:

- Formal grammatical knowledge and skills that provide the basis for communication can be taught.
- Proficiency in specific aspects of pronunciation, grammar and vocabulary can be easily diagnosed and assessed.
- ‘Abstract’ sentences are still the best material for language instruction as they isolate the language from the complexities of a particular context.
- Formal language rules underpin well-formed sentences and need to be understood and recognized.
- The treatment of language as sentences has been successful in language learning in revealing how language works.
- It is more difficult to establish rules and constraints about what is communicatively effective beyond sentence-level.

By way of contrast, the following are some of the arguments that have been advanced for a focus on text:

- Communicative competence requires more than producing and understanding sentences.
- Texts, in the form of scripted dialogues, are commonly used in language teaching.
- If dialogues are to be used, they should also introduce learners to some of the features of ‘real-life’ discourse, such as generic structure, associated grammatical choices and the role of pronunciation in creating meaning.
- Focusing on discourse and text helps students to notice and analyse authentic and appropriate usage of language.

- Discourse-based activities enable students to extend their communicative repertoire and prepare them more effectively for communication in the target language outside the classroom.

How can a discourse-based approach be applied in classroom practice?

Both teachers and students can benefit from an awareness of the discourse features of different texts (see Burns, 2006). Developing awareness of these features suggests a consciousness-raising approach, rather than implying that students should follow ‘recipe’ type models in a slavish fashion (Burns and Joyce, 1997).

At a macro-level, students can be sensitized to:

- Functional purpose: identifying whether a text is primarily transactional or interactional.
- Generic structure: highlighting the typical ways that different text types ‘unfold’ in spoken interaction. This may help to clarify reasons for cross-cultural miscommunication where different expectations may be at play; inter-cultural differences in genres can also be compared.
- ‘Gate-keeping’ contexts: identifying situations where speakers may have unequal power relations and how language is used to confirm or contest these roles.

At a micro-level the following patterns can be explored:

- Exchange structure: showing how speakers position themselves to hold the floor and the strategies they use to do this (challenges, dispreferred responses, clarification checks, etc.).
- Turn-taking: highlighting what kinds of turns are likely to go together and how speakers can take up or modify different kinds of turns.
- Conversational moves: enabling learners to practise expressions realizing conversational openings, closings, evaluative follow-ups, back-channelling and so on.

Should we use only ‘authentic’ texts?

In responding to this question, we support in general Lynch and Mendelsohn’s comments on authenticity in text and task (see Chapter 13, *Listening*). ‘Authentic’ texts may not be always be the most available or feasible, but teachers can potentially offer students a continuum of spoken text samples from single sentences to scripted dialogues to semi-scripted dialogues to completely natural speech. We have already commented on the use of single sentences. There are also advantages and disadvantages to each of the other options.

- Scripted dialogues constructed specifically for the purposes of language teaching are common in many published course books. They are valuable for students at lower levels because they often control the vocabulary and grammatical structures introduced. Usually the dialogue is a vehicle for practising particular patterns that have already been introduced through word- or sentence-level exercises. However, they may present spoken discourse as

unrealistic and unproblematic and they rarely reflect the grammar, discourse features and idiomatic uses of the language in natural speech. If used exclusively, they represent a ‘restricted diet’ of speaking and pronunciation development.

- Semi-scripted texts are increasing in more recently published materials. They are sometimes based on recordings where speakers are given a general outline of a dialogue and asked to include features of natural discourse (de Silva Joyce and Burns, 1999). The resulting dialogue is less fragmented and ‘messy’ than authentic discourse and therefore lends itself to language teaching with a focus on particular topics, vocabulary, grammar, discourse features and pronunciation. Although it can be a ‘transition’ to authentic speech, it may suffer from some of the same restrictions as scripted dialogues.
- Authentic texts can introduce students to a full range of transactional and interpersonal speech, as well as the reality, unpredictability and complexity of spoken communication. They can highlight language variation and choice rather than fixed and formal sets of rules. However, authentic texts are highly context-dependent and may assume substantial cultural and social knowledge (Carter, 1997; Widdowson, 2003: especially Chapters 8 and 9). They may also be fragmented (hesitations, false starts, overlaps, interruptions, unclear utterances) and include too many different grammatical and other features for focused language pattern practice in the classroom.

What procedures are there specifically for pronunciation teaching?

The teacher’s decision as to what kind of activities to use in any specific context will, of course, depend on an analysis of learner needs and variables such as learning purpose, learners’ age and setting. Procedures range on a continuum from either fairly mechanical or analytic/cognitive exercises drawing attention to specifics of the language code on the one end to communication tasks on the other (a rich resource for both classroom work and self-study is Hewings, 2007).

Elicited mechanical production

Manipulation of sound patterns without apparent communicative reason and without offering learners an opportunity for making motivated choices of sounds, stress patterns, etc. Examples: manipulation of stress for prominence, as in ‘How about dinner with us TONIGHT? How about dinner with US tonight? How about DINNER with us tonight?’. For individual sounds, tongue twisters of the ‘she sells sea shells on the sea shore’ kind. Another time-honoured technique is ‘listen and repeat’, which involves learners in imitating chunks of language provided by the teacher or a recording; still widely used in course books which are accompanied by a tape, and particularly popular as a language laboratory exercise.

Ear training for sound contrasts

For instance, reading contrasting sounds or words aloud to a class and asking them to decide what has been uttered. This can take the form of a bingo-like game, as in Bowen

and Marks's (1992: 36f) 'sound discrimination exercise'. An interesting variation of this particularly suitable for monolingual classes is 'bilingual minimal pairs' (Bowen and Marks, 1992: 21), which asks learners to listen out for differences in articulatory settings in lists of L1–L2 word pairs, such as German *Bild* and English *build*.

Sounds for meaning contrasts

Although 'listen and repeat' is very drill-like, there are numerous ways in which such exercises can be modified to make them more meaningful for the learner while retaining a focus on sounds. Most recent textbooks offer such variations. What they have in common is that they endeavour to relate linguistic form to pragmatic meaning and action. This can be achieved through more active involvement on the part of the learner, a clearer specification of purpose and a stronger element of choice. Minimal pairs (pairs of words distinguished by one phoneme only) can be embedded in sentences such as 'This *BED* is not *BAD*'; ideally, minimal pairs can be used for listening for differences and giving appropriate responses, a technique in which Gilbert (2005) is unsurpassed, for example:

'a. He wants to buy my boat. / b. He wants to buy my vote.' is to be matched with 'a. Will you sell it? / b. That's against the law!'

The same principle can be applied for teaching how to employ pitch height for contrast, for example when emphasizing the correct word *composer* versus the incorrect word *author*: 'The *AUTHOR* of the concerto is Mozart. – The *COMPOSER* of the concerto is Mozart'. Similarly, chunking into tone units can be practised with effective information gap activities, such as arithmetic pair practice, where the correct answers depend on correct grouping, and students thus get immediate evidence of the importance of chunking, as in:

' $(2 + 3) \times 5 = 25$ // two plus three // times five // equals twenty-five' // vs.
' $2 + (3 \times 5) = 17$ // two plus // three times five // equals seventeen'
(Gilbert, 2005: 109)

Peer dictation activities also challenge learners as both listeners and speakers.

Cognitive analysis

Many learners, in particular more mature ones, welcome some overt explanation and analysis. These notions include a wide range of methodological options, such as:

- 'Talking about it', for example discussing stereotypic ideas about 'correct' and 'sloppy' speech for introducing assimilation and elision as crucial features of connected speech.
- Phonetic training: explanations of how particular sounds are articulated, with the help of videos and head diagrams, and conscious exploration and analysis by learners about how they themselves articulate L1 and L2 sounds.

- Teaching learners phonemic script: controversial, but appreciated by many students as it better enables them to conceptualize the L2 sound system, to use pronunciation dictionaries, to record pronunciation themselves, and to draw comparisons with their L1.
- Giving rules, especially when they are simple and comprehensive, for example for the pronunciation of the *-ed* past tense marker and the *-s* inflectional ending (Celce-Murcia, Brinton and Goodwin, 1996: Chapter 8).
- Comparison of L1 and L2 sound systems: since learners tend to hear the sounds of a new language through the filter of their L1, it can be very helpful for them not to be taught just the articulation of the new sounds, but the system of phonemes, that is, the relevant oppositions.
- Analysis of sounds in texts: Dalton and Seidlhofer (1994: 55, 58, 91, 159f) demonstrate how dialogues not designed for pronunciation work can be used for awareness-raising of the functions of stress and intonation, for example, pitch height for smooth turn-taking.
- Looking up the pronunciation of new words in a pronunciation dictionary (for example, Wells, 2008): a good investment in learner autonomy.

Whole brain activities, communication activities and games

These are intended to activate the right brain hemisphere and often involve music, poetry, guided fantasies, relaxation techniques such as yoga breathing, and kinaesthetic experiences (Laroy 1995). Whilst many of the techniques already mentioned can contain a game-like element, there are activities which are primarily focused on a particular communicative purpose or outcome, such as mini-plays whose interpretation depends entirely on the learners' use of voice quality and intonation (Dalton and Seidlhofer, 1994: 162) or many of the games in Hancock (1996).

Learning strategies

Learner training with the aim of fostering learner autonomy and enabling students to develop strategies for coping on their own and for continuing to learn is perhaps the most valuable thing that can be developed in learners. Ways of working towards these goals include awareness-raising questionnaires, learner diaries, recording of learners' production, dealing with incomprehensibility and employing correction strategies such as soliciting repetition, paraphrasing and checking feedback (*see* Thornbury, 2005 for many well-founded and practical suggestions).

In conclusion, however ambitious the learning objectives may be, it might be helpful to think about the different aspects of pronunciation along a teachability–learnability scale. Some things, such as the distinction between voiced and voiceless consonants, are fairly easy to describe and to generalize – they are teachable. Other aspects, notably the attitudinal function of intonation, are extremely dependent on individual circumstances and therefore nearly impossible to isolate out for direct teaching. In other words, some aspects might better be left for learning (or not) without teacher intervention (Dalton and Seidlhofer, 1994: 72ff).

Hands-on activity

Doing hands-on work on spoken language is a challenge if you only have the printed text in front of you. However, it is an activity that does happen in the ‘real world’: for instance, in courts of law minutes are taken during trials, and these then constitute the only record of ‘what was said’ – which means that people reading the minutes in an attempt to find out ‘what happened’ in a sense have to reconstruct *how* things were said: for example, a witness can say ‘*Her husband telephoned me on the Friday*’, and depending on which word is made most prominent, this utterance will carry different implications – compare, for instance:

- // her HUSBAND telephoned me on the friday// (not anybody else)
- // her husband TELEPHONED me on the friday// (he did not talk to me face to face)
- // her husband telephoned ME on the friday// (not anybody else)
- // her husband telephoned me on the FRIDAY// (not on another day)

Similarly, when we read, say, a bedtime story to a child, we enact and bring to life all the meanings conveyed by the use of sounds, all from the inert printed words in front of us, by the way we use intonation, pauses, voice quality, stress and segmental sounds.

It is in a similar spirit that readers are invited to bring the record of the interaction below to life. Since this chapter deals with speaking and pronunciation in second or foreign language learning and teaching, it seemed appropriate to focus on an instructional setting and on protagonists who are (intermediate/low advanced) learners of English.

Read the conversation transcript below and answer the questions following it. The conversation took place in the following context: A and B are students at a London college, studying for an examination in advanced spoken English (as a foreign language). They are engaged in a communication task: B, a Japanese female student is describing an alpine scene to her male Swiss-German interlocutor, A. He has the same set of six pictures as her, although in a different order. His task is to identify in his set the picture being described.

- B1: Mm there are a lot of cars around the hotel and the cars, some cars are f-covered with snow, and I can see three red [pronounced /led/] cars in front of the hotel
- A1: Pardon, three?
- B2: Three red /led/ cars in front of hotels. And there are some people who are going to skiing I think. And it’s quite shi-mm it’s very sh-sun the sun is shining very brightly ... and I can see the mark, ‘P’ on the wall of the first floor of the hotel [laughs]
- A2: Ah yeah ... Do you see the sky on the picture?
- B3: Yes, yes.
- A3: Okay, then I know which one it is [identifies the picture to B]
- B4: Yeah, yes xx [unintelligible]
- A4: I didn’t understand the let cars. What do you mean with this?
- B5: Let cars? Three red [pronounced /red/] cars.
- A5: Ah red.
- B6: Red.
- A6: Now I understand. I understood car to hire, to let. Ah red, yeah I see.
(From Jenkins, 2000: 81; supplemented by more co-text provided by J. Jenkins.)

Questions

- How does the text unfold? Does it have an overall generic structure?
- How do the speakers' choices of grammar and vocabulary reflect the various stages of the text?
- What features of 'online' processing of speech are evident?
- What strategies does A use to manage and negotiate the topic?
- Where are follow-up turns made? What do you notice about them?
- On which level (segmental or suprasegmental) does the main pronunciation problem seem to be? How do you explain this problem, and what would you do as a teacher to try and help with it? Would you only work on the pronunciation or also on the perception aspects of this problem? How would an understanding of phonology help you in your teaching task?

Notes

- 1 University of New South Wales, Sydney.
- 2 University of Vienna.

Further reading

Burns, A., Joyce, H. and Gollin, S. (1996) *'I see what you mean' Using Spoken Discourse in the Classroom: A Handbook for Teachers*. Sydney: National Centre for English Language Teaching and Research.

[This book contains an introduction to key theoretical approaches for analysing spoken discourse, offers advice on collecting and transcribing spoken texts, provides sample analyses of a range of transactional and interactional texts, and provides frameworks and guidelines for adopting a discourse-based approach to teaching speaking.]

Carter, R. and McCarthy, M. (1997) *Exploring Spoken English*. Cambridge: Cambridge University Press.

[This is a useful collection of 20 samples of authentic spoken data based on the Cambridge and Nottingham Corpus of Discourse in English (CANCODE). It guides teachers and learners in analysing spoken discourse and provides a good basis for pedagogical language awareness-raising activities.]

Celce-Murcia, M., Brinton, D. and Goodwin, J. (2010) *Teaching Pronunciation. A Reference for Teachers of English to Speakers of Other Languages* (second edition). Cambridge and New York: Cambridge University Press.

[This is a comprehensive reference book on the theory and practice of pronunciation teaching. It focuses on North American English, and an accompanying training cassette is available for practising the transcription of sounds and assessing learners' pronunciation.]

Derwing, T.M. and Munro, M.J. (2015) *Pronunciation Fundamentals: Evidence-based Perspectives for L2 Teaching and Research*. Amsterdam: John Benjamins.

[This book utilizes current empirical work to inform a pedagogical approach to teaching pronunciation. In particular, the text focuses on the importance of error gravity, the need for assessment and individualized instruction, and the role of L2 accents in social contexts.]

Gilbert, J.B. (2008) *Teaching Pronunciation. Using the Prosody Pyramid*. New York: Cambridge University Press.

[This booklet of only 50 pages is an excellent, succinct resource for teachers who wish to develop an understanding of how pronunciation is inextricably bound up with various aspects of English speech, and how to help their learners achieve pronunciation that is listener-friendly.]

Jenkins, J. (2000) *The Phonology of English as an International Language*. Oxford: Oxford University Press.

[English is increasingly recognized as different from other languages, often taught as a language for intercultural communication rather than as a traditional foreign language, which entails a shift in pedagogic priorities. This innovative book is a must for those concerned with mutual intelligibility among 'non-native' speakers in contexts where English is used as an international lingua franca. The author proposes a new pronunciation syllabus, the 'Lingua Franca Core', as an alternative to traditional approaches based on imitation of native speakers.]

Riggenbach, H. (1999) *Discourse Analysis in the Language Classroom. Vol 1. The Spoken Language*. Ann Arbor, MI: The University of Michigan Press.

[Students as discourse analysts is a major focus of this book. The author encourages teachers to develop their students' skills as researchers in acquiring their new language. Numerous useful awareness-raising activities are presented including techniques for training students to be researchers, methods for using discourse analysis tools in the classroom and options for incorporating discourse analysis for different teaching situations and student groups.]

Thornbury, S. and Slade, D. (2006) *Conversation: From Description to Pedagogy*. Cambridge: Cambridge University Press.

[This book introduces readers to a comprehensive description of conversational English, ranging from vocabulary, to grammar, discourse and genre. It goes on to discuss a variety of methodological approaches to teaching conversational skills, offering an integrated approach to the teaching of speaking as well as practical classroom activities.]

Reading

Xiangying Jiang¹, William Grabe² and Patricia L. Carrell³

Introduction

Interest in second language (L2) reading research and practice has increased dramatically in the past two decades. Much of this interest is due to the increasing recognition that reading abilities are critical for academic learning, and that L2 reading represents the primary way that L2 students can learn on their own beyond the classroom. Additionally, there is an increasing recognition that we all live in a multilingual and multi-cultural world, one that is becoming more interconnected through global media and the new global economy. Finally, interest has evolved out of increasing numbers of immigrant and language minority students in mainstream L1 educational systems around the world and efforts to address their needs appropriately. Without a doubt, L2 reading research and instruction will continue to grow in importance in the coming decade.

Reading, as is true of all aspects of language knowledge and use, is complex and the development of fluent reading abilities by L2 students is a challenging undertaking. In this chapter we outline some of the complexities involved with L2 reading, key issues concerning L2 reading processes and learning, and some of the implications of these issues for instructional practice.

What is reading?

Because we read for a variety of purposes, we often vary the cognitive processes and knowledge resources that we use. Therefore, it is not straightforward to identify one purpose for reading as the single way to interpret what we mean by 'reading'. The many purposes for reading, although drawing on the same cognitive processes and knowledge resources, do so in differing combinations and with varying emphases on these processes and resources. For example, when we want information from a manual, we will search for that information by some combination of scanning for key terms and skimming small segments for meaning to see if we are in the right area of the text. When we read a newspaper we read headlines and often skim news stories to see if we want to slow down and read more carefully. When we read a good novel at night, we generally do not skim (unless we get bored), but we usually do not read carefully to remember details either. When we are trying to learn new information, we read more slowly, thinking about how information fits with prior information in the text and with

our own background knowledge. As we read for all of these different purposes, we shift how we employ our cognitive processes and knowledge resources (Grabe, 2009).

It is possible to talk about a number of these purposes with general labels, such as scanning, skimming, reading for general understanding, reading to learn, reading to integrate information and reading to evaluate critically. To understand these purposes better, we need to determine how the underlying cognitive processes and resources systematically relate to the ability to achieve these purposes. Thus, in line with Carver (1992), scanning is a reading process requiring recognition of a visual form (a number, word or phrase) that can be matched to forms in the text. It does not require semantic processing and it can usually be carried out by fluent readers at a rate of 600 words per minute (wpm). Reading for understanding is a process requiring visual and semantic processing and the construction of a summary of main ideas or narrative episodes: it is carried out at about 250–300 wpm.

Reading to learn is a process that requires, in addition to a summary version of what the text means, the creation of an array of elaborated relations among the sets of information being processed. These relations form hierarchies of text interpretation and they need to be integrated with the reader's prior topical knowledge. For fluent readers, such a process seems to be carried out at about 200–230 wpm. (Young L1 readers do not read fluently, and process text less efficiently through earlier school grades. By the middle to end of secondary level education, eighth to ninth grade in the US, grade-level students read fluently at the rates noted above.)

For this chapter, we will assume that L2 readers in academic settings most often need to develop 'reading for understanding' and 'reading to learn' (Grabe and Stoller, 2019; Koda, 2019). Under both reading purposes, it is possible to say that 'comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known'. At the same time, this definition does not specify the many components of required cognitive processing or the knowledge bases being integrated during the reading process.

A definition of reading requires some recognition that a reader engages in three major levels of processing: linguistic processing at the phonological, morphological, lexical, syntactic, semantic and discourse levels. At a second level, a reader also engages in a comprehension building level of processing. This engagement involves text-summary building, inferencing from knowledge resources, monitoring and assessing reading goals, adjusting reading processes to enhance comprehension, and repairing comprehension processes as needed. Moreover, these activated processes and resources (in working memory) are integrated to comprehend texts under intense processing-time constraints. (Yet for most reading activities by fluent readers, we don't feel this pressure.) At a third level, readers also draw upon a fairly wide range of underlying general cognitive resources; these are cognitive processes that apply to reading and language uses but also to more general ways in which we navigate our world and our lives. Some of these cognitive abilities include working memory, long-term memory abilities, motivation, goal-setting, monitoring, statistical learning, associative learning, consolidating knowledge, etc. (Grabe and Stoller, 2020; Ellis, 2015). A fuller range of these resources for reading comprehension is only now being explored much more intensely in reading research. With this more elaborate processing definition of reading, it becomes apparent that the nature and development of L2 reading is complex. It is also apparent that developing fluent L2 readers is a challenging task requiring much time, resources and effort.

Reading in a second language

Aside from the complexity involved in understanding the nature of reading, there are further complexities for L2 readers. L2 readers exhibit the full range of variation in abilities that can be found for L1 readers (variation in training, age, schooling, motivation, socio-economic level, as well as individual cognition). In addition, L2 readers are usually acquiring a complex cognitive ability that is in some ways distinct from L1 reading. L2 reading should not be viewed as merely a slower version of doing the same task in the native language. Despite the similarities between L2 and L1 reading, a number of complex variables make the process of L2 reading different from L1 reading. In this section, we introduce a number of these differences between L2 and L1 reading: linguistic and processing differences, individual and experiential differences, and sociocultural and institutional differences (*see* Grabe and Stoller, 2020 for detailed discussion).

Different L1/L2 starting points for reading

First, and most obviously, L2 readers have much more limited linguistic resources at initial stages of L2 reading. Their knowledge of vocabulary, grammar and discourse structure is initially very limited. Most L1 students first learn to read after they have been learning their L1 orally for 4–5 years and they master speaking before learning to read. They have also learned most of the basic grammatical structures of their L1 as tacit knowledge. Additional learning of more advanced language structures commonly used in written texts will continue regularly for L1 learners through to the age of 12, but most of the basic structures are already well learned. For L1 learners, estimates of the vocabulary knowledge of a six-year-old vary considerably, but a commonly agreed upon range is 5,000 to 7,000 words (Graves, 2016). Unlike the L1 student's initial linguistic base before reading, many L2 students begin to read when they are older, and they learn simple sentences and read short passages almost at the same time that they are learning the oral language. In short, there is little prior L2 language knowledge to draw on as an L2 reader.

L1/L2 reading differences

L1 transfer effects in L2 reading

A unique feature for many L2 learners is that they often do have pre-existing reading skills which they have mastered when they learned to read in their first language. Aside from the possibilities that the L2 may require somewhat distinct cognitive processing, students engaged in L2 reading will also experience a range of transfer effects from their L1 reading experiences, both linguistic and cognitive. L1 linguistic processes and knowledge bases may facilitate L2 language processing while reading in the L2, or they may interfere with L2 reading processes. In addition, L1 cognitive processes (language knowledge, cognitive skills, strategies, goals and expectations) are not likely to transfer automatically to early L2 reading efforts. These pre-existing L1 reading skills may or may not be transferred into L2 reading for a combination of reasons until greater L2 reading fluency is achieved (Dronjic and Bitan, 2016, Hipfner-Boucher and Chen, 2016; Nassaji, 2014; Verhoeven, 2017).

L2 students will also experience L2 reading differently because they have experiences reading in two different languages and because cognitive processing will involve two language systems (e.g., accessing the bilingual lexicon, using a joint strategy system – Kern, 1994; Koda, 2005). Learners will always experience their L2 learning through their L1s until they develop sufficient proficiency in the L2 (especially vocabulary knowledge). They will experience interference from their L1s in phonological, orthographic, lexical and syntactic processing. There will also be facilitation effects when orthography, lexical knowledge and syntactic patterns match up in similar ways. In addition, the linguistic differences across any two languages (e.g., the linguistic differences between Spanish and English vs. Chinese and English) are likely to vary considerably, and these differences may influence L2 reading comprehension variably when students come from different L1s and are in the same L2 classroom. While it is possible to bring many of these points about interference to the attention of learners, large amounts of reading experience, along with teacher support, will allow learners to eventually overcome many of these obstacles.

L2 learners have greater awareness of linguistic knowledge through the L2

L2 readers often develop a higher level of meta-linguistic and meta-cognitive knowledge while L1 readers typically have a more tacit knowledge of their native languages. Meta-linguistic knowledge is our more conscious knowledge about specific aspects of language and how language works. Meta-cognitive knowledge is our more conscious knowledge of what we ‘know’ about the world, about how we learn and about what motivates us. This greater L2 meta-linguistic and meta-cognitive awareness may actually provide some support for a more rapid development of L2 reading. The greater meta-linguistic knowledge is likely due to direct formal instruction in L2 vocabulary, grammar and discourse structures, and possibly to various indirect instructional tasks in L2 classes (Koda, 2008); this more formal linguistic knowledge is a resource for reading. Unlike the tacit knowledge that is typical of L1 learners, many older L2 students are able to discuss and reflect on the linguistic resources that they use to assist them in L2 comprehension.

Our meta-cognitive knowledge allows us to reflect on our planning, goal setting, explicit processing of tasks, monitoring of progress, recognition of problems and repair of problems. This represents a basic way to understand learning strategies and especially our explicit and conscious use of reading strategies. In many L2 academic settings and foreign language settings, L2 students begin to read in their L2 after they have been learning literacy skills and content knowledge for several years in their L1s. In addition, L2 students have worked through many L2 comprehension challenges. These L2 students develop a greater awareness of what strategies can work for them and how language knowledge can support literacy development. L2 students can more easily bring their meta-linguistic knowledge to a conscious level to provide strategic support or understand comprehension failure. But sometimes their inability to find the right L2 language resources and strategies can overwhelm their comprehension efforts, particularly for L2 texts that are too difficult for their level of reading proficiency in the L2; then it is difficult to make use of meta-cognitive and meta-linguistic knowledge that they bring from their L1s.

Motivation and attitudes

When comparing L1 and L2 reading contexts, it's likely that we will find different individual motivations for reading as well as differing senses of self-esteem, interest, involvement with reading and emotional responses to reading. Some of these differences are based on varying academic goals, socialization practices from home and community, prior educational instruction or broad cultural frameworks for literacy uses. We do know that motivation is critical for reading development, so an awareness on teachers' parts of how to motivate students is critical for student success (Guthrie and Taboada-Barber, 2019; Schunk and Zimmerman, 2006). Knowledge of these factors and how motivations for learning can vary in L2 contexts may help us understand student strengths and weaknesses beyond any language assessment measure and may lead to more effective instruction.

Aside from specific motivations for reading and task performance, students bring with them varying underlying attitudes toward L2 reading, which are often linked to perspectives on past educational experiences in both L1 and L2 contexts and socio-political differences between L1 and L2 societies. These experiences shape perceptions of how well L2 readers can perform tasks, and lead to student self-perceptions of how successful they are as students and readers. These perceptions, in turn, influence students' self-esteem, emotional responses to reading, interest in reading and willingness to persist (Rueda, Unrau and Son, 2015; Washington, Terry and Seidenberg, 2014). These are important issues which are often ignored in discussions of reading comprehension instruction in the L2 classroom learning environment, but in L1 reading research they are now seen as important predictors of academic success.

Amount of exposure to print

L1 and L2 readers also differ in the amount of print exposure they experience. For the most part, L2 students simply will have had much less practice in L2 reading. The differences between L1 and L2 reading situations are significant because L1 readers spend years building up the amount of exposure to print needed to develop fluency and automaticity. In many L2 contexts, students read relatively simple texts. Even in settings where L2 students are asked to read more difficult, authentic texts, the texts are often much shorter in length. L2 students are also less likely to be exposed to the full range of text genres that are commonly read by L1 students. This lack of exposure to L2 print impacts reading comprehension on many levels. These learners have more limited vocabulary knowledge, less fluency in reading, fewer opportunities to develop knowledge of discourse structures, and less confidence in working with challenging texts. Over time, it is very difficult to make up for limitations created by limited print exposure.

Social and cultural resource differences

L2 readers differ from L1 readers in cultural knowledge and culturally influenced content knowledge. Any L2 reader who is not as familiar with culturally based knowledge as an L1 reader may encounter difficulties. L2 readers will encounter distinct social and cultural assumptions in L2 texts that they may not be familiar with or find somewhat hard to accept. While the second language reader may have linguistic skills, they often

do not have finely honed sociocultural skills, which often means that a second language reader is not equipped with the knowledge to perceive texts in a culturally authentic, culturally specific way. Information about ‘how the world works’ also sometimes varies between L1 and L2 reading experiences.

Cultural differences and social preferences can also be reflected in the ways discourse and texts are organized. In different languages and cultures, people often develop preferred ways of organizing information in written text as research in contrastive rhetoric or intercultural rhetoric has demonstrated (Connor, 2011; Grabe, 2009). For L2 readers, the main issue is that L2 texts may not always be organized in ways that match their L1 reading experiences. Other factors related to text organization include differences in the way in which texts express interpersonal relation with the reader, expectations about the amount of new information that is embedded in a text, and assumptions about how explicitly reader interpretation should be guided. These issues suggest the benefits of exploring the discourse organization of texts as part of instruction and raising students’ discourse structure awareness.

Summing up L1/L2 reading differences

Most of the differences between L2 and L1 reading center, either directly or indirectly, on proficiency levels of the language, and on the linguistic and cognitive resources that a reader can bring to bear on text comprehension (Geva and Farnia, 2012; Farnia and Geva, 2013; Melby-Lervåg and Lervåg, 2014; Netten, Droop and Verhoeven, 2011). The linguistic and processing limitations (e.g., decoding, word recognition, vocabulary, syntax) create real L1/L2 differences until the L2 linguistic resources and processing capabilities have grown sufficiently strong and fluent. Other differences center on types of reading experiences, motivational factors and overall amounts of exposure to reading in an L2. Most differences can only be overcome by more practice in reading comprehension in the L2 if students are to become reasonably skilled L2 readers.

Similarities between L1 and L2 reading

As an L2 reader becomes fluent and highly skilled in reading comprehension, the reading processes involved become more similar to that in L1 reading (though perhaps never completely the same). The impact of L1/L2 differences will diminish with increasing L2 reading proficiency. Higher-level skills related to comprehension skills, and meta-cognitive processing more generally, are less constrained by limited amounts of linguistic knowledge because they are more cognitive in nature than specific to language knowledge. They are, in principle, essentially the same in both L1 and L2 contexts. Finally, overall patterns of component-skills development across L1s suggest that the underlying component skills are essentially the same (see Geva and Farnia, 2012; Geva and Ramirez, 2015; Verhoeven, 2017).

Reasons for increasing similarities include greater amounts of reading practice and exposure to L2 print, greater resource knowledge in the L2 and the social/cultural world of the L2, greater fluency and automaticity of L2 reading skills, and an increasing willingness to read in the L2 for various purposes. One conclusion to be taken from this discussion of L1/L2 reading differences is that many results of research on

component skills supporting reading comprehension will likely apply across both L1 and L2 learner groups, particularly as L2 readers gain in reading comprehension abilities.

These overall similarities is what allow us to draw upon both L1 and L2 research findings to build arguments for the construct of reading abilities. Moreover, the case for reading comprehension similarities across differing L1s has been explored in many research studies comparing two or more specific languages, and conclusions support major similarities in reading across languages (Perfetti, 2003; Verhoeven and Perfetti, 2017b). There are obvious cases of specific differences in phonology, orthography, vocabulary and grammar; however, the processes used in each language to develop reading comprehension skills look remarkably similar, particularly at more advanced levels of reading (Verhoeven and Perfetti, 2017a). Even across languages like Chinese and English, or Hebrew and Spanish, for example, the script differences, as well as morphological and syntactic differences, do not override similar linguistic, cognitive and neurolinguistic processes engaged in reading comprehension, and component abilities that contribute to reading comprehension are remarkably similar. Without losing track of the main purposes of this review, we would direct interested readers to Frost (2012), Perfetti, (2003), Seidenberg (2017) and Verhoeven and Perfetti (2017a).

Much as with the case of different L1s, many empirical research studies comparing L1 and L2 processes in reading have indicated great similarity in the overall patterns of component-skills development (see Farnia and Geva, 2013, Geva and Farnia, 2012; Verhoeven and van Leeuwe, 2012; Jeon and Yamashita, 2014; Kieffer, 2011; Melby-Lervåg and Lervåg, 2014; Nassaji, 2014). This consistent finding does not mean that vocabulary knowledge is the same across L1 and L2 situations, but that the role of vocabulary in reading comprehension processes is very much the same; the way we build comprehension from linguistic components looks the same across languages (across L1s) and in comparisons between L1 and L2 readers. As lower-level processes become more fluent and automatized, the higher-level skills critical for academic reading purposes impose greater similarity on reading processes.

When one looks at specific linguistic component skills that are the best predictors of reading comprehension, it is not surprising that similarities across L1 and L2 research dominate: word identification, vocabulary, morphology, syntax and listening comprehension all generate high correlations with reading comprehension whether in L1 or L2 contexts. Passage fluency, morphology and grammar seem to be stronger discriminating variables for L2 reading skills than for L1s, but all are important variables for L1 readers at lower proficiency levels. In addition, similar strategy uses such as inferencing, monitoring, summarizing and attending to discourse structure seem to distinguish stronger from weaker readers in both L1 and L2 contexts.

With respect to underlying cognitive processes that contribute to reading comprehension skills, they are involved in L1 and L2 reading in similar ways because they are more general learning abilities (goal setting, inferencing, comprehension monitoring, working memory, speed of processing, motivations for reading, etc.). These cognitive skills and processes are not specific to only L1 or L2 contexts, and they are not specific to language learning as opposed to other types of learning during child development.

Processes in L2 reading comprehension

As we have mentioned above, reading comprehension abilities are quite complex and they vary in numerous ways depending on tasks, motivations, goals and language abilities. However, a set of common reading comprehension processes are activated as we read. In this section, we outline the way that reading comprehension processes are likely to work for skilled readers, assuming a purpose of general comprehension of a longer text. (See Grabe, 2009; Stafura and Perfetti, 2017; Seidenberg, 2017; Willingham, 2017 for detailed descriptions of skilled reading processes.) For the sake of simplicity, we have divided this explanation of skilled reading into lower-level processes and higher-level processes, which are common metaphorical designations. Lower-level processes represent the more automatic linguistic processes and are typically viewed as more skills-orientated. Higher-level processes generally represent comprehension processes that make much more use of the reader's background knowledge and inferencing abilities. We also describe the underlying general cognitive skills that play a role in any discussion of reading comprehension.

Lower-level processing skills

The most fundamental requirement for fluent reading comprehension is rapid and automatic word recognition (Schwanenflugel and Knapp, 2016). For fluent L1 readers, this means recognizing almost all of the words they encounter (99–100 per cent of all words in a text), at least at some basic meaning level. They also recognize four to five words per second, about 240 milliseconds per word on average (Pressley, 2006).

As amazing as it may seem, fluent readers can actually focus on a word and recognize it in less than a tenth of a second (less than 100 milliseconds). Thus, four to five words per second even allows good readers time for other processing operations. For fluent readers, lexical access is automatic. In addition to being very fast, it cannot be readily reflected on consciously, and it cannot be suppressed; that is, when the eye sees a word, the reader cannot stop him- or herself from accessing its meaning. These criteria for fluent word reading also represent a good definition of automaticity in language processing more generally. Both rapid processing and automaticity in word recognition (for a large number of words) typically require thousands of hours of practice in reading. (Note that 'lower-level' does not mean easier; instead, it designates those processes that operate automatically for skilled readers.)

In addition to efficient word recognition, a second lower-level process involves syntactic parsing. A fluent reader is able to take in and store words together so that basic grammatical information can be extracted (a process known as *syntactic parsing*) to support phrase-level and clause-level meaning. The ability to recognize phrasal groupings, word ordering information, and subordinate and superordinate relations among clauses quickly is what allows fluent readers to clarify how words are supposed to be understood. Syntactic parsing helps to disambiguate the meanings of words that can have multiple meanings out of context. Moreover, it helps a reader determine what pronouns and definite articles are referring to in prior text (Grabe, 2009).

A third basic process that starts up automatically almost at the same time as syntactic parsing as we begin any reading task is the process of combining word meanings and structural information into basic clause-level meaning units (*semantic proposition*

formation). Words that are recognized and kept active for one to two seconds, along with grammatical cueing, give the fluent reader time to integrate information in a way that makes sense in relation to what has been read before, with most of this process happening very quickly, and involving immediate associations to some part of the emerging main idea network. As meaning elements are generated and then connected into phrase and clause level propositional units, they are integrated into the developing text comprehension through associations in a number of possible ways. This process is known as the ‘word-to-text integration’ process (Perfetti, Stafura and Adlof, 2013). The meaning elements and propositions that connect closely with main concepts in the growing text model become well integrated, become more active in memory, and become central ideas if they are repeated or reactivated multiple times.

The process of ongoing semantic proposition formation and integration, as described here, is not easily controllable in any conscious way (much like fluent word recognition and syntactic parsing). Only when some aspect of comprehension does not work well, or the meaning does not seem to fit, might a reader pause to consider consciously how to extract the most appropriate meaning from the text being read. In such circumstances, we have time to become aware of the problem and address it more consciously.

The three processes discussed up to this point – word recognition (and lexical access), syntactic parsing and semantic proposition formation – are typically seen as lower-level processes that occur relatively automatically for the fluent reader. When they are functioning well, they work together effortlessly in working memory to help generate key parts of text meaning. They are essential processes and language resources for word-to-text integration, which is the onset of text comprehension. However, when they are not functioning fluently in combination, the reading comprehension process slows down considerably and comprehension becomes more difficult to maintain.

Higher-level processing skills

Added to these lower-level processes is a set of higher-level comprehension processes that more closely represent what we typically think of as reading comprehension. As fluent readers, we form a summary model of what the text is likely to mean. We also construct a more elaborated interpretation of how we want to understand text meaning. Beyond understanding and interpreting the ideas represented by the text, higher-level processing helps us establish purposes for reading, combine reading strategies as needed, make inferences of several types, draw extensively on background knowledge, monitor comprehension, form attitudes about the text and author, adjust goals as appropriate, and critically evaluate the information being read. Greater use of these higher-level processes while reading defines the reading to learn process, above and beyond the more general comprehension process.

The most fundamental higher-level comprehension process is the coordination of ideas from a text that represent the main points and supporting ideas as a meaning representation of the text (a *text model of reading comprehension*; see Kintsch, 1998, 2012). Following on the above concept of word-to-text integration, new clauses may be hooked into the network in a number of ways: (a) through the repetition of an idea, event, object or character; (b) by reference to the same thing, but in different words; and (c) through simple associational linkages or bridging inferences that create a way to connect a new meaning unit to the appropriate places in the network (e.g., drawing

on semantic relationships such as part–whole, subordinate–superordinate, complementary pairs and member–member). These linkages and associations draw on the reader’s background knowledge, but not in any strongly conscious way. Essentially, we are not aware that we are connecting many associations and tapping into background knowledge.

As the reader continues processing text information, and new meaning units are added, those ideas that are used repeatedly and that form usable linkages to other information begin to be viewed as the main ideas of the text. More technically, they become, and remain, more active in the network. Ideas that do not play any further roles in connecting new information (i.e., ideas that are no longer named or referred to indirectly), or that do not support connecting inferences, lose their activity quickly and fade from the network. In this way, less important ideas tend to get pruned from the network, and only the more useful and important ideas remain active. This notion of pruning also highlights the general cognitive ability of inhibitory suppression (the ability to remove unnecessary mental information efficiently), which is important for fluent reading.

While the reader continues to build an understanding of the text, the set of main ideas that the reader forms becomes the text model of comprehension. The inferencing required of a reader to support this text model is typically not extensive unless the text information is so new that the reader has comprehension difficulties, or unless the reader’s language-proficiency level is impeding comprehension. Background knowledge (whether understood as linked networks of reconstructed knowledge, instances of memory, schema theory or mental models) plays a supporting role and helps the reader anticipate the discourse organization of the text as well as disambiguate word-level and clausal meanings as new information is incorporated into the text model. (See Grabe and Stoller, 2020, for a more detailed description of text model construction and references.)

At the same time that the text model of comprehension is being built by the reader, the reader begins to project a likely direction that the reading will take. This projection is influenced by prior knowledge about the topic, inferences, reader goals, reader motivation, task, text difficulty, and reader attitudes toward the text, task and author. So almost immediately, the reader begins to interpret the information from the text in terms of his or her own goals, feelings and background expectations. This reader interpretation (the *situation model of reader interpretation*) is built on and around the emerging text model. The reader is likely to interpret the text (and begin to create a situation model) differently if he/she knows that the text is the beginning of a good mystery novel, a biography of a well-known photographer or a social statement on waste in society. The reader decides if she or he is interested in the information, or knows and likes the author, or not.

For the fluent reader who has no great difficulties in understanding the text, the developing situation model of reader interpretation is the likely goal for reading comprehension. The situation model *integrates* text information with a well-developed network of ideas from the reader’s background knowledge, and it *interprets* new information in the light of reader background knowledge, attitudes, motivations, goals and task purposes (Kintsch, 1998). The ability of fluent readers to integrate text and background information appropriately and efficiently is the hallmark of expert reading in a topical domain (e.g., history, biology, psychology). The situation model of our

understanding of the text is what enters long-term memory and, over time for consolidation (another of those general cognitive skills), is what we remember and learn from a text.

In summary, the higher-level cognitive processes outlined here, in combination with the lower-level processes discussed earlier, form the cognitive processing resources that let us carry out reading for various purposes, true in both L1 and L2 reading contexts (also *see* Grabe, 2009). Usually, a specific reading purpose will lead to greater or lesser emphases on different reading processes. Reading for general comprehension will use a balanced combination of text model comprehension and situation model interpretation. Reading to learn will first emphasize the building of an accurate text model of comprehension, and simultaneously, a strong interpretive situation model that integrates well with existing or revised background knowledge. In both reading to learn and reading to integrate information, it is the well-formed situation model that is 'learned' and retained in long-term memory.

General cognitive processing and working memory

Over the past ten years especially, research across a range of cognitive psychology, neurosciences and reading research has peeled back layers of general cognitive skills that are not specific to reading, but are essential to reading development, and are profoundly changing how researchers understand many complex cognitive skills, including reading. We start this discussion with an obviously important cognitive skill: working memory processes for reading.

Working memory is best understood informally as the activated network of information and related processes that are being used at a given moment (*working memory activation*) (*see* Baddeley, 2015; Cowan, 2015; Eysenck and Keane, 2015). In the context of reading, we see both lower-level and higher-level component processes as aspects of working memory processing. The words that are accessed, the information that is cued grammatically, the emerging meanings of words, the formation of a text model of comprehension, and inferencing and executive control processes are all active in working memory. In the case of lower-level processes, the activation is brief, one or two seconds unless rehearsed or connected to new incoming information. In the case of higher-level processing, there is continual re-activation of main ideas as long as reading is continuing or the reader is reflecting on the text information (perhaps in an episodic buffer or in 'working long-term memory'). If new information is to be integrated so that an accurate update of meaning is formed, the information must be combined rapidly. Working memory keeps new information active for a few seconds while it carries out the appropriate processes. For this reason, speed of processing is essential for reading; it is not simply a nice additional aspect of comprehension abilities. If processing of active information is not done quickly enough, the information fades from memory and must be reactivated, taking more resources and making the reading process inefficient.

Working memory abilities, however described, certainly impact reading development and reading comprehension skills. However, having relatively weak working memory abilities does not consign developing readers to a lower skill level. Working memory processes are just one part of the skills, processes and knowledge sources developed by learners in their pathways to becoming skilled readers. The combination of all of the

general cognitive abilities and all of the linguistic skills and resources, as well as the range of background knowledge brought to reading, in combination, indicate that no one general cognitive ability (operating within some normal cognitive range) determines a learner's level of reading ability. While working memory is important for reading comprehension, there are many factors that contribute to someone becoming a fluent reader, and many combinations of skills and knowledge resources can compensate when certain abilities and skills are somewhat limited with respect to individual learners.

One of the reasons to emphasize the roles of general cognitive abilities is to highlight the complexity of learning (including learning to read). In addition, there are multiple compensatory variations in a learner's overall cognitive processing system. Learning is most certainly a combination of basic cognitive abilities and learned abilities through input, interaction, and effective practice. As Perfetti and Adlof (2012: 3) note: 'Reading comprehension is widely agreed to be not one, but many things. [At a minimum, it entails] cognitive processes that operate on many different kinds of knowledge to achieve many different kinds of reading tasks'.

It is important to emphasize, at this point, that these processes do not operate efficiently or effortlessly when readers encounter texts (and accompanying tasks) that are too difficult for them. Difficulties may arise when readers do not have adequate background information, do not have the necessary linguistic resources, or have not read enough in the language to have developed efficiencies in reading. Readers, especially L2 readers, who encounter such difficulties can try to understand the text by using a slow mechanical translation process; alternatively, they can make an effort to form a situation model from past experiences and try to force the text to fit preconceived notions. In the first case, cognitive processing efficiencies cannot operate well; in the latter case, a situation model unconnected to text information is imposed on reading comprehension, activating inappropriate background information and leading to poor comprehension. In either case, successful reading comprehension is not likely to occur.

In L2 reading contexts, where such problems commonly arise, readers resort to coping strategies by translating or by guessing to form a coherent account of the text, whether that account matches the text or not. If this experience is repeated on a continual basis, it is not hard to see why these learners would lose motivation to become fluent readers. Yet, this problem also suggests a likely long-range solution. Students need to engage in reading for many hours at text- and task-levels appropriate to their abilities. It is only through extended exposure to meaningful print that texts can be processed efficiently and that students will develop as fluent readers.

Key issues in L2 reading

In this section we address a number of on-going issues and topics that are prominent in L2 reading research. There are many topics that could be addressed, but we focus on five that are common topics in research and that impact how reading is taught.

Word recognition

Word recognition is one of the most important processes contributing to L2 reading comprehension. Jeon and Yamashita's (2014) meta-analysis indicated that, based on 20

independent correlations from 18 studies, the overall mean correlation between L2 word recognition and reading comprehension was strong ($r = 0.56$) and statistically significant. Furthermore, this relationship was not biased by learners' age or L1–L2 script distance.

Fluent word recognition involves an interaction of activated orthographic, phonological and semantic and syntactic processes. Research on reading has shown that beginning readers need to establish strong linkages between orthographic forms and the sounds of the language (Ehri, 2014; Perfetti, Landi and Oakhill, 2005; Tunmer and Chapman, 2006). Extensive research in L1 contexts across languages has demonstrated that training in phonological awareness and grapheme–sound correspondences predicts later reading development among children and beginning readers (Ehri, 2014; Wagner, Piaster and Torgesen, 2006). The automatization of grapheme–sound relations is the foundation of all reading.

Students at beginning and low intermediate levels need to be able to use grapheme–sound correspondences easily and recognize frequent words rapidly and accurately. Most L2 students will have reasonable control over these basic skills, but checking how quickly and accurately students can read a word list provides a useful early diagnostic tool, particularly if a teacher is concerned about a student's reading progress (*see* Wang and Koda, 2005 for an example list). Students who have difficulty with grapheme–sound correspondences should be given training in more consistent associations between graphemes and sounds. Beyond the ability to read a basic word list reasonably well, many students should get the needed practice in word recognition skills through vocabulary development, fluency practice and extensive reading.

Vocabulary knowledge

Research on English L1 vocabulary knowledge has demonstrated that fluent readers have very large recognition-vocabulary knowledge resources and that vocabulary knowledge is highly correlated with reading ability (*see* Grabe and Stoller, 2020; Graves, 2016; Snow et al., 2007). In short, it is the most fundamental component skills for reading comprehension. In fact, research over the past 15 years has argued persuasively that the stronger the quality of information for a word in a reader's mental lexicon, the more proficient a reader will be. This is now widely known as the 'Lexical Quality Hypothesis' (Andrews, 2015; Perfetti, 2007, Perfetti and Stafura, 2014). This hypothesis, however, does not say that only depth of word knowledge is important; it also says that the more words of high lexical quality a reader has, the more proficient that reader will be.

The Lexical Quality Hypothesis does not choose either breadth or depth of word knowledge. It argues that both are important, and both need to grow together, incrementally over time. For Perfetti (and other researchers), the only way to build a large number of high quality lexical entries is through extensive amounts of reading experience. In current reading research, this is the only way to develop the advanced synthesis and critical thinking skills that are so important for advanced academic performance (Seidenberg, 2017; Verhoeven, 2017, Willingham, 2017). Extensive reading is not the only goal for advanced reading development; instruction also counts. However, one cannot become a skilled reader without reading a lot.

This recent logical extension of the Lexical Quality Hypothesis leads us back to a more basic concern. How many words are we talking about? How many words does an

L2 reader need in order to carry out academic reading without significant instructional support? While estimates of word knowledge vary greatly (from 19,000 to 200,000; Anglin, 1993), the most widely accepted figure is that high school graduates know on average 40,000 words as fluent L1 readers (Graves, 2016; Stahl and Nagy, 2006). The translation to word family knowledge is likely to be about 8,000 to 9,000 word families for reasonably fluent L2 reading. (From our perspective, these figures are all approximations, and this is not the place to get lost in the weeds, but for those weed walkers, see Gardner, 2013; Nation, 2013, Schmitt and 2010). This is a very large number of words to learn and most accounts suggest that many of these words are learned by encountering new words through incidental exposure and continual reading practice. In L1 research, extended exposure to print (reading extensively) over years leads to major differences in both vocabulary knowledge and comprehension abilities (Mol and Bus, 2011; Oakhill and Cain, 2017; Sparks, Patton and Murdoch, 2014; Stanovich, 2000).

Research on L2 vocabulary knowledge has also shown that vocabulary is strongly correlated with L2 reading comprehension. Laufer (1992) reported correlations of .50 to .75 between vocabulary knowledge and reading performance. Qian (2002) reported correlations from .73 to .82. Jeon and Yamashita's (2014) meta-analysis examined 31 independent correlations from 29 studies and found an overall mean correlation of 0.79 between L2 vocabulary and reading comprehension. This strong and significant correlation indicates the importance of vocabulary knowledge in reading comprehension. If students are to become good readers with a wide range of texts, they need to develop a large L2 recognition vocabulary. Extensive reading and large amount of print exposure have been found to be a powerful support for reading and vocabulary development (Elgort et al., 2018; Malone, 2018; Mohamed, 2018; Suk, 2017). At the same time, reading experience by itself is not sufficient for L2 vocabulary development, and some explicit study will almost certainly be necessary.

Morphology, syntax, and discourse structure knowledge

Research on L1 morphological, syntactic and discourse knowledge shows that they all have strong, direct impacts on reading comprehension. A number of studies have shown that morphological knowledge contributes directly to reading comprehension, especially at more advanced levels of reading proficiency. Morphological awareness has been found to be an important component skill for reading, both for its direct contribution to reading comprehension and indirect contribution supporting other critical component skills. In the past ten years, a number of major L1 studies have further explored the role of morphological knowledge in reading development (e.g., Deacon, Kieffer and Laroche, 2014; Goodwin et al., 2017). For example, Goodwin et al. (2017) demonstrates that morphological knowledge is an important contributor to both vocabulary growth and reading comprehension with older students in seventh and eighth grades.

The importance of morphological awareness in L2 reading has been supported by several research studies (e.g., Jeon, 2011; Kieffer and Lesaux, 2012). Kieffer and Lesaux (2012) examined the contribution of derivational morphology to reading comprehension for three groups of language minority sixth graders who have all had English medium instruction from the beginning of their schooling. The findings of the study indicate a significant direct relationship between morphological awareness and

reading comprehension and a strong significant mediated relationship through vocabulary to reading comprehension.

There is also evidence that grammatical knowledge plays an important role in both L1 and L2 reading comprehension. Research studies with Dutch students have shown that syntax is a powerful predictor of reading comprehension abilities (Schoonen, Hulstijn and Bossers, 1998). Grammatical knowledge has been investigated in various studies as syntactic awareness, syntactic knowledge, syntactic processing, sentence processing and syntactic parsing, with each referring to varying but similar concepts under the umbrella term of grammatical knowledge. Two recent studies show that syntactic awareness is a strong predictor of reading abilities (Brimo, Apel and Fountain, 2017; Deacon and Kieffer, 2018). Deacon and Kieffer (2018) conducted a study of 100 children across one year from third grade to fourth grade. The researchers found that ‘at each of grades 3 and 4, syntactic awareness had a direct, practically important relation to reading comprehension’ (p. 9) and ‘that syntactic awareness predicts subsequent gains in reading comprehension at grade 4, after controlling for other verbal and non-verbal abilities’ (p. 9). In L2 reading, grammatical knowledge is one of the most powerful contributors to reading comprehension (Geva and Farnia, 2012; Jeon and Yamashita, 2014). In Jeon and Yamashita’s (2014) meta-analysis, based on 18 correlations from 16 studies, the overall mean correlation between L2 grammatical knowledge and L2 reading comprehension was strong ($r = 0.85$) and statistically significant.

The role of discourse structure knowledge on L1 reading comprehension is being seen as increasingly important. Discourse structures are patterns of organization that are used to convey information in a coherent manner. They are relatively few in number and recur regularly across texts in various combinations. These structures include cause–effect, chronology, classification, comparison–contrast, definition, description, for–against, problem–solution and procedure (sequence). The finite number of recurring patterns (especially in expository texts) make it possible to raise students’ awareness of these patterns. The major benefits for students are that these discourse structures can be explicitly taught and they support reading comprehension (for training studies in L1 reading, see Meyer and Wijekumar, 2017; Wijekumar, Meyer and Lei, 2017, for research with fifth and seventh graders; Williams et al., 2014, 2016, for research with second graders). Two recent meta-analyses have confirmed more broadly the importance of text structure knowledge and its instruction for reading comprehension development (Hebert et al., 2016; Pyle et al., 2017).

In L2 reading, the role of discourse knowledge has been studied much less (Jiang and Grabe, 2007). In L2 context, Jiang (2012) used ‘discourse structure graphic organizers’ (DSGOs) in a longitudinal training study with college EFL students. The use of DSGOs help students see these relationships, make connections between the text structure and linguistic cues, develop an awareness of recurring patterns when explicitly guided to identify them across multiple texts, and use these patterns of organization in their own summaries and other writing tasks. Jiang’s results showed that the experimental students performed significantly better on both the near-transfer measure of DSGO completion and the far-transfer measure of general reading comprehension in the immediate post-test. The delayed post-test seven weeks later still showed significant benefits for the experimental group on the DSGO completion measure but not on the measure of general reading comprehension. A final key finding of the study is that DSGOs can be incorporated into the standard EFL reading curriculum without

harming students meeting the course objectives based on program-developed achievement measures.

4.4. The Language Threshold

The Language Threshold is a hypothesis about L1 reading and L2 reading relationships that has been a major research topic for the past 40 years. It focuses on the extent to which L2 language proficiency is needed as a support for L2 reading before L1 strategies and higher-level skills can be used effectively in an L2 context. Alderson (1984) first addressed this issue as a question – a reading problem or a language problem? He has continued exploring this issue still almost 35 years later (Alderson, Nieminen and Huhta, 2016; Alderson et al., 2015).

The language threshold was first discussed in reading research contexts in which top-down models of reading were still popular, including the belief that if someone is a reading in their L1, they have easily transferable skills to be used in L2 reading (the linguistic interdependence hypothesis). In contrast, the Language Threshold Hypothesis stated that L1 reading skills are not going to be useful for L2 reading comprehension until L2 language skills were sufficiently developed to some threshold. That threshold will be variable depending on the topic being read, the difficulty of the text itself, the vocabulary, syntax and discourse organization challenges of the text, and the motivation of the reader, among other possible factors.

Over the course of 25 years from 1984 to about 2010, the evidence consistently supported some version of the Language Threshold Hypothesis (and top-down models of reading are no longer discussed among researchers). In the past ten years, the evidence is overwhelmingly in support of the language threshold (see Alderson et al., 2015; Jeon and Yamashita, 2014; Yamashita and Shiotsu, 2017 as exemplary of a much broader range of research findings.) Having said this, there is still evidence that L1 reading ability plays some role in L2 reading proficiency. To generalize from many studies, L1 reading might account for 10–15 per cent of the variance in L2 reading, whereas L2 language component skills may account for some range between 50–70 per cent of the variance in L2 reading. However, in both L1 and L2 studies of skills impacting L2 reading, there have been few efforts to take into account underlying general cognitive abilities as part of what factors predict L2 reading abilities. General cognitive skills can influence L2 component linguistic skills to some extent, but they are not going to displace those key L2 skills that support reading. On the other hand, it is possible that most of the effect of L1 reading on L2 reading could disappear, as it already does when students are not fairly advanced in their L2 reading abilities. The bottom line is that L2 linguistic component skills are critical for L2 reading development, and more research is still needed to find out what impact L1 reading really has on L2 reading.

4.5. Extended exposure to print lexensive reading

As seen in the discussion of vocabulary learning above, a current trend in reading comprehension research is the emphasis on reading experience and reading exposure to text. The amount of reading carried out by a student has a strong impact on many underlying cognitive skills and linguistic component skills that support reading comprehension (Reichle and Perfetti, 2003; Seidenberg, 2017; Verhoeven and Perfetti, 2017a).

L1 research on extended exposure to print has demonstrated a strong relationship between amount of reading (over long periods of time) and improved reading comprehension. Stanovich and colleagues, in a series of studies, showed that exposure to print (amount of reading) was an important independent predictor of reading ability (see Stanovich, 2000 for overview). Mol and Bus (2011) carried out a meta-analysis to examine the impact of amount of reading exposure on multiple outcome measures from infancy to early adulthood. Print exposure has consistently correlated with children's oral language skills, vocabulary knowledge, reading comprehension, word recognition and spelling from preschool to grade 12. Even for university students, the relation between print exposure and the above key reading related abilities remained strong, suggesting the importance of continued extensive reading for leisure purposes throughout the school grades all the way to graduate school. As Oakhill and Cain (2017: 369) state: 'substantial reading comprehension practice and exposure to print [are] crucial in the development of reading comprehension skills and acquisition of vocabulary'.

In L2 reading, Hedgcock and Ferris (2018), Suk (2017) and Yamashita (2015) provide extended overviews of a number of more recent studies that have investigated the impact of extensive reading on second language reading (directly and indirectly). What seems clear from the reviewed research is that second or foreign language readers at various ages and proficiency levels can benefit from extensive reading. Elley (2000) described multiple large-scale training studies of book-flood and extensive reading programs. In these studies, he has shown that getting students to read extensively over a long period of time consistently improved reading comprehension abilities as well as a number of other language skills. In a recent well-controlled and well-designed study, Suk (2017) also provides strong evidence that extensive reading can be a powerful support for reading and vocabulary development. The theoretical explanation for the effectiveness of extensive reading by Suk (2017) is that reading extensively provides large amounts of comprehensible input and promotes implicit language learning as a support for reading goals.

Extensive reading, to be reasonably successful, generally requires a significant curriculum planning effort. Students need to be aware of the goals for working on extensive reading. They also need to be sold on the benefits of extensive reading, encouraged to read extensively at every reasonable opportunity, given many good opportunities to read extensively, and be provided with many excellent extensive reading resources (e.g., graded readers and level-appropriate reading material). Unlike many earlier descriptions of extensive reading, it is more likely to be successful with an effective assessment component; a large number of graded readers to choose from; course credit for amount of reading accomplished; and an active teacher during class time who supports students' reading, guides students' selection of appropriate materials, assists students when they encounter difficulties while they read and encourages students to read consistently (Suk, 2017). Extensive reading, like most aspects of reading instruction requires a consistent program over an extended period of time if it is to have a major impact on fluency, vocabulary and reading comprehension development. There is no way to get around the fact that students only become good readers by reading a lot.

4.6. Reading strategies

Many researchers have sought to provide a sound definition for the construct of reading strategies (Afflerbach, Pearson and Paris, 2008; Anderson, 2009). Among the

multiple definitions available in the literature on reading comprehension, three core elements can be extracted to characterize reading strategies, which are ‘deliberate, goal/problem-oriented, and reader-initiated/controlled’ (Koda, 2005: 205). An example definition of reading strategies can be found in Afflerbach, Pearson and Paris (2008: 15), in which reading strategies are defined as ‘deliberate, goal-directed attempts to control and modify the reader’s efforts to decode text, understand word, and construct meanings out of text’. Similarly, Trabasso and Bouchard (2002: 177) defined reading strategies as ‘specific, learned procedures that foster active, competent, self-regulated, and intentional reading’.

Various reading strategies have been identified from successful reading processes employed by proficient readers (*see* Grabe and Stoller, 2020; Pressley and Afflerbach, 1995). This line of research indicates that good readers tend to plan, monitor and evaluate their reading behaviour effectively and possess a number of flexible, adaptable strategies that they use before, during, and after reading to maximize their comprehension. Good sample lists of effective reading strategies can be found in Grabe and Stoller (2020) and Hedgcock and Ferris (2018). Common strategies that can be usefully incorporated into reading instruction include previewing, predicting, checking predictions, posing questions, finding answers to posed questions, connecting text to background knowledge, summarizing, making inferences, paying attention to text structure, rereading, guessing word meaning from context, repairing comprehension failures, and talking with partners about how to understand texts when there are comprehension difficulties.

Because students are unlikely to acquire comprehension strategies naturally (Pressley, 2006), instructional intervention to develop such strategies are necessary. The purpose of strategy training is to help students develop their ability to solve comprehension problems while reading, improve their overall text comprehension, and eventually, help them become strategic readers. However, ‘strategic reading is not only a matter of knowing what strategy to use, but the reader must also know how to use it successfully and orchestrate its use with other strategies’ (Anderson, 1991: 468–469).

The development of reading strategies remains an important focus of recent reading research (e.g., Goldman, Snow and Vaughn, 2016; Grabe and Stoller, 2020; Vaughn and Hall, 2017). In the L1 reading context, Elleman (2017) carried out a meta-analysis to examine the impact of inference instruction on the literal and inferential comprehension of skilled and less skilled students ranging from grades two to nine. Types of inference instruction include inference question practice and question generation, text clue integration strategy, background knowledge strategy, text structure and organization, inference types, self-explanation or elaboration, and perspective taking (Elleman, 2017: 766). The results of the meta-analysis showed a positive effect of inference instruction for general comprehension ($d = 0.58$), for inferential comprehension ($d = 0.68$), and a small but significant effect for literal comprehension ($d = 0.28$). Lower grades benefitted more from the instruction than higher grade levels and less-skilled students benefitted more from the instruction than more skilled students. In L2 contexts, Taylor, Stevens and Asher (2006) provided an important meta-analysis of prior L2 reading strategy training studies. They demonstrated that strategy training efforts had a significant effect on reading comprehension improvement ($d = .54$), a result very consistent with Elleman (2017).

5. Implications for instruction

L2 reading research findings, when combined with appropriate L1 reading research, highlight important implications for instructional practices. While it is true that each instructional context has local factors that make it unique, and therefore not fully amenable to a generalized set of recommendations, it is also true that the research to date suggests several general implications and guidelines that can serve as a starting point for planning L2 reading curricula. Based on the research reported in this chapter, we would like to propose the following ten implications for L2 reading instruction, at least as a starting point for curriculum planning:

- The need to develop reading fluency and word-recognition automaticity.
- The need to develop a large recognition vocabulary (as many words learned as possible, and learned as thoroughly as possible).
- The importance of discourse structure and the instructional benefits of using graphic representations of discourse structure.
- The need for language awareness and attention to language (structure) and genre form (meta-linguistic knowledge).
- The importance of meta-cognitive awareness and the need for students to become strategic readers.
- The importance of specific reading strategies to support word learning and reading to learn goals.
- The importance of motivation.
- The benefits of integrated skills instruction and content-based instruction.
- The need for a supportive (classroom and institutional) environment for reading.
- The need to read as much as possible and as often as possible.

Suggesting implications for reading instruction represents part of the bridge from research to an effective reading curriculum. A second part is a needs analysis for each instructional context. Issues that a needs analysis might address include the following: What are the institution's reading goals and why? Are the goals achievable given students' L2 proficiency levels? Are there sufficient resources and sufficient time to achieve instructional goals? Are teachers trained to carry out the goals of the curriculum? These and other questions need to be considered to establish viable goals for instruction and determine the extent to which L2 reading abilities can be developed.

A third part, once a curriculum plan and customized goals are established, is to determine priorities for specific instructional practices to achieve these goals. It is beyond the scope of this chapter to comment on the numerous specific practices themselves, though there are many sources that provide useful suggestions for instruction (Anderson, 2009; Grabe and Stoller, 2020; Hedgcock and Ferris, 2018; Nation, 2009; Taboada Barber, 2016). There are also many excellent and appropriate ideas for instruction that can be drawn from L1 resources (Almasi and Fullerton, 2012; Beck and Sandora, 2016; Lesaux, Galloway and Marietta, 2016; Miller, McCardle and Long, 2014; Morrow and Gambrell, 2019; Parris and Headley, 2015; Rasinski, 2010).

Hands-on activity

Text: Select a substantial text (two to three pages) excerpt from a textbook or other reading resource in the social sciences (for example, psychology, economics, sociology).

Students: Imagine a group of high-intermediate or low-advanced students of English from either heterogeneous or homogeneous L1 backgrounds (you decide which), whose language requirements include reading skills in the social sciences (for example, in an EAP program).

Activity: The activity focuses on reading strategies to comprehend the text and to use the information for other tasks. These strategies may include setting a purpose for reading, previewing the text, predicting key information, skimming the text to determine main ideas, note-taking, summarizing, clarifying difficult concepts, identifying supporting ideas and evidence.

Task for the reader

- How might you model the application of the reading strategies listed above (and others) to the selected text?
- How can you help students make their use of each strategy ‘meta-cognitive’ to include student awareness of what the strategy is, how to use the strategy, why the strategy should be used, when and where to use the strategy, and how to help students evaluate their use of the strategy?

Notes

- 1 West Virginia University.
- 2 Northern Arizona University.
- 3 Georgia State University

Further reading.

We have provided many references in each section of this chapter. They are strong candidates for further reading. We have also provided several possible resources for further reading that address curricular and instruction ideas. One further area that we want readers of this chapter to consider is a number of important reading research overview volumes. A few are designed specifically for wider audiences, and a few are designed to provide summaries of research for academic colleagues in related fields:

For wider audiences, including teachers engaged in teaching reading, see: Geva and Ramirez, 2015; Schwanenflugel and Knapp, 2016; Grabe and Stoller, 2018; Seidenberg, 2017; Willingham, 2017.

For academic colleagues and researchers in related fields, see: Alderson, Nieminen and Huhta, 2016; Cain, Compton and Parrila, 2017; Israel, 2017; and Addison Stone et al., 2014.

Writing

Paul Kei Matsuda¹ and Tony Silva²

Introduction

Writing has always been part of applied linguistics. Even before the 1960s, when writing was considered as a mere representation of speech, it provided a way of monitoring students' language production and of providing linguistic material because the technology for sound recording was not widely available. For researchers, it has always provided a source of tangible and relatively stable data for analysis as well as a way of recording speech. In the early years of applied linguistics, however, writing was not considered to be one of the proper goals of language learning; it was used only to the extent that it assisted the learning of speech. (See Matsuda, 2001a, for an account of the place of writing in early applied linguistics.)

In the latter half of the twentieth century, writing, or written discourse, and the teaching of writing began to receive significant attention as an important area of inquiry within applied linguistics. With the growth of composition studies in the USA and the parallel development of the field of second language writing, the act of writing also became an important focus of research and instruction in L1 and L2 writing. More recently, prompted by the recognition of the complexity of writing and the teaching of writing, second language writing has evolved into an interdisciplinary field of inquiry involving many related fields, including applied linguistics and composition studies, which are themselves highly interdisciplinary (Leki, 2000; Matsuda, 2003).

Aspects of writing

Writing is one of the three modes of linguistic expression and communication – along with speaking and signing. Writing is not just a representation of speech, as it was once thought; rather, speaking, writing and signing are all manifestations of language users' knowledge, perspective and communicative competence (Canale and Swain, 1980; Bachman, 1990). Writing is both a noun and a verb: it refers both to the written text and to the act of constructing written texts. The process of writing involves a series of highly complex cognitive activities that takes place in response to a rhetorical situation (Bitzer, 1968) – a complex web of relationship among the elements of writing, including the writer, the reader, the text and reality (Silva, 1990). Those relationships are constantly shifting, and it is quite possible for writers and readers to develop different perceptions of any particular rhetorical situation. For this reason, the writer's task is not as simple as constructing an

accurate representation of reality; the writer also has to negotiate his or her own view of these elements of writing with the views held by the readers – the process which is mediated by the way the text is constructed (Matsuda, 1997). Writing involves the consideration of the relationship among the elements of writing (relational aspect), the use of various strategies for developing and communicating ideas (strategic aspect), and the use of available discursive repertoire (textual aspect).

Relational aspect of writing

Writing does not happen in a vacuum; it is always embedded in a rhetorical situation – a particular social and material condition under which written expression and communication take place. No two rhetorical situations are exactly the same, but similar situations do tend to recur. This gives rise to typified responses (that is, genre as typified rhetorical action) that are developed and shared by a network of writers who work in a particular context of interaction (Miller, 1984; Bakhtin, 1986). ‘Genre knowledge’, that is, the knowledge that helps shape possible responses to particular rhetorical situations, functions as a scaffolding that assists writers in managing the complexity of writing and readers in interpreting the text (*see* Bazerman, 1988; Berkenkotter and Huckin, 1995; Swales, 1990; Tardy, 2009).

The writer’s task is complicated by the varying and ever-changing nature of the elements of writing. The notion of the writer is more complex than it may appear at first because the writer is more than just the physical person who creates texts. Writers are not only presenting their view of reality but also constructing their discursive identity (Goffman, 1959; Ivanič, 1998), which may affect the way the text is read and responded to. The writer, however, does not have full control over their discursive identity because, ultimately, the resulting image of the writer is co-constructed by the writer and the reader with the mediation of the text (Matsuda and Tardy, 2007). A writer’s self-representation may also be constrained by his or her past work, especially if the writer is writing in the same discursive network; a sudden change in self-representation can be highly marked and even distracting (Matsuda, 2001b).

Writers who are learning to write in new rhetorical situations (for example, writing a book review for the first time) may struggle not only because the genre knowledge may not be sufficiently developed but also because conventional self-representation in the particular situation may not be compatible with the writer’s self-image. A piece of written discourse may also be co-authored by two or more writers – or sometimes even by a committee. In professional settings, it is also possible to write on behalf of an organization or a client, in which case the writer’s discursive identity, if represented in the text, can be distracting. Even when the author is singular, the text may have been shaped by feedback and interventions from peers, tutors, teachers, mentors and editors.

The reader is not a simple concept either. Like the writer, the reader may be one person or many. In most cases, the writer is the first reader who provides comments, asks questions and makes suggestions for revision; in some cases, such as private diaries, the writer may be the only intended reader (Murray, 1982). Readers may play different roles, such as that of a friend, critic, coach, evaluator, learner or bystander. Those roles may belong to real audiences addressed by the writer, but they may also be imagined roles invoked in the text (Ede and Lunsford, 1984). For example, this chapter addresses you, the reader, who may be just starting out as applied linguists – perhaps a

graduate student in an introductory applied linguistics course. At the same time, this chapter invokes readers who may not be familiar with writing issues but are certainly intelligent and inquisitive, wanting to understand theory and research as well as pedagogy. This imagined audience role is invoked by the ‘content’ (for example, the choice of topics, the amount of and type of explanations and examples) as well as the ‘form’ (for example, the use or non-use of certain technical terms, strategies for referencing sources).

The text is also complicated. Although each text is unique in some ways, a text cannot be understood only in terms of itself because the text is always situated in a network of other texts, to which it may respond explicitly or implicitly (Bakhtin, 1986). Other texts also provide a pool of discursive features that may be appropriated by the writer in order to achieve similar rhetorical effects, and by the reader in interpreting the text. In many cases, each local ‘discourse community’ develops its own network of texts that are shared by its members. However, the formal and functional features of those texts continue to evolve as members of local discourse communities bring in practices from other discourse communities. When new rhetorical situations arise, writers often draw on practices in existing discourse communities in developing hybrid discourses (Berkenkotter and Huckin, 1995; Hyland, 2000).

Reality may seem stable, but it can be interpreted in many ways – in fact, reality cannot be accessed without going through interpretive layers. Although there is a reality people can interact with physically, reality is also socially and discursively constructed to the extent that people understand, communicate and agree upon versions of reality through language and other semiotic systems (see Berger and Luckmann, 1966). Knowledge is not simply discovered or represented, but also transformed in the process of writing (Bereiter and Scardamalia, 1987). Because people conceive of and relate to reality in various ways, and because writers and readers have varying degrees of access to different aspects of reality, the writer has to use the text to construct a version of reality and negotiate it with readers within the local and historical context of interaction.

As we have seen, writing is a complex phenomenon because writers have to negotiate all the above elements of writer, reader, text and reality, and construct written discourse accordingly. In order to manage this complex process, writers adopt, develop and use various strategies.

Strategic aspect of writing

Writers draw on various strategies (or ‘heuristics’) to assess the rhetorical situation and respond to it by developing written text. Those strategies are often internalized: some writers may have acquired them so naturally through practice that they may not even be aware of some of the strategies they use. For most writers – especially less experienced ones – it is often helpful to have an explicit understanding of some of the strategies that can be internalized through practice. Understanding the strategic aspect of writing is important for writing teachers because it enables them to teach ‘writing’ rather than teach ‘about writing’.

In order for the process of writing to begin, the writer has to assess the rhetorical situation and identify the primary purpose or aim of writing, with an emphasis on one of the elements of writing. The aim of writing may be ‘expressive’ (emphasis on the

writer), 'persuasive' (emphasis on the reader), 'referential' (emphasis on reality) or 'textual' (emphasis on the text) (Kinneavy, 1971). The writer may also identify and develop ideas for writing by focusing on one or more of the elements, such as:

- Exploring or discovering what the writer already knows, feels or believes through techniques such as clustering, listening and free writing (focus on the writer).
- Looking for dissonance or conflict in the community (focus on the reader).
- Examining reality through reading or observation (focus on reality).
- Choosing a form of writing, such as sonnet, personal narrative or conference proposal (focus on the text).

Once the topic is identified, the writer needs to explore, develop and sometimes redefine the topic. One of the most commonly known heuristics for exploration is journalists' '5W1H' (*who, what, when, where, why* and *how*). Burke's (1969) 'pentad' (*act, scene, agent, agency* and *purpose*) is a similar heuristic designed to aid the exploration process. Another example of an exploration heuristic is 'Tagmemics' (Young, Becker and Pike, 1970) which facilitates the exploration of the topic by focusing on its distinctive features, on changes over time and on classification. Reading on the subject may also be a way of exploring topics and generating responses. Visually oriented writers may map out their ideas on paper in order to explore and organize as well as present various aspects of the topic. The writer's intuitive sense of what is to be discussed in a certain rhetorical situation – an aspect of genre knowledge – can also guide the writer as an implicit exploration heuristic. For example, in empirical studies, writers' methods of exploration are often directly guided by accepted research procedures and conventionalized ways of reporting that research.

Writers also need to identify, develop and assess rhetorical appeals. The Aristotelian concepts of 'ethos' (ethical or credibility appeal), 'pathos' (emotional or affective appeal) and 'logos' (logical or rational appeal) have been widely taught in writing classrooms. They have also been used in text analysis (Connor and Lauer, 1985). Although ethos and pathos are especially important when the primary aim of writing is persuasive, they also contribute, in varying degrees, to the success of discourse with other aims. Traditional approaches to the analysis of logos focused on the evaluation of arguments according to the rules of formal logic and the identification of logical fallacies. More recently, writing teachers have come to use situationally based theories of informal argumentation that consider audience and discourse communities as important criteria in generating and evaluating arguments (Toulmin, 1958; Perelman, 1982).

'Drafting' can be a challenge for writers because factors such as the writer's self-image and anxiety about writing can make the writing task overwhelming, sometimes resulting in writing inhibition, commonly referred to as 'writer's block' (Rose, 1980). Various strategies have been suggested for reducing anxiety levels and facilitating the production of written text. Writers may choose to ignore one or more of the elements of writing, such as grammar and audience, in the early stages of drafting (Flower, 1979; Elbow, 1987). Some writers may draw on their spoken language or their knowledge of other genres to develop and revise written texts. Second language writers may also translate from texts generated in their L1, although the effectiveness of this strategy may vary depending on the writer's L2 proficiency level (Kobayashi and Rinnert, 1992; Wang, 2003).

'Revision' is an important part of the writing process. Writers often revise based on comments and suggestions from peers and teachers. The writer may also be able to revise the text by letting it sit for a while, which allows the writer to see the text from a somewhat different perspective. Editing and proofreading – the processes of checking and changing grammatical and stylistic features – is also an important part of the revision process. In the writing classroom, students are often advised to focus on content before focusing on form.

These strategies are not always used consciously by writers. Furthermore, writers do not always go through these stages (planning, drafting and revising) in a linear and orderly fashion; rather, the process of writing is often 'recursive' (Flower and Hayes, 1981). Most writers go through numerous revisions – both during the process of drafting and after the draft is completed. Some of the revisions are invisible because they take place in writers' minds as they rehearse particular passages. In fact, experienced writers writing in a familiar rhetorical situation may be able to rehearse so extensively in their heads that their first drafts require relatively few revisions. Genre knowledge also functions heuristically to assist the writers in planning, developing and organizing ideas as well as in choosing appropriate linguistic features for the specific rhetorical context.

Textual aspect of writing

We discuss the textual aspect of writing last, not because it is least important but because it is the material realization of the other two aspects of writing. It is through written text that the writer constructs, represents and negotiates his or her conceptions of the elements of writing. Writers do not simply encode 'ideational meaning' (the meaning of their ideas); they also create 'textual meaning' (the meaning that helps the readers navigate through the text) as well as 'interpersonal meaning' (the meaning about the relationship between the writer and the reader) (Halliday, 1973). The knowledge of how these meanings can be constructed through the use of particular written discourse features is therefore an important part of the writer's competence.

Whereas spoken discourse represents additional meaning through prosodic features such as tone, pitch, intonation, volume and pauses (*see* Chapter 14, *Speaking and pronunciation*), written discourse achieves similar functions through typographical features such as punctuation marks, capitalization, italics, bold face, font sizes and indentation. In formalized writing situations, where the use of typographical features is constrained by stylistic conventions established by publishers and academic societies, writers have to rely more heavily on structural means (for example, topicalization, nominalization) as well as discursive features such as the use of hedges (for example, *may*, *probably*) and boosters (for example, *must*, *definitely*) (Hyland, 2000). Writers also construct – intentionally or unintentionally – their discursive identity or 'voice' by using various written discourse features and by aligning themselves with certain discursive networks (Ivanič, 1998; Matsuda, 2001b; Tardy and Matsuda, 2009).

Although the ability to write presupposes some level of morphological, lexical and syntactic as well as idiomatic knowledge, such knowledge alone does not guarantee the ability to write well because writing involves much more than constructing grammatical sentences. Sentences need to be 'cohesive', that is, they have to be connected by cohesive devices in ways that can be followed by readers (Halliday and Hasan, 1976). The

whole text also needs to be ‘coherent’, that is, various parts of the text have to work together conceptually in the particular rhetorical context. Although cohesion and coherence are related concepts, cohesive text is not necessarily coherent (Witte and Faigley, 1981; Carrell, 1982). Furthermore, coherence is not universal; rather, what is considered coherent differs from one discourse community to another. Research in ‘contrastive rhetoric’ has shown, for example, that the standard of coherence may vary across languages and cultures (Connor and Johns, 1990; Leki, 1991; Connor, 1996), although the differences cannot simply be attributed to language or culture alone (Moham and Lo, 1985; Kubota, 1997; Matsuda, 1997). For this reason, the assessment of the quality of writing requires an understanding of the context in which it was written and especially the audience for which it was intended.

Defining second language writers

Defining second language writers is more complex a task than it may seem at first because of the diversity of second language writers with a wide variety of backgrounds, characteristics, needs and goals. The term ‘second language writer’ is usually defined broadly to include anyone who is writing or learning to write in a language other than their native language. It includes both second and foreign language writers as well as writers who are writing in their third, fourth, fifth language, and so on. The boundary between first and second language writers is a fuzzy one; the very notion of the ‘native speaker’ is being contested, and users of different varieties of the target language also encounter similar issues as they learn to write in a dominant variety – due not only to the structural differences but also to functional differences among different varieties of the language (Nero, 2001). The issue is further complicated when the political nature of the distinction between language and dialect is taken into account.

Writing, unlike speech, is not learned naturally by everyone but through explicit instruction (Grabe and Kaplan, 1996); as Leki (1992: 10) put it, ‘no one is a “native speaker” of writing’. Yet, that does not mean there is no difference between L1 and L2 writers. While learning to write – especially in academic genres – may feel like writing in a foreign language even for life-long users of the target language, it is also important to keep in mind that second language writers are often learning to write as they are also acquiring the structures and uses of the second language (Matsuda and Jablonski, 2000). A synthesis of early studies comparing adult first and second language writers of English have also indicated that writing in a second language is ‘distinct from and simpler and less effective (in the eyes of L1 readers) than L1 writing’ (Silva, 1993/2001: 200). Aside from the acquisition of the second language grammar, the difference between L1 and L2 writing is largely a matter of degree, for all writers continue to develop their language proficiency and genre knowledge.

For many years, the largest body of research has been on ESL writers in North American higher education, partly because of the ubiquitous first-year writing requirement that necessitated the rise of ESL writing instruction. Within this context, the dominant focus has been on international students. More recently, there has been a growth of interest in resident second language writers – permanent residents and citizens of the USA and Canada (Harklau, Losey and Siegal, 1999; Roberge, Siegal and Harklau, 2009). With the diversification of second language writers in North American higher education, identifying various types of writers and creating a wide variety of

placement and instructional options have also become important issues (Ferris, 2009; Silva, 1994) – a task that is further complicated by students' own identity positioning that does not match categories used by researchers and teachers (Ortmeier-Hooper, 2008; Costino and Hyon, 2007).

Another broad category that has been used is 'foreign language writers' – writers writing in languages in contexts where the target language is not prevalent. This group can be subdivided into two major groups – EFL writers and other foreign language writers. The distinction is significant even in so-called EFL contexts where English and other foreign languages are located in the same academic unit because of the status of the English language as the dominant language of global communication. While research on foreign language writing did not gain momentum until well into the 1980s, the interest has grown tremendously over the last few decades (Manchón, 2008; Reichelt, 1999). The popular binary between ESL and EFL has been problematized because it does not account for post-colonial contexts such as India and Hong Kong, where English has been firmly institutionalized along with other local languages, or for Anglophone Canadian writers learning to write in Canadian-French. Yet, the term EFL writing does not seem to be disappearing from the literature because, even within those contexts, there are many situations that are better described as EFL (Lee, 2008).

Second language writing has also expanded considerably in terms of age groups being studied. While the traditional emphasis had been on first-year college students, the growing recognition of the importance of writing has prompted the rise of interest in studies of early second language writers (Matsuda and DePew, 2002). The success of writing and language across the curriculum movements have also increased the need for writing in courses across the discipline, further creating the need for attention to second language writing issues in broader contexts. With the dominance of English as a *lingua franca* of scholarly communication, writing in academic contexts for graduate students and researchers has also become a major emphasis not only in North America but in many other countries (Casanave and Vandrick, 2003; Flowerdew, 2005; Lillis and Curry, 2006; Swales, 2004).

Second language writing: theory, research and pedagogy

This section will, drawing on Silva (1990), survey major developments during the last 50 years or so in second language writing with regard to theory, research and pedagogy. (For alternative perspectives, *see* Raimes, 1991; Blanton, 1995.) We have limited our attention to second language writing here because applied linguists interface primarily with professionals in second language studies; we focus on ESL writing because, to date, most of the research on second language writing has been done in this area.

Although developments in second language writing have been influenced by work in mainstream composition studies, the unique contexts of second language writing require distinct perspectives, models and practices. In the recent history of second language writing, a number of approaches or orientations (more or less specific to second language writing) have vied for the attention of second language writing professionals. These approaches or traditions will be addressed below in order of their appearance on the second language writing stage.

Controlled composition

'Controlled composition' can be seen as an offshoot of the audiolingual approach to second language teaching in that it shares two of its central tenets: the idea that language is speech (from structural linguistics) and that learning is habit formation (from behaviourist psychology). Thus, it is not difficult to understand why, within this tradition, writing is regarded essentially as reinforcement for oral habits and as a secondary concern (*see* Fries, 1945; Rivers, 1968; for theoretical background for this approach).

Linguistic analysis dominated the research in this tradition and is still a major focus, though it has become more functional and less formal over the years. Early work in the linguistic analysis of second language writers' texts involved 'contrastive analysis' (comparing the grammatical structures of two languages, for example, Spanish and English, in an attempt to ascertain structural differences, which were believed to pose the greatest problems for second language writers) and 'error analysis' (locating, counting and categorizing errors to discern patterns of error in written texts). Formal features examined include primarily lexical and syntactic phenomena; features such as number of words per t-unit and clause structure have been used to measure fluency, accuracy and complexity in second language writers' texts.

In the controlled composition classroom the primary focus is on formal accuracy. The teacher employs a controlled program of systematic habit formation in an attempt to avoid errors (presumed to be related to first language interference) and to reinforce appropriate second language behaviour. Practice with previously learned discrete units of language is privileged over concerns about ideas, organization and style; imitation and manipulation of carefully constructed and graded model passages is the central activity. Overall, in the controlled composition tradition, writing functions as a service activity, reinforcing other language skills. The goal of writing instruction is habit formation. Students manipulate familiar language structures; the teacher is an editor, privileging linguistic features over ideas. The text is seen as a collection of vocabulary and sentence patterns; there is negligible concern for audience or purpose. (For accounts of this pedagogical approach, *see* Dykstra and Paulston, 1967; Paulston and Dykstra, 1973.)

The paragraph pattern approach

Increasing awareness of second language writers' need to produce extended written texts led to the realization that there was more to writing than constructing grammatical sentences. The result of this realization was what Raimes (1983b: 7) has called the 'paragraph pattern approach', which emphasized the importance of organization at the above-sentence level. This approach owes much to Kaplan's (1966) notion of 'contrastive rhetoric' – the notion that writers' different cultural and linguistic backgrounds will be reflected in their 'rhetoric', with rhetoric typically seen as primarily a matter of textual structure. Thus, first language influence was believed to extend beyond the sentence to paragraphs and longer stretches of text.

The basic concern in this tradition was the logical construction and arrangement of discourse forms. Of primary interest, especially in the early years, was the paragraph, where the focus was on its elements (for example, topic sentences) as well as options for its development (for example, comparison and contrast). Another important concern

was 'essay' development, actually an extrapolation of paragraph principles to complete texts. This involved larger structural entities (for example, introductions) and organizational patterns or modes (for example, exposition).

By far, the largest single concern in second language writing research has been 'contrastive rhetoric' (for overviews, *see* Leki, 1991; Connor, 1996; Purves, 1988). The focus of this work has been on characterizing how first language 'cultural thought patterns' are reflected in second language writers' texts, how some cultures put the responsibility for successful written communication on the writer and others on the reader, and how differences between 'collectivist' and 'individualist' tendencies manifest themselves in second language writing. The most commonly compared linguistic or cultural backgrounds have been Arabic, Chinese, English, Japanese and Spanish. A number of other specific rhetorical features have been addressed in the literature. These include assertions, hedging, indirectness, reader orientation, introductions, meta-discourse, rhetorical preferences and voice (*see* Hyland, 2000).

Contrastive rhetoric has been and still is a controversial issue, with some of its critics arguing that the notion can lead to stereotypes (Kubota, 1997, 1998; Spack, 1997) and others suggesting that the differences seen between groups are a matter of development rather than transfer (Mohan and Lo, 1985). More recently efforts have been made to reconceptualize and rename contrastive rhetoric in order to move out of the unproductive discussion based on the limitations of early contrastive rhetoric (for example Connor, Nagelhout and Rozycki, 2008; Kubota and Lehner, 2004; Matsuda, 1997).

Classroom procedures associated with this tradition have tended to focus students' attention primarily on 'form'. At the most basic level, students are asked to choose among alternative sentences within the context of a provided paragraph or text. At a higher level, learners are instructed to read and analyse a model text and then apply the knowledge gleaned from this analysis to a parallel piece of original writing. At their most complex, exercises require students (already given a topic to write on) to list and group relevant facts, develop topic and supporting sentences on the basis of these facts, put together an outline and compose their text from that outline.

In short, this tradition sees writing as basically a matter of arranging sentences and paragraphs into particular patterns; learning to write requires developing skills in identifying, internalizing and producing these patterns. The writer uses provided or self-generated data to fill out a pattern; thus, the reader is not confused by an unfamiliar pattern of expression. The text is made up of increasingly complex discourse structures (that is, sentences, paragraphs, sections and so on), each embedded in the next largest form; and all of this takes place within an academic context, wherein the instructor's evaluation is assumed to reflect a community of educated native speakers.

The process approach

Dissatisfaction with controlled composition and the paragraph-pattern approach, due to the belief that neither adequately engendered thought or its expression and to their perceived linearity and prescriptivism, paved the way for the process approach, another import from mainstream composition studies. This tradition saw the composing process as a recursive, exploratory and generative process wherein ideas were discovered and meaning made. It was believed that guidance through and intervention in the process was preferable to the imposition of organizational patterns or syntactic or

lexical constraints, and that, where there was a need or desire to communicate, content would determine form so as to convey meaning successfully. (For early work in second language composing, *see* Zamel, 1976, 1982; Raimes, 1983a, 1985.)

The advent of the 'process approach' prompted research on composing that focused on the person (that is, the writer) and the process (that is, strategies) involved in writing. Many variables affecting second language writers have been identified and addressed in the literature. The second language writer has been looked at primarily in terms of the extent of transfer of first language proficiency or writing ability to second language writing and the relationship between general second language proficiency and second language writing ability. Also of interest are the possible connections between second language writing ability and first language writing experience and expertise, writing apprehension, gender, learning style, language and instructional background, the second language writer's perceptions with regard to writing and writing instruction, and the amount of reading (in both first and second languages) a second language writer engages in. Research in this area has gone from seeing writer variables as simple and relatively discrete to very complex and greatly intertwined.

There is also a substantial body of scholarship on second language writers' composing processes (for overviews, *see* Krapels, 1990; Sasaki, 2000; Manchón, 2001). Predominant in this area are general 'composing process' studies, that is, research that looks at second language writing processes holistically. There are also studies that focus on particular sub-processes and elements of the composing process. The most common of these are studies of planning, drafting, revising and editing. However, a number of other elements have also been examined. These include translating, backtracking, restructuring, formulating, monitoring, the use of the first language when writing in the second, language switching and the use of dictionaries and background texts when composing.

In the classroom, the process tradition calls for providing and maintaining a positive, encouraging and collaborative workshop environment, and for providing ample time and minimal interference so as to allow students to work through their composing processes. The objective is to help students develop viable strategies for getting started, drafting, revising and editing. From a process perspective, then, writing is a complex, recursive and creative process that is very similar in its general outlines for first and second language writers; learning to write requires the development of an efficient and effective composing process. The writer is engaged in the discovery and expression of meaning; the reader, on interpreting that intended meaning. The product (that is, the written text) is a secondary concern, whose form is a function of its content and purpose. In the process tradition it is up to the writer to identify a task and an audience and to make the response to the former meet the needs of the latter.

Genre-based approach

Perceiving theoretical and practical problems and omissions with regard to the process approach, critics suggested that the emphasis in ESL composition research and instruction be shifted from the writer to the reader, in particular academic and professional discourse communities. Most of the aforementioned criticism of the process approach came from proponents of an English for academic purposes orientation wanting to consider more seriously issues such as developing schemata for academic

discourse, deriving insights from research on contrastive rhetoric, understanding what constitutes realistic preparation for academic work, learning about the nature of high stakes academic writing tasks, giving students a better idea of how university writing is evaluated, and, generally, understanding the sociocultural context of academic writing (Reid, 1984; Horowitz, 1986).

Research in writing English for academic purposes has looked primarily at the issues of audience and, more recently, 'genre'. The audience research has focused primarily on one particular readership: the academic discourse community, in particular college and university professors (Vann, Meyer and Lorenz, 1984; Santos, 1988) and, to a lesser extent, on editors of scholarly journals (Gosden, 1992). This research has been done primarily through surveys and addresses academics' beliefs, practices, expectations and reactions with regard to errors, literacy skills and writing problems. The question of whether and how students should be initiated into the academic discourse community has also been debated.

In recent years, the study of genre in second language writing has become very popular. In addition to general treatments of genre, many studies of particular written genres have appeared. Some address general types or modes of writing, such as narrative, descriptive and argumentative writing as well as personal, academic, business, technical and legal texts. A number of more specific text types addressed include summaries, essay examinations, laboratory reports, research papers, theses, dissertations, research articles, experimental research reports and letters of reference.

Instruction in writing English for academic purposes focuses primarily on academic discourse genres and the range and nature of academic writing tasks (Swales, 1990; Hyon, 1996). This instruction is meant to help students work successfully within the academic context. The instructional methodology suggested aims at recreating, as well as is possible, the conditions under which actual university writing takes place and involves closely examining and analysing academic discourse genres and writing task specifications; selecting and intensively studying materials appropriate for a given task; evaluating, screening, synthesizing and organizing relevant information from these sources; and presenting these data in a form acceptable to the academy.

To sum up, in the English for academic purposes tradition, the emphasis is placed on the production of texts that will be acceptable at an English-medium institution of higher education; learning to write is part of becoming socialized into the academic community. The writer is pragmatic and interested primarily in meeting the standards necessary for academic success; the reader is a player in the academic community who has clear and specific expectations for academic discourse. The text is viewed as a more or less conventional response to a particular writing task that fits a recognizable genre; the context is the academic discourse community.

Issues that transcend traditions

There are a number of important issues in second language writing that transcend the traditions described above and need to be touched upon in even the most cursory survey of this research area. These include programmatic, contextual, disciplinary and political issues.

A number of 'programmatic' issues have been addressed in the research. These include second language writing programs and program administration, needs analyses

and placement. A great deal has been written on specific instructional practices and issues. These include writing conferences and workshops, the use of model texts, peer and teacher response, peer tutoring, the use of journals, writing about literature, sentence combining, reformulation, plagiarism, sequenced writing assignments and content-based instruction (*see* Reid, 1993; Grabe and Kaplan, 1996; Ferris and Hedgcock, 2005).

However, the programmatic issue that has received by far the most recognition is the assessment of second language writing (*see* Hamp-Lyons, 1991, 2001; Hamp-Lyons and Kroll, 1996). Second language writing assessment has been written about from a number of perspectives. These include test types, specifically 'indirect' or 'objective' (wherein no written text is produced or examined) and 'direct' tests (wherein a text is produced and examined), for example, holistic, analytic/multiple trait and primary trait tests. Another basic issue is 'text rating' or grading; here issues such as rater training, rater judgements and the difference between rating done by individuals with and without experience with second language writers. Also central are questions of test validity and reliability. In addition, a number of variables that could potentially affect ratings have been explored. These include 'linguistic variables' (primarily lexical and syntactic); 'rhetorical variables' and the writer's subject matter knowledge, cultural expectations, nationality, reading comprehension and amount of reading done in both the first and second languages. Elements such as writing prompts, topics and time constraints have also been explored. Different types of tests, for example, writing proficiency exams, entrance and exit exams and placement exams have been described. Finally, some specific second language writing tests: the Test of Written English (TWE), the English as a Second Language Composition Profile (Jacobs *et al.*, 1981) and the writing sub-test of the International English Language Testing Service (IELTS) test have been developed, deployed and critiqued.

A number of instructional contexts have been described in the literature. These include, most generally, the academic discourse community (at both the graduate and undergraduate levels) and a number of specific program or course types therein: basic or 'remedial' writing courses, bilingual education programs, immersion and submersion programs, sheltered ESL courses, mainstream (native English speaker dominant) courses, cross-cultural composition courses, writing across the curriculum programs, intensive language programs and writing centres. Also addressed are particular instructional contexts in academia (engineering, natural sciences, science and technology, and sociology courses) or in the private sector (corporate and medical contexts) (*see* Belcher and Braine, 1995).

In recent years, and following from work in composition studies, interest has grown in disciplinary matters; for example, the nature of L2 writing as a discipline or area of research; its standing in relation to fields like rhetoric, composition studies, second language studies/acquisition and linguistics; and the future direction of research in second language writing (Matsuda, 2003; Santos *et al.*, 2000). The last two decades or so have also seen increased interest in and explicit treatment of matters of politics and ideology growing out of post-modern thought, social constructionist inquiry and critical theory and pedagogy (Santos, 1992, 2001; Severino, 1993; Benesch, 2001).

The current situation in second language writing studies is one of reflection on and re-examination of basic assumptions about the nature of second language writing and writing instruction, of rejecting easy answers to complex problems, of taking stock of what has been learned and trying to put it together as a coherent whole, of synthesis

and model building, of realizing that there will be no magic bullet, no particular approach or procedure that will work with all people in all places at all times. It is a situation in which second language writing professionals are beginning to seize the opportunity to escape the confines of a particular tradition, to resist simplistic methods of ‘teacher training’, to reflect critically on ‘what the research means’, to discard off-the-shelf instructional approaches, to use their knowledge of theory and the results of inquiry to decide for themselves what makes sense for their students, for their objectives and teaching styles and for their instructional contexts. In short, it is an exciting time to be involved in such a vital, vibrant and evolving area of research and instruction.

Hands-on activity

The texts below are a call for proposals for a professional conference and a draft version of one of the proposals. Read the draft proposal and answer the questions that follow.

Call for proposals

The 2019 Symposium Organizing Committee seeks proposals for 20-minute presentations that address various topics within the field of second language writing – broadly defined. Any topic related to second language writing is welcome, but we particularly welcome proposals that seek to challenge the status quo in the field by introducing new topics as well as theoretical and methodological approaches.

As always, we are interested in L2 writing issues in any second or foreign language and at various levels of education – from emerging literacy and adult literacy to L2 writing across the disciplines and in the professions. We also encourage proposals that connect L2 writing with other related areas of inquiry, such as computer assisted instruction, computers and composition, corpus analysis, language testing, rhetoric, writing program administration and world Englishes. We welcome proposals from around the world.

Although there will not be a separate graduate student conference this year, graduate students are encouraged to submit proposals. After all, the future of the field of second language writing depends on today’s graduate students.

To submit your proposal, please use the online proposal submission form.
Proposals must be received by April 30, 2019 (Arizona Time/MST).

We look forward to receiving your proposal!

Paul Kei Matsuda and Tony Silva, Chairs
Symposium on Second Language Writing

An in-depth look at the education of EFL writing teachers

When it comes to teaching writing, few upper level faculty shoulder such responsibilities, and most tend to relegate this task to lower-level faculty or colleagues in the English Department. Due to the lack of specific training for faculty in dealing with the issues in student writing development and the time-consuming/labor-intensive nature of writing courses, these courses are passed on to part-time writing instructors. Even though most of these teachers hold master degrees in TESOL (or related areas), they may or may not have

the training to deal with the challenges of writing courses. Some are not prepared to handle the overwhelming essay grading tasks, and may not be fully competent to respond to student writing. In some cases, the writing proficiency of these teachers is questionable. The quality of writing instruction, therefore, suffers.

The purpose of this study is first to observe the practice of English writing education in four universities in Taiwan. Next, it investigates the preparation 20 EFL writing instructors have, and linguistic knowledge these teachers come with, prior to teaching writing classes in these universities. The recognition and ability to treat errors are also explored. Ultimately, by interviewing each teacher as an individual, this study identifies issues that may impact the value of current writing curriculum in higher education and further provide teachers with the knowledge and tools they need to work effectively with their student writers. The findings of this study not only enhance our understanding of the essence of writing teacher education, but also consolidate and extend scholarship in studies of English writing, particularly in a foreign language setting.

Questions

- Describe the rhetorical situation for this writing task. Who is the author? Who are the readers? What genre is being used? What pieces of information does the author need to provide?
- How well established does this writer sound? A novice researcher? An experienced researcher? A well-established authority? What are some of the textual features that gave you a sense of the author's level of expertise?
- How well does the author relate local issues to the international audience?
- Overall, how effective do you think this proposal is in responding to the rhetorical situation? What aspects of the proposal are particularly effective? What aspects of the text could be improved?
- Suppose the writer of the proposal has asked you to read and comment on the proposal before submitting it. Provide one page of written feedback for the writer.

Notes

- 1 Arizona State University.
- 2 Purdue University.

Further reading

Here we provide some basic works on second language writing and writing instruction. For a more extensive listing, see the annotated bibliographies of Tannacito (1995), Silva, Brice and Reichelt (1999) and the brief bibliographies that appear in each issue of the *Journal of Second Language Writing*.

Ferris, D.R. and Hedgcock, J.S. (2005) *Teaching ESL Composition: Purpose, Process, and Practice* (second edition). Mahwah, NJ: Lawrence Erlbaum.

[This book presents approaches to teaching ESL composition that are informed by current theoretical perspectives on second language writing and writers. The authors provide a comprehensive review of theoretical and research issues and discuss various pedagogical matters, including

reading–writing relations, course design, teaching materials, teacher response, peer response, grammar, assessment and technology.]

Leki, I., Cumming, A. and Silva, T. (2008) *A Synthesis of Research on Second Language Writing in English*. New York: Taylor & Francis.

[This book provides a comprehensive overview of research on second language writing in English. It consists of three sections, including contexts of L2 writing, instruction and assessment, and basic research on second language writing.]

Manchón, R.M. and Matsuda, P.K. (eds.) (2018) *Handbook of Second and Foreign Language Writing*. Boston: de Gruyter.

[This edited volume presents an overview of key issues and insights related to second language writing by well-established researchers. The volume consists of six sections that explore topics related to the nature of the field, L2 writing contexts, approaches to learning writing, teaching and assessing writing, researching writing, and disciplinary interfaces with other fields of inquiry.]

Matsuda, P.K. and Silva, T. (eds.) (2005) *Second Language Writing Research: Perspectives on the Process of Knowledge Construction*. Mahwah, NJ: Lawrence Erlbaum.

[This volume provides insiders' perspectives on the process of conducting various types of second language writing research. Defining research broadly as inquiry – the act of constructing new knowledge and insights – this volume provides an understanding of various issues in conceptualizing a research project as well as collecting and analysing data.]

Assessment

Carol A. Chapelle¹, Benjamin Kremmel² and Geoff Brindley³

What is language assessment?

In the context of language teaching and learning, ‘assessment’ refers to the act of collecting information and making judgements about a language learner’s knowledge of a language and ability to use it. Although some people consider ‘testing’ and ‘assessment’ to be synonymous (Clapham, 1997), many use the latter term in a broader sense to include both formal measurement tools, which yield quantifiable scores, and other types of qualitative assessment, such as observation, journals and portfolios (Davies et al., 1999: 11). What unifies the variety of tests and assessments is that they all involve the process of making inferences about learners’ language capacity on the basis of ‘observed performance’.

Despite this common feature, assessment practices vary according to the purpose for which assessment information is required. Broadfoot (1987) identifies a number of broad purposes for educational assessment:

- ‘Assessment for curriculum’ (providing diagnostic information and motivating learners)
- ‘Assessment for communication’ (informing certification and selection)
- ‘Assessment for accountability’ (publicly demonstrating achievement of outcomes)

In language programs, one purpose-related distinction that has conventionally been made is between ‘proficiency assessment’, which is typically concerned with measuring a person’s general ability, typically for selection decisions, and ‘achievement assessment’, which focuses on determining what has been learned as part of a specific program of instruction, usually for assigning marks.

Assessment purpose is closely tied to the ‘stakes’ attached to testing, and it therefore governs the type of assessment tool that is used and the resources that are invested in its development. In ‘high-stakes’ situations where the results of assessment may have a significant effect on test-takers’ lives (for example, selection for university entry), the instrument should have been developed with great care by suitably qualified professionals and subjected to rigorous piloting and validation. In this and other testing situations, many stakeholders are involved in language assessment, either as those who construct and/or research tests and assessment tools (for example, test development agencies, curriculum developers, teachers, university researchers), as test-takers (students hoping to be certified for a job) or as

‘consumers’ of assessment information (for example, policy-makers, government officials, educational administrators, parents, employers and the media).

In recent years, language tests have begun to be used by governments and policy-makers for an increasingly wide range of purposes, including citizenship and immigration decisions and teacher certification. This has increased the need for language testing researchers to explore and understand the ways in which test scores are used, and therefore much has been written in recent years about the intersection of language assessment with language policy (McNamara and Roever, 2006; Spolsky, 2009), particularly in the areas of language assessment for accountability in educational systems (Chalhoub-Deville, 2016) and the (mis-)use of language tests in immigration (e.g., Harding, Brunfaut and Unger, 2019; McNamara, Van Den Hazelkamp and Verrips, 2016). One of the important insights that has emerged from this line of research is that the stakeholders in language testing are likely to have different and, at times, conflicting perspectives on the role and purpose of assessment in language programs, which, according to some writers, can lead to a disproportionate emphasis on assessment for accountability (McKay, 2000; Mencken, 2008). For this reason, it has been suggested that the process of test development needs to become more democratic and to involve a wide range of stakeholders so as to ensure fairness to all (Brindley, 1998; Shohamy, 2006). However, the ideal of involvement needs to be balanced against the realities of implementation and technical concerns of validity and reliability, which language assessment experts are able to address.

Fundamental issues in language assessment

On the surface, language assessment may appear to be a simple process of writing test questions and scoring examinees’ responses; however, in view of the important uses that are made of test scores, as well as the complexity of language, one has to examine the process more carefully in order to understand technical issues in language assessment. Figure 17.1 illustrates one way of conceptualizing the factors that come into play in a more complex view of language assessment. The writing of test questions needs to be seen as a choice about the ‘test method’ that is most appropriate for obtaining ‘examinee’s language performance’ that is relevant to the specific language capacities of interest. As the dotted line in Figure 17.1 suggests, the examinee’s language capacity of interest is behind the choice concerning what performance should be elicited. Examinees’ language performance is scored, and the result is the test score, which is assumed to bear some systematic relationship to the language performance, that is, to summarize the quality of the performance in a relevant way. The dotted line between the score and the ‘examinee’s language capacities’ denotes the assumption that the examinee’s score is related to the examinee’s capacities that the test was intended to measure. That test score is used for some purpose, typically for making a ‘decision about the examinee’, but it might also be used for other purposes such as to allow examinees to make decisions about their own subsequent study or to classify participants for research on second language acquisition.

The connections among the components in Figure 17.1 form the basis for the more complex view of language assessment that professionals work with. These concepts should be sufficient for readers new to language assessment to grasp the fundamentals underpinning the process of language assessment. The ‘examinee’s language capacities’ refer to the ‘construct’ (the examinee’s knowledge and abilities) that the test is intended

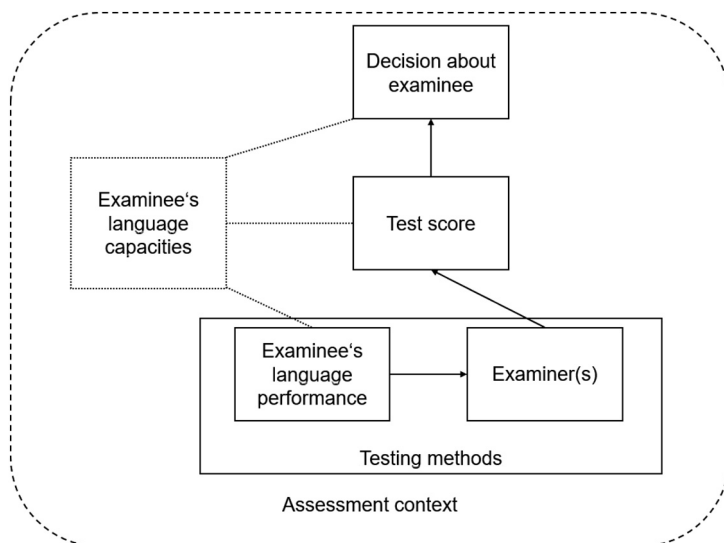


Figure 17.1 Fundamental components of testing

to measure. The 'test method' is what the test designer specifies to elicit a particular type of performance from the examinee. Within this, the examiners are another key component as their rating criteria and their consistency in applying these criteria will have an impact on the test scores. A candidate's performance does not directly result in a particular test score, but rather indirectly, mediated by the judgments of examiners who award a score. The test score, which serves as a summary of performance that is used for decision-making, requires 'validation', which refers to the justification of the interpretation made of the test scores and their use. Importantly, any assessment is situated in a particular social context, which will likely both impact on all of these factors and be impacted by them. Let us look at three of these key concepts in turn.

Construct definition

On the surface, terms such as 'language proficiency' may make the construct of language ability seem simple and easily defined. However, researchers who develop language tests and validate score use find that such a general term is of little use. They confront issues such as whether or not examinees' selection of the correct verb tense on a multiple-choice question should be considered to reflect language proficiency, writing ability, grammatical competence or knowledge of verb tense. In other words, language testing researchers need to be precise about what a test is intended to measure, and so they develop the conceptual apparatus to do so.

Ability/performance constructs

Construct definition is connected to all aspects of the testing process, as illustrated in Figure 17.1, because the construct is what influences the test developers' choice of testing method, the intended meaning of the test scores and the appropriateness of the test use. What is

important to note here is that the construct is not one and the same as the test method, test score or test use, but that the link between the construct and these other aspects of the testing process involves drawing an inference across two components. For example, when test users interpret a test score, they are engaged in a process of inference which involves, for example, drawing conclusions about language capacities on the basis of evidence from test performance. An inference might be made about test-takers' 'grammatical competence' on the basis of their responses to questions such as the verb tense question mentioned above, as well as questions on other linguistic features such as relative clauses, placement of adverbs and subordinating conjunctions. The fact that inferences are made on the basis of a test score denotes an important fact in language testing: that the score itself is not the object of interest to test users. What is of interest is the test-taker's level with respect to the construct the test measures, which in turn is connected to what a test-taker might be expected to be capable of in non-test settings. If the concept of a construct definition is viewed in this way, it is possible to see the two distinct approaches that have been taken to construct definition by the language testing researchers.

One is the 'ability' approach, which defines the construct as an unobservable trait that is not tied to any particular context of language use. Ability testing is based on the point of view that performance on a test is the result of some underlying capacities, which are also responsible for performance in non-test settings, as illustrated in Figure 17.2. Constructs such as grammatical ability reflect an ability perspective toward construct definition because they refer to something which would affect performance across many different contexts from talking on the phone to a plumber to writing a letter of application for a job at home. Other ability constructs would be reading comprehension and vocabulary knowledge.

Another is the 'performance' approach, as illustrated in Figure 17.3, which aims to make inferences more 'directly' from test performance to performance outside the test setting. 'A defining characteristic [of a performance test] is that actual performances of relevant tasks are required of candidates, rather than more abstract demonstration of knowledge' such as that required by tests of ability (McNamara, 1996: 6). Tests used to measure writing and speaking are often referred to as 'performance tests' because examinees are asked to use language with a simulated purpose, and an inference is made about their probable success in speaking or writing in other similar situations.

An ability test is sometimes referred to as 'indirect' because of the abstract relationship between what examinees do on the test and their potential future performance. Performance tests, in contrast, are sometimes called 'direct' because of the relative

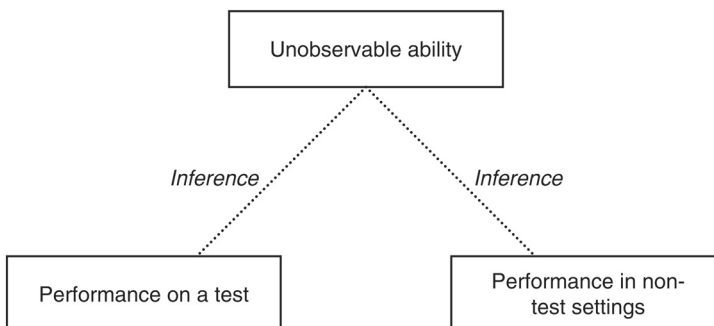


Figure 17.2 The conceptualization of inference in ability testing

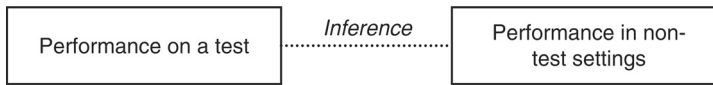


Figure 17.3 The conceptualization of inference in performance testing

directness of the inference. However, this dichotomy is misleading because as Bachman (1990) pointed out, all test performance bears an indirect relationship to what is being assessed. Test users are always interested not in test performance and test scores themselves, but in what test scores mean, that is, the inferences that can be drawn from them and what decisions they can make with the scores. Moreover, in many testing situations, applied linguists need to define the constructs they measure as hybrid ability-performance constructs which include an ability as well as a set of contexts in which the ability would be relevant (Chapelle, 1998; Bachman, 2007).

Specific/general purpose constructs

A second important distinction drawn among various types of construct definitions is their degree of specificity, as illustrated by the continuum in Figure 17.4. On the left end is the type of construct underlying a specific purpose test for which:

... content and methods are derived from an analysis of a specific purpose target language use situation, so that test tasks and content are authentically representative of tasks in the target situation. Such a test allows [test users] to make inferences about a test taker's capacity to use language in a specific purpose domain.

(Douglas, 2000: 19)

An example comes from a project where the purpose was to develop the Occupational English Test in Australia (McNamara, 1996). One of the testing procedures on this language test required the examinee to play the role of a physiotherapist who was interacting with a patient. The construct of interest in this test was the ability to use English for speaking with patients. The detailed construct definition would consist of the many questions and statements of advice that physiotherapists would need to give as well as the lexico-grammatical constructions required to interact in this context. Such a test would not require the examinee to listen to the daily news about animals in the wildlife preserve west of Melbourne, nor would the examinee be asked to read materials from a textbook on brain surgery. The construct of speaking for particular types of medical interactions would define the test tasks.

A general purpose construct definition, in contrast, is intended to assess language without reference to a particular context of language use. For example, the Vocabulary Levels Test (Schmitt and Clapham, 2001) is intended to assess developmental level of vocabulary knowledge in general and therefore words are chosen on the basis of their

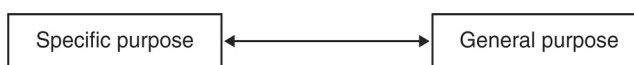


Figure 17.4 Degree of specificity in construct definition

frequency of occurrence across a wide range of linguistic registers. At a mid-point on the continuum would be a test of academic English such as the TOEFL, which includes materials that have been drawn from a variety of topics but within academic registers.

Construct perspective and specificity

At first it may appear that specific purpose constructs and performance type constructs may be a natural match, whereas general purpose constructs naturally go with ability constructs. In the examples provided above, the Occupational English Test and the Vocabulary Levels Test, this was the case. These two tests would be examples for numbers '3' and '2' in Figure 17.5, but one can also find examples of tests of specific purpose ability (1) and those intended to assess general purpose through performance (4).

An example of the former would be ChemSPEAK (Douglas and Selinker, 1993), a test that requires examinees to perform tasks that use the lexico-grammatical constructions from chemistry in order to test ability to speak about chemistry. The test does not, however, ask examinees to simulate the performance of 'doing' chemistry. An example of a 'general performance' test would be the oral proficiency interview of the American Council on the Teaching of Foreign Languages (ACTFL). It requires examinees to engage in conversation about themselves and family that might come up in a social situation. In contrast to the specific language content of the various modules of the Occupational English Test, this test avoids requiring the examinee to talk about field-specific topics so that the test score can be used to indicate capacity for speaking performance in general.

Construct theory is obviously slippery conceptual business, which needs to be anchored in the practices of test design and empirical research. Some steps toward understanding construct theory from the perspective of test design have appeared (Read and Chapelle, 2001), but perhaps the most sweeping impact on rethinking construct definition is coming from the use of technology for developing test methods. Bachman's (2000) review of the state of the art of language testing at the turn of the century included the following observation on the contribution of technology in language testing, '... the new task formats and modes of presentation that multi-media

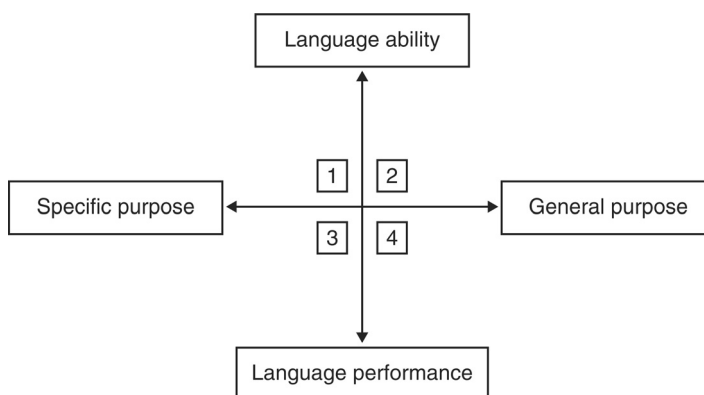


Figure 17.5 Dimensions defining the options for construct definition

computer-based test administration makes possible ... may require us to redefine the very constructs we believe we are assessing' (Bachman, 2000: 9). Today test developers regularly take into account the role of technology in the way they define constructs, and the test methods they develop (Chapelle and Douglas, 2006). For example, score interpretation for a test of writing which requires learners to compose their response at the keyboard needs to include the construct of composing at the keyboard. Similarly, core interpretation for a test of listening comprehension that provides video and audio input for the examinee needs to take into account the learner's ability to productively use the visual channel in addition to the aural one.

Test methods

Having defined assessment as 'the act of collecting information and making judgements', we can define test methods as the systematic procedures set out for collecting information and making judgements for a particular assessment event. Language testers consider test methods as a set of procedures and describe them as sets of characteristics rather than by cover-all terms such as 'multiple-choice'. Multiple-choice refers only to one characteristic of a test – the manner by which the examinee responds – but any given testing event is composed of a number of other factors which should be expected to affect performance. Ideally, the test performance (as outlined in Figure 17.1) would be free from any outside influence. However, test methods do affect test performance in various ways.

Douglas (1998) theorizes how test methods affect test performance, suggesting a series of processes through which the test-taker perceives cues in the test method, interprets them and uses them to set goals for task completion, as illustrated in Figure 17.6. Consistent with Bachman (1990) and Bachman and Palmer (1996), Douglas (1998) suggests that these strategies are key to the manifestation of particular language abilities. Figure 17.6 summarizes Douglas' view, showing language capacity and test method as responsible for test performance. Testing experts differ on how to interpret and deal with the fact of test method influence on performance; however, most agree that it is essential to identify those aspects of test method that may play a role.

The most encompassing framework for describing test methods has been developed in two stages, first as 'test method facets' (Bachman, 1990) and then as 'test task characteristics' (Bachman and Palmer, 1996). Test task characteristics are defined as:

- The test 'setting', such as the physical specifications of the room and the participants.
- The testing 'rubrics', including the instructions, test structure, allotted time, response evaluation and calculation of scores.
- The 'input' to the test-taker, such as test length and grammatical and topical characteristics of test questions.
- The 'output' expected from the learner, such as the length and grammatical and topical features of responses.
- The relationship between input and output, such as whether or not the answers to questions the examinee is asked depend on previous responses.

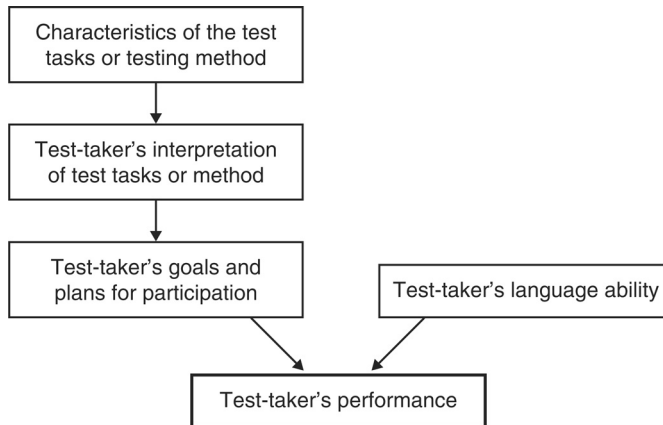


Figure 17.6 Factors involved in the relationship between a test method and performance as outlined by Douglas (1998)

These test task characteristics provide the analytic tools needed for both construction and analysis of language tests, and therefore have played a role in test validation research.

Validation

The term ‘validity’ carries some meaning for almost everyone, but in educational measurement, including language testing, this term has an extensive technical sense about which volumes have been written. Many applied linguists learned at one time that validity was defined as consisting of three sub-types:

- ‘Content validity’ (whether the content of the test questions is appropriate).
- ‘Criterion-related validity’ (whether other tests measuring similar linguistic abilities correlated with the test in question).
- ‘Construct validity’ (whether research shows that the test measures the ‘construct’ discussed above).

In addition, many people think of validity of a test being established by measurement experts through statistical analysis of test scores. Although current perspectives retain traces of these ideas, both the theory and practice of validation are now markedly different from this view (Chapelle, 1999). One big change is typically associated with a seminal paper by Messick (1989), which defined validation as the process of constructing an argument about the interpretations and uses made from test scores. Such an argument may draw upon criterion-related evidence, for example, but the goal of validation would be to establish an argument by integrating a variety of evidence to support test score interpretation and use. As an ‘argument’, rather than a black and white ‘proof’, validation may draw upon a number of different types of data. From this perspective, validity is a property of the score interpretation, rather than the test itself (Chapelle, 2012; Kane, 2006; Bachman and Palmer, 2010).

Such an argument is made on the basis of both qualitative and quantitative research, and it relies on the perspectives obtained from technical work on language testing and the perspectives of applied linguists, language teachers and other test users. An ESL reading test provides an example of how these perspectives worked together (Chapelle, Jamieson and Hegelheimer, 2003). A publishing company contracted testing researchers to develop an ESL test to be delivered on the Internet to ESL learners at a wide variety of proficiency levels. Because the test-takers would have a great deal of variation in their reading ability, the test developers decided to include three modules in the test, one with beginning level texts for the examinees to read, one with somewhat simplified texts and a third with advanced-level texts. Once this decision had been made, however, the test developers needed to be able to show that the tests on the texts actually represented the intended differences in levels, and therefore three types of evidence were used.

One type of evidence was the judgement of ESL teachers. Teams of ESL teachers were formed and they worked together to form an understanding of what they should be looking for in texts of various levels in ESL books. Then each passage that had been selected for its potential as a reading text on the test was evaluated by two members of the team to give it a rating of 'beginning', 'intermediate' or 'advanced'. An interesting finding during this part of the work was that the two ESL teachers did not always agree on the level of the text, nor did they always agree with the original author's assignment of the text to a particular level. This part of the test development process resulted in a pool of texts about which two raters agreed. In other words, if two raters thought that a text was a beginning level one, it was retained in the pool of possible texts of the test, but if one rater thought it was a beginning level one and the other rater thought it was intermediate, it was eliminated. The text agreed upon then proceeded to the next stage of analysis.

The second type of analysis drew on the expertise of a corpus linguist, who did a quantitative analysis of the language of each of the texts. The texts were scanned to copy them into electronic files, which were then tagged and analysed by use of a computer program that quantified characteristics of the texts that signal difficulty, such as word length, sentence length and syntactic complexity. The corpus linguist set cut scores for each of these features and then selected texts that, on the basis of these characteristics, were clear examples of each level. These texts formed the basis of the reading comprehension modules at the three levels of difficulty. Test writers developed questions to test comprehension as well as other aspects of reading comprehension and then the three module tests were given to a group of examinees.

The third type of analysis was quantitative. The researchers wanted to see if the texts that had been so carefully selected as beginning level actually produced test items that were easier than those that had been selected as intermediate and advanced. In other words, the difficulty of the items would be affected by not only the difficulty of the language in the text but also the way students understood and responded to the items. The question was whether or not the predicted number of examinees got test questions correct for the beginning, intermediate and advanced level tests. As Table 17.1 shows, the researchers predicted that a high percentage of examinees would obtain correct responses on the beginning level texts and so on. The table also shows the results that were obtained when a group of 47 learners took the tests. In fact, the percentages of correct responses turned out as anticipated.

Table 17.1 Summary of predictions and results in a quantitative validity argument

<i>Predicted and actual results</i>	<i>Intended test level</i>		
	<i>Beginning</i>	<i>Intermediate</i>	<i>Advanced</i>
Predicted	High percentage	Medium percentage	Low percentage
Actual mean percentage of correct responses	85	74	68

These three types of evidence about the reading test modules are obviously not all that we would want to know about their validity as tests of reading, but these data form one part of the validity argument. A second important development in validation practices has been evolving over the past several years to help testing researchers to specify the types of evidence that are needed in view of the types of inferences that underlie the score interpretation and use (Kane, 2006). These advances have been influential and useful in language testing (Bachman, 2005; Chapelle, Enright and Jamieson, 2008). The many types of qualitative and quantitative analysis that are used in validity research would be too much to describe in this introduction, but the idea of how testing researchers evaluate test data can be illustrated through the description of two basic test analysis procedures.

Test analysis

Two types of analysis form the basis for much of the quantitative test analysis: ‘difficulty analysis’ and ‘correlational analysis’. Difficulty analysis refers to the type of analysis that was described above, in which the concern is to determine how difficult the items on the test are. Correlational analysis is a means of obtaining a statistical estimate of the strength of the relationship between two sets of test scores. Computationally, each of these analyses is straightforward. The challenge in language testing research is to design a study in which the results of the analysis can be used to provide information about the questions that are relevant to the validity of test use.

Item difficulty

In the example above, the researchers were concerned that their intended levels of text difficulty would result in test items at the intended difficulty levels when examinees took the three modules of the reading test. In the description of the results, we summarized the item difficulties of each of the tests. However, in the actual study the researchers also examined the item difficulties of each item on each of the tests. The item difficulty is defined as the percentage of examinees who answered the item correctly. To obtain this percentage, the researchers divided the number who scored correctly by the total number who took the test and multiplied by 100. On the reading test described above, if 40 correct responses were obtained on an item, that would be $(40/47 = 0.85)$, and then $0.85 \times 100 = 85$). People who write tests professionally use this and other item statistics to decide which items are good and which ones should be revised or deleted from a test during test development. Another important item statistic is item

discrimination which is an index of how well each item discriminates among high and low scoring test-takers.

As illustrated above, the concept of difficulty can be used in several different ways, but it is best used in view of the construct that the test is intended to measure, and the use of the test. If all of the items on a test have high values for item difficulty, for example, the person analysing the test knows that the test is very easy. But whether or not this means that the items should be changed depends on the test construct, the examinees tested and the test use. In this regard, testing researchers distinguish between ‘norm-referenced’ tests, which are intended to make distinctions among examinees and evaluate individuals’ performances against performances of other test-takers, and ‘criterion-referenced’ decisions, which are intended to be used to make decisions about an individual’s knowledge of the material reflected on the test by evaluating performances not relative to other performances but against one or more descriptions of adequate performance. A test that is easy for a group of examinees would not be successful in distinguishing between examinees, but it may have shown correctly that individuals in that group knew the material tested. Moreover, when difficulty is interpreted in view of the construct that an item of a test is intended to measure, it can be used as one part of a validity argument.

Correlation

A second statistical analysis used in validation research is ‘correlation’. When testing researchers or teachers look at how similar two tests are, they are considering the correlation between tests. For example, if a group of students takes two tests at the beginning of the semester, their scores can be lined up next to each other and, if the number of students is small, the degree of relationship between them may be apparent, as shown in Table 17.2. With this small number, it is evident that the student who performed well on the first test also did so on the second. Student 5 scored the lowest on both tests, and the others line up in between. The correlation allows for an exact number to be used to express the observation that the students scored approximately the same on the two tests. The correlation is 0.97.

A correlation can range from 1.00 to -1.00 , indicating a perfect positive relationship or a perfect negative relationship. A correlation of 0.00 would indicate no relationship. Table 17.3 illustrates two sets of scores that show a negative relationship. The correlation among the scores in Table 17.3 is -0.79 . Typically, in language testing, correlations in the positive range are found when tests of different language skills are correlated. However, like the analysis of difficulty, the analysis of correlations requires an understanding of the constructs and test uses of the tests investigated.

The direction and strength of a correlation depends on many factors, including the number of subjects and the distributions of scores, and therefore correlations should be interpreted in view of both the construct that the test is intended to measure and the data used to do the analysis. Correlational techniques are the conceptual building blocks for many of the complex test analyses that are conducted, which also require a clear understanding of the basic principles outlined in the first part of the chapter. Validation research includes far more than calculating correlations between the test of interest and another test. Most validity arguments for language tests require, for example, research justifying sampling of test content and estimates of reliability, i.e., the consistency of measurements.

Table 17.2 The use of correlation in validation research

<i>Examinees</i>	<i>Test 1</i>	<i>Test 2</i>
Student 1	35	35
Student 2	25	26
Student 3	30	26
Student 4	34	32
Student 5	17	16

Table 17.3 Two sets of scores that show a negative relationship

<i>Examinees</i>	<i>Test 1</i>	<i>Test 2</i>
Student 1	35	17
Student 2	25	26
Student 3	30	26
Student 4	34	28
Student 5	17	35

Language assessment and language teaching

The relationships between assessment and teaching are as multifaceted as the contexts and purposes of assessment; however, some trends are worth noting. The first is an increased interest in social and political influences on assessment (see McNamara and Roever, 2006 for a comprehensive overview). In this context, most professional language testers, under the influence of Messick's (1989) argument that validation should 'trace the social consequences' of a test, have embraced the idea that tests should be designed and used so as to have a positive impact on teaching and learning. In recent years, researchers have begun to study this impact in a range of educational contexts. Another notable shift in the assessment landscape is a loss of faith in the capacity of 'traditional' forms of educational measurement such as standardized tests to capture learning outcomes accurately and a corresponding move towards greater alignment of curriculum and instruction through the adoption by teachers of new forms of performance assessment (Leung and Rea-Dickins, 2007). A third aspect of language assessment which is found in recent literature is the way in which governments in many countries, under increasing pressure to demonstrate accountability and measurable outcomes, are using assessment as a policy tool. Let us look at each of these trends in more detail.

Washback

One result of Messick's (1989) expansion of the concept of validity to include the social consequences of test use, has been an increased focus on 'washback', a term commonly used by writers on language assessment to denote the influence of testing on teaching (Hughes, 2003: 1). This influence often tends to be presented as harmful – it has been

claimed, for example, that tests (particularly high-stakes standardized tests) exercise a negative influence due to the temptation for teachers to spend time on activities that will help students to succeed in the test (for example, learning test-taking strategies) rather than on developing the skills and knowledge which should be the object of instruction (Alderson and Hamp-Lyons, 1996: 280–281). Conversely, it is also believed that ‘positive washback’ can be brought about through the introduction of tests that target the skills needed by language learners in real life (Cheng, 1998: 279). Seen in this way, a test could be considered more or less valid according to how beneficial its washback effects were thought to be. This is why some newer validation frameworks (e.g., Bachman and Palmer, 2010; Chapelle, Enright and Jamieson, 2008) feature the consequences of assessment as a key component in validity arguments, highlighting the role of washback research in the overall validity argument rather than as an additional consideration. When positive consequences are included in a validity argument, it is insufficient to demonstrate that the test is functioning well psychometrically through statistical item analysis or content evaluation. Instead, evidence is also gathered about whether intended (or even unintended) consequences have been brought about by the use of a language test. However, the role of consequences in validity arguments is not uncontested in the field (Fulcher, 2015).

Although some washback studies have identified detrimental effects of standardized testing on teaching practice (*see*, for example, Fox and Cheng, 2007; Slomp, 2008), Alderson and Wall (1993), reject such a view of washback as simplistic and unsupported by evidence. They argue that ‘washback, if it exists ... is likely to be a complex phenomenon which cannot be related to a test’s validity’ (Alderson and Wall, 1993: 116). The findings of research into washback in a range of language teaching contexts support Alderson and Wall’s (1993) contention that washback effects are complex. In a study of the impact of two national tests used in Israel, Shohamy, Donitsa-Schmidt and Ferman (1996) found that washback patterns ‘can change over time and that the impact of tests is not necessarily stable’. Wall and Alderson’s (1993) study of the introduction of a new examination into the Sri Lankan educational system showed that a range of constraints may influence the intended effects of an examination, including inadequate communication of information by educational authorities, low levels of teacher awareness and lack of professional development support. These authors conclude that ‘an exam on its own cannot reinforce an approach to teaching the educational system has not adequately prepared its teachers for’ (Wall and Alderson, 1993: 67). Cheng’s (1998) research into the introduction of a new task-based examination into the Hong Kong examination system suggests that the impact of assessment reform may be limited unless there is genuine change in ‘how teachers teach and how textbooks are designed’.

The role of the teacher emerges as a major factor in many washback studies. Alderson and Hamp-Lyons (1996) investigated teacher attitudes and behaviour in TOEFL preparation classes and concluded that washback effects may vary significantly according to individual teacher characteristics. Burrows (2004) reached a similar conclusion in a study of adult ESL teachers’ reactions to the introduction of a new competency-based assessment system in the Adult Migrant English Program in Australia. She concluded that teachers’ responses are related to their attitudes towards and experiences of the implementation of the assessment, their perceptions of the quality of the assessment, the extent to which the assessment represented a departure from their

previous practices and their attitudes to change itself. All of these findings suggest that the nature and extent of washback are governed by a wide range of individual, educational and social factors. These include the political context in which a test or assessment system is introduced; the time that has elapsed since adoption; the knowledge, attitudes and beliefs of teachers and educational managers; the role of test agencies and publishers; the relationships between participants and the resources available. An adequate model of impact, according to Wall (1997: 297) needs to include all of these influences and to describe the relationships between them.

'Alternative' assessment

The close interrelationship between teaching and assessment which is depicted in many of the washback studies described above has not always been reflected in the language testing literature. In comparison to standardized proficiency testing, the pedagogical role of assessment has until recently received relatively little attention (Rea-Dickins and Gardner, 2000; Brindley, 2007). However, over the last decades, there has been a growing acknowledgement of the need for closer links between assessment and instruction (Shohamy, 1992; Genesee and Hamayan, 1994) accompanied by a recognition on the part of educational authorities in many countries that teacher-conducted assessments have an important role to play in determining learners' achievement. As a result, we have seen the widespread adoption of 'alternative' assessment methods which directly reflect learning activities and which are carried out by practitioners in the context in which learning takes place (Brown and Hudson, 1998).

Novel approaches to assessment such as learning-oriented assessment (LOA) (Turner and Purpura, 2016) or dynamic assessment (DA) (Lantolf and Poehner, 2011), all building on ideas of formative assessment, have been suggested and are receiving increased attention today. LOA, for instance, tries to broaden the scope of traditional (often large-scale, standardized) testing by focusing on the full range of assessment activities that happen in classrooms. Crucially, LOA and DA put learning at the center of all assessment activities, and see assessment as an integrated tool to serve that process. DA is built on Vygotskian socio-cultural theory and the notion of the zone of proximal development (ZPD). The approach therefore concentrates on assessment scenarios as learning situations and aims at establishing what learners may be able to do if they are given appropriate and graded scaffolding. LOA, on the other hand, is a comprehensive framework that tries to capture all assessment as a vehicle for learning. Turner and Purpura (2016) state that LOA involves several interrelated dimensions (contextual, affective, interactional, instructional, learning, proficiency, elicitation) and that assessments, both external and internal, planned or spontaneous, formal or informal, can take a variety of forms. While forms other than external formal tests are often neglected when thinking about assessment, LOA draws attention to some of these methods that have also often been referred to as 'alternative assessments' or 'alternatives in assessment' (Brown and Hudson, 1998). Three of these will be discussed briefly below.

Observation

Informal observation of learners' language use is one of the most widely used methods of assessment in language classrooms (Brindley, 2001a; Brown, 2004). As Brown (2004: 266–267) notes, on the basis of the information that they build up through observing

their students' behaviour, experienced teachers' estimates of student ability are frequently highly correlated with more formal test results. Information derived from teacher observations may be used in a variety of ways to inform classroom decision-making (for example, whether learners have achieved the learning objectives for a particular unit of instruction and are ready to progress to the next unit). Types of observation that can be used to monitor progress and identify individual learning difficulties range from anecdotal records to checklists and rating scales.

In some educational systems, teachers' observations of learner performance may form an important part of the evidence that is used for external reporting to authorities, and may thus require detailed recording of classroom language use. However, when used for this purpose, observation needs to be conducted with a great deal of care and attention if it is to yield valid and reliable information. In this context, Rea-Dickins and Gardner (2000) have identified a number of sources of potential unreliability in teachers' transcription and interpretation of classroom language samples that may affect the validity of the inferences that are made. They call for more research into the validity and reliability of observational assessment and highlight the need to include classroom observation skills in teacher professional development programs (Rea-Dickins and Gardner, 2000: 238–239).

Portfolios

A portfolio is a purposeful collection of students' work over time that contains samples of their language performance at different stages of completion, as well as the student's own observations on his or her progress.

Three types of portfolio have been identified, reflecting different purposes and features (Valencia and Calfee, 1991). These are first, the 'showcase' portfolio which represents a collection of student's best or favourite work. The entries in the showcase portfolio are selected by the student and thus portray an individual's learning over time. No comparison with external standards or with other students is involved. Second, there is the 'documentation' portfolio which contains systematic ongoing records of progress. The documentation portfolio may include observations, checklists, anecdotal records, interviews, classroom tests and performance assessments. The selection of entries may be made by either the teacher or the student. According to Valencia and Calfee (1991: 337), 'the documentation resembles a scrapbook, providing evidence but not judging the quality of the activities'. Finally, the 'evaluation' portfolio which is used as public evidence of learners' achievement is more standardized than either the showcase or documentation portfolio because of the need for comparability. The contents of the evaluation portfolio and the assessment criteria used are largely determined by external requirements, although there is some room for individual selection and reflection activities. In the context of language education programs in the USA, Gottlieb and Nguyen (2007) describe what they call a 'pivotal portfolio' that combines the features of the showcase and documentation portfolio. It contains essential evidence of the student's work, along with common assessments administered by all teachers, and follows the learner for the duration of the program.

The use of portfolios as a means of recording and assessing progress offers a number of advantages to language teachers and learners. Not only does it provide a way of relating assessment closely to instruction and motivating learners (Fulcher, 1997) but it

also offers learners the opportunity to reflect on their learning goals and strategies, thus promoting learner independence (Gottlieb and Nguyen, 2007). Another claimed advantage of assessment portfolios is that they provide concrete evidence of development that can be used to demonstrate tangible achievement to external stakeholders in language programs (Genesee and Upshur, 1996: 100).

However, the introduction of portfolio assessment has not been without problems. There has been considerable debate in the research literature concerning issues such as the type and amount of student work that should be included in a portfolio, the extent to which students should be involved in selection of the entries and the amount of external assistance they should be allowed (Fulcher, 1997; Brown and Hudson, 1998; Hamp-Lyons and Condon, 2000). In addition, research studies have highlighted both technical and practical difficulties associated with portfolio use. These include:

- Low levels of agreement between assessors on the quality of language samples (Brindley, 2001b).
- Lack of comparability between the samples submitted (Hamp-Lyons and Condon, 2000).
- The time and expense associated with collecting and grading large numbers of student texts on a continuing basis, conducting standard-setting meetings and discussing portfolios with students on an individual basis (Weigle, 2002).

In spite of these potential difficulties, however, it has been argued that the positive impact of portfolios on both teachers and learners is in itself sufficient reason to continue their use, even if it cannot be demonstrated that portfolio assessment is technically more reliable than more traditional means of assessment (Fulcher, 1997; Hamp-Lyons and Condon, 2000). In addition, with the advent of new technology, the practical problems of data management and storage associated with paper-based portfolios do not arise, since the contents can be stored, displayed and transmitted electronically. A wide variety of work samples can now be captured in different electronic formats, ranging from video-recorded speech samples to writing assignments, and used by teachers, learners and relevant third parties for all of the purposes identified above. One example that illustrates the potential of a portfolio-based assessment and reporting system is the European Language Portfolio (ELP) (Little and Perclová, 2001) which has been developed as part of the Common European Framework of Reference (Council of Europe, 2001).

Self-assessment

The process of self-assessment involves learners making judgements of their language ability and/or their achievement of learning goals and objectives. Self-assessment is an integral part of learner-centred approaches to instruction which aim to encourage the active participation of the learner in each stage of the teaching or learning process, including assessment (Ekbatani, 2000). Proponents have argued that using self-assessment can help learners to become skilled judges of their own strengths and weaknesses and to set realistic goals for themselves, thus developing their capacity to become self-directed (Oscarson, 1997; Ross, 1998). For example, DIALANG, a diagnostic/placement test in 14 European languages which is delivered via the Internet (Alderson, 2005)

allows learners to compare their self-assessed level with their test result in different language skills. Learners receive feedback on their test performance based on the Common European Framework of Reference language levels which raises their awareness of their own proficiency level and of the various factors involved in the language learning process (Huhta and Figueras, 2004). At the same time, score reports can be used for communication with a range of third parties, including employers and educational institutions. Such innovations, along with initiatives such as the electronic portfolios described above, show how advances in technology can be harnessed to meet the needs of multiple stakeholders in the language learning enterprise.

Self-assessment techniques that are commonly used in language programs include self-corrected tests and exercises, rating scales, learner progress grids, standardized questionnaires and self-assessment test batteries (*see* Oscarson, 1984; Brindley, 1989; Brown, 2004 for discussion and a range of examples). These procedures can be used by learners to estimate their general level of ability (for example, at the beginning of a course of instruction) or as a means of monitoring their progress relative to particular instructional objectives or performance tasks during the course.

Other types of alternative assessment include learning journals, project work, teacher-developed tasks and simulations and peer-assessment. In many education systems, evidence from these assessments is being used increasingly, sometimes in combination with external tests, as a basis for reporting student progress and achievement against pre-specified outcome statements or standards (Brindley, 1998; Snow, 2000; Brown, 2004) which will be described in greater detail below.

'Alternative' assessment: Advantages and disadvantages

The various kinds of 'non-test' assessment listed above offer a number of potential benefits for all stakeholders in language learning programs. First, they allow teaching and curriculum goals to be closely aligned, thus improving communication between teachers, students and other external stakeholders (Katz, 2000). Second, the detailed diagnostic information yielded by such assessments can motivate learners to set their own goals and become more involved in their own learning. Third, the close observation of individual learner performance which accompanies some forms of qualitative monitoring and assessment can provide rich insights into student learning processes, and thus serve a useful professional development function for teachers (Mohan and Low, 1995). Fourth, the use of various forms of alternative assessment in combination enables teachers to obtain a wide sample of learners' language performance in a range of contexts, thus providing more valid and dependable evidence of progress and achievement (Shohamy, 1998). Finally, since alternative assessment is less threatening to learners than formal tests that are administered under controlled conditions, it is more likely to elicit their optimal level of performance.

Despite these advantages, however, a range of concerns has been expressed about the use of alternative assessment as the basis for reporting student outcomes, particularly in high-stakes contexts. These concerns relate to:

- The validity and reliability of interpretations made from the assessment tools that are used.
- Their administrative feasibility and cost-effectiveness.
- Teachers' preparedness to take on an enhanced assessment role.

Research in both general education and language learning contexts suggests that using a small number of context-specific assessment tasks results in low levels of generalizability, thus severely limiting the inferences that can be made about a learner's ability (Brindley, 2000a). At the same time, considerable variability has been identified in teacher-developed assessment tasks (Wigglesworth, 2000), making comparability across tasks difficult and potentially diminishing the value of information on student learning outcomes. Other reliability issues which have been identified include the difficulties of obtaining acceptable levels of agreement between raters on the quality of student writing portfolios (Hamp-Lyons, 1996) and inconsistencies in teachers' observations of student performance (Rea-Dickins and Gardner, 2000; Brindley, 2001b). These issues of reliability have served to highlight some inherent problems related to teacher-conducted assessment and rating, not the least of which is teacher expertise. In this regard, researchers have pointed out that teachers cannot necessarily be expected to possess the skills needed to develop and administer high quality assessments that can be used in high-stakes situations. For this reason, it has been argued that a serious investment in ongoing professional development on the part of educational authorities is necessary if teachers are to become the principal agents of assessment (Brindley, 2001a; Inbar-Lourie, 2008). In terms of practicality, research studies have consistently demonstrated that as well as requiring higher levels of skill on the part of teachers, alternative assessment is more time-consuming and expensive to conduct than traditional testing (Hardy, 1995; Breen et al., 1997). Decision-makers are, not surprisingly, often reluctant to commit extra funding to complex teacher-led assessment systems that require high levels of infrastructural support, particularly when resources are scarce. However, as assessment researchers involved in assessment reform have argued, without such a commitment the possibilities of implementing such systems are seriously compromised (Eckes et al., 2005).

Outcomes-based assessment

In recent years, the shift towards alternative assessment has been paralleled by a move towards greater accountability. Under increasing pressure to demonstrate 'value for money' to taxpayers, and/or to standardize curricula and outcomes within and across national boundaries, governments worldwide have identified a need for system-wide indicators for monitoring the outcomes of educational programs. This has led to the widespread introduction of 'outcomes-based' approaches to assessment and reporting, whereby the results of teacher-developed performance assessments are used as the basis for reporting student learning outcomes against pre-specified attainment standards, known, *inter alia*, as 'frameworks', 'benchmarks', 'bandscales' or 'competencies' (Norton Peirce and Stewart, 1997; Brindley, 1998; McKay, 2000; Hudson, 2005). Examples of this type of approach are the Common European Framework of Reference in Europe (Council of Europe, 2001), the Canadian Language Benchmarks Assessment in Canada (Pawlikowska-Smith, 2000) and the Certificates in Spoken and Written English in Australia (Burrows, 2004).

Over the last decade or so, the implementation of outcomes-based approaches has raised many of the issues and problems associated with the use of alternative assessment that are mentioned above (Brindley, 1998). In addition, the history of their

adoption shows that in many cases the development of such assessment systems is driven more by government policy and ideology than by educational considerations (Shohamy, 2006; McNamara and Roever, 2006; Mencken, 2008). This politicization of language testing has prompted the emergence of ‘critical language testing’, an approach which questions the ideologies and assumptions that underlie language assessment and calls for a radical re-examination of the power structures while advocating greater attention to issues of fairness and equity for test-takers (Shohamy, 2001, 2006).

Language assessment literacy (LAL)

Given the increased importance of language assessment in all areas of social life, it is important that applied linguists and other groups have a basic understanding of what language assessment is, how it works and what its ethical/societal dimensions might be. Many researchers have therefore recently called for teachers, policy-makers and various other stakeholders to become more language assessment literate. Language assessment literacy (LAL) refers to awareness and knowledge of good practice in language assessment that allows professionals in applied linguistics to best carry out their practice, in addition to enabling their participation in informed discussion of matters related to language assessment. Multiple definitions of LAL have been proposed recently, and there is a lively discussion around what components should be included in core training in assessment, and what levels of assessment literacy are necessary for different stakeholder groups in different contexts. For example, language teachers might need to know or be skilled in more or different things than admission officers using test scores to make decisions about degree program enrolment.

In a 2013 special issue in *Language Testing*, Taylor (2013) synthesized previous research to propose that LAL involves a combination of varying levels of 1) knowledge of theory, 2) technical skills, 3) principles and concepts, 4) language pedagogy, 5) socio-cultural values, 6) local practices, 7) personal beliefs/attitudes and 8) scores and decision-making. The level of knowledge required depends on the particular roles played by various professionals in applied linguistics. Kremmel and Harding’s (forthcoming) large-scale LAL survey provides the first empirically-based insights into the perceived levels of LAL needs of different groups in these areas. However, while research will have to refine its models of what exactly LAL entails, it is uncontested that a more robust understanding of the principles and practice of good language assessment among various groups in applied linguistics, as well as the wider public, would be beneficial for the furthering of second language research, theory and also the public debate on many language policy issues.

Conclusion

The fundamental concepts, beliefs and practices in language assessment have changed in recent years, in part because of the shifting relationship between assessment and teaching. Previously, assessment tended to take the form of proficiency testing, based on general ability constructs, which was largely unconnected to the curriculum. Now there is a widespread recognition of the need for close links between the desired outcomes of instruction, curriculum content and assessment, and this new

emphasis is increasingly reflected in assessment policies, materials and methods. However, although the integration of assessment and learning is supported by strong educational arguments (Black and William, 1998), as yet relatively little research has been conducted in language learning contexts to determine whether or not ‘embedded’ assessment results in improved learning. This important question will need to be investigated through washback studies that not only investigate the impact of tests on society at large but also explore ways in which classroom assessment occurs as socially situated practice (*see*, for example, Rea-Dickins, 2006; Davison, 2007). At the same time, in order to ensure that the tests and assessments that are used in language programs are optimally fair and valid, a continuing research effort will be required to clarify the nature of the constructs that underlie them.

Hands-on activity

Question 1

In a short ESL vocabulary test, the test developers wanted to be sure to include vocabulary items at a wide variety of difficulty levels, and so they included items such as the following: ‘The main focus of the course’, ‘People’s stereotypes of other social groups’ and ‘My name is Sandy’. The examinee had to select the correct word (the underlined one) from four choices. Since the items were intended to reveal different ability levels, the test developers looked at the item difficulty of each of the items. They found a range of difficulties for the three items (100, 74 and 42). Complete Table 17.4 with your analysis of where each item fits, the level of predicted item difficulties (low, medium, high) and actual item difficulties.

Table 17.4 Summary of predictions and results for ESL vocabulary items

<i>Item, predicted and actual results</i>	<i>Beginning</i>	<i>Intermediate</i>	<i>Advanced</i>
Item			
Predicted			
Actual item difficulty			

Question 2

Test developers were attempting to develop two forms of a language test that they could claim measured the same thing. They started by developing three forms of the test, each of which had the same types of items. They gave the three tests to a group of students and they found that the correlation between Form 1 and Form 2 was 0.74. The correlation between Form 1 and Form 3 was 0.75, and the correlation between Form 2 and Form 3 was 0.85. Which two forms should the test developers choose?

Question 3

Test developers were attempting to write a test of ESL Business English, and therefore as one part of the validity study they needed to find evidence that the test was measuring this construct. They did this, in part, by examining the scores obtained on the tests by four different groups of examinees. The four groups were chosen because of their predicted differences in ability in Business English. Can you predict which group the researchers hoped would perform the best on the test, the second best, etc.? Place each of the four groups in the appropriate place in Table 17.5:

Table 17.5 Developing a test of ESL Business English

<i>Predicted test performance</i>	<i>Lowest scores</i>	<i>Third-highest scores</i>	<i>Second-highest scores</i>	<i>Highest scores</i>
Group				

- Native speakers of English, business majors (NSBM).
- Non-native speakers of English, business majors (NNSBM).
- Native speakers, non-business majors (NSNBM).
- Non-native speakers, non-business majors (NNSNBM).

Question 4

In order to improve their testing of language ability, many testing programs are attempting to develop tests that are delivered and scored by computer, and as a part of the development process, validation studies are conducted. One type of validation study looks at the correlation of performance on the computer-delivered test with performance on a similar paper and pencil test. If the purpose of the computer-delivered test is to assess language ability better than has been possible with paper and pencil tests, what kind of relationship should be expected as the ideal outcome from such a study and why? (A strong correlation would be approaching 1 (for example, Pearson's $r = 0.92$), and a low correlation would approach 0 (for example, Pearson's $r = 0.23$).)

Question 5

In a large test revision project, testing researchers were hoping to develop a better test of academic language ability. To do so they tested several different tests, including tests of listening, vocabulary, grammar and reading. They found that they only had enough time to include either the reading or the grammar test in the final version, and they found that the correlations of the grammar test with the other language tests were somewhat stronger than those between the reading test and other tests, but in the end they chose to include the reading test rather than the grammar test. Why do you think they would do this?

Question 6

As a teacher in a language program, you have developed an achievement test for your course that helps you to focus your teaching on particular reading strategies throughout the semester, and that seems to assess your students in a manner that is fair and useful as input to the grading process. In looking for a means of reporting outcomes to an external agency, your program administrator takes a look at your test and then starts questioning its validity for the purpose that she is concerned about. She wants you to do a correlational study of your final exam with another reading test to see if it is valid. What should you tell her?

Notes

- 1 Iowa State University.
- 2 University of Innsbruck.
- 3 Macquarie University, Sydney.

Further reading

Bachman, L.F. (1990) *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.

[This classic work on language assessment develops issues of construct definition, test method and validation in depth. It connects work in applied linguistics (for example, communicative competence theory) with the fundamentals of educational measurement.]

Bachman, L.F. and Alderson, J.C. (eds.) *Cambridge Language Assessment Series*.

[This series offers authoritative treatments of practical issues in areas of language assessment, such as reading (Alderson, 2000), vocabulary (Read, 2000), language for specific purposes (Douglas, 2000), listening (Buck, 2001), writing (Weigle, 2002), speaking, (Luoma, 2004), grammar (Purpura, 2004) and assessing young language learners (McKay, 2006). Each volume contains an up-to-date overview of theory and research, accompanied by useful discussion and examples of testing principles and techniques].

Bachman, L.F. and Palmer, A.S. (1996) *Language Testing in Practice*. Oxford: Oxford University Press.

[This book takes readers through test development and formative evaluation – detailing each step of the way in view of the theoretical and practical concerns that should inform decisions. The book contributes substantively to current discussion of validity by proposing a means for evaluating language tests which incorporates current validation theory but which is framed in a manner which is sufficiently comprehensible, and appropriately slanted toward language testing.]

Carr, N.T. (2011) *Designing and Analyzing Language Tests*. Oxford: Oxford University Press.

[This is a very readable introduction to language assessment that covers both theory and practice of selecting, developing and administering tests. Particularly notable is the extensive introduction to basic statistical analysis procedures that familiarizes readers with key concepts and processes of item analysis.]

Fulcher, G. and Davidson, F. (eds.) (2012) *Routledge Handbook of Language Testing*. London: Routledge.

[This edited volume is a comprehensive introduction to theoretical concepts in language assessment, filled with useful practical recommendations. A new edition of this collection of chapters written by leading researchers in the field has just been commissioned and will be published in 2021.]

Green, A. (2013) *Exploring Language Assessment and Testing: Language in Action*. New York: Routledge.

[This book is an introduction to the field of assessment that provides a survey of classroom-based assessment and large-scale testing. The reader is guided through designing, developing and using assessments based on theory and specific scenarios.]

McNamara, T. (1996) *Measuring Second Language Performance*. London: Longman.

[This book is an in-depth examination of the issues and problems involved in assessing language performance. The first half of the book looks at approaches and theories in performance assessment and identifies the dimensions of an adequate model of language performance. The second half of the book is concerned with ways in which Rasch measurement technology can be used to model variability in language performance and rater behaviour.]

McNamara, T. and Roever, C. (2006) *Language Testing: The Social Dimension*. Malden, MA and Oxford: Blackwell.

[In this book, the authors explore the social dimensions of language testing from a validity theory perspective. They critique the lack of a social perspective in psychometric approaches to testing and outline various ways in which social dimensions of language use can be incorporated into test construction. The uses and abuses of language tests as policy instruments are also critically examined. The book provides a thorough and theoretically-grounded overview of the issues and problems associated with a socially situated view of language assessment.]

Suggested solutions

Chapter 2, Grammar

- 1 Form. In English, a specific number or number-like phrase in English used as an adjective is always singular before the noun it modifies.
- 2 Meaning. This sentence is accurate and meaningful, but it is not likely the meaning that the student intends. The *-ing* participle refers to the cause, not the experiencer of the emotion.
- 3 Use. It is not as acceptable to use a stative verb (for example, *want*) with the passive voice as it is to use a verb denoting physical action (for example, *score*).
- 4 Meaning. The logical connector ‘on the contrary’ usually denies a proposition. A connector like ‘in contrast’, to compare two things, would be better.
- 5 Use. The historical present modal form, that is, *will*, is likely to be used in a response to a request, for example, ‘*Of course, I will*’.
- 6 Meaning. *Few* has a negative connotation. *Although* signals a contrast. One would therefore expect either a quantifier with a positive connotation to be used, such as *a few* or a causal connector, such as *because*. Thus we would expect either: ‘*Although he had a few close friends, he was very lonely*’ or ‘*Because he had few close friends, he was very lonely*’.
- 7 Form. The direct object (*a house*) precedes the indirect object (*my parents*) when the indirect object is in a prepositional phrase. Without the preposition, this sentence would have been accurate.

Here is an example of an activity that would *promote noticing* of number phrases used in singular form before a noun (see Question 1).

Bring into class some advertisements from the real estate section of the newspaper. Such advertisements contain phrases such as ‘3-bedroom house’, ‘two-car garage’, ‘two-bathroom apartment’, ‘5-acre lot’, etc. See how many of these number phrases before nouns students can find. They may need help with any abbreviations that are used.

Here is an example of a *practice* activity that would help students work on the order of direct and indirect objects (see Question 7).

Think of five friends or relatives that you have. What gifts would you buy for each? For example, 'I would buy a book for my sister'. OR 'I would buy my sister a book'.

Chapter 3, Vocabulary

Research has shown that vocabulary size is directly related to the ability to use English in various ways. Although around 2000- to 3000-word families should supply the bulk of the lexical resources required for basic everyday conversation (chat), Nation (2006) found that it takes 6000- to 7000-word families to engage easily in a wide variety of oral discourse. For written discourse, the figures are closer to 8000- to 9000-word families. Second language learners with a knowledge of the most frequent 9000 words in English can be considered to have a wide vocabulary, which should allow them to operate in a university environment (*see* Chapter 15, *Reading*).

It is important to note that these sizes are approximations, and the ability to accomplish these things in English also depends on many other factors, including speaking and reading skills, background knowledge and strategy use. However, they do provide useful 'rules of thumb' which can be used as lexical goals by both teachers and learners.

Suggested solutions

Table 18.1 Four vocabulary learning strands

<i>Strand</i>	<i>General conditions</i>	<i>Activities and techniques</i>
Meaning-focused input	Focus on the message Some unfamiliar items (2%) Understanding Noticing	Reading graded readers Listening to stories Communication activities
Language-focused learning	Focus on language items Deliberate study	Direct teaching of vocabulary Direct learning Intensive reading Training in vocabulary strategies
Meaning-focused output	Focus on the message Some unfamiliar items Understanding Noticing	Communication activities with written input Prepared writing Linked skills
Fluency development	Focus on the message Little or no unfamiliar language Pressure to perform faster Quantity of practice	Reading easy graded readers Repeated reading Speed reading Listening to easy input 4/3/2 Rehearsed tasks Ten minute writing Linked skills

Chapter 4, Discourse analysis

Both these texts are about the same topic – cockroaches – but they are clearly different in many respects. Perhaps the most obvious difference between the two texts, is that the first text is a written text about cockroaches (taken from the *Encyclopaedia Britannica*, Volume 5: 909) and the second text is an anecdote told by a woman to her friends during an informal chat over lunch at work.

Text 1 is characterized by the following features typical of written discourse:

- *Context independent*: as the written text must be able to make sense away from the physical context in which it was produced, it must be self-explanatory and the reader needs to be able to access the meanings from the text itself (see Burns and Joyce, 1997).
- *Lexical density*: In Text 1 the lexical words have been underlined. There are nine clauses, with 29 lexical items, giving a lexical density of 3.2 items per clause; whereas in Text 2, there are ten clauses, with 18 lexical items, giving a lexical density of 1.8. The information is therefore more densely packed in written discourse.
- *Formal and specialized vocabulary*: for example: *eminently tropical, species, widely disseminated, cosmopolitan*.

On the other hand, Text 2 displays features typical of spoken English. These are:

- *Context dependent*: spoken discourse is more context dependent, in that speakers constantly refer to things in the context, for example ‘*there was this cockroach like this*’.
- *Lexically sparse*: spoken discourse is lexically less dense.
- *Grammatical intricacy*: the text is made up mainly of simple main clauses connected to one another by *and*. However, sentence grammar in speech can be very complex with clause after clause being added on, with extensive use of conjunctions, such as *and, because, then*, to link the clauses. For example in Text 2, Turn 3, there are 16 clauses in one clause complex (totalling 95 words).

Use of *paralinguistic features* (for example, Pat’s hand gesture of size of cockroach). Because spoken language is produced as ‘process’ not as a completed product, it contains spontaneity phenomena, such as false starts, hesitations, incomplete clauses.

These differences between spoken and written discourse are summarized in the table.

<i>Spoken discourse</i>	<i>Written discourse</i>
<i>Context dependent</i> : relies on shared knowledge between participants; greater use of exophoric (external context) reference	<i>Context independent</i> : must recreate the context for readers
Less explicit/relies strongly on shared knowledge between participants	Quite explicit marking out of what is going to be said (for example, <i>in the first place, firstly, finally</i>)

<i>Spoken discourse</i>	<i>Written discourse</i>
Spontaneous and therefore displays spontaneity phenomena, such as false starts, hesitations, incomplete clauses	Planned, edited and redrafted
All interactants are engaged in the creation of the text, so there is turn-taking, interruptions, overlaps, etc.	Written text is only implicitly interactive (reader is assumed but not involved in the creation of the text)
Multilogue (casual conversation very often involves more than two speakers, that is, it is usually multilogue rather than dialogue)	<i>Dialogic</i> : Writer engages in a dialogue with the projected reader
<i>Grammatical complexity</i> : in terms of the chaining of clauses and the inclusion of non-linguistic support to the construction of meaning	<i>Grammatical complexity</i> : in terms of density of structure within sentences
Lexically sparse	Lexically dense
Vocabulary is everyday/non-specialized	Vocabulary more specialized

Chapter 5, Pragmatics

Reference

There are numerous deictic expressions that need interpreting (for example, it [03], that [05, 06]), as well as the expression the South [05] meaning the South of the United States. However, none of them pose any significant interpretation problems.

Illocutionary force

For example, Everything's ready now [03] is an invitation to come to the table to eat; but that's so much that is FAR TOO MUCH rice [06] functions as a complaint. Both of these speech acts are performed indirectly. Although they are interpreted with ease in this dialogue, they could carry a different force in a different context. For example, if the 'complaint' was uttered with soft intonation and in a country where polite refusals are expected out of modesty, this could function as a ritualistic expression of modesty.

Agreement/disagreement

Andi does not adhere to Leech's politeness maxim of agreement, and this disturbs the social equilibrium.

Face-threatening behaviour

Brian was hoping to please Andi [03], so Andi's complaint is likely to be face-threatening to him (threatening to his positive face).

Context

In a retrospective interview, Brian commented that in this communicative activity (a social dinner) he was expecting to indulge in 'small talk' rather than to be 'talked at'. If they had

known each other better, or if they were in a different context (for example, in a university seminar), a debate of this kind might have seemed more appropriate to Brian.

Conversational pattern/structure

Andi took longer turns than Brian and interrupted him when Brian attempted to speak. This pattern of turn-taking was not what Brian was expecting in this context, and made him feel he was being talked at.

Chapter 6, Corpus linguistics

First, it is important to remember that these concordance lines do not represent an exhaustive study. However, there are several interesting observations that can be made from the patterns seen in the concordance lines. Although think of and think about do have some overlap in use and meaning, there are situations when there is a strong preference for one form over the other. Here are some of the observations that can be made from the concordance lines presented in the activity.

- Think of is often used with indefinite references (for example, something, nothing). However, the words something and nothing never occur with think about (for example, think about nothing).
- Although it occurs after both think of and think about, think of continues its preference for a non-referential use. The concordance lines show that think of it is a non-referential use of it, whereas the it reference in think about it is usually referring back to a specific reference in the text. This may be difficult to see from the limited text available. However, if you were actually carrying out this exploration with a concordance program you could increase the 'window' of words available to help you find out the reference patterns.
- Come to think of it *is* quite common and quite idiomatic, yet come to think about it *does* not occur.
- Think about it is often preceded by the pronoun you (that is, you think about it).
- The examples of think about + that also demonstrate the preference for think about to be used with referential situations (for example, Think about that train. Think about that sort of place).

Chapter 7, Second language acquisition

Who is the most/least advanced?

Student A is the most advanced. He uses several stage 5 questions that appear to be original rather than formulaic. In addition, he shows the ability to use his sense of humour while completing the task, suggesting that he is at ease with his English language use.

Student B is the least advanced. Many of his questions are stage 2 questions. He is able to use some more advanced questions, including one stage 5 question. This may be an example of a formulaic question, that is, one that he has learned from classroom activities. On the other hand, it may be an original question, but the fact that most of his questions are from lower stages suggests that it is more difficult for him to produce these advanced questions.

	<i>Student A</i>	<i>Student B</i>	<i>Student C</i>
1.	3	2	3
2.	5	2	5
3.	5	4	5
4.	4	5	3
5.	5	4	3
6.	N/A	2	3
7.	5	2	3
8.	4	2	3
9.	3	3	3
10.	4	4	3
11.	4	3	4

Student C's questions are mostly stage 3 questions, but there is evidence that he is able to create more advanced questions. It is never possible to be sure whether a particular question is formulaic when it is correct. Sometimes, a question which seems a little odd or which contains an error is a clearer indication of the fact that the learner has created the sentence rather than repeating something heard elsewhere. Thus, a question such as 'Can I know which one is my trunk?' suggests that the learner is putting the pieces together himself.

Written versus oral interaction task

A written task permits learners to take the time to recall what they have learned in class. These more advanced questions may be either chunk-learned items or they may reflect the learners' meta-linguistic ability, which may be in advance of the language they use spontaneously. On an oral task, there is pressure to respond more quickly and there is no opportunity to review what has been produced and to make changes. Therefore, their oral performance is more likely to reflect their true level of development.

Interlanguage features

The use of *Mrs* and *Mister*, without a family name, as a polite form of address matches French usage of *Madame* and *Monsieur*.

The use of questions without inversion is typical of spoken or informal French, and students were clearly writing what they considered to be appropriate for informal oral interaction. Recall, however, that even learners whose L1 requires inversion with questions will nevertheless pass through stages of development at which they do not use inversion.

Chapter 8, Psycholinguistics

Evidence in data

Yes, the data show that the monolinguals and bilinguals did not perform the auditory comprehension task equivalently. Specifically, the difference in processing between the two groups was evident in the negative priming manipulation, where monolinguals showed effects of negative priming, but the bilinguals did not. If there was no effect of bilingual language experience, the two groups would have performed equivalently.

Interpreting the data

One interpretation of the finding that the bilinguals who experienced less interference in the Stroop task also experienced less negative priming is that bilingual language experience impacts inhibition such that the inhibition found in linguistic processing is related to the inhibition found in cognitive control tasks.

Exploring alternative interpretations

Yes, with any experimental result, multiple interpretations of the data can be offered and should be compared. Given the result that evidence of negative priming was found for monolinguals, what interpretations can be offered to explain why this might have occurred? One interpretation that was mentioned above is that monolinguals may be inhibiting the distractors to a greater degree than the bilinguals, leading to longer lasting inhibitory effects and the resulting negative priming. However, another interpretation of this same result could be that the monolinguals processed the distractor words more deeply on each trial which led to the appearance of greater carry-over inhibition, but in fact was due to a greater depth of processing rather than inhibition. Any number of interpretations could be posited, but the interpretation that is most parsimonious and consistent with past research should be cautiously accepted.

Implications of monolingual and bilingual processing differences

The differences between monolinguals and bilinguals in auditory language processing observed in this experiment have implications for the real world. For example, if bilingual language experience leads to greater synchrony between linguistic and cognitive control processes, teaching foreign languages would be expected to have greater impacts than simply teaching people to communicate in a new language. Additionally, the way in which monolinguals and bilinguals who have language disorders are treated should be carefully considered with regard to the differing linguistic processing demands experienced by monolinguals and bilinguals.

Chapter 9, Sociolinguistics

<i>Middlesbrough English</i>	<i>Standard English</i>
Phonological examples	
<i>Ee</i>	<i>Oh</i> (but also to indicate scandalization, exasperation, surprise)
<i>eh?</i>	Tag inviting agreement
<i>yer</i>	<i>you</i>
<i>Hey</i>	Attention-grabbing tag
<i>wanna</i>	<i>want to</i>
<i>fest</i>	<i>first</i>
Lexical examples	
<i>like</i>	Informality tag
<i>class</i>	<i>excellent</i>
<i>reckon</i>	Used more than <i>think</i>
<i>rubbishy</i>	<i>bad</i>
<i>mucky</i>	<i>dirty, rude</i>
<i>smart</i>	<i>good, cool</i>
<i>anyroad</i>	<i>anyway</i>
<i>mind</i>	<i>however</i>
<i>Our Lass</i>	<i>my wife/girlfriend</i>
<i>Our Tony</i>	<i>my brother Tony</i>
<i>Our House</i>	<i>my house</i>
<i>right cob on</i>	<i>is in a mood</i>
<i>learning</i>	<i>teaching</i>
<i>owt/nowt</i>	<i>anything/nothing</i>
<i>gadgie</i>	<i>man, like codger</i>
<i>parmo</i>	a <i>parmesan</i> , as explained
<i>eggheads</i>	Educated people
<i>choice</i>	swearing (euphemistically)
<i>gobsmaeked</i>	<i>surprised</i>
<i>plonked</i>	<i>placed</i>
<i>croggiel/tan</i>	different words for giving someone a ride on a bicycle
Grammatical examples	
<i>us</i>	Nominatively used for <i>we</i> , accusatively meaning <i>me</i>
<i>we only get a mention</i>	<i>only</i> for <i>actually</i>
<i>I didn't know there were that many words in the world, me</i>	<i>me</i> as reflexive intensifier
<i>what it is, right</i>	Topic introduction
<i>there's this</i>	<i>there is a</i>
<i>way what we talk</i>	<i>what</i> for subordinating particle <i>that</i>
<i>ones what all the eggheads</i>	As above

<i>Middlesbrough English</i>	<i>Standard English</i>
<i>underlined in red, and that</i>	<i>and so on</i>
<i>on the news and everything</i>	Tag phrase as intensifier
<i>them rubbishy efforts</i>	<i>them</i> (for demonstrative <i>those</i>)
<i>this dictionary, it's huge cars</i>	Topicalization
<i>don't give a hoot about no Italian</i>	Multiple negation
<i>I swear down dead</i>	Emphatic idiom
<i>down Oxford</i>	<i>down</i> (meaning anywhere southwards)
<i>get yerselves round</i>	Imperative <i>get</i>
<i>had a right chew on</i>	<i>complained loudly</i>
Discoursal examples	
Questions	<i>Did yer see it?</i>
Elicitations	<i>eh?</i>
Exclamations	<i>honest</i> <i>that's rubbish, that is so anyroad like</i>
Empathy markers	<i>get this</i> <i>way what we talk, eh?</i>

Chapter 10, Focus on the language learner: Motivation, styles and strategies

A guide to interpreting the results from the Learning Style Survey immediately follows the survey in the chapter.

Chapter 11, Forensic linguistics and language and the law

At the beginning of the extract, the interviewer's turns include open questions and supportive third turns with such discourse markers as 'yeah', 'ok', 'right'. The suspect's turns are thus longer than those of the interviewer, which indicates that the suspect is given an opportunity to tell their story. Towards the end of the suspect's free account, the interviewer summarizes the account and checks whether the summary is accurate ('Ok. So what you've described there is sort of ... after cleaning up you'd lay on the bed with her until she's gone off?'). After a series of clarifying closed questions, the interviewer proceeds to asking more challenging questions ('Ok. So when you lay on the bed where would she be?'). Notice that the function of third turns such as 'ok', 'yeah', 'right' as well as *so*-prefaced summarizing questions changes here from a simple indication of comprehension and summary of the previous account to an initiation of an implied challenge (e.g., 'Right. And whereabouts were you...would you be?'). The focus then turns more towards the suspect's account and the interviewer allows the suspect to finish their description of what was happening; the third turns used here help the interviewer indicate interest and comprehension of the account ('right', 'yeah'). Once the details are clarified, the interviewer introduces another challenging turn ('Ok. Ok. Ok so during ... during that time was there any instan ... was there anything that you wo ... that you would do other than what you've described?'). The interviewer's turns fluctuate between more open questions requiring a free account to clarifying closed questions that require

specific details. What is important though is that the interviewer does not use direct accusations, instead they challenge the suspect's account though clarifying questions introduced after the suspect's free account. By using supportive third turns and expressing empathy, the interviewer manages to build rapport with the suspect, which is a crucial part of the PEACE model and ethical police interviewing ethos.

Chapter 12, Multilingualism

There are no hard and fast answers to the questions provided. Answers will vary according to your personal experiences.

Chapter 13, Listening

Question 1: Listening sub-skills

Examples of cases where the learner found it difficult to discriminate between the sounds include: *conversing/convergent*, *context/contact* and *doubts/done*. Examples of misperceived word boundaries are: *on seventy* (for *uncertainty*) and *everywhere* (for *every word*). As far as tackling unfamiliar words is concerned, he produced a plausible alternative, *decide*, for the unusual word *decipher*, but was totally confused by *catch the words*, which he interpreted as *catch the dog*.

Question 2: Overall comprehension

One way of assessing what the listener made of the text as a whole is to focus on the right-hand version and treat it as a text in its own right. What does it seem to be about? When you do that, it is hard to see any overall coherence. Although some of his versions of sentences (2, 9 and perhaps 10) are relatively accurate, they all have some detail missing. Others (for example, 3, 5 and certainly 7) make no obvious sense to the reader. Although the class was told in advance that the topic of the text was the problems of talking to native speakers, it seems clear that the Japanese learner either did not understand that or did not hear it, because it is only in the final two sentences that he seems to have been writing about language.

The learner was an undergraduate in economics. There is some lexical evidence of that in his version: *convergent* (sentence 1) and *consumption* (sentence 6), and also perhaps in his hearing the nouns *demand* and *benefit* (sentence 10) instead of their respective adjectives.

Question 3: Intercultural misunderstanding

Although the language of this extract was simple, it still provided the opportunity for conflicting interpretations. The reporter said the food was *hot*, (meaning too spicy for his taste), which the interviewee changed to *tasty* (spicy enough) and justified (you want plenty of spice when you are celebrating). The reporter then picked up the word *tasty*, but with a slight pause and a glance at the camera, suggesting that he felt the need to be polite. His next sentence is the most interesting, for our purposes: *'I don't suppose you have a carry-out do you?'* The reporter seemed to be looking for a polite excuse not to eat any more of the food: his *'I don't suppose you have a carry-out?'* implied that he was asking for a portion to take away with him to eat later. But the

interviewee seems to have interpreted what he said as *'I don't suppose you have a take-away restaurant?'* and so replied that he was a doctor, and not a restaurateur.

This could be seen as a simple lexical misinterpretation. On the other hand, Pakistani immigrants in the UK may be so used to being stereotyped as working in certain occupations, such as catering, that the doctor here assumes that the reporter assumes just that. This extract seems to carry echoes of many other conversations the doctor has had with British people! Real-life misunderstandings like this can provide valuable material for discussion with L2 listeners, especially when the examples come from interaction between competent users of a language, as was the case here. Adult L2 learners, in particular, can gain confidence (perhaps paradoxically) from analysing the problems that arise in listening, even in their own L1.

Chapter 14, Speaking and pronunciation

Question 1

The first part of the interaction (B1–B4) is mediated by the fact that this is a pedagogical task requiring description of a picture. The text unfolds as:

Description (B1)^(Clarification)(A1)^Description (B2)^(Reaction) (A2-B3)^Task closure (A3)

Clarification and Reaction can be regarded as Optional stages. The second part (A4–A6) is a kind of Coda, a commentary on the overall interaction, which clears up the central misunderstanding.

Question 2

Many of the lexico-grammatical choices in the Description stage reflect the goal of the task – describing and identifying a picture. The major human and material participants are named – *cars, hotel, snow, people, sun, mark, first floor* – as well as the location circumstances – *around the hotel, in front of the hotel, on the wall of the first floor of the hotel*. The main verb choice, reflecting the existence of the things or people in the picture, is the verb 'to be' and the tense used is present simple. In some instances present continuous – *are going to skiing* – is used, reflecting the still ongoing nature of the actions portrayed.

Other choices, outside the stage of Description reflect the fact that the speakers are involved in a joint 'here and now' task. Personal pronouns *I, you* are used to refer to each other, whilst major verb choices refer to the conduct of the task – *see, know, understand, mean, understood*.

Question 3

B1 is a fluent speaker; in her initial turns (B1, B2), she uses a series of independent clauses linked by the conjunction *and*. There are some examples of backtracking (*'the cars, some cars are f-'*) and false starts (*'And it's quite shi-mm it's very sh-sun the sun'*) as she searches for an appropriate structure. The laughter that ends B2 may be to

relieve the ongoing pressure to speak, to signal a turn to A, or to allow her time to think further about what she can say. There are no examples of ellipsis in the text, but A uses ‘substitution’ in *I know which one it is*, where *one* refers out into the shared context of the task and the materials (pictures) they are using.

Question 4

A uses clarification checks (A1), backchannels (*‘Ah, yeah’* ... A2), the turn type of question (A2) (a question usually ‘obliges’ the person questioned to respond) and repetition (A4, A5, A6) to negotiate the topic and achieve his purpose.

Question 5

Unlike the three-part exchange we noted in the spider text, this interaction has an example of a more extended series of follow-ups (B5, A5, B6) where the two speakers go on checking each other’s utterances (by echoing) until they are sure they have reached a common understanding. The last turn (A6) is a final confirmation that this understanding has been reached.

Question 6

Segmental: the Japanese student pronounces /red/ as /led/. This is because /l/ and /r/ are not distinct phonemes in Japanese, but are perceived as allophones. It is only from her interlocutor’s reaction that B knows she needs to correct the initial consonant in *red*. Interestingly, also, A does not hear *led* but *let* (another minimal pair) – which may be due to a tendency in German speakers to pronounce the final consonant with more force (for example, /t/ rather than /d/). This problem illustrates very clearly that generally speaking, in pronunciation learning the perception of significant differences needs to be in place before students can successfully work on production.

An understanding of phonology is extremely helpful to teachers as it enables them to analyse and describe the systematic sound pattern of the language they teach, and, ideally, to contrast it with the phoneme inventories of their students’ first language(s). Such an understanding is also useful for the setting up of teaching tasks, for example, work on contextualized minimal pairs which are relevant given the students’ L1.

Chapter 15, Reading

An example of a response by the authors

Reading strategy: previewing and predicting.

- *What:* the reader examines the title, headings, sub-headings and any graphics, and makes predictions about what the text (as a whole) or the next section, will be about.
- *How:* the reader guesses (sometimes in the form of questions, sometimes in the form of statements) what the text will be about. For example: ‘I see from the title that this

chapter is about the “other economy” and the subtitle says something about the “unofficial untaxed sector”.’ So I think that the next section is going to talk about parts of a country’s economy that do not get reported officially.

- *Why*: the goal is to prepare the reader for the upcoming text information and to enhance comprehension. It also allows the reader to form a mental picture, or model, of the text’s development and overall meaning.
- *When* and *Where*: the reader can use this strategy before beginning to read, and at the beginnings and ends of paragraphs and sections. In fact, the reader can use this strategy throughout the reading. Explicit use of this strategy may work best with academic texts and other information texts. Implicit use of this strategy may be sufficient when reading for pleasure, with texts intended to be enjoyed and not remembered in detail.
- *Evaluation*: the reader should ask herself whether this strategy is working for her, to help enhance her understanding of the text’s meaning, and whether it is worth the effort being exerted.

Chapter 16, Writing

Suggested answers

Describe the rhetorical situation for this writing task. Who is the author? Who are the readers? What genre is being used? What pieces of information does the author need to provide?

The rhetorical situation is to respond to the call for papers for a well-established international conference on second language writing. The task is to write a proposal for a 20-minute paper presentation. The call for papers states that the organizers ‘welcome proposals from around the world’, which means submissions from outside the USA are encouraged. The author is a second language writing researcher working in Taiwan, and the readers are anonymous proposal reviewers who are knowledgeable members in the field. The proposal would need to provide information about the purpose and focus of the presentation, rationale for the particular topic, a description of how new knowledge will be attained (that is, method, including setting, data collection and analysis), a brief summary of the findings (if the study has been completed), and a brief discussion of the implications or contributions to the field.

How well established does this writer sound? A novice researcher? An experienced researcher? A well-established authority? What are some of the textual features that gave you a sense of the author’s level of expertise?

The author seems to be an insider in the field with some research experience, though she or he is probably a relative newcomer. The proposal identifies an important issue in the field that has been underexplored, and includes all of the essential components for a conference proposal. The presentation of the information seems somewhat unconventional: some of the key information (for example, purpose and focus, data collection method) is buried in other details that are presented in the narrative mode. It may be an indication that the person is not fully versed in the genre of conference proposals. For example, the entire first paragraph provides the background information without any explicit reference to

the presentation or the study, and the purpose of the study is not mentioned explicitly until the beginning of the second paragraph. The second paragraph focuses on what the study will likely accomplish (expected outcomes) but not enough on how (method). In fact, the method (that is, interviews) is introduced in a sub-clause (*'by interviewing each teacher'*), as if it is background information.

How well does the author relate local issues to the international audience?

The author relates local issues of writing teacher education by casting the issues in general terms (*'When it comes to teaching writing, few upper level faculty shoulder such responsibilities ...'*) and by stating the possible implications (*'... this study identifies issues that may impact the value of current writing curriculum in higher education'*; *'The findings of this study not only enhance our understanding of the essence of writing teacher education, but also consolidate and extend scholarship in studies of English writing, particularly in a foreign language setting.'*)

Overall, how effective do you think this proposal is in responding to the rhetorical situation? What aspects of the proposal are particularly effective? What aspects of the text could be improved?

Overall, the proposal does what it needs to do. The most obvious strength is the study itself as well as the ways in which the author emphasizes the implications of this study to the field and to other contexts. To improve this proposal, the author might foreground the purpose of the presentation by mentioning it earlier, and by condensing the background information in the first paragraph. That would create more space for more thorough descriptions of the overall design of the study as well as the data collection and analysis procedures.

Suppose the writer of the proposal has asked you to read and comment on the proposal before submitting it. Provide one page of written feedback for the writer.

Thank you for sharing your draft proposal with me – I enjoyed reading it. This study presents a much needed critical examination of teacher preparation and teacher preparedness in the context of EFL writing instruction. Overall, the proposal presents the necessary information – the background information about an important issue in the field, a brief description of the components of the study and data collection, an indication of the possible outcomes and its relevance to the field and to other contexts.

There are a number of ways in which this proposal could be strengthened. First, this proposal refers primarily to the study along with its background and some implications, but it does not refer directly to the presentation itself. It might be useful to state early in the proposal what you are going to do at the time of the presentation (for example, *'This presentation will explore the issue of second language writing teacher education by drawing on a qualitative multiple-case study of EFL college writing teachers in Taiwan'*). Specifying the geographic or institutional context in the first paragraph would also be important because, as it stands, the entire first paragraph seems to make a sweeping generalization about the teaching of writing in general.

Another suggestion would be to reduce the amount of background information in the first paragraph and spend more time describing the overall design of the study. While the information about the type of data collection (that is, observations of writing classes at four institutions and interviews with 20 writing teachers) is included, they seem to be buried in other details. In fact, it reads like a narrative (a chronological sequencing of different segments of the study) rather than a description (a mapping of the overall design and its components).

Hope you find these comments useful. Thanks again for sharing this proposal. I look forward to learning how the study turns out!

Chapter 17, Assessment

Question 1

Summary of predictions and results in a quantitative validity argument:

<i>Item, predicted and actual results</i>	<i>Beginning</i>	<i>Intermediate</i>	<i>Advanced</i>
Item	My name is Sandy	The main focus of the course	People's stereotypes of other social groups
Predicted	High	Medium	Low
Actual item difficulty	100	74	42

Question 2

The correlations suggest that forms 2 and 3 are the most similar of the three tests and therefore these are the ones that should be chosen, all other things being equal.

Question 3

Placing predicted differences in ability in Business English:

<i>Predicted test performance</i>	<i>Lowest scores</i>	<i>Third-highest scores</i>	<i>Second-highest scores</i>	<i>Highest scores</i>
Group	NNSNBM	NNSBM	NSNBM	NSBM

NNSNBM = Non-native speakers of English, non-business majors; NNSBM = Non-native speakers of English, business majors; NSNBM = Native speakers of English, non-business majors; NSBM = native speakers of English, business majors.

Question 4

We would hope for a correlation of around 0.70–0.80. We do not want the tests to correlate near perfectly, because the hope is that the tests will not measure exactly the same language abilities. The computer-based test is supposed to be better.

Question 5

They were concerned not only with the correlations but also with the construct that the test measured and the influence that the test would have on students studying English for the test.

Question 6

Your test is a criterion-referenced test that is appropriate for your grading purposes, but there is no reason to expect that it would correlate with a test for another purpose. You do not want your test judged on the basis of a single analysis that is affected in ways that neither you nor your administrator understand.

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Chapter 9, Sociolinguistics

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