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Self-Determination and Causal Agency Theory

Integrating Research into Practice

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For people who strive to build a more inclusive society and challenge marginalization in all forms.

Preface

Self-determination has long been a focus of the disability community, and we are privileged to have the opportunity to play a small role in thinking about ways that people with disabilities, families, professionals, researchers, and other supporters can – through theory, research, policy, and practice – dismantle systemic barriers and create culturally sustaining opportunities that advance the right to be self-determined. While researchers in the disability field have acknowledged, repeatedly, that promoting self-determination is critical across the life course and attention should be focused on self-determination research, policy, and practice, we have not always fully interrogated the systemic barriers that limit opportunities, experiences, and supports that enable the development of self-determination. Nor have we centered the voices and lived experiences of people with disabilities to shape theory, research, policy, and practice. In this book, we hope to take one step forward to change that. By more fully developing and explicating the role of Causal Agency Theory across the life course while acknowledging the barriers, including systemic racism, ableism, and sexism that limit self-determination in the lives of people with disabilities, our goal is to advance change in ways that ultimately lead to systems of supports that create opportunities for each person to live self-determined lives in the ways they value and that matter to them. Our hope is that the ideas in this book will continue to be discussed, critiqued, and advanced, particularly through the leadership of the disability community in all phases of theory, research, policy, and practice development.

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Contents

Part I
Overview and Introduction

Chapter 1
Positive Psychology and Disability: Creating a Context for Self-Determination

Our goal in this text is to theorize the development of self-determination, integrating interdisciplinary research that recognizes the importance of supporting all people, but particularly those with disabilities and others who are marginalized in society, to have the opportunities, resources, and supports to act as causal agents over their lives, experiencing agency in ways consistent with their beliefs, values, and community. While self-determination and the theoretical framework we introduce in this text—Causal Agency Theory—has relevance for all people and we will highlight how work in inclusive school and community settings benefits all community members, there is a long history of marginalization in the disability community that necessitates a specific focus on enabling self-determination as articulated by people with disabilities themselves. For that reason, this text will begin by describing how changes in theoretical understandings of disability have shifted, creating space for strengths-based approaches to support people with disabilities that value self-determination and causal agency.

In this initial chapter, we describe the shift from deficit-oriented models of disability to person-environment fit models and the implications of a social-ecological understanding of disability. We highlight parallel evolutions in the field of psychology with the emergence of positive psychology and how such work has advanced a focus on strengths-based approaches, including a focus on personal self-determination. The second chapter in this overview Part I will provide a more in-depth review of the history of the self-determination construct and ways that self-determination has been theorized in disability and in the broader fields of psychology, social welfare, political science, and philosophy. Then, in Part II (Chaps. 3, 4, and 5), we will introduce and describe Causal Agency Theory, the theoretical framework we have developed to attempt to advance opportunities, resources, and supports for causal agency for all people. In Part III, we will summarize research on the application of Causal Agency Theory to assessment (Chap. 6), environmental supports (Chap. 7), and interventions (Chap. 8) ending this part with a discussion of

how supports can be individualized to each person, considering diverse cultural and contextual factors. Part IV considers the implications of Causal Agency Theory across the life course, acknowledging that different opportunities, resources, and supports may be needed at different life stages. Finally, we conclude with directions for future research and theory development as we advance the goal of promoting equitable, inclusive, and self-determined outcomes for all people with disabilities in Part V.

1.1 Defining Disability: Social-Ecological Models

Our theory and research on self-determination can be framed within a social-ecological perspective (Shogren, 2013). A social-ecological perspective acknowledges the complex interplay between a person and their environment. When applied to disability, a social-ecological perspective assumes that there are complex interactions between a person and the various contexts that they experience (e.g., home, work, or school). A social-ecological model of disability asserts that disability exists only in the interaction of a person's unique profile of strengths and needs *and* the demands of the environments in which they live, learn, work, recreate, and so forth (Schalock et al., 2010). Thus, disability is not a trait inherent to a person but instead emerges when there is a mismatch between strengths and needs and the demands of the environment and, as such, can change over time. A social-ecological model incorporates aspects of a social model of disability, recognizing that many demands of existing environments are shaped by social conventions, policies, and practices that are entrenched in ableist, racist, and sexist structures. For example, laws like the Americans with Disabilities Act in the United States recognize that there is a fundamental need to eliminate discrimination on the basis of disability through sectors of society to enable equitable outcomes (Blanck, 2016). However, a social-ecological model recognizes that when there is a mismatch between a person's capabilities and the demands of the environment (even if those also need to change), a need for support is created that must be addressed through personalized systems of support to promote valued outcomes in existing, community-based environments. And what defines disability in a social-ecological model is the intensity of the support needs created by the mismatch.

   A social-ecological model brings increased focus to assessing support needs. It is predicated on the assumption that the appropriate response to support needs, no matter the intensity, is never segregation or removal from an inaccessible environment or community, as was frequently the case under historical models described subsequently. Instead, community environments are always the reference for determining support needs, and the goal of support needs assessment is to determine the supports needed to enable the person to be successful in the community-based environments and activities they choose, enhancing quality of life and other personally valued outcomes (Thompson et al., 2009). It is important to note the emphasis on community environments and activities that *people* choose based on their interests,

preferences, values, and beliefs in the social-ecological model, rather than those that are predetermined by service systems and those who operate within them. As such, systemic factors need to be challenged and changed to reduce the bias in the options provided to people with disabilities.

To adopt a strengths-based approach to address the mismatch between strengths and needs and the demands of the environment, supports may include modifications to the environment (e.g., removing physical and cognitive barriers to accessing and participating) or providing instruction, mentoring, or coaching to enable the person to meet specific demands (e.g., learning problem-solving skills). In addition, supports can mitigate the unfair demands of the environment; for example, technological supports to address inaccessible websites or environments (Blanck, 2017) as systemic changes are also being targeted. The social-ecological model reframes the focus of intervention, increasing the emphasis on the supports a person needs to be successful, and assuming with the right array of person-centered supports, quality of life and human functioning can be enhanced. This fundamentally differs from previous models for conceptualizing disability. As such, prior to further defining key components of the social-ecological model, it is necessary to review previous, deficit-based conceptualizations of disability, particularly given the lasting influence of such models on societal beliefs and the service systems that permeate the lives of people with disabilities and the resulting barrier to self-determination that continue to this day.

1.1.1 Historic Conceptions of Disability

As noted, social-ecological and other person-environment fit models are relatively new to the disability field. For example, the *International Classification of Functioning, Disability, and Health* (ICF; World Health Organization, 2001, 2007) incorporated the perspective that human functioning is an interactive processes, acknowledging that personal factors interact with environmental factors to shape human functioning, disability, and health. This shift pushed forward an international understanding that disability is not a disease or a disorder existing within the person, although a person with a disability can experience a specific disease or disorder and is instead an interaction of multiple personal and environmental factors. This shift has not only influenced international policy, such as the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006), but has also influenced other definition and classification systems. For example, while the widely adopted diagnostic criteria for intellectual disability in the American Association on Intellectual and Developmental Disabilities (AAIDD) definition and classification system have largely remained the same over time (Schalock et al., 2007), intellectual disability has increasingly been situated in a broader framework of human functioning with a recognition that differences in intellectual functioning and adaptive behavior (i.e., the diagnostic criteria) interact with other factors (e.g., health, participation, and context) to influence human functioning (Schalock et al., 2010). As such,

the stated purpose of diagnosis and classification has evolved, with a growing focus on only diagnosing intellectual disability with the intent of building systems of supports, aligned with individual support needs that promote optimal human functioning. Similar changes have been seen in other diagnostic and classification systems. For example, the Diagnostic and Statistical Manual of Mental Disorders (DSM), which provides a classification system for mental disorders, in its most recent version shifted (DSM-5; *American Psychiatric Association*, 2013) classification of autism spectrum disorders from an array of five distinct developmental disorders to a three-level system based on the amount of support required in social communication and restricted, repetitive behavior, the core diagnostic features of autism.

Even with these shifts, however, and throughout modern history, all too often disability has been viewed as a form of difference or deviation from normality both by professionals and in society writ large (Wehmeyer, 2013b), rather than part of the continuum of human functioning. This belief continues to perpetuate bias in systems and inequitable outcomes and access to supports that are strengths-based. While responses to deficit-based views of disability have ranged from charity and benevolence to remediation and segregated instruction to separation and elimination, the prevailing notion has consistently been that disability was apart from normality and something to be feared, pitied, or fixed. Likely because of assumptions that disability was not part of the continuum of human functioning, most efforts to remediate or fix disability occurred in segregated settings such as institutions or separate programs or settings, a model that is still utilized in many contexts (e.g., education, community living) although there are ongoing efforts to make systemic changes (e.g., inclusive practices, supported employment, elimination of subminimum wage) that counter this deficit-based approach. Systemic change has been a strong focus throughout historic waves of advocacy movements by self-advocates with disabilities and their families given the repeated demonstration and irrefutable evidence that even if segregation is initiated with charitable intentions, it leads to dehumanization. For example, the widespread use of institutions to warehouse people with disabilities, particularly people with intellectual and developmental disabilities, persisted through the latter part of the twentieth century and normalized eugenic and sterilization policies to eliminate the "problem" of disability. Reflecting widespread social beliefs, Supreme Court Justice Oliver Wendell Homes in Buck v. Bell (1927) wrote in the decision upholding compulsory sterilization of people with intellectual disability in state-run institutions, "three generations of imbeciles [sic] is enough." While involuntary sterilization is no longer typical practice, the continued use of overbroad plenary guardianship arrangements (Shogren et al., 2019), the continued segregation of students with disabilities in school settings (Kurth et al., 2014), and the ongoing challenges to the eliminating segregation and providing integrated community-based supports (Hewitt & Nye-Lengerman, 2019) reflect the persistence of such deficit-based beliefs.

Thus, social-ecological understandings of disability represent a step forward to change societal understanding of disability and the services and supports that are shaped by such understandings. However, there is still work to be done. The push for self-determination that is a focus of this text reflects one part of ongoing efforts

led by people with disabilities and their supporters to situate the power with people with disabilities to drive change in their own lives. Families, professionals, and other reformers have led challenges to these deficit-oriented models and engaged in systemic efforts to promote equitable outcomes (e.g., equal access to education, employment, health; Turnbull et al., 2011). But it was not until people with disabilities themselves united in the disability rights and self-advocacy movements and began asserting their right to self-determine their own lives, making choices and decisions about things that mattered to them, that issues related to self-determination and decision-making began to receive significant attention in the disability field (Ward, 1996; Wehmeyer et al., 2000). The rallying cry of "nothing about us, without us" (Charlton, 2000) permeates our work in this area.

The advocacy of people with disabilities and their supporters led to the passage of the Americans with Disabilities Act (ADA) of 1990 which directed increased attention toward the role of systemic bias including manufactured environmental barriers in limiting the opportunities of people with disabilities. It also highlighted the pervasive and negative impact of stereotypical attitudes, assumptions, and segregated programs on the growth and development of people with disabilities (Blanck et al., 2014). As then president George H.W. Bush said upon the passage of the ADA, "let the shameful walls of exclusion come down." Ongoing advocacy, such as that reflected in the push to actualize the community integration mandate in Olmstead v. L.C. (1999), a Supreme Court case that clarified that the unjustified segregation of people with disabilities was discrimination and violated Title II of the ADA, continues to push to the forefront the inherent right of people with disabilities to be the agents over their own lives. Furthered by international conventions, such as the United Nations Convention on the Rights of Persons with Disabilities, there is a growing recognition in policy, practice, and research of the rights of people with disabilities to dignity and autonomy and participation and inclusion in society and to be respected and accepted as a part of the diversity of human experience and experience equal opportunity across the life course and the world.

1.1.2   Elements of a Social-Ecological Model of Disability

A social-ecological model of disability includes three key elements; each of these elements is critical to understand when attempting to build strengths-based systems of supports, including planning for supports for self-determination as emphasized in this text.

1.1.2.1   Personal Competencies

As described, social-ecological models assume that an array of factors influence human functioning, including personal characteristics and abilities. For example, with regard to intellectual disability, such characteristics include intellectual

functioning and adaptive behavior as well as an array of personal factors (i.e., health conditions, social competence, gender identity, race/ethnicity, and character strengths such as perseverance and love of learning) that shape who a person is. To effectively assess the supports that a person will need, the strengths and areas of needs that each person has must be recognized to effectively determine how these strengths and needs interact with environmental demands. In relation to self-determination, understanding the abilities that a person has developed related to advocating, setting and going after goals, developing action plans, and feeling empowered to persist in going after goals and navigating barriers that are encountered will be critical to understand, as further described in our chapters on Causal Agency Theory, the theoretical framework for the development of self-determination introduced in this text.

1.1.2.2 Environmental Demands

Another key component of social-ecological models of disability is the examination of the environmental demands a person faces. Only in understanding such demands may the appropriate supports needed be identified to enable full participation, self-determination, and quality of life. Multiple environments that change based on age and context, including community and home living, employment and education, learning and participation, advocacy, social relationships, health, and safety, must be considered to comprehensively understand support needs and plan for supports (Thompson et al., 2015, 2016). However, it is important to note that the reference point for understanding environmental demands must always be age-appropriate, community-based environments in which the person chooses to engage. Further, it is important to acknowledge that supports can take many forms, including advocating for change to challenge bias and deficit-oriented practices that are embedded in current systems. In relation to self-determination, the various environments where people identify goals and work toward the goals that they decide to pursue will be critical to understand, particularly the demands and supports available in those environments as well as the barriers and challenges that will need to be navigated to persist in goals.

1.1.2.3 Support Needs

Social-ecological models emphasize that people with disabilities may experience a mismatch between their personal competencies or abilities and environmental or contextual demands, which creates a need for supports. Support needs is defined as "a psychological construct referring to the pattern and intensity of supports necessary for a person to participate in activities linked with normative human functioning" (Thompson et al., 2009, p. 135). Supports are resources and strategies that enhance human functioning (Luckasson et al., 2002). Although everyone uses supports, the types and intensity of supports needed by people with disabilities are

often unique and personalized. In understanding the types and intensity of support needs, effective supports planning can occur to promote valued, personal outcomes. It is important to clarify that greater support needs are not considered a deficit in functioning, as differences would have been defined in deficit-based approaches. Instead, these are simply differences in functioning; social-ecological models remove judgment or expectations that there is a "right" or "normal" way to exist or interact with the world and instead focus on identifying the alignment between a person and their environment and the personalized supports that people need, in the case of this text to grow in and express their self-determination. Recognizing where a person is in terms of their current self-determination abilities, as will be further described in Chap. 6 on the assessment of self-determination, as well as the level of support needs in the environments where they express their self-determination, as will be further described in Chap. 7, will be critical to identify the needs for support that a person has to advance their opportunities for self-determining their lives.

1.2   Positive Psychology and Strengths-Based Approaches

As has occurred in the disability field, there has been a growing focus in psychology on strengths and identifying and developing strengths-based approaches to build human functioning and flourishing in positive communities. While there have been instances of strengths-focused programs of research throughout the history of psychology, a strong focus in the twentieth century was on classifying and remediating mental illness (Linley et al., 2006), consistent with similar approaches in the disability field. Combined with a focus on operant psychology, some psychologists described the paradigm through which human functioning was understood as follows:

> Human beings were seen as passive foci: Stimuli came on and elicited "responses," or external "reinforcements" weakened or strengthened "responses," or conflicts from childhood pushed the human being around. Viewing the human being as essentially passive, psychologists treated mental illness within a theoretical framework of repairing damaged habits, damaged drives, damaged childhoods and damaged brains. (Seligman, 1998, p. 2)

Further elaborating on the need for change, Seligman, as President of the American Psychological Association, argued for the importance of a "positive psychology," one which "emphasizes the understanding and building of the most positive qualities of an individual" (Seligman, 1999, p. 559).

Writing in a seminal article in a special issue of *American Psychologist*, Seligman and Csikszentmihalyi (2000) wrote, "the aim of positive psychology is to begin to catalyse a change in the focus of psychology from a preoccupation only with repairing the worst things in life to also building positive qualities" (p. 5), increasing the focus on "valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present)" (2000, p. 5). The call by Seligman has gone on to exert significant influence on the field. For example, Hart and Sasso (2011) conducted a review of

literature in positive psychology, identifying more than 20,000 articles that had been published between 1998 and 2009. They found six overarching themes of the research: "(a) virtues, character strengths, positive personality traits, abilities, and talents; (b) happiness, positive emotional well-being, fulfilment, and quality of life; (c) development processes associated with growth, fulfillment, actualization of potential, and the authentic self; (d) the good life or the life worth living; (e) thriving and flourishing, and (f) resilience or adaptive functioning/behavior" (p. 83). Clearly, all of these themes have relevance for people with disabilities, but they had not been a consistent focus in deficit-based models, and positive psychology has influenced the disability field by enhancing the focus on a strengths-based approach in social-ecological models.

1.3 Implications of Strengths-Based, Social-Ecological Approaches to Disability

The adoption of strengths-based, social-ecological approaches in disability, psychology, and related fields has enabled the focus on self-determination reflected in this text. However, researchers—including the authors of this text—have established that this is still a minority of scholarship in the disability field and that systemic barriers to the advancement of strengths-based approaches still exist. For example, Shogren et al. (2006) reviewed the literature in the field of intellectual disability over a 30-year period to explore the frequency of strengths-based research. They found that only one-third (35%) of articles focus on human capabilities adopted a strengths perspective. However, this percentage significantly increased over time, moving from a low of 22% of articles in 1975–1984 to a high of half (50%) of the articles in 1995–2004 and likely reflecting greater focus on social-ecological approaches. Since this time, ongoing work has further expanded the reach of positive psychology and strengths-based approaches in the disability field, with texts applying positive psychology to disability broadly (Wehmeyer, 2013a) and specifically to intellectual and developmental disabilities (Shogren et al., 2017).

This growing and expanding body of work confirms the feasibility of an increased focus on strengths-based supports and the role of positive psychology and social-ecological approaches in advancing a focus on positive development for people with disabilities, recognizing disability as a part of, not apart from, the continuum of human functioning. However, while research literature and theory have evolved significantly, the day-to-day experiences of people with disabilities are still largely impacted by service systems and societal attitudes that reflect deficit-based models. As mentioned previously, the ongoing segregation of people with disabilities, particularly those with extensive support needs, in education, employment, living, and recreation, is pervasive, and many accepted practices (e.g., guardianship, sheltered employment, segregated education) are rooted in these deficit-based approaches. Multiple systemic barriers reduce the speed of change and the broad recognition of the inherent worth, dignity, and right to community and equal opportunity for

people with disabilities. A social-ecological approach provides a framework for how to align advanced changes that address personal competencies, dynamic changes in environments, and the interaction of these factors to build comprehensive systems of supports that challenge deficit-based approaches and address each person with (and without) a disability's support needs (Shogren et al., 2020). People with disabilities must be at the center of these efforts, and this is where efforts to promote self-determination become central to the application of strengths-based approaches as we will describe throughout this text.

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Chapter 2
Theoretical Underpinnings and Approaches to Self-Determination

As described in Chap. 1, self-determination has received significant attention in the disability field, largely as a function of advocacy movements led by people with disabilities and their supporters. Changes in theoretical conceptualizations of disability and the adoption of social-ecological, strengths-based approaches enabled a greater focus on research, policy, and practice that supports people with disabilities to access the resources they needed to live self-determined lives. However, the construct of self-determination has a much longer history, one that advocates and researchers in disability drew on to develop theoretical frameworks to advance opportunities and supports for self-determination. In the following sections, we share information about the history of use of the term self-determination in the disability field, followed by conceptualizations from other fields, including philosophy, international human rights law, and psychology, that shaped the use of the term in the disability field. We conclude with implications of this body of work for modern conceptualizations of self-determination, namely Causal Agency Theory, which will be the focus of the remainder of this text.

2.1 History of Self-Determination in the Disability Field

The earliest identified use of the term self-determination in the disability field was by Bengt Nirje (1969, 1972), a Swedish leader who introduced the normalization principle, which reflected the idea that people with disabilities had the right to the same opportunities as those without disabilities. While today this may sound simplistic, given existing notions of disability at the time of Nirje's writings, this was a significant and substantial shift that opened the door for social-ecological perspectives on disability. Nirje recognized the central role of the environment in shaping attitudes toward disability and the resulting opportunities available to those with disabilities

(or lack thereof). While the normalization principle was far-reaching and targeted multiple life domains, Nirje viewed self-determination as central. As he wrote:

> One major facet of the normalization principle is to create conditions through which a [person with a disability] experiences the normal respect to which any human is entitled. Thus, the choices, wishes, desires, and aspirations of a [person with a disability] have to be taken into consideration as much as possible in actions affecting him. To assert oneself with one's family, friends, neighbors, co-workers, other people, or vis-a-vis an agency is difficult for many people. It is especially difficult for someone who has a disability or is otherwise perceived as devalued. Thus, the road to self-determination is indeed both difficult and all-important. (Nirje, 1972, p. 177)

It is important to note several things about Nirje's reference to self-determination. First, he addressed the detrimental impact of deficit-based approaches to disability on how people with disabilities were perceived (i.e., devalued) as well as how this led to restrictions in opportunities to experience community with others with and without disabilities and express self-determination. Second, Nirje's reference to self-determination highlights the importance of a "national" or "collective" perspective on self-determination that has been used in international law and policy to refer to the right of groups of people, such as those with disabilities or from other minoritized backgrounds, to self-determine their lives. It also highlights the importance of a personal conceptualization of self-determination that has been used in philosophy and psychology to refer to the inherent capacity and right of each individual person to act in self-determined ways with appropriate and needed supports. As will be described further in this chapter and beyond, self-determination can be understood to refer both to the rights of groups of people to self-determination and to the right of an individual person to self-determine their own lives. Both perspectives are important to modern understandings of self-determination. In many ways, policies and societal structures that recognize the right of groups of people, in this case, people with disabilities, to determine their own lives, are a necessary foundation to enable each person to fully express and experience personal self-determination. However, as described in Chap. 1 and referenced by Nirje, deficit-based models of disability restrict both collective and personal opportunities. And, although Nirje wrote about these issues in the last third of the twentieth century, there remains a sustained impact of deficit-based models today. For example, the Convention on the Rights of People with Disabilities (UNCRPD; United Nations, 2006) communicated the ongoing need, across the world, to change attitudes and approaches to persons with disabilities:

> [CRPD] takes to a new height the movement from viewing persons with disabilities as "objects" of charity, medical treatment and social protection towards viewing persons with disabilities as "subjects" with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society.

The work begun by Nirje and others before him continues to this day as there remains a critical need for people with disabilities to be recognized as a cultural group that has the inherent right to self-determination, collectively and individually.

Causal Agency Theory, the theoretical framework that will be introduced in Chap. 3 and further described subsequent chapters, focuses primarily on the development of personal self-determination and advancing the resources, opportunities, and supports that each person has to express and actualize their personal choices, wishes, desires, and aspirations as stated by Nirje. However, Causal Agency Theory also recognizes the importance of removing systemic barriers to self-determination, including ableist policies and practices. It emphasizes the role of a social-ecological approach to disability and the need to change societal attitudes and remove systemic barriers, consistent with the UNCRPD, to truly enable the actualization of personal self-determination.

Prior to more fully describing Causal Agency Theory, it is necessary to first provide a more robust overview of the evolution of the self-determination construct in disability, as well as its theoretical underpinnings from other fields. Although Nirje initially described the importance of self-determination in the late 1960s and 1970s as aligned with the normalization principle, there was no further substantial discussion of the role of self-determination in research, policy, and practice until the 1990s, when it became a critical focus in the self-advocacy movement (Wehmeyer et al., 2000a). Within the disability rights movement, there is a strong focus on collective empowerment and the rallying cry of "Nothing about us, without us" (Charlton, 2000). Such social movements highlight the role of collective self-determination, or the need identified by people with disabilities—as a minoritized group—to be viewed as capable and having an inherent right to direct their own lives. People with intellectual and developmental disabilities, who have been some of the most marginalized members even within the disability right movement, united in their own self-advocacy movement to highlight ways that even those with extensive support needs could—when provided with access and opportunities—lead their own movement and direct their own lives (Ward, 1988). As the Autistic Self-Advocacy Network (ASAN) asserts, "disability is a natural part of human diversity. Autism is something we are born with, and that shouldn't be changed. Autistic children should get the support they need to grow up into happy, self-determined autistic adults" (ASAN, n.d.).

Caldwell (2010, 2011), through interviews with leaders in the self-advocacy movement, explored ways that the movement shaped disability identity and leadership. Advocates with intellectual and developmental disabilities noted significant challenges with finding their voices in the disability rights movement, particularly when they had been segregated and when their supports and services had been aligned with a deficit-based conceptualization of disability. They felt that low expectations led to a lack of support and belief that they could lead and advocate for themselves. However, each leader also articulated the ways—small and large—in which they challenged disability oppression. Connecting with other people with intellectual and developmental disabilities enabled members to voice the oppression they encountered and discover ways individually and collectively they could advocate and fight to self-determine their lives. Shogren and Broussard (2011), in another series of interviews with self-advocates, found that self-advocates felt that self-advocacy and self-determination individually and collectively led to transformative

experiences; as one self-advocate said, "I think I found my voice when I went to my first self-advocacy meeting and people were talking about dreams and hopes. I got to thinking about my dreams and hopes" (p. 91).

Despite the power of collective advocacy, there has been and continues to be a "glass ceiling" (Caldwell, 2010, p. 1010) for many people with intellectual and developmental disabilities, as many opportunities to take on advanced leadership roles are frequently restricted, even within the self-advocacy movement. This oppression communicated by people with disabilities has been confirmed in research. For example, multiple studies have shown that people, particularly those with intellectual and developmental disabilities, experience significant restrictions in their opportunities to make basic choices and decisions about their lives, particularly in segregated settings (Stancliffe, 1997; Stancliffe, 2001; Stancliffe et al., 2000, 2011; Stancliffe & Wehmeyer, 1995; Tichá et al., 2012). For example, early on, Stancliffe and Wehmeyer (1995) established the negative impact of segregated living arrangements. When people with disabilities lived in their communities, controlling for other factors (e.g., intensity of support needs), they had significantly more choice opportunities than did people with intellectual disability living in congregate settings. This is why the strong push for access to community settings, aligned with opportunities afforded all people, remains a focus to this day. Policies, such as the UNCRPD and the Americans with Disabilities Act (ADA) in the United States, mentioned in Chap. 1, reflect efforts to remove barriers to environmental access and opportunities (Blanck, 2016a, b). However, attitudes still introduce significant barriers to efforts to promote access and inclusion in community, employment, and school environments. For example, Abery et al. (2013) found that adults with intellectual disability had greater access to choice-making and decision-making opportunities when supporters believed in the importance of choice and self-determination.

Recognition of these systemic barriers has led to various public policy initiatives (e.g., the ADA) and human rights treaties (e.g., the UNCRPD) to attempt to change attitudes and practices, consistent with a social-ecological perspective. As another example, the introduction of Medicaid policies supportive of self-direction that enable individuals with disabilities and their families to direct the hiring of staff and/or the managing of personalized budgets has created significant opportunities for individual choice and the development of personal self-determination in home- and community-based services (HCBS; O'Keeffe et al., 2009). Similarly, efforts to implement the Olmstead v L.C. Supreme Court case to provide greater access to community-based options across community living, education, and employment reflect these ongoing changes and challenges to oppressive systems and practice. However, implementation challenges remain largely because of attitudes and systems and policies still rooted in historical, deficit-based conceptualizations of disability and disability supports (Shogren et al., 2014).

Concurrent with the pushes for policy change consistent with recognition of the right to people with disabilities to self-determine their lives, there was also an increased recognition of the disparate educational outcomes of young people with disabilities as large national data on outcomes became publicly available (Blackorby

& Wagner, 1996). Across every life domain (e.g., postsecondary education, employment, community participation), students with disabilities fared worse than peers without disabilities, and those with intellectual and developmental disabilities typically had the worst outcomes among those with disabilities (Newman et al., 2011; Nord et al., 2015). A deficit-based approach would suggest that this is because of inherent deficits within students, but newer strengths-based, social-ecological conceptualizations enabled a recognition of the influence of societal expectations and systems rooted in deficits, including low expectations, negative attitudes, a lack of personalized supports, and a lack of integration of disability culture into supports and services. Self-determination was forwarded by leaders in special education during this period as a means of enabling young people with disabilities to direct the identification of goals, particularly within the context of Individualized Education Program (IEP) and transition planning (Ward, 1988, 1996). For example, Martin and colleagues introduced *The Self-Directed IEP* (SD IEP; Martin et al., 1996), a curriculum designed to enable teachers to explicitly teach students with disabilities leadership skills necessary to lead their own IEP meetings, including stating the purpose of the meeting and introducing participants, reviewing past goals and performance, identifying the supports needed to be successful, and setting goals for the coming year. Subsequent randomized controlled trials on the efficacy of the SD IEP have shown impacts on student outcomes and engagement in planning meetings (Martin et al., 2006; Seong et al., 2014).

Build on the push from advocates in the disability field, the US Department of Education's Office of Special Education Programs (OSEP) funded 26 model demonstration projects between 1990 and 1994 to develop methods, materials, and strategies to promote the self-determination of youth and young adults with disabilities during the transition from school to adult life (Sands & Wehmeyer, 1996; Ward, 1996). These projects resulted in numerous interventions and curricula in addition to the SD IEP to promote abilities and skills associated with self-determination, including goal-setting, problem-solving, decision-making, and self-advocacy skills (Carter-Ludi & Martin, 1995; Field et al., 1998; Martin & Marshall, 1996; Sands & Wehmeyer, 1996; Serna & Lau-Smith, 1995; Van Reusen et al., 1994; Wehmeyer et al., 1998). Definitional frameworks for applying the self-determination construct also emerged (Abery, 1994; Field, 1996; Field & Hoffman, 1994; Mithaug, 1996; Powers et al., 1996; Wehmeyer, 1996; Wehmeyer et al., 1996, 2003). The assumption was that by developing interventions and definitional frameworks to promote self-determination, enhanced adult outcomes would result.

However, to this day, despite the presence of such research-based practices, there continue to be highly disparate outcomes suggesting that these policy and practice changes have not led to substantially different expectations and opportunities within education systems. For example, even with research-based practices to engage students in IEP meetings, Shogren and Plotner (2012) found extremely low numbers of adolescents with intellectual disability took leadership roles in their IEP and transition planning meetings. However, research has also shown that professionals view a person's capacity for self-determination higher when they lead their own meetings (Branding et al., 2009). Bojanek et al. (in press) have also found that even when

beliefs in the importance of self-determination opportunities is high in general and special education teachers, there are significant challenges reported with knowing how to actually support the development of self-determination for students, likely because of a lack of professional education and systemic supports that fully adopts a strengths-based approach. However, when such professional development and high-quality implementation support (e.g., in-person or virtual coaching) is provided, teachers can change their practices to provide their students with supports and opportunities to build self-determination.

Ongoing work, since Nirje's initial introduction of the notion of self-determination in disability field and the push by self-advocates to change attitudes, policies, and practices in school and community settings, has advanced understandings and applications of self-determination in disability in ways that integrate a greater focus on a social-ecological and strengths-based perspective. In fact, such work has broadened the focus beyond disability as all people can benefit from supports for self-determination that are strengths-based and delivered in inclusive environments, and more will be discussed about how to support self-determination in inclusive settings in later chapters. It is necessary though to first review some of the historical literature and theory that has been was used by early self-determination scholars, particularly Wehmeyer et al. (2003), to advance these lines of thinking and provide more explicit, theoretical frameworks for advancing self-determination in special education that still undergirds newer approaches in disability.

2.1.1 History of Self-Determination in Philosophy, Early Psychology, and International Law

Self-determination, and debates about the ability of people to be self-determining, has long been influenced by debates in philosophy about the role of determinism and free will in human behavior (Wehmeyer et al., 2003). Determinism is a philosophical doctrine positing that events, such as human behavior, are effects of preceding causes. Behavior can be self-determined or shaped by free will and is conceptualized as the human capacity to act (or not) as we choose or prefer, without external compulsion or restraint. Alternatively, behavior can be other-determined or caused by outside forces. As such, to believe that humans can be self-determining requires some expectation that behavior can be free. However, more consistent with a social-ecological is a perspective held by philosophers like John Locke who held a "soft deterministic" position, suggesting behavior can be both caused and free. Namely, actions can be shaped by various environmental factors; however, the person still has of agency over their choices.

Understandings and beliefs about determinism versus free will shaped the development of the field of psychology. For example, Angyal (1941), in proposing the foundations for a psychological science of personality, suggested that an essential feature of a living organism is its autonomy, where autonomous means

self-governing or governed from inside. Autonomous-determinism, or as it subsequently became, self-determination, refers to self- versus other-caused action. Such ideas have also been used to shaped international human rights laws and treaties. For example, Article 1 of both the United Nations Covenant on Economic, Social, and Cultural Rights (1966b) and the Covenant on Civil and Political Rights (United Nations, 1966a) state that, "All peoples have the right of self-determination. By virtue of the right they freely determine their political status and freely pursue their economic, social and cultural development." Such statements reflect not only the understanding that human behavior can be self-determined but also that peoples have an inherent right to be self-determining. This has also been articulated in relation to specific groups of people. For example, Article 4 of the United Nations Declaration on the Rights of Indigenous Peoples (2007) states that "Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters related to the internal and local affairs, as well as the ways and means for financing their autonomous functions." While there are still debates within international human rights law and political science about the best ways to implement these rights, there is a clear understanding that at both the collective (e.g., group) level and the personal level, people have the right to not be oppressed and other-controlled and experience self-determination.

2.1.2   History of Self-Determination as a Personal Construct: Human Agentic Theories

Although autonomous-determinism received early attention in the field of psychology, there was a strong shift toward deterministic understanding of human behavior and a focus on stimulus-response accounts of human behavior in the early 1900s. Over time, behavioral theory exerted a strong influence on the disability field, with the tenets of applied behavior analysis still influencing instructional practices for people with disabilities. However, while behavioral theories focus on the role of external contingencies in shaping behavior, there have been other theories focused on the role of human agency in driving action that are increasingly being applied in disability. Human agentic theories "share the meta-theoretical view that organismic aspirations drive human behaviors" (Little et al., 2006, p. 61). An agentic person is understood to be the "origin of [their] actions, has high aspirations, perseveres in the face of obstacles, sees more and varied options for action, learns from failures, and overall, has a greater sense of well-being" (Little et al., 2002, p. 390). An agentic person is able to "plot and navigate a chosen course through the uncertainties and challenges of the social and ecological environments… continuously interpreting and evaluating actions and their consequences" (Little et al., 2002, p. 390). And, over time, this evolving and actively monitored self-system gives rise to a sense of personal agency, or of the agentic self. The agentic self has a "sense of personal empowerment, which involves both knowing and having what it takes to achieve one's goals" (Little et al., 2002, p. 390).

Unlike stimulus-response accounts of behavior, human agentic theories conceptualize human action as (a) motivated by biological and psychological needs; (b) directed toward self-regulated goals; (c) propelled by understandings of agents, means, and ends; and (d) triggered by contexts that provide supports and opportunities, as well as hindrances and impediments (Wehmeyer et al., 2017). As agents over their actions, people are still influenced by the contexts in which they live and develop, but it is navigating this personal-environment interaction that provides opportunities (and impediments) to the growth of human agency.

2.1.3 History of Self-Determination as a Personal Construct: Motivational Psychology

One highly visible application of human agentic theories to the understanding of self-determination has been in the field of motivational psychology, with *Self-Determination Theory* (SDT; Deci & Ryan, 2002). SDT proposes that human action is driven by three basic psychological needs—competence, autonomy, and relatedness—that are either supported or challenged by social contexts. SDT research has demonstrated that social environments (e.g., classrooms, community settings) can facilitate or create barriers to the integration of these psychological needs, which can support or harm overall well-being and motivation (Ryan & Deci, 2000). Researchers in SDT have identified ways that environments, including classrooms, can be structured to be autonomy-supportive and student motivation (Chang et al., 2017). Further, early on, researchers highlighted how SDT can be used to provide supports for people with disabilities that advances intrinsic motivation (Deci & Chandler, 1986), recognizing the capacity of people with disabilities for developing self-determination when contexts are supportive of such outcomes.

2.2 Applications in Disability, Special Education, and Community-Based Services and Supports

As noted previously, early funding from the Office of Special Education Programs promoted an array of theory, intervention, and assessment development, specific to disability. Early researchers in this area drew on the work referenced above and created frameworks designed to be directly applied to promoting systematic change in special education and other disability-related supports to enable people with disabilities to experience greater personal self-determination. For example, Abery and Stancliffe (1996) proposed an ecological theory of self-determination that emphasizes the influence of the multiple systems within which people live their lives on the development and expression of self-determination, providing key information to guide considerations related to environment supports for self-determination.

Mithaug et al. (2003) suggested that "self-determination is a form of self-regulation—one that is unusually effective and markedly free of external influence" (p. iii). He characterized humans as often being in flux between their existing state and "goal" or desired state. This discrepancy created a drive for self-regulation and self-determined action. Although too often because of restricted opportunities for action, people with disabilities may experience artificial barriers (e.g., segregated classrooms and communities) to actualizing that drive. Mithaug's focus on goal-directed action and understanding of systemic barriers for people with disabilities highlights the importance of increasing motivation and opportunities for actions in pursuit of goals. And, finally, Wehmeyer (1992) introduced the functional model of self-determination, focused on defining self-determined behavior as "the attitudes and abilities required to act as the primary causal agent in one's life and to make choices regarding one's actions free from undue external influence or interference" (p. 305). Wehmeyer integrated human agentic theories into his framework and focused on defining the skills that enabled people with disabilities to cause or make things happen in their lives, rather than others (or other things) making them act in certain ways. The functional model was empirically validated (Wehmeyer et al., 1996) and assessments (Wehmeyer & Kelchner, 1995) and interventions (Wehmeyer et al., 2000b) developed to enable its use in school and adult service systems to foster the development of self-determination. In 2005, Wehmeyer addressed ongoing issues that were impacting the understanding (or misunderstanding) of the self-determination construct, highlighting the role of volitional action, proposing a refinement to the functional model's definition of self-determination, and suggesting that self-determined behavior "refers to volitional actions that enable one to act as the primary causal agent in one's life and to maintain or improve one's quality of life" (p. 117). Again, this refinement emphasizes the role of acting and, in this iteration, the fact that one acts volitionally as a causal agent.

2.3   Implications for Current Theory: The Emergence of Causal Agency Theory

This chapter has highlighted the long and rich history of the self-determination construct and ways that the applications of the construct within the disability field and beyond have shaped a growing focus on the inherent right of people with disabilities to self-determination as well as the need for systemic changes that create environmental supports and opportunities for the development and expression of personal self-determination. The work by self-advocates and researchers who pushed forward a focus on self-determination have created a strong and compelling context for ongoing work advancing the applications of human agentic theories and self-determination to support positive outcomes for all people, inclusive of those with disabilities. Leveraging this work, in subsequent chapters, we will introduce Causal Agency Theory, an attempt to build on and integrate the various stakeholder and theoretical perspectives described in this chapter.

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Part II
Foundations of Casual Agency Theory

Chapter 3
Causal Agency Theory: A Theoretical Framework for Understanding Self-Determination

Check for updates

This chapter, the first in Part 2, provides a broad overview of Causal Agency Theory, linking it to the theoretical frameworks described in Chap. 2. Subsequent chapters will provide greater detail on specific aspects of Causal Agency Theory and their application in the disability field and beyond. As stated at the end of Chap. 2, the work described in this chapter and throughout the rest of the text has been shaped by self-advocates and disability researchers and theorists who have engaged in systematic and impactful work over the past 50 years to change perceptions, challenge systemic bias, and promote equitable outcomes for people with disabilities. Causal Agency Theory integrates, borrows from, and builds on this work as well as work from other fields and disciplines. We want to acknowledge the history and the contributions of so many people, acknowledged and unacknowledged, in that history. We particularly want to acknowledge the impact of the advocacy efforts, large and small, led by people with disabilities which are not always acknowledged or given adequate voice in academic texts. Without this foundation, the work in this text would not have been possible. Further, we acknowledge that these ideas introduced in this text will evolve and change over time and invite ongoing critique, expansion, and reformulation of these ideas with the intention of enabling equitable opportunities for self-determined lives.

3.1   Why Causal Agency Theory?

It is worth asking the question, particularly given our acknowledgement of the history of theorizing the construct of self-determination in the disability field and beyond: "Why Causal Agency Theory?" As described in Chap. 2, multiple theories specific to self-determination, motivation, disability, and human agency have been introduced, studied, and used to varying degrees to shape research, policy, and

practice in the disability field and beyond. However, in some ways, the number of theories and the fragmentation of foci of these different theories is what prompted us to reconsider our approach to conceptualizing self-determination and to attempt to integrate multiple frameworks that describe the factors that shape the development of personal self-determination. As we noted in Shogren et al. (2015) when we first introduced Causal Agency Theory, fragmentation has contributed to misconceptions about self-determination, particularly for those with the most extensive support needs, as well as an at times narrow focus on intervening to address only specific aspects of self-determination (e.g., teaching specific skills like self-advocacy during transition planning).

This fragmentation has been problematic for several reasons. First, it has led to misconceptions about the relevance of self-determined actions for *all people*, including those with the most significant support needs, and perpetuated a deficit-based model of disability by prioritizing independence of action rather than acknowledgment that self-determined actions are defined by acting as a causal agent and making things happen in one's life, which is not the same as engaging in actions independently. Many of us choose to empower others to make or inform decisions in our lives (e.g., doctors, financial planners, family members, supervisors); however, we can direct the process and act with agency. People with extensive support needs, including those that need supports for communication, movement, and cognition, can still engage in self-determined actions, by directing others to support them in completing certain tasks and activities. Further, the dynamic evolution and use of technological supports (e.g., enhanced utilization of artificial intelligence via smartphones, home devices; Touretzky et al., 2019) have pushed us, inclusive of people with disabilities, to become twenty-first-century digital citizens who flexibly and fluently use technology to navigate and self-direct everyday life activities. In this sense, technology is a support or tool that we all use to make things happen in our lives, thereby demonstrating that there are not many things we do without some sort of support. Enabling self-determined action, however, requires systematic planning for personalized, appropriate, and creative supports that leverage available and emerging resources to enable everyone to express preferences, decisions, and identify valued outcomes. Second, the fragmentation fails to recognize that to truly enable self-determination, systems of supports must be created that promote a concurrent focus across the individual, community, and societal contexts and challenge systemic biases. Only by doing so can environments be created that are supportive of self-determined actions, that meet basic psychological needs, and that enable meaningful, personalized supports, and accommodations. Working across ecological systems (e.g., home, community, education and employment systems, policy contexts) necessitates a systematic approach to assessing and understanding the contextual factors that impact self-determination at the individual level, but also at the system level to promote personally valued, self-determination outcomes (Shogren et al., 2018a, 2020). Further, it necessitates challenging biases—including the ongoing impacts of deficit-based models of disability—throughout society and in existing policies and practices.

To address these needs, Causal Agency Theory attempts to integrate related theories that highlight the role of building on (a) personal capacities for self-determination (e.g., supporting the enhancement of abilities and skills associated with self-determined action), (b) environmental supports for self-determination (e.g., structuring environments to nurture basic psychological needs and the expression of self-determined action), and (c) supports that are personalized (e.g., individualizing adaptations and accommodations that enable people with support needs to express their self-determination abilities across environments) and systematic (i.e., implementing policies and practices to promote self-determination). Figure 3.1 provides an overview of how the various theoretical perspectives are currently conceptualized in Causal Agency Theory, and subsequent chapters will further highlight implications for assessment, intervention, and supports of this framework. However, it is important to note that the starting point for Causal Agency.

Theory is unequivocally the individual person and their values, preferences, interests, beliefs, and desires. The voice of the person, with or without disabilities, who is striving to meet their psychological needs and express their self-determination must be the guide for all theory, intervention, and supports and in shaping Causal Agency Theory. For these reasons, we have actively worked to merge our perspectives as researchers and as persons with lived experience with the voices of people with disabilities, their family members, and supporters on how self-determination and supports for its development play out each and every day (Shogren, 2011, 2012; Shogren & Broussard, 2011).

Figure 3.1 highlights the role of context in shaping all aspects of a person's experience of and expression of self-determination, by reflecting that context surrounds the development and expression of personal self-determination. Context is defined as "a concept that integrates the totality of circumstances that comprise the milieu of human life and human functioning" (Shogren et al., 2014, p. 110). The role of context, therefore, in shaping self-determination is all encompassing, but it is particularly important to consider the policies, practices, and societal attitudes about the right to self-determination individually and in groups (e.g., corporate or
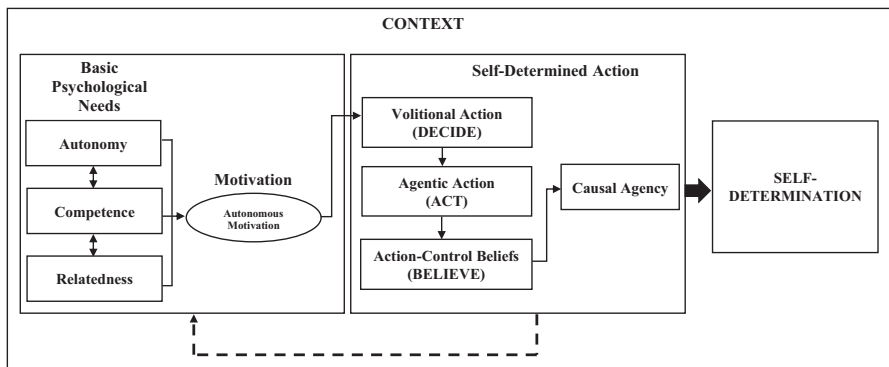
Fig. 3.1 The development of self-determination. (Reprinted with permission from Shogren, 2018)

disability group self-determination). The individual then operates inside of this context, and, consistent with human agentic theories, each person actively shapes their environment through their self-determined actions, reflected in the reciprocal arrows. However, environments and more specifically the degree to which they are supportive of basic psychological needs influences the autonomous motivation developed and expressed by an individual. Autonomous motivation supported by basic psychological need satisfaction creates a foundation for causal actions, which include volitional and agentic action and are motivated by action-control beliefs. As people increasingly grow in their abilities and opportunities to engage in causal actions, they become causal agents and grow in their self-determination; this is amplified in supportive contexts. Causal Agency Theory thus reflects core tenets of positive psychology and human agency that humans act on their environments and shape and self-direct their own outcomes. However, such actions are shaped by environmental factors, namely, the degree to which those environments promote or introduce barriers to basic psychological need satisfaction and causal action. For example, environments that pathologize disability and perpetuate ableist policies and practices will limit basic psychological need satisfaction and autonomous motivation, as people will not feel that their autonomy and competence are being respected and will not feel relatedness with others around them. This can limit autonomous motivation and causal action. However, people can and do overcome such barriers and can use their causal actions to search out new environments and shape their current environments as they strive to become self-determined as demonstrated by countless self-advocates that initiated this work in the disability field.

As such, the box on the left in Fig. 3.1 reflects critical aspects of self-determination theory (Ryan & Deci, 2017) and the idea that the motivation to act in one's environment is shaped by the degree to which basic psychological needs are met. This can be understood as the "why" of our actions, namely, the motivation (or lack thereof) for engaging in self-determined action. In contexts where basic psychological needs are met, autonomous motivation develops and enables greater use and development of self-determined actions (middle box, Fig. 31.). This middle box reflects theories that emerged in disability and special education focused on describing and enabling intervention to enhance opportunities and supports for the "how" of self-determined action, namely, how causal agency involves having the skills and abilities as well as supports to act volitionally, agentically, and with action-control beliefs. Causal Agency Theory further defines these key abilities associated with self-determined action, including volitional action (decide), agentic action (act), and action-control beliefs (believe). Building young people's capacity to decide, act, and believe (further described in Chap. 4) enables people to increasingly act as a causal agent, seeking out more opportunities for basic psychological need satisfaction (as shown by the arrows connecting these two boxes) and shaping their environment. These abilities to act in a self-determined manner and to seek out basic psychological need satisfaction enable young people to feel more motivated and develop greater action-control beliefs (Geldhof & Little, 2011; Little, 1998; Vanlede et al., 2006). As such, with repeated opportunities and experiences in supportive context across the life course, there will be ongoing growth in one's self-determination abilities. As such,

self-determination develops over time, as a function of personal abilities, environments, and supports and resources (Shogren et al., 2018b). This happens in a social-ecological context, where a person is both shaped by and shapes their own environment, consistent with human agentic theories. This highlights the role of supportive contexts that meet basic psychological needs for autonomy, competence, and relatedness which will be discussed in greater depth in Chap. 5.

So in answering the question of Shogren et al. (2017) "Why Causal Agency Theory?", we feel there are several reasons. First, Causal Agency Theory provides a framework for thinking about systems of supports for self-determination that are strengths-based, recognize the role of person-environment fit, and highlight how supports can be leveraged to create supportive environments and enhance personal abilities to promote personal self-determination while also changing the context and recognizing the role of the person in making such change. Second, and specific to disability, Causal Agency Theory pushes forward a social-ecological approach that emphasizes the only contexts that should be the reference point for planning for supports for self-determination should be inclusive, community-based settings. Segregation and separation are rooted in a deficit-based model and limit the actualization of the human right to self-determination and supportive contexts that meet basic psychological needs and promote personal self-determination outcomes. Third, Causal Agency Theory advances the integration of strengths-based models rooted in positive psychology into the disability field.

However, a theory is only as useful as the implications it has for actual practices that make meaningful change. As such, we will highlight in subsequent chapters how Causal Agency Theory provides a lens to think critically about building such systems of supports through assessment, intervention, and environmental restructuring. First, however, it is necessary to provide additional details on Causal Agency Theory and how we currently operationalize its key elements.

3.1.1   Defining Self-Determination in Causal Agency Theory

Drawing on the foundational understanding of self-determination as (a) self-caused action from philosophy that is (b) motivated by the basic psychological needs of competence, autonomy, and relatedness from motivational psychology and (c) propelled through self-determined actions as proposed in the field of special education, we propose Causal Agency Theory to explain *how* people become self-determined, that is how they develop the actions and beliefs that lead to causal agency in supportive contexts that addresses basic psychological needs. Within Causal Agency Theory, we define self-determination as a "dispositional characteristic manifested as acting as the causal agent in one's life" (Shogren et al., 2015, p. 258).

We assume self-determined people are causal agents who act in service to freely chosen goals that propel action. Self-determined *actions* function to enable a person to be the causal agent is his or her life. Self-determined *actions* are influenced by the

contexts and environments that people experience and have access to across the life course.

3.1.2   Key Assumptions of Causal Agency Theory

Our definition of self-determination highlights our focus is on the outcome of enhanced self-determination, as a personal characteristic. While self-determination is influenced by a variety of social-ecological factors, the focus of Causal Agency Theory is understanding how to support the development of the disposition of self-determination or the enduring tendency that is expressed differently across people and time. We assert that self-determination can be expressed in different ways and at various times across the life course and that we can devise strategies to measure it and observe variability across individuals and within individuals over time (see Chap. 6 for more detail). The purpose of such assessment is to inform supports in the environment and in building personal capacities to further enhance self-determination. Additionally, we assume that cultural values and beliefs also influence the expression of self-determination, particularly how goals are defined and actions taken toward them. Causal Agency Theory rejects the notion that there is a "right" way to engage in self-determined action and instead presumes that with supportive environments *all people* can determine the most effective, interdependent ways to engage in self-determined actions that embrace their values, beliefs, visions, and self and communal goals.

As noted previously, we also assume engaging in self-determined actions does not necessarily mean engaging in independent actions or having absolute control over the process, as self-determined actions are shaped by multiple social-ecological factors. As Deci (2004) observed, "the concept of personal control … refers to having control over outcomes" (p. 23). Self-determined people identify their vision for their future and engage in self-determined actions to move toward that vision, but self-determination does not imply control over events or outcomes. In fact, actions can be self-determined that do not lead to the intended outcome so long as increases in autonomous motivation and causal agency are experienced as a result of the process of engaging in causal action. This leads to ongoing striving toward one's goals and visions and values for the future. Self-determination, therefore, is not an end but a continuously evolving process. Self-determined action is self-caused, volitional and agentic, driven by action-control beliefs about the relationships between actions (or means) and ends.

We also assume that striving toward goals is central to addressing basic psychological needs and engaging in self-determined actions. Causal agency implies that a person, with the supports they need and want, acts volitionally and agentically to accomplish a specific goal or to cause or create change in service to that goal. Self-determined actions enable a person to act as a causal agent, striving toward one's goals. The specific goal or change that is desired by a person is what propels them forward, creating a drive for self-determined actions and for seeking out

environments that support psychological need satisfaction. Another key assumption is that self-determination develops across the life course and that with access to supportive environments throughout childhood, adolescence, and adulthood autonomous motivation and self-determined actions will increase, leading to enhanced self-determination. Central to this, then, is supportive contexts.

3.2 Implications for Inclusive Supports for Self-Determination

Overall, Causal Agency Theory provides a theoretical framework for understanding the development of self-determination across the life course. Supportive contexts and inclusive supports are essential to ensuring that people have access to environments that promote basic psychological need satisfaction, enable the expression of self-determined actions, and create systems (e.g., policies, communities, services, resources) that promote equity in access to needed supports for self-determination outcomes. In the following chapter, we describe in detail the essential characteristics of self-determined action (volitional action, agentic action, action-control beliefs) to set the stage for further elaboration of how understanding these key abilities of self-determined action can inform inclusive assessment and intervention, leading to more positive and equitable outcomes for all.

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Chapter 4
Causal Agency Theory: Defining Self-Determined Actions

As described in Chap. 3, Causal Agency Theory defines self-determination as a "dispositional characteristic manifested as the causal agent in one's life" (Shogren et al., 2015). Causal Agency Theory, building on previous work by self-determination advocates, researchers, and theorists, emphasizes that self-determined people take action in service to freely chosen goals based on their interests, preferences, beliefs, and values. Causal Agency Theory identified key actions people use to make or cause things to happen in their lives as they set and work toward goals, growing in their causal agency. In the following sections, we describe three self-determined actions as defined by Causal Agency Theory—volitional action (decide), agentic action (act), and action-control beliefs (believe)—across the life course highlighting specific abilities, skills, and attitudes associated with each. In recent years, through knowledge translation work in partnership with self-advocates, we have collaborated to merge theory and practice by promoting accessibility of theoretical concepts for all audiences. For those reasons, we provide not only the theoretical names of the constructs that define self-determined actions (volitional action, agentic action, and action-control beliefs) but also shorter, descriptive terms for each (decide, act, and believe) throughout this text and in our work. In this chapter, we also include a theory into practice section aligned with each self-determined action to provide more information on how these theory-driven ideas play out in the lives of people with disabilities that have partnered in our research and dissemination activities.

4.1 Self-Determined Actions as Defined by Causal Agency Theory

Self-determined people are *causal agents* in their lives, which implies they are the person who make or cause things to happen in their lives as they set and work toward goals (Shogren et al., 2015). Causal agents take actions toward a specific end

or change they want in their lives. Given the relative newness of Causal Agency Theory and the integration of volitional action (decide), agentic action (act), and action-control beliefs (believe) as the key actions associated with self-determination, Burke et al. (2019) mapped the literature to explore how these constructs defined and operationalized across disciplines and fields and with and without a focus on disability. A total of 49 articles were identified that referenced at least one of the self-determined actions. Findings demonstrated that volitional and agentic actions have been consistently defined and described across disciplines (e.g., psychology, education, neuroscience), but limited research has addressed action-control beliefs. Burke and colleagues highlighted the need to advance and integrate understandings of the three self-determined actions to inform their application across the life course and diverse groups. This chapter, and other ongoing research, is attempting to do so to advance opportunities and supports for self-determination for all people.

Prior to describing the key self-determined actions, it is important to highlight a few terms and concepts that must be understood to apply self-determined actions to supporting people with disabilities. First, self-determined action does not imply control over events or outcomes. In fact, researchers and theorists in the disability field have argued that interpreting self-determination as synonymous with control is not only inaccurate but furthers an ableist assumption that self-determination is somehow not applicable to people with extensive support needs (Wehmeyer, 2005). We, and other leaders in the disability field, assert that self-determination is a human right for all people, including those with disabilities. Further, people with extensive support needs need not be in control of all actions to be self-determined. Instead what defines self-determined actions are that they are (a) self-initiated, (b) based on one's will or volition, and (c) driven by understanding of the relationship between actions and ends or goal (Shogren et al., 2015; Wehmeyer, 2005). Second, building abilities associated with self-determination does not mean a person must complete every step toward self-selected goals independently. As described in Chap. 3, self-determined people may choose to use technology in achieving their goals (e.g., using GPS to navigate to a friend's house) or empower others to make or inform our decisions (e.g., asking a medical professional to explain treatment options); however, the person is ultimately the one that self-directs the process toward goal identification and attainment. As such, while we will describe abilities, skills, and attitudes associated with self-determined action, it is important to recognize that it is not the use of specific abilities, skills, and attitudes that define self-determined action; instead it is the *function* the action serves for the person as they work toward self-selected goals. For these reasons, self-determined actions may be expressed differently, particularly based on a person's beliefs, interests, preferences, and cultural values or based on the opportunities or barriers present in their environments as more fully described in Chap. 9.

4.1.1   *Volitional Action (Decide)*

Self-determined people act intentionally, deliberately, and purposefully as they work toward goals in their lives. In other words, they act *volitionally* and make conscious choices based on their interests, preferences, values, desires, and beliefs. These choices are made without undue external influence; however, supports from trusted allies (e.g., friends, family members, teachers, supporters) are critical to enable intentional and deliberate choices and decisions. An important concept related to volitional action is that actions are self-initiated and enable a person to act autonomously toward goals based on their will and volition. Although volitional actions are self-initiated and autonomous, it is important to highlight that volitional actions still occur in a given context and are influenced by environmental supports and barriers. The construct of volitional action reflects that people have the inherent right to make conscious choices and decisions with intention based on what they want in their lives. But, as described in Chap. 1, systemic barriers driven by the deficit-based model of disability have historically, and all too often still, denied people from marginalized groups including people with disabilities the opportunities to act volitionally based on their own will. As such, supporting volitional action necessitates also creating autonomy-supportive environments (described further in Chap. 5) and removing structural barriers that emerge because of ableist policies and practices to enable the actualization of personal self-determination.

4.1.1.1   Abilities, Attitudes, and Skills Associated with Volitional Action (Decide)

As shown in Table 4.1, the construct of volitional action includes three abilities and attitudes: autonomy (acting based on one's preferences, interests, beliefs, and values without undue outside influence), self-initiation (initiating actions to identify a goal using past experiences as a guide), and inhibitory control (suppressing attention or prepotent behaviors in order to adapt to environmental demands; Diamond, 2013; Shogren et al., 2015). Autonomy and self-initiation were part of the original theoretical reconceptualization of self-determined action defined by Causal Agency Theory (Shogren et al., 2015), and ongoing work has proposed a conceptual approach to integrating Causal Agency Theory and executive processes, including inhibitory control (Shogren et al., 2021). The rationale underlying this integration is aligning executive processes, and self-determined action could further engage adolescents with disabilities, including autistic adolescents, in reporting on, recognizing, and identifying and directing needed supports related to underlying executive processes as they participate in self-determination interventions designed to enable self-direction in their lives. This is a critical area of need identified by the disability community given the highly disparate outcomes experienced by autistic youth in comparison to those without disabilities as well as other disability populations (Roux et al., 2019). Although the focus on executive processes, including inhibitory

Table 4.1 Self-Determined Actions as defined by causal Agency Theory

Self-determined actions	Abilities and attitudes	Skills
Volitional action (Decide)	Autonomy	Choice making
	Self-initiation	Decision making
	Inhibitory control	Goal setting
Agentic action (Act)	Self-regulation	Self-management (e.g.. self-monitoring. self-evaluation)
	Self-direction	Planning
	Pathwavs thinking	Goal attainment
	Cognitive flexibility	Problem solving
		Self-advocacy
Action-control beliefs (Believe)	Psychological empowerment	Self-awareness
	Self-realization	Self-knowledge
	Control expectancy	

control, is documented in the autism field, we argue that focusing on executive processes and self-determined action is more broadly beneficial across neurodiverse populations as it (a) creates opportunities for the expansion of self-determination assessment and intervention research outside of the special education and transition fields through greater alignment with research focused on executive processes, (b) expands the focus on the assessment of self-determination and executive processes, and (c) identifies and addresses disability-related support needs that might emerge with broader application of self-determination interventions (e.g., supports personalized to the specific strengths and needs of adolescents and young adults with a range of disability-related support needs).

When a person engages in volitional action (decide), they initiate and activate key abilities and attitudes that enable them to cause something to happen in their life, which includes identifying and setting goals. As such, key skills associated with volitional action include choice-making (selecting from two or more options based on what a person needs or wants to move closer to their goals), decision-making (finding different options and weighing the pros and cons to choose the best one based on one's goals), and goal-setting (identifying and setting criteria for what a person wants to works toward in their life).

4.1.1.1.1   Choice-Making

Making choices is a basic human right and fundamental to dignity, responsibility, opportunity, and the development of self-determination (Shogren, 2013). There are essentially two components of choice-making: (a) the person identifying a preference and (b) the person engaging in the act of selecting their choice from at least two options (Reid, 2000). Although choice-making may seem relatively simple in its components, too frequently people with disabilities are either denied or limited

in the choices they can make throughout their lives due to a variety of factors (e.g., deficit-based models and low expectations, a lack of understanding on how to teach and support choice-making; Cannella et al., 2005; Smith & Wehmeyer, 2012), and the negative impact on people with disabilities is clear across critical life domains. For example, in healthcare, increased inclusion and participation in healthcare choice-making has been identified as essential in addressing the health inequalities experienced by people with disabilities (NHS Health Scotland, 2004; Shogren et al., 2006). In education settings, a wide body of research has suggested a relation between choice opportunities, enhanced self-determination, and positive quality of life (Neely-Barnes et al., 2008; Nota et al., 2007, 2011; Shogren et al., 2015). Basic choice-making and preference expression are typically a focus for children, and this activity becomes more complex over the life course as adolescents and young adults engage in more complex self-determined actions such as decision-making, weighing the benefits and risks of actions. However, choice-making is embedded in decision-making, and, therefore, infusing choice opportunities throughout instruction and supports is critical to build a person's abilities to use volitional actions and initiate actions toward goals based on their preferences, interests, beliefs, and values across the life course.

4.1.1.1.2   Decision-Making

Decision-making builds on choice-making as it involves the identification of various options, weighing the potential outcomes of these in context of the end goal, choosing the best alternative, and finally taking action until that decision is made (Furby & Beyth Marom, 1992). Compared to choice-making, decision-making is a multistep process and a "complex mental function influenced by the multiple interactive processes of cognition, motivation, and emotion" (Hickson & Khemka, 2013, p. 211). Like choice-making, all people should have rights to make decisions about their lives. However, all too often this right is taken away from people with disabilities. For example, much focus in recent years has been placed on the negative effects of guardianship on the lives of people with intellectual and developmental disabilities and the need for alternatives, such as supported decision-making. Under plenary guardianship arrangements, which are common when people with intellectual disability reach the age of majority, the legal right to make decisions about their lives is eliminated (Kohn et al., 2013). However, restricting one's legal agency is a limitation on fundamental rights and is rooted in deficit-based perspectives of disability. Alternatives, including supported decision-making, have been rarely considered although international calls have recognized the right of people with disabilities to be involved in decisions about their lives (CRPD; United Nations, 2006). Supported decision-making is receiving attention in law, policy, research, and practice to actualize changing conceptualizations of disability that enable people with intellectual and developmental disabilities to remain at the center of decision-making processes in their lives. Supported decision-making provides a framework for thinking more broadly about how we, in policy and practice, support decision-making across the

lifespan by creating environments supportive of decision-making by people with disabilities (Shogren & Wehmeyer, 2015; Shogren et al., 2019).

4.1.1.1.3 Goal-Setting

Goal-setting is the act of creating a target or plan for what a person would like to achieve (Lee et al., 2009). The process of setting goals is essential for a person to reach meaningful personal outcomes. Goal-setting abilities develop over time with opportunities and supports. In the school context, goal-setting has been found to be a predictor of increased access to general education curriculum and positive post-school outcomes for students with disabilities (Reed & Lynn, 2016; Shogren et al., 2012; Shogren et al., 2015). However, research has frequently focused on how to support people in attaining goals set by others (e.g., teachers, family members, other stakeholders) rather than enabling the person to go through the process of setting goals (Nittrouer et al., 2016). Given the role of goal-directed actions in motivating action and the development of causal agency, goal-setting is central to self-determination and iteratively providing opportunities and experiences for people, inclusive of people with disabilities, to engage in the process of setting goals, and growing from the experience over the life course is critical to building self-determination.

4.1.1.2 Volitional Action: Connecting Theory to Practice

Across the life course, self-determined people use abilities, attitude, and skills associated with volitional action (decide) to enable them to act in self-initiated and autonomous ways while activating abilities related to inhibitory control to maintain focus on the goals that are important in their lives. It is important to recognize that these volitional actions will look different based on the preferences, interests, beliefs, values, and contexts in which people learn and grow. For example, the importance of accessing inclusive general education for students with disabilities is critical during childhood and adolescence to promote the development of volitional action, particularly to enable high expectations and opportunities for autonomy-support and meeting basic psychological needs. Self-determined people are *causal agents* in their lives (Shogren et al., 2015), and causal agents take actions toward a specific end or change they want in their lives. Volitional actions are central to establishing this end or change that the young person wants to pursue. Using examples from our collaborative research on promoting self-determination with people with disabilities, an autistic young man may be highly interested in exploring what they want to do in postsecondary education, as they transition from school to adult life. If the young person has been in autonomy-supportive school environments, where their college and career counselor and general and special education teachers have supported them to explore different career paths, they might self-initiate a meeting with their college and career counselor at the beginning of the academic year to

identify what classes they will need to graduate and apply to and attend the college or university of their choosing. The student may also recruit support from a family member or peer in a higher grade to choose school clubs or activities that are aligned with their interests, preferences, and desires and will support college applications, making decisions in autonomous ways. Volitional actions then initiate the process of making autonomous decisions about the goals or ends that a person wants to pursue; such initiation and autonomy are shaped by contexts that provide supports, models, and enhance motivation to decide to act in ways that initiate causal action.

4.1.2   Agentic Action (Act)

The second self-determined action as defined by Causal Agency Theory is agentic action. Agentic actions are self-directed steps a person takes in service of a goal (Shogren et al., 2015), and we often think of agentic actions as actions taken in support of making progress toward a goal or end that a person has identified. Thus, acting agentically serves as the means through which one makes progress on goals that they have decided to act on, volitionally. Using agentic actions involves identifying pathways that lead to a specific, intended outcome or create the change that is wanted in one's life. By thinking about different pathways to achieve their goals, self-determined people self-regulate and self-direct the goal attainment process, using executive processes including cognitive flexibility to navigate different potential pathways and barriers. Additionally, agentic action involves communicating and representing one's perspectives and beliefs, which are core components of self-advocacy abilities and skills and are often central to the lives of people with disabilities who are more likely to have to advocate to access environments and supports that meet basic psychological needs and respect and embody the right of people with disabilities to fully participate in society. Agentic action involves four abilities and attitudes: self-regulation (internal process of using coping responses to direct goal-guided activities over time and across contexts; Whitman, 1990), self-direction (directing actions toward goals and responding to challenges along the way), pathways thinking (identifying different ways to solve problems while working toward goals), and cognitive flexibility (learning from and integrating feedback from one's environment and then adapting responses to changing contextual demands and relevant feedback (Crawley et al., 2020; Dajani & Uddin, 2015; Ragozzino, 2007). Like inhibitory control, cognitive flexibility is a key executive process and is strongly tied to cognitive and functional abilities in both children and adults. With regard to autistic people, cognitive flexibility has a broad developmental window during which interventions may have a significant impact, making cognitive flexibility a critically important area of focus during the transition to adulthood period (Shogren et al., 2021). As described previously, understanding the relationships between self-determination and executive processes, including cognitive flexibility, can advance a strengths-based approach that focuses on maximizing strengths, recognizing neurodiversity, and addressing support needs related to executive process

to build self-determination for the autistic community as well as other disabled and non-disabled populations.

4.1.2.1 Abilities, Attitudes, and Skills Associated with Agentic Action (Act)

Table 4.1 highlights the key abilities and attitudes associated with agentic action which include self-regulation, self-direction, pathways thinking, and cognitive flexibility. Agentic actions also include specific skills people activate to engage in agentic action, such as self-management (figuring out how to pay attention to what one is doing to decide if actions are moving closer to goals and making adjustments as needed), planning (thinking about the steps needed to take to achieve a specific goal and figuring out the best way to take steps forward), goal attainment (creating a plan and taking steps to achieve the goals one sets for themselves), problem-solving (identifying and evaluating possible ways to overcome a barrier you encountered as one works toward a goal), and self-advocacy (speaking up for oneself based on needs, rights, and goals).

4.1.2.1.1 Self-Management

Self-directed learning strategies that are actualized through self-management skills are critical to self-determination as they enable people to take on a role in directing and monitoring their progress toward self-selected goals. Self-management skills include self-monitoring, self-evaluation, self-reinforcement, self-recording, and other related abilities that enable people to determine if they are taking actions that are aligned with the goal and make course corrections when needed. Mithaug and colleagues (Mithaug, 1993, 1996; Mithaug et al., 2003; Wolman et al., 1994) described the importance of finding the "just-right" match between a person's current capacities and existing opportunities. Self-management skills support the just-right match by providing information on the degree to which action plans targeted toward directing progress toward goals are working, or not working. However, not all actions in service toward goals will result in a just-right match as environments are dynamic, but these "not-right" matches provide learning opportunities for the person to act agentically and learn from the experience and enhance their self-management skills. They can also highlight situations where systemic changes are necessary to enable a person to fully actualize their self-determination abilities and attitudes.

4.1.2.1.2 Planning

Friedman and Scholnick (1997) described planning as "the orchestration of diverse and interdependent cognitive and motivational processes that are influenced by context and that are brought together in service of reaching a goal" (p. 3). As such, skills

associated with planning involve using future thinking about goals, the application of past experiences to current circumstances, and using preferences to guide action. Goal-focused action is inherently future-oriented. Planning enables a person to think about a future goal state that is desired and not yet attained and identify potential steps to achieve that goal state. Building upon past and present experiences, people use a future orientation and abilities associated with planning to concretize their originally vague or general desires into specific goals, means-end structures, and action plans (Lens et al., 2012). In a mixed methods study, Di Maggio et al. (2020) explored future goals of 96 young adults with intellectual disability and found that young adults with disabilities had future goals in an array of domains, including advancing autonomy, health/well-being, interpersonal relationships, and personal growth. Further, when young people reported higher self-determination abilities on a self-report measure, they identified more future goals, suggesting the role of self-determination in deciding on goals and the potential of supports for agentic action to enable greater progress on planning for ways to move closer to the end state that is desired. Thus, planning is a complex skill associated with agentic action as it involves the consideration and interaction of context, goals, and taking action to reduce discrepancies between current states and desired goal states.

4.1.2.1.3   Goal Attainment

Agentic capabilities related to goal attainment include skills associated with directing actions toward an end, or the desired goal or outcome. In other words, goal attainment is the process of using concrete and specific methods to achieve self-selected goals, including developing a plan to self-monitor and self-evaluate progress toward the goal. A core feature of goal attainment, and agentic action, is developing the ability to compare one's current state in relation to the goal and the desired end goal state and self-regulating and self-evaluating progress toward to goal state, adjusting actions as needed using cognitive flexibility. Engaging in a *goal-discrepancy analysis* can support people to identify pathways that provide ways to reduce the gap between their current status and goal state, using knowledge of oneself and one's environment. Decisions can be made about the best pathway for a given situation and goal. As young people develop cognitive flexibility over the life course, they develop in their abilities to evaluate different pathways and select and implement the one that is best aligned with environmental demands and their personal capabilities.

4.1.2.1.4   Problem-Solving

Identifying and generating solutions to problems encountered when acting to make progress toward one's goals is critical to self-determined action. Buchner (1995) defined problem-solving as, "the successful interaction with task environments that are dynamic (i.e., change as a function of user's intervention and/or as a function of

time) and in which some, if not all, of the environment's regularities can only be revealed by successful explorations and integration of the information gained in that process" (p. 14). In dynamic environments, as described by Buchner, adept problem-solving is critical to causal agency as it enables the person to continue making progress toward their goal despite inevitable challenges and barriers. By identifying barriers, possible actions to remove barriers across various contexts and ecological systems can be identified. Problem-solving is embedded in multiple life domains. For example, in schools, academic learning often reflects the criticality of problem-solving. The National Council of Teachers of Mathematics (NCTM, 2000) states that "contexts that promote problem solving, reasoning, communication, making connections…" are central to enable students to learn and apply mathematics, above and beyond the application of mathematical problem-solving skills. Instruction in problem-solving to achieve self-selected goals can support students to engage in mathematical problem-solving (as well as problem-solving across any academic domain) as successful problem-solvers monitor and regulate cognitive and meta-cognitive processes (Lester, 2013; Thomas, 2006). Therefore, integrating instruction in problem-solving skills within academic instruction has the potential to support all students, inclusive of student with disabilities, to learn how to be adept problem-solvers regardless of the situation they encounter.

4.1.2.1.5   Self-Advocacy

To many in the disability field, self-determination and self-advocacy are nearly synonymous given the importance of self-advocacy skills in the development of self-determination. Test et al. (2005) conducted a comprehensive review of the literature and received input from stakeholders (e.g., self-advocates, researchers, teachers, parents) and developed a conceptual framework of self-advocacy comprised of four components: (a) knowledge of self (understanding and knowing strengths, preferences, goals, support needs), (b) knowledge of rights (understanding and knowing personal, community, human service, and educational rights), (c) communication (effectively communicating one's knowledge of self and rights), and (d) leadership (moving from individual self-advocacy to advocating for others as a group of individuals with common concerns). The joint position statement on self-advocacy for people with intellectual and developmental disabilities by The Arc and the American Association on Intellectual and Developmental Disabilities describes that self-advocates "exercise their rights as citizens by communicating for and representing themselves and others, with whatever supports they need" (The Arc, 2020).

As people work toward self-selected goals and act agentically, communicating what they do well (i.e., strengths), want to learn (i.e., future goals), and what barriers they face is critical to engaging in individual and collective advocacy. In many ways, abilities and skills associated with self-advocacy are fundamental to Causal Agency Theory as they provide a means for people with disabilities to advocate for the resources, opportunities, and supports to express and actualize their personal choices, wishes, desires, and aspirations and challenge systemic barriers. However,

it is important to note that Causal Agency Theory also recognizes that there is a collective responsibility for change that has been led by people with disabilities through the self-advocacy movement. Allies and supporters must support the systemic changes that enable self-determined actions on an individual basis and create the contexts and environments that allow for the expression and growth of self-determination.

4.1.2.2   Agentic Action (Act): Connecting Theory to Practice

When acting agentically, people take action that drives them toward their desired goal state. They plan for pathways to achieve goals, self-regulating actions as they encounter environments that require adjustments, using cognitive flexibility to navigate dynamic environments and self-direct the progress toward freely chosen goals. When this occurs in contexts that are supportive of basic psychological need fulfillment, this leads to more motivation to act and further enhance one's self-determined action. In thinking of an example of agentic action, a young adult with intellectual disability is excited to have a job at a local accounting firm and has decided on a goal of completing all required tasks and asking for reasonable accommodations and supports, when necessary. The young person completed an internship at this program while completing their postsecondary education program at a local 4-year university. During the internship, the young person learned the steps to pull reports using an online system for their supervisor. However, the firm recently changed management platforms, and they are unsure how to pull a specific report for their supervisor by the end of the day. Learning a new management system and not knowing how to pull the report is a barrier to successfully completing work tasks, so they consider how to self-advocate for support. After weighing options including skipping the task and trying to figure it out on their own which were both rejected by the person as not leading to their goal, they decide to draft an email to their supervisor communicating the steps they are sure of and requesting support for the parts they are unsure of. The supervisor quickly responded with a guide that included visuals of the steps needed for the new management platform, and they were able to complete the report by the end of the workday. In this example, having a supportive context that includes a supervisor who is willing to provide support and guidance and information in accessible ways (e.g., with visuals) was critical to enabling the young person to sustain progress toward their goal and feel motivated as their needs for autonomy, competence, and relatedness were met in the environment.

4.1.3   Action-Control Beliefs (Believe)

The last self-determined action is slightly different; action-control beliefs involved the affective dimension of recognizing that one's own abilities support goal achievement and feeling empowered to act based on the beliefs that one's volitional and

agentic actions will lead to or cause desired outcomes. Action-control beliefs develop over the life course as people have opportunities and experiences to engage in volitional and agentic actions, building their sense of empowerment related to abilities, attitudes, and skills associated with decide and act. They are further supported by the development of autonomous motivation in supportive contexts that address basic psychological needs. Goal-directed actions have utility, even if goals are not immediately achieved, as engaging in goal-directed action supports a growing understanding of the link between one's actions and outcomes. In supportive environments, a belief in the relationship between actions and outcomes emerges, leading to psychological empowerment, self-realization, and control-expectancy beliefs.

4.1.3.1 Abilities, Attitudes, and Skills Associated with Action-Control Beliefs (Believe)

Table 4.1 shows the abilities, attitudes, and skills associated with action-control beliefs which include self-awareness (learning about oneself as well as needs, dreams, and goals) and self-knowledge (developing more and more understanding of what one's dreams are, how others can support in achieving them, and how to build a long-term vision for the future).

4.1.3.1.1 Self-Awareness

As people grow in their action-control beliefs, they are learning about their strengths, needs, dreams, and goals and then use that information as they iteratively engage in goal-directed action. Self-awareness is closely aligned with control-expectancy beliefs as awareness of strengths, future goals, support needs, and dreams support a person in knowing they have the capacities and skills to work toward their goals and recognizing the difference between opportunities to grow in one's skills and beliefs and the presence of environmental barriers. As people work toward goals and develop volitional and agentic actions, opportunities to reflect on what they have learned and celebrate successes are critical to developing a self-awareness and action-control beliefs. These beliefs, as shown in Fig. 3.1, then feed into greater motivation to act, particularly when environments are supportive and respectful of one's self-determination abilities.

4.1.3.1.2 Self-Knowledge

During the life course, people develop beliefs about their abilities and skills as well as the resources around them (e.g., people, technology) that support them in achieving their goals. Abilities and attitudes related to self-knowledge enable people to feel more empowered in their control-expectancy beliefs, recognizing the

connection between their actions and goal attainment. Engaging in future planning and setting long-term goals also support people in developing self-knowledge as it provides them the space to dream and think of their vision for the future. However, it is critical that environments create the conditions to support this visioning both by enabling basic psychological need satisfaction and by ensuring there is a fundamental respect for the rights of people with disabilities and the provision of supports to create the just-right matches between goals, action plans, and desired end states. Removing systemic biases that limit such opportunities is necessary.

4.1.3.2   Action-Control Beliefs (Believe): Connecting Theory to Practice

Action-control beliefs are critically important to believing and sustaining motivation to work toward a desired goal state, even when systemic barriers or a lack of support emerge. When young people are supported to grow in their action-control beliefs, they feel empowered, have understanding of themselves and their environment, and recognize the connection between their actions and outcomes as well as the ways that environments can support and impede action. As an example of how action-control beliefs can grow, a young adult with intellectual disability discussed long-term visions for the future with their family and during planning meetings associated with their self-directed budget, funded through Medicaid home- and community-based services. During these conversations, strengths are shared as are future goals. For example, the young person is great with technology and used self-scheduling apps to track progress toward goals for classes and for career development and design while they were in school. In these autonomy-supportive meetings, time is taken to celebrate these successes and identify ways these same feelings of empowerment and connection between actions (e.g., using Apps) and desired outcomes (e.g., transitioning to a full-time, community job) can be leveraged on an ongoing basis to promote goal attainment work and through engagement in other community activities.

4.2   Using Self-Determined Actions to Guide Assessment and Intervention

As highlighted in the Connecting Theory to Practice sections, self-determined actions are reflective of key abilities, attitudes, and skills that can be used within a social-ecological framework to identify environmental demands (and barriers) for self-determined action, personal abilities that can be leveraged and grown to enable self-determined actions, and supports needed to address environmental demands and personal abilities (e.g., supports for skill development, removal of structural barriers). As such, self-determined actions as defined by Causal Agency Theory contribute to causal agency and the development of self-determination by providing

a framework for *how* people develop abilities, attitudes, and skills associated with self-determination. Subsequent chapters will further elaborate on the role of this theoretical framework in enabling assessment and intervention in self-determination to promote positive outcomes for all people, inclusive of those with disabilities. First, however, in the next chapter, we further describe the role of autonomy-supportive environments in enabling the satisfaction of basic psychological needs leading to autonomous motivation and causal actions as this is a critical foundation for implementing assessment and intervention.

To conclude this chapter, we share the voice of a self-advocate highlighting the importance of opportunities and experiences to develop abilities, attitudes, and skills associated with self-determined actions, "People with disabilities have a lot to offer. We give as much as we take. We are an important asset to society. When people work alongside each other, no matter what, it's a win-win situation. We very much contribute to the community, and to overall society as well. Working helps us to discover our strengths. You never know what you are good at until you give it a try" (Barrows et al., 2020).

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Chapter 5
Causal Agency Theory: Autonomy-Supportive Environments and Interventions

In this chapter is the last chapter in Part 2, which has focused on the theoretical foundations of Causal Agency Theory. Chapter 3 introduced Causal Agency Theory, how self-determination is defined in Causal Agency Theory, and key assumptions of Causal Agency Theory including the role of supportive and inclusive contexts in promoting the development of personal self-determination. Chapter 4 described self-determined actions as defined by Causal Agency Theory (volitional action [decide], agentic action [act], and action-control beliefs [believe]) highlighting their role in the development of causal agency. In this chapter, we further define the role of autonomy-supportive environments in (a) enabling the satisfaction of basic psychological needs (i.e., autonomy, competence, and relatedness), (b) building supportive and inclusive contexts, and (c) enabling self-determined actions. Jointly focusing on the role of autonomy-supportive environments and interventions is a unique aspect of Causal Agency Theory that has potential to enhance both motivation and self-determined actions, creating contexts within which supportive environments and interventions build on each other to support the development of self-determination.

5.1 What Are Autonomy-Supportive Environments and Interventions?

As we have noted throughout this text, context shapes each person's experience of and expression of self-determination. Context has been defined as "the totality of circumstances that comprise the milieu of human life and human functioning" (Shogren et al., 2014, p. 110). Context, therefore, shapes and influences basic psychological need satisfaction and the development and use of self-determined actions, as shown in Fig. 3.1. Consistent with human agentic theories, each person shapes

their context but is also shaped by the opportunities and experiences in their contexts. As such, building supportive and inclusive contexts that provide culturally sustainable supports for causal agency through promoting basic psychological need satisfaction and the development of self-determined actions can lead to enhanced outcomes. For example, in school contexts, teachers can promote autonomy-supportive environments by supporting students to set goals for their learning and offering them choices on how they will work toward those goals so they are empowered to self-initiate and self-direct progress. Teachers might use project-based learning models in which students are provided parameters of what goals they could set related to the content of the class (e.g., social studies, English Language Arts) and then decide what their project will entail and how they will take steps to complete their project. In this way, the teacher is empowering students to make choices based on their own preferences, interests, and needs and decide the ways they want to attain their self-selected goal. Teachers and others must also be supported, then, by school cultures that value diversity, self-determination, and advance equitable opportunities and resources for self-determination.

In this chapter, we focus on highlighting what research suggests about how to target the creation of autonomy-supportive environments and interventions. First, we define autonomy-supportive environments and interventions and how they relate to the development of self-determination. We should first note that the use of "autonomy-supportive" to describe environments and interventions can be confusing, as autonomy is only one basic psychological need and one component of self-determined, volitional action. However, in this application, autonomy is used broadly to refer to activities that support autonomous motivation and causal agency by advancing the satisfaction of basic psychological needs for autonomy, competence, and relatedness, as well as the development and use of self-determined, volitional actions (which are autonomous actions). As such, "autonomy-supportive" reflects a broad conceptualization of advancing environments and interventions that promote motivation and agency and embrace diversity and the importance of equitable outcomes.

5.1.1 Autonomy-Supportive Environments

Autonomy-supportive environments are those that advance basic psychological need satisfaction and autonomous motivation through conditions where the basic psychological needs for autonomy, competence, and relatedness can be met. For example, Reeve and colleagues have extensively researched how to establish autonomy-supportive classrooms, recognizing that educational practices can either support or thwart autonomous motivation (Reeve, 2016). Reeve (2012) noted that when students are in classrooms, they "live and interact in a social world that offers supports for and threats against their needs, goals, interests, and values" (p. 152). Much of this relates to how opportunities for self-direction vs. other- direction (e.g., teacher-direction) are provided in the environment (Chang et al., 2017). Teachers

can act as autonomy-supportive, and Reeve (2002) summarized several studies of autonomy-supportive teaching highlighting that

> …autonomy-supportive teachers distinguished themselves by listening more, spending less time holding instructional materials such as notes or books, giving students time for independent work, and giving fewer answers to the problems students face (p. 186).

Teachers that foster autonomous motivation focus on engaging students through their interests and building learning communities where students take an active role in setting classroom expectations, feel safe to explore and take risks, are supported to solve problems and set personal goals, are responsible for monitoring and evaluating their progress, and recognize and celebrate diverse cultural identities and resources.

The impacts of autonomy-supportive classrooms and teaching have been documented in research. For example, researchers have found when teachers are autonomy-supportive there are associations with student self-regulation, learning and achievement, and engagement (Reeve, 2012). Others have studied how basic psychological need satisfaction changes over time and influences outcomes across domains. For example, Ratelle and Duchesne (2014) followed over 600 students from their last year of elementary school to graduation from high school. There were associations between school factors and social adjustment and self-reported basic psychological need satisfaction. Guay et al. (2003) found similar associations between self-perceived outcomes of students in the same dataset and the autonomy support that they experienced from their family and teachers. These associations have also been found in other life domains; for example, the role of autonomy-supportive work environments on worker motivation, satisfaction, and retention has been examined (Gagné & Deci, 2005; Gillet et al., 2013; Leroy et al., 2015; Schultz et al., 2015).

The role of autonomy support has also been examined in health domains, with researchers finding that motivation for physical activity during rehabilitation was higher under autonomy-supportive conditions (Saebu et al., 2013). Ng et al. (2012) reviewed research on autonomy-supportive environment and their influence on health outcomes and found that autonomy support in healthcare settings enhanced patients feeling of autonomy, competence, and relatedness, which then contributed to physical and mental health outcomes.

Similar findings have been reported with regard to parenting; autonomy support has been identified as playing a role in positive parent-child and sibling interactions (van der Kaap-Deeder et al., 2015). And these findings may generalize to any interactions; for example, Koestner et al. (2012) highlighted that "social support can facilitate progress on personal goals because it enhances feelings of perceived competence…" (p. 1609) and that "autonomy support of goal pursuit may also be associated with improved relationship quality and personal well-being" (p. 1610). Koestner et al. (2012) found in both friendships and romantic relationships that participants had higher perceptions of relationship quality when their partner or friend was autonomy-supportive.

The research on the role of autonomy-supportive environments is robust, suggesting clear relationships between autonomy support across environments and relationships, autonomous motivation, and health and well-being outcomes. Research is also emerging with youth with disabilities, linking basic psychological need satisfaction and perceptions of self-determination, with findings suggesting that there is a relationship between basic psychological need satisfaction and self-determination in adolescents with disabilities (Shogren et al., 2019). These findings highlight the importance, as proposed by Causal Agency Theory, of a joint focus on creating supportive environments and facilitate self-determined actions to enhance self-determination for all youth. In the next section, we highlight how autonomy-supportive interventions can be used, alongside autonomy-supportive environments, to build opportunities and supports for the development of self-determination.

5.1.2   Autonomy-Supportive Interventions

Autonomy-supportive interventions, like autonomy-supportive environments, focus on creating conditions that lead to enhanced self-determination. Autonomy-supportive interventions, however, focus more explicitly on creating opportunities for the development and use of self-determined actions, including volition action (decide), agentic action (act), and action-control beliefs (believe). Autonomy-supportive interventions can focus on directly building skills associated with self-determined actions (e.g., problem solving, goal setting, self-advocacy, inhibitory control), creating opportunities to build these skills through practice and diverse opportunities to apply these skills across life domains, and enabling supports and accommodations that might be needed based on each person's needs (e.g., using technology to communicate goals, picture-based materials to communicate values and goals).

In enhancing abilities, skills, and attitudes associated with self-determination, researchers have suggested that multi-component interventions that target teaching and applications of multiple abilities, skills, and attitudes associated with self-determination can lead to greater growth in self-determination and other valued outcomes (Burke et al., 2020; Cobb et al., 2009). Causal Agency Theory recognizes that multiple, repeated opportunities to build self-determination abilities, skills, and attitudes, in supportive and inclusive contexts, are critical to lead to enhanced self-determination across the life course.

As will be discussed further in Chap. 8, an array of approaches to teaching and creating opportunities for choice making, problem solving, goal setting, and self-advocacy skills exist (Burke et al., 2020). Such approaches have been implemented across the life course and with diverse impacts not only on self-determination outcomes but academic, social, employment, and community participation outcomes (Shogren & Shaw, 2016; Shogren et al., 2015). Further, there are multi-component interventions that target multiple abilities associated with self-determination simultaneously. One of the most widely researched multi-component,

autonomy-supportive interventions is the Self-Determined Learning Model of Instruction (SDLMI) (Shogren et al., 2018; Wehmeyer et al., 2000). Implementation of the SDLMI is guided by trained facilitators and consists of a three-phase instructional process that is repeated over time and used to support self-directed learning and goal setting in any life domain. The data on the outcomes of implementation of the SDLMI and modifications to the SDLMI, including the Self-Determined Career Design Model (Shogren et al., 2020b) that focuses on applying the same approach to career and employment goals, are compelling. The SDCDM has been implemented with adults with developmental disabilities, supporting them to identify and go after career goals, with impacts on career goals and self-determination and participation outcomes (Dean et al., 2017; Shogren et al., 2016). And, in school contexts, a synthesis of the literature suggested that the SDLMI has been implemented with students with a diverse array of support needs, including students with and without disability labels. It has been used in inclusive general education classrooms with students with and without disabilities, to support students with disabilities in transition planning and in the context of special education services and supports, as well as delivered through technology and by general and special educators (Hagiwara et al., 2017). The SDLMI, as a model of instruction, focuses on jointly changing the environment by training facilitators to create autonomy-supportive contexts, as well as directly teaching and empowering people with and without disabilities to learn to apply skills and abilities associated with self-determination that they can apply across contexts.

It is important to note that autonomy-supportive interventions, like the SDLMI and SDCDM, not only create opportunities to build self-determination abilities, skills, and attitudes and enable self-determined action by people who are participating in the interventions but also can facilitate the creation of autonomy-supportive environments and relationships by changing the dynamics of the supports provided in environments. They can also provide a means to enable people to challenge bias in systems, by advancing recognition when there are barriers to autonomy support. For example, Shogren et al. (2014) examined the impact of the teachers implementing the SDLMI on their perceptions of student capacity and opportunity for self-determination and found that when teachers were effectively trained and supported over time to implement the SDLMI, they significantly increased in their perceptions of student capacity and opportunity for self-determination compared to teachers who did not do so. Shogren et al. (2020a) found that teacher perceptions of their implementation of the SDLMI with transition-aged students with intellectual disability influenced self-determination outcomes as rated by students. This highlights the importance of educating supporters in the environment on ways they can build autonomy-supportive environments and implemented autonomy-supportive interventions, and that such education and supports can influence both teacher and student outcomes. Just as importantly, however, is creating broader changes in the contexts within which people live, learn, work, and play, ensuring that ableist policies and practices that reduce opportunities for self-determination (e.g., overuse of segregated settings, lack of access to inclusive supports, low expectations linked to

disability, lack of training and support for teachers and other supporters) are eliminated and inclusive, self-determined options are available for all.

5.2   Role of Autonomy-Supportive Environments and Interventions in the Development of Self-Determination

As we described at the beginning of this chapter, context can be defined as "the totality of circumstances that comprise the milieu of human life and human functioning" (Shogren et al., 2014, p. 110). Figure 3.1 highlights that context, which encompasses immediate social environments and circumstances as well as community-level supports and systems-level policies and practices, influences the development and expression of self-determination. Access to inclusive, autonomy-supportive environments and interventions can strongly influence basic psychological need satisfaction and opportunities for self-determined actions, impacting the development of self-determination. Central to ongoing efforts to promote self-determined outcomes for all members of society, inclusive of those with disabilities, will be removing contextual barriers that artificially restrict opportunities and experiences in marginalized groups, like those with disabilities, and fail to recognize and empower people with disabilities to define and shape the outcomes that they and their families and communities value.

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Part III
Research on Casual Agency Theory and Its Application

Chapter 6
Assessment of Self-Determination

To effectively promote self-determination, it is necessary to have assessment tools that can (a) identify instructional needs to personalize interventions and supports and (b) track the outcomes of self-determination interventions to establish effective practices. Assessment of self-determination should be aligned with intervention planning and evaluation and not simply used as an end in itself. Researchers and practitioners should collaborate with the person completing the assessment to share results, identify the way results should be used, and emphasize the use of results to drive positive change. In this first chapter of Part III, research on assessment of self-determination will be reviewed. We will highlight the history of self-determination assessment in the disability field and describe current and emerging directions with a specific focus on the Self-Determination Inventory, aligned with Causal Agency Theory which was introduced in Chap. 3.

6.1 History of Self-Determination Assessment

In the early 1990s, systematic advocacy for the right to direct their lives by self-advocates with intellectual and developmental disabilities (IDD; Ward, 1988) led to federal funding for the development of self-determination assessment tools. Two of the assessments that emerged from this work included *The Arc's Self-Determination Scale* (Wehmeyer & Kelchner, 1995) and the *American Institutes for Research (AIR) Self-Determination Scale* (Wolman et al., 1994). *The Arc's Self-Determination Scale* is a self-report assessment with adolescent and adult versions aligned with the functional model of self-determination (Wehmeyer, 1999). It was designed to (a) enable the promotion of self-determination in practice by identifying strengths and areas for growth in overall self-determination and (b) enable researchers to examine the relationship between self-determination and factors that promote and enable

valued outcomes. *The Arc's Self-Determination Scale* includes 72 items across four subscales: (a) autonomy, (b) self-regulation, (c) psychological empowerment, and (d) self-realization. The *AIR Self-Determination Scale* focuses on assessing a student's capacities for self-determination and opportunities available in the environment to enable self-determination; it also includes versions that can be completed by the student with a disability, parents, and teachers. In that sense, it differs from *The Arc's Self-Determination Scale* which is a global measure of self-determination, by specifically focusing on environmental opportunities alongside student capacities. It also includes self (i.e., student) and proxy (i.e., parent, teacher) report versions. The *AIR Self-Determination Scale* includes 30 items organized into two subscales: capacity (i.e., the student's knowledge, ability, perception to use self-determined actions) and opportunity (i.e., opportunities to engage in self-determined action across home and school environments). Depending on the respondent (i.e., students, parents, teachers), the format of the *AIR Self-Determination Scale* varies slightly.

Both *The Arc's Self-Determination Scale* and *AIR Self-Determination Scale* have been extensively used to research self-determination of youth and young adults in context of interventions to promote self-determination. For example, Wehmeyer et al. (2013) used *The Arc's Self-Determination Scale* a group-randomized, control group study to measure the impact of self-determination interventions on secondary students with disabilities over a 3-year period. They found significant differences across the intervention and control groups over time. Shogren et al. (2015) followed up with this sample of 779 students and found that scores on *The Arc's Self-Determination Scale* when exiting high school predicted adult outcomes 1 and 2 years post high school, establishing post-school impacts of self-determination interventions and increased self-determination while in high school. Specifically, self-determination status upon exiting high school predicted positive employment and community access outcomes 1 year post-school. *The Arc's Self-Determination Scale* has also been used to assess the efficacy of self-determination intervention with adults in the context of career design. For example, the Self-Determined Career Design Model (SDCDM) was used in community-based contexts for adults with disabilities (Shogren et al., 2016), and data were collected using *The Arc's Self-Determination Scale* from 197 adults with disabilities who were randomized into SDCDM intervention and business-as-usual control groups. Although all participants, irrespective of engaging in the SDCDM intervention, demonstrated slight increases in their overall self-determination, adults with disabilities in the SDCDM group showed greater change, compared to the business-as-usual control group, in their autonomy scores. The authors hypothesized this was in part attributable to abilities, skills, and attitudes associated with autonomy being some of the first self-determined actions to change in the intervention process as the first phase of the SDCDM emphasizes identifying preferences and interests related to career design and self-selecting goals.

Similar to *The Arc's Self-Determination Scale*, the *AIR Self-Determination Scale* has been used to examine capacities and opportunities for self-determination in research. For example, Carter et al. (2010) analyzed data collected using the *AIR*

Self-Determination Scale from 196 youth with emotional and behavioral disorders (EBD), learning disabilities, and intellectual disability as well as their parents and teachers. Overall, teachers reported the capacities of youth with EBD to engage in self-determined action to be significantly lower than those of youth with learning disabilities but higher than youth with intellectual disability. Interestingly, teachers generally evaluated students' capacity for self-determination lower than youth themselves but higher than parents. Researchers have examined the relationship between overall self-determination as measured by *AIR Self-Determination Scale* and a modified version of *The Arc's Self-Determination Scale*, the Adolescent Self-Determination Assessment (ASDA; Wehmeyer et al., 2007). The ASDA was developed as a self-report measure of the self-determination of youth with and without disabilities by revising items on *The Arc's Self-Determination Scale* to remove disability-specific content. The Adolescent Self-Determination Assessment-Short Form (ASDA-S; Wehmeyer et al., 2011) was developed to provide a shorter, less time-consuming version of *The Arc's Self-Determination Scale* for use in the National Longitudinal Transition Study in 2012 (Newman et al., 2011). The ASDA-S consisted of 28 items that can be administered briefly compared to the ASDA. Seong et al. (2019) collected data on the *AIR Self-Determination Scale*, ASDA, and ASDA-S from 1786 adolescents and young adults with and without disabilities. Results suggested the ASDA-S and the *AIR Self-Determination Scale* measured distinct aspects of self-determination (i.e., ASDA-S as an overall measure of self-determination while the *AIR Self-Determination Scale* assesses capacities and opportunities to engage in self-determined action).

Although there has been ongoing research using these tools, there has not been significant innovation in the assessment of self-determination in recent years. For example, until recently, available and validated measures of self-determination primarily focused on students with disabilities and those who could self-report on their perceptions of their abilities, skills, and attitudes associated with self-determination. Further, findings indicated that these measures (a) tended to not be sensitive to changes in the short-term, (b) were rarely used for instructional planning or to inform the intensification of intervention, and (c) were not aligned with the most recent reconceptualization of self-determination defined by Causal Agency Theory. In recognition of the need to support practitioners and researchers in evaluating self-determination outcomes for all people, inclusive of those with disabilities, a new suite of measures of global self-determination was developed called the Self-Determination Inventory System (SDIS).

6.2 Self-Determination Inventory System

The Self-Determination Inventory System (SDIS; Shogren & Wehmeyer, 2017) was developed to build on contemporary self-determination and positive psychological research, including the introduction of Causal Agency Theory. Focus was placed on the development of the SDIS on leveraging technology to enhance delivery and

accessibility options and provide more immediate feedback to students, families, teachers, and researchers. In developing the SDIS, specific steps were taken to enable widespread use to inform intervention planning as well as to enable outcome evaluation. The SDIS is delivered using a custom online delivery platform that can provide immediate feedback and user-friendly reporting as well as data aggregation over time.

The SDIS includes a suite of measures designed to collect data from youth and adults (SDI: Student Report [SDI:SR]), parents and teachers (SDI: Parent/Teacher Report [SDI:PTR]), and adults (SDI: Adult Report [SDI:AR]). In developing, pilot testing, and evaluating the validity of the SDI, there was a focus of targeting disability and non-disability populations, enabling comparative work in inclusive settings when universal self-determination interventions are implemented. The measures included in the SDIS include 21 items that are rated in a customized, online platform using a slider scale that the computer scores between 0 (disagree) and 99 (agree). The custom online system includes embedded accessibility features (e.g., in-text definitions, audio playback). An overall self-determination score, as well as scores for the self-determined actions defined by Causal Agency Theory and described in Chap. 4 (i.e., volitional action or decide, agentic action or act, action-control beliefs or believe), is automatically calculated and provided to users via a user-friendly report and saved in a secure data management system for tracking and analysis. After completing a measure within the SDIS, adolescents, parents/teachers, or adults receive an automatic report that describes strengths and areas for growth across decide, act, and believe as well as specific recommendations on how people can strengthen self-determined actions across school, home, and community environments in the SDI: Report Guide. In the sections that follow, we will describe each of the measures in the SDIS.

First, however, it is worth noting research on the slider scale adopted in the SDIS online system. The online SDI:SR was designed to utilize a slider scale for item response instead of a traditional, Likert-type scale. Slider systems, or visual analog scales (VASs), provide an alternative by using a continuous number line with one anchor at each extreme. Participants indicate their level of agreement by marking the scale which removes the need to select discrete and specific anchors on a Likert-type scale (Chang & Little, 2018), which has been hypothesized to increase the available range of responses and reduce the cognitive demands introduced by Likert or Likert-type scales.

In developing and validating the SDI: Student Report, a parallel paper-and-pencil version of the SDI:SR was created. Raley et al. (2020) utilized data from the SDI:SR validation study to examine overall self-determination scores of student participants (with and without disabilities) who took the SDI:SR via the online and paper-and-pencil format. Findings suggested the same set of items can be utilized across administration formats, but there was a significantly broader range in variances of SDI:SR scores across students who took the online measure in comparison with students who used the paper-and-pencil version. This finding might indicate data collected using the SDI:SR slider system are more sensitive than the paper-and-pencil version as students freely indicated their perceived agreement with each item

on a scale that is closer to continuous as opposed to requiring to adhere to predetermined categories (Rausch & Zehetleitner, 2014).

6.2.1 Self-Determination Inventory: Student Report

The SDI:SR was developed to assess self-determination in students with and without disabilities aged 13–22, enabling use in school and community settings with adolescents during the transition to adulthood. Through confirmatory factor analysis, Shogren et al. (2020a, b) demonstrated the 21 items and scores on the SDI:SR were reliable and valid across students aged 13–22 with varying disability labels (i.e., no disability, learning disabilities, intellectual disability, autism, other health impairments) and from diverse racial/ethnic backgrounds (i.e., White/European American, African American/Black, Hispanic/Latinx, Other). Table 6.1 provides a sample of the SDI:SR items across the decide, act, and believe subscales. Ongoing analyses using the SDI:SR demonstrated that differences are explained by students' personal characteristics (i.e., disability status, race/ethnicity; Shogren et al., 2018a). Specifically, White/European American students without disabilities consistently scored highest on the SDI:SR compared to adolescents from other racial/ethnic backgrounds and with disabilities, which was hypothesized to result from differential opportunities and supports for self-determination provided by support systems (e.g., schools). This suggests that the SDI:SR can be used to identify disparities in self-determination outcomes and target supports to reduce such disparities that may be rooted in structural racism and ableism in education and community contexts. Shogren et al. (2018b) also explored the impact of age and gender on SDI:SR scores, finding no gender differences but expected age-related differences (e.g., younger participants showed lower levels of self-determination). Given previous findings on the interactive effect of disability status and race/ethnicity (Shogren et al., 2018a), the degree to which age and gender influenced SDI:SR scores across disability and racial/ethnic groups was examined. Findings suggested females with no disability

Table 6.1 Alignment of Causal Agency Theory and SDI:SR items

Self-determined action	Sample SDI:SR items
Volitional action (Decide)	I choose activities I want to do.
	I look for new experiences I think I will like.
Agentic Action (Act)	I think of more than one way to solve a problem.
	I think about each of my goals.
	I have what it takes to reach my goals.
Action-Control Beliefs (Believe)	I keep trying even after I get something wrong.
	I know my strengths.

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Note. *SDI: SR* Self-Determination Inventory: Student Report

or learning disabilities generally scored lower in overall self-determination than males and that all groups showed growth with age, as predicted.

The SDI:SR has also been translated into other languages to enhance language accessibility. Currently, the SDI:SR is available on www.self-determination.org in English, Spanish, and American Sign Language; however, there are several ongoing translation projects, including French, Japanese, Portuguese, Arabic, and Chinese. Data from administration of the translated versions have been used to examine cross-cultural validity. For example, Mumbardó-Adam et al. (2017) utilized an item response theory approach to validate the SDI:SR (Spanish version) after a comprehensive translation process following procedures described by Tassé and Craig (1999). In an exploration of the cross-cultural validity of the English SDI:SR and SDI:SR (Spanish version), more than 3000 students in the United States and Spain completed the SDI:SR, and findings suggested that the same set of items could be used across cultural contexts and in youth with and without intellectual disability; however, there were specific patterns of differences in latent self-determination means, with students with intellectual disability scoring lower in the United States and Spain Shogren et al. (2019a, b). Similar findings have been established in other languages (e.g., American Sign Language, Chinese, French; Shogren et al., 2021b; Xu et al., 2021), suggesting that the self-determination construct has relevance across cultures but that specific differences may emerge based on context.

Overall, the SDI:SR is advancing self-determination assessment for adolescents with and without disabilities across school and community contexts. Ongoing efforts to determine ways to triangulate data from other supporters (e.g., parents, teachers) and self-report data from adolescents with and without disabilities are needed to advance understanding how young people are supported to develop self-determination across environments and contexts and to understand how supporters perceive youth self-determination and the congruence with youth perceptions. To this end, the SDIS also includes the Self-Determination Inventory: Parent/Teacher Report.

6.2.2   Self-Determination Inventory: Parent/Teacher Report (SDI:PTR)

Before describing the SDI:PTR, it is important to note that in developing the SDIS, one consideration was whether to create a proxy-report version of the assessment that could be completed by teachers, family members, or other people familiar with the youth or adolescent and their use of abilities, skills, and attitudes associated with self-determination. Different self-determination assessments have included (i.e., the *AIR Self-Determination Scale*) and not included (i.e., *The Arc's Self-Determination Scale*) proxy measures. The decision-making for the SDIS was grounded in ongoing research as well as concerns in the assessment field about the use of proxy responses on subjective measures, particularly during adolescence, given the challenges of a proxy reporting on personal experiences and beliefs (Claes et al., 2012; Rajmil

et al., 2013; Shogren et al., 2020a; Stancliffe, 2000). In particular, issues have been noted with the lack of agreement between self- and proxy responses, as well as challenges with integrating information across respondents and proxies (Schmidt et al., 2010). However, in the interest of triangulating information from youth and adults with and without disabilities on their self-determination from the SDI:SR and perceptions of supporters (e.g., parents, family members, teachers), the SDI:PTR was developed as a measure within the suite of tools of the SDIS.

The SDI:PTR is comprised of 21 items that mirror those of the SDI:SR. It was designed for use by any proxy respondent who knows the youth or adolescent well. For example, "I have what it takes to reach my goals" is an SDI:SR item, and its mirrored item on the SDI:PTR is "This student has what it takes to reach his/her goals." Like the SDI:SR, the SDI:PTR aligns with Causal Agency Theory and provides an overall self-determination score as well as scores across decide, act, and believe subscales from the perspective of a teacher or other proxy familiar with the youth or young adult. Using multi-group confirmatory factor analysis to compare ratings on the SDI:SR made by adolescents and SDI:PTR made by their teachers, Shogren et al. (2021a, b) explored the congruence of ratings across self and proxy-report versions of the SDI. Findings suggested the same set of items can be used to measure self-determination using the SDI across students and teachers, but that there are low correlations between self- and proxy scores. Specifically, teacher respondents tended to report that adolescents had lower levels of self-determination, although the discrepancy between adolescent self-report and teacher proxy-report varied based on the disability status and race/ethnicity of the student with discrepancies greater for teacher ratings of students from marginalized groups. Future research is needed focused on exploring systemic biases and how they shape not only assessment completion but also intervention and supports delivery. Attention needs to be directed to efforts to reduce bias and resulting disparities. Greater focus also needs to be placed triangulating data from students using the SDI:SR and teachers using the SDI:PTR to inform intervention planning and supports as well as adjustments needed to the environment to ensure they are autonomy-supportive as described in Chap. 5 to provide more opportunities, supports, and experiences for students to engage in self-determined action. Relatedly, future research is needed exploring the congruence of the SDI:PTR when completed by parents or close family members and young adults' reports using the SDI:SR.

6.2.3   Self-Determination Inventory: Adult Report (SDI:AR)

The SDI:AR extends the SDI:SR assessment framework into adulthood. The SDI:AR uses the same set of 21 items as the student version, which allows comparisons across adolescence and adulthood; however, changes were made to demographic items that are programmed into the online system at the end of the assessment to capture more information relevant to adult roles and responsibilities, including living arrangement and employment status of adults with and without disabilities.

The first initial analyses of the psychometrics of the SDI:AR suggested reliability of SDI:AR items in adults with and without intellectual disability ages 18 and over (Shogren et al., 2021a, b). Further, ongoing research has suggested the SDI:AR detects differences based on personal factors consistent with the SDI:SR (i.e., age, gender, and disability label; Mayumi Hagiwara et al., 2020a, b). Overall, and similar to explorations of the impact of age on SDI:SR scores across youth and young adults, adults without disabilities scored higher than adults with disabilities on the SDI:SR, with the largest disparities for adults with intellectual disability, highlighting the need to address individualized supports for self-determination across the life course. Unlike for the SDI:SR, females consistently scored higher than males on the SDI:AR. Relatedly, Hagiwara et al. (2020a, b) investigated how environmental factors (e.g., living arrangement, employment status) influence responses on the SDI:AR and found a significant impact of education attainment of SDI:AR scores as respondents with a bachelor's degree or a graduate degree scored higher than groups without higher education. Similarly, adults with intellectual and developmental disabilities who reported that they did not work or worked part-time scored significantly lower on the SDI:AR than those who had full-time employment. With regard to living arrangement, compared with adults living on their own, those living with families reported lower levels of self-determination, while those living in group settings reported higher levels of self-determination. These findings need further exploration, to understand how assessment can be used to inform supports in inclusive settings to advance self-determination outcomes.

Overall, the emerging research suggests that the SDIS advances self-determination assessment and provides practitioners and researchers with tools to plan interventions and supports for self-determination; however, there are ongoing needs to understand how to use assessment results and ensure accessibility for all. As further described in Chap. 8 focused on autonomy-supportive interventions, assessment tools within the SDIS are designed to track outcomes over time within research contexts and also guide intervention and supports planning in practice. In particular, in developing the SDIS, there was an intentional focus on aligning the self-determined actions measured by the SDI and aligned with Causal Agency Theory (i.e., volitional action [decide], agentic action [act], action-control beliefs [believe]) with interventions like the *Self-Determined Learning Model of Instruction* (SDLMI; Shogren et al., 2018; Wehmeyer et al., 2000), described in detail in Chap. 8, to enable people and their supporters (e.g., teachers, family members) to use assessment results to guide intervention and supports planning and implementation.

6.3   Emerging Directions in Self-Determination Assessment

Although the SDI:SR extends previous self-determination assessment accessibility with the inclusion of features in the customized, online platform, there is a need to further develop ways to capture performance indicators of self-determination abilities for all youth, including students with complex communication needs who face

barriers in current self-report modalities. In the broader assessment field, triangulation of data from multiple sources has long been recognized as a means to strengthen data collection, analysis, interpretation, and validity of the conclusions (Connelly & Ones, 2010; Rothbauer, 2008). While we have created opportunities for triangulation with the SDI:SR and SDI:PTR, direct observations of performance are also recognized as a key part of data triangulation for complex constructs (Balnaves & Caputi, 2001), which leads to more comprehensive and valid assessment. By integrating information from these different sources (e.g., SDI:SR or SDI:AR, self-report; SDI:PTR, proxy-report, direct observation), a more comprehensive picture of abilities can emerge allowing for better outcome tracking and individualization of intervention. However, we have not yet had the tools to directly observe self-determination abilities. One emerging area that addresses barriers to direct observation (e.g., length of time to observe in natural settings, complex scheduling needed to coordinate direct observations, broad range of observations needed across contexts to understand a person's global self-determination) is creating simulated situations, particularly for students with complex communication needs. Emerging technologies, such as virtual reality (VR), may provide a means to develop such performance assessments that would enable students with and without complex communication needs to use actions to indicate their level of self-determination. By using VR simulations, participants could demonstrate their abilities, skills, and attitudes associated with self-determination which can be quantified by the system based on interactions in the VR environment. For example, a transition-related VR simulation may show that a person's goal is to arrive at work on time, then the person is shown to be waiting for the bus to arrive. The bus is late, and so the person needs to navigate how they are going to get to the jobsite and communicate that they may be late. The person would then be offered options for how to navigate this barrier through VR simulations of possible solutions ranging from using a rideshare company to get to work on time to continuing to wait for the bus and not calling their supervisor. The participant will be scored based on their responses in the VR simulation to assess the degree to which they navigate barriers as they work toward their goal of arriving to work on time.

This alternate form of assessment could provide opportunities for (a) triangulation of data from a performance-based assessment of self-determination abilities and (b) participants to respond to tangible simulations in which visual support reduces language barriers and provides greater conceptual accessibility. Thus, assessing performance indicators of actual self-determination abilities in simulated VR environments is a potential means to engage students with complex communication needs in self-determination assessment as previous tools have been inaccessible to this population, but VR has been shown to be viable for other constructs (Jeffs, 2010; Ludlow, 2015; Standen & Brown, 2006). Further, for all students including those who can take the SDI:SR, there has not been an opportunity to assess performance of self-determination abilities in simulated situations and triangulate this with self- and proxy report information. Understanding where such measures align and diverge is not only important for research and outcome measurement but also for informing instructional planning. Therefore, there is a need to develop

additional assessment tools to expand the SDIS that promote the accessibility and sensitivity of self-determination assessment in ways that assess the actual expression and use of self-determined abilities, skills, and attitudes under specific conditions.

Further, there is an ongoing need to continue exploring the relationships between self-determination as measured by the SDIS and constructs related to positive psychology (e.g., motivation, self-regulation, hope, resilience) to build on the self-determination and positive psychology assessment fields. For example, Shogren et al. (2019a, b) theoretically and empirically tested the relationships among constructs associated with Self-Determination Theory and Causal Agency Theory in adolescents with disabilities. Specifically, they explored the relations between constructs from Self-Determination Theory (agentic engagement, motivation, and basic needs satisfaction and frustration) and Causal Agency Theory (volitional action [decide], agentic action [act], and action-control beliefs [believe]). Overall, they found unique patterns of correlations and predictive relationships among the constructs with adolescents with disabilities showing higher levels of needs satisfaction than frustration, as well as moderately high levels of self-determination and agentic engagement. This further validated the framework in Fig. 3.1 and highlights the need to plan for supportive environments and interventions as described in subsequent chapters.

Finally, research is needed exploring self-determination in relation to other indicators of skill acquisition (e.g., goal attainment, academic achievement) in the short and long term as well as valued adult outcomes (e.g., employment, social relationships). For example, Shogren and Shaw (2016) examined the degree to which autonomy, self-realization, and psychological empowerment predicted quality of life-related adult outcome constructs using secondary analysis of data from the National Longitudinal Transition Study-2 (NLTS2). As described previously, NLTS2 included a subset of items from *The Arc's Self-Determination Scale* targeting autonomy, self-realization, and psychological empowerment. Findings indicated that in a high-incidence disability group, autonomy predicted higher financial independence, employment, social relationships, independent living, and postsecondary education. For those with intellectual disability, there was a positive relationship between autonomy and inclusive residential opportunities. Future research should continue this line of research and assess the range of self-determined actions targeted in national data collection activities to provide researchers with data that can be used to further understand how to assess and promote self-determination.

6.4   Self-Determination Assessment to Drive Intervention and Supports Planning

As we described at the beginning of this chapter, self-determination assessment should be designed and used to guide intervention and supports planning and to challenge systemic biases, in partnership with the person. Consistent with calls

from the self-advocacy and autistic community, the preference, interests, beliefs, and values of the person who is taking an assessment should be at the forefront of all planning, including decisions about proxy report. To this end, triangulating data from multiple sources using innovative approaches to assessment (e.g., slider scales, online accessibility features, virtual reality modalities) has the potential to push the self-determination assessment field forward to support everyone in identifying their strengths and area for growth related to self-determination to achieve outcomes they value.

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Chapter 7
Autonomy-Supportive Environments

In Chap. 5, we discussed the role of autonomy-supportive environments and interventions designed to promote motivation, self-determined actions, and causal agency. In this chapter, we will further elaborate on research and practice that can inform the creation of autonomy-supportive environments. In the next chapter, we elaborate on research and practice that can inform the creation and implementation of autonomy-supportive interventions. The selection and implementation of the approaches described in this chapter should be informed by Chap. 6, which focused on the assessment of self-determination. We posit that assessment can provide important information to inform planning for autonomy-supportive environments and interventions, particularly when that information is shared in an accessible format for people with disabilities and their supporters alongside an understanding of contextual factors including personal values, preferences, and culture. As such, this chapter is premised on the belief that the selection and implementation of strategies to build autonomy-supportive environments (and interventions) must be guided by the voices, values, and desired supports identified by people themselves. Selecting, implementing, and evaluating strategies identified in this and subsequent chapters to build autonomy-supportive environments require thoughtful consideration, and these activities should be guided by people with disabilities to continually provide opportunities and supports for self-determination and to center the preferences, interests, values, and beliefs of the disability community.

7.1 Building Autonomy-Supportive Environments

In Chap. 5, we defined autonomy-supportive environments as those that advance basic psychological need satisfaction for autonomy, competence, and relatedness as well as autonomous motivation. We also highlighted research that established the impact of actively structuring environments across life domains to be autonomy-supportive. It is clear that creating conditions through which basic psychological needs for autonomy, competence, and relatedness are satisfied is essential to promoting motivation and self-determination across all life domains (e.g., school,

work, health). So, what can be done to actively build autonomy-supportive environments?

It is critical in research and practice that people with disabilities play a role in defining and shaping inclusive, culturally responsive, and autonomy-supportive environments. Such environments, by definition, should be rooted in the values of people with disabilities, not in external decisions or judgments about what is or what should be autonomy-supportive. This is where assessment data can play a central role, as the impact of autonomy-supportive environments should be evaluated in relation to personal changes in self-determination and other valued outcomes (Shogren et al., 2021). Further, we acknowledge that creating autonomy-supportive environments must go beyond just the immediate environment. For example, while a teacher or employer can work to create supports for autonomy, competence, and relatedness, if there are broader factors (e.g., the school, employer, or societal culture and resultant mandates) that limit these supports, change must be targeted at multiple levels, recognizing that there is an interaction across the levels of ecological systems that influence outcomes (Shogren et al., 2020). As such, all these factors must be considered to actualize supports for autonomy, competence, and relatedness. In the following sections, we will highlight ways that supports for autonomy, competence, and relatedness can be integrated into two major life domains: education and employment. However, similar strategies can be applied across all life domains, including community participation, health, and recreation. A holistic approach to building autonomy-supportive communities is needed to create contexts that provide a system of support for autonomous motivation, which we discuss at the end of the chapter.

7.1.1 Education

As noted in Chap. 5, much focus has been placed on building autonomy-supportive classrooms and supporting teachers to utilize strategies that address basic psychological needs for autonomy, competence, and relatedness to advance the autonomous motivation of students. This creates a foundation for students to engage in self-determined actions that advance self-directed goals (Chang et al., 2017). Such strategies focus on how learning environments can incorporate students' preferences, interests, beliefs, and values and allow them to self-initiate learning goals, with the right supports they identify to calibrate their goals to their current learning strengths and needs. Autonomy-supportive classrooms, therefore, focus on building autonomous motivation in students, propelling them to self-direct their learning. Autonomy-supportive environments also emphasize the psychological need for competence. In this regard, autonomy-supportive teachers focus on structuring classrooms to create "optimal challenges" that stretch students to achieve high expectations, but are aligned with their current abilities, values, and vision for the future. This is similar to a focus on finding "just-right matches" between the goals

students are targeting and the environmental demands and supports available to them (Mithaug et al., 2003).

Although issues specific to disability have not been extensively studied with regard to autonomy-supportive teaching and classrooms, with notable exceptions that will be described subsequently, it is important to focus on strengths-based approaches to supporting students with disabilities in autonomy-supportive classrooms. For example, to address the basic psychological need for relatedness, cooperative learning, relationship building, and peer interactions can be targeted in autonomy-supportive classrooms which include autistic students[1] (De Naeghel et al., 2014). All too often deficit-based accounts of social and communication abilities have been the focus (e.g., teach "appropriate social skills" to promote relationships) of engaging youth with autism. However, this fails to recognize that social relationships and communication are bidirectional and there may be differences in social interaction preferences and supports across neurodiverse people that both people with autism and those without autism need to understand, acknowledge, and address to build reciprocal relationships. Such an approach differs significantly from deficit-based approaches that expect only the autistic person to change or conform to neurotypical expectations (Davis & Crompton, 2021). Using a strengths-based approach to create environments that are autonomy-supportive and address the basic psychological need for relatedness will benefit all students in inclusive learning environments and align with all students' strengths, values, and culture.

This aligns with the focus identified by other researchers, who emphasize that autonomy-supportive teaching must target enabling deep conceptual learning rather than learning driven by extrinsic goals or indicators of success (Vansteenkiste et al., 2012). When students are not supported to understand *why* they are learning, *what* they are learning, and the alignment with their goals, visions, preferences, and self-definitions of how they feel autonomous, competent, and related to others, autonomous motivation is limited. For example, students more actively process information and show greater conceptual learning when they are driven by the pursuit of an outcome that aligns with their need for autonomy, competence, and relatedness, compared to conditions where behavior was managed through extrinsic rewards, such as grades and teacher evaluations (Grolnick & Ryan, 1987). Researchers have

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[1] In this and subsequent chapters, we will use a mixture of terminology when referring to autism and people with autism or that identify as autistic. A common form of description has been called "person-first" language, in which the person (e.g., student) appears first such as student with autism. Many autistic self-advocates and autistic advocacy groups now prefer an identify-first language, such as autistic student; however, some groups prefer person-first. In addition, autistic advocates have spoken about the desirability of using the term "autism" rather than autism spectrum disorder. At the time of this writing, terminological issues have not been settled. To honor the advocates and professionals in the field, as well as other groups of people with disabilities who prefer the person-first term, we will be mixing terminology throughout, using both person-first and identity-first terminology with the primary descriptor being autism or autistic. Relatedly, throughout this chapter, we will use person-first terminology when referring to people with intellectual and developmental disabilities based on preferences within the intellectual and developmental disability community.

also suggested that family support for autonomous learning can also impact student motivation, highlighting the interactive role of autonomy-support across contexts, in this case home and school (Grolnick, 2009; Katz et al., 2009; Roth et al., 2009).

Overall, in autonomy-supportive classrooms, students have meaningful roles, set goals, and are actively engaged in their learning, thereby impacting their motivation and engagement (Collie et al., 2016). Teachers are able to provide structure by communicating the content of the class and expected outcomes, and students learn to use this information to make action plans and address their needs within the class structure and expectations, building feelings of autonomy and competence (Koh et al., 2009). It is important, however, to ensure that such supports are accessible to all students, inclusive of those with disabilities as when students are unsure about what they are supposed to learn, this can create reliance on external cues or supports, limiting feelings of competence. This can also limit reciprocity in relationships, with can reduce feelings of relatedness. When students are not supported to be autonomous and to feel competent and related, they can feel less respected and controlled by their environment and others, rather than themselves. All too often, this can be the default for students with disabilities as well as other marginalized groups, particularly when they are not supported in ways aligned with their strengths and values in inclusive settings and autonomy supports are not aligned with individual values, goals, culture, and learning support needs.

Specific strategies have been developed to enable teachers to provide supports for autonomy, competence, and relatedness. Reeve et al. (2004) examined the impact of online training on providing autonomy-support in the classroom, finding that after the training, teachers showed increases in their ability to teach and motivate their students in more autonomy-supportive ways, which led to increased student engagement. This work, however, has not focused on how to build these supports in inclusive environments, supported by general and special educators working collaboratively. But there has been a focus on embedding strategies to enhance autonomous motivation in academic interventions for students with disabilities or those that need additional supports in specific domains, such as reading. For example, Toland and Boyle (2008) sought to build positive thinking about learning in students identified as having low self-esteem and struggling with achievement. They found that with intervention, students showed increased efforts and improvement in outcomes. Concept-Oriented Reading Instruction (CORI; Guthrie et al., 2007; Swan, 2003) embeds instructional dialogue based on motivational theory in daily reading practices, and increases in intrinsic motivation for reading have been found with such practices. Berkeley et al. (2011) embedded a modeling and self-talk approach in a reading comprehension strategy intervention with adolescents with learning disabilities and found that there was an increased use of the modeling and self-talk strategies, demonstrating students with learning disabilities can learn and apply these skills.

Toste et al. (2017) proposed strategies to enhance the motivation of upper elementary students struggling with reading in the context of intensive reading interventions. They specifically focused on changing students' beliefs about themselves and their reading skills and abilities through the use of self-reflection, positive

self-talk, and recognition of negative statements. Students were taught self-reflection strategies in concrete ways, with each lesson starting with students rating their current readiness on a scale from 1 to 5. Teachers were trained to model positive self-talk and support students to generate motivational statements during reading, even when struggling. Students were also taught to identify negative thoughts using examples aligned with their needs and then generated positive self-talk that a struggling peer could utilize to support themselves. This enabled them to recognize negative self-talk, model how they would support others to change those attributions, and then apply it to themselves. In studies of this approach, the addition of the motivational component, alongside research-based reading instruction, led to increased learning outcomes (e.g., sentence comprehension) as well as changes in negative reading attributions (Toste et al., 2016, 2017). This suggests that more intensive supports can be provided for students, particularly those who may have had past experiences that limited basic psychological need satisfaction, during academic instruction. This further highlights the importance of assessing current needs related to self-determination and autonomous motivation and tailoring supports to identified student strengths and needs.

7.1.2 Employment

As in education, researchers have also established that autonomy-supportive work environments can influence autonomous motivation (Gagné, 2014). Gagné and Deci (2005) developed a framework for understanding the role of autonomous motivation in employment, suggesting that multiple factors shaped outcomes, including job characteristics, supervisors, autonomy-supportive practices, and how job feedback was structured and delivered. Others have also highlighted the role of autonomous motivation and supporting its development in career design and development. For example, current models focused on applying life design to career development (Savickas et al., 2009) emphasize the role of supportive contexts in shaping a work identity; recognizing this develops over the life course and can be impacted by employment and career development supports in work as well as school, home, and community settings (Savickas et al., 2009). Central to this process is creating environments that support people to continually look for opportunities that meet their interests, explore possibilities related to those interests, and set goals that seek to improve the fit between their capacities and the demands of the job, building feelings of autonomy and competence, as well as relatedness with others. As such, considering personal factors, including preferences and goals for work as well as character strengths (Kong & Ho, 2016), alongside environmental factors specific to the employment environment can be leveraged to understand worker attitudes, including engagement, well-being, and commitment (Guntert, 2015; Leroy et al., 2015; Schultz et al., 2015; Van Den Broeck et al., 2013).

Planning for supports to address reciprocal relationships and understandings is central to creating autonomy-supportive environments in work-related domains. For example, research has found that autistic advocates and their supporters may hesitate to disclose their support needs and that there may be misalignments between how people with disabilities and employers view the role and impact of accommodations on workplace outcomes. As such, this can create difficulties in obtaining employment as well as sustaining employment and accessing needed supports (Nittrouer et al., in press). Additional focus needs to be placed on adopting a strengths-based, autonomy-supportive approach to building, hiring, and planning for workplace supports that enable people with disabilities to communicate their strengths, talents, and skills, addressing their need for autonomy, competence, and relatedness in this process and in building careers. Being able to be oneself may be central to ensuring fit with a position in the short and long term. Further, the role of mentors, particularly mentors with shared lived experiences, may be particularly helpful in navigating challenges in work environments (Nittrouer et al., in press) and building more supports for relatedness, as well as autonomy and competence.

7.2   Building Systems of Supports for Autonomy-Supportive Environments

Context shapes and influences basic psychological need satisfaction and the development and use of self-determined actions as introduced in Fig. 3.1. Fundamental to supporting the development of self-determination is creating environments that are supportive of autonomy, competence, and relatedness. In this chapter, we highlighted ways such supports can be created in education and employment-related contexts, based on existing research. We want to emphasize that these strategies can and should be generalized across all life domains (e.g., health, community) and to promote flourishing at the person, community, and society levels, building systems of supports for autonomous motivation and self-determination is needed. Such systems of supports must focus on individual preferences, values, and visions and recognize that, consistent with human agentic theories, each person shapes their context but is also shaped by the opportunities and experiences in their contexts. As such, building supportive and inclusive contexts that provide culturally responsive supports for causal agency through promoting basic psychological need satisfaction and the development of self-determined actions can lead to enhanced outcomes. Ensuring that people with disabilities are included in planning for building systems of supports will be critical to ensure equity in access as well as the meaningfulness of all such opportunities, in inclusive contexts. To specifically support people with disabilities and other marginalized identities, greater focus needs to be directed to systemic changes that promote a valuing of neurodiversity, reciprocity in relationships and community, and disability history and advocacy to counter systemic barriers created by ableism, racism, and other "-isms" in society.

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Chapter 8
Autonomy-Supportive Interventions

Chapter 5 defined the role of autonomy-supportive environments as those that (a) enable the satisfaction of basic psychological needs (i.e., autonomy, competence, and relatedness), (b) build supportive and inclusive contexts, and (c) enable self-determined actions. Relatedly, autonomy-supportive interventions focus more explicitly on creating opportunities for the development and use of self-determined actions, including volition action (decide), agentic action (act), and action-control beliefs (believe). Chapter 7 highlighted ways to create autonomy-supportive environments. This chapter focuses on autonomy-supportive interventions that can be implemented in autonomy-supportive environments to build motivation and self-determined actions. This joint focus on building autonomy-supportive environments and interventions is a unique aspect of Causal Agency. Later chapters will highlight future directions to merge supportive environments and interventions. But, in this chapter, we review research on interventions to teach the skills, abilities, and attitudes associated with self-determination with a focus on inclusive contexts across the life course. These interventions should be informed by assessment tools described in Chap. 6 to personalize interventions and supports. Further, all intervention implementation and associated supports should be guided by the person with a disability and consider their cultural identity, values, and beliefs. All too often, interventions approaches are determined by people who support the person with a disability (e.g., professionals, family members), and although positive intentions sometimes underly these decisions, centering the voices and experiences of people with disabilities in the intervention decision-making process is critical to supporting autonomy and self-determination.

8.1 Autonomy-Supportive Interventions Across the Life Course

Using autonomy-supportive interventions should traverse all contexts in a person's life. It must be embedded across ecosystems and engage not only school and community environments but also the broader society to maximize opportunities and supports for autonomous motivation for goals valued at each life stage. For example, in school contexts, teachers play a critical role as the primary instructors, facilitators, and advocates in providing support for autonomy in the classroom (e.g., Flunger et al., 2019; Kusurkar et al., 2011; Reeve et al., 2004). Many studies have examined the use of autonomy-supportive interventions in school contexts and identified the importance of teachers using instructional strategies that promote rather than inhibit or thwart autonomy. Early research by Deci et al. (1981), for example, found elementary-aged students learning from autonomy-supportive teachers displayed higher intrinsic motivation and perceived competence compared to students learning from teachers who used more controlling instructional strategies. With regard to students who might be uninterested in specific content areas, Tsai et al. (2008) found middle school students' interests were enhanced in classes taught by educators who were autonomy-supportive and reduced in the classes that teachers were controlling. Reeve et al. (2020) explored students' resilience in physical education classes when they received autonomy-supportive instruction over an academic year. Findings suggested students of teachers who used autonomy-supportive interventions reported greater autonomy satisfaction and agentic engagement and lesser autonomy dissatisfaction and agentic disengagement. Further, as an indicator of the longer-term benefits of providing autonomy-supportive instruction, student gains in agentic engagement and declines in agentic disengagement predicted students' abilities to self-generate autonomy needs satisfaction and recruit teacher-provided autonomy support at the end of the academic year. As students approach the transition to adulthood and navigate work environments, employers and others involved in supporting people with disabilities to thrive in competitive and integrated employment can use autonomy-supportive interventions to enhance a person's feelings of autonomy, competence, and relatedness at work. For example, Wehmeyer et al. (2003) enabled vocational rehabilitation counselors to use a multi-component, autonomy-supportive intervention, the Self-Determined Career Design Model (SDCDM; Shogren et al., 2021a), to work toward self-selected goals and develop skills that would enhance their feelings of autonomy, competence, and relatedness at work. As a final example of a life domain in which autonomy-supportive interventions can be impactful, researchers have suggested that an autonomy-supportive healthcare climate and interventions to promote self-determined health literacy lead to people being empowered to engage in healthcare decision-making (Barello et al., 2020). Across a sample of 1007 patients with chronic health needs, using an autonomy-supportive intervention focused on engaging patients in healthcare decision-making fully mediated the relationship between an autonomy-supportive healthcare climate and their health literacy, suggesting the

importance of healthcare systems and practitioners in those environments using autonomy-supportive interventions that support patients in playing an autonomous role in their own healthcare.

The focus of the remainder of this chapter is on autonomy-supportive interventions that can be used to support the development of self-determined action (i.e., volitional action [decide], agentic action [act], and action-control beliefs [believe]) and associated abilities, skills, and attitudes listed in Table 4.1. Specifically, we highlight an evidence-based, autonomy-supportive intervention that has been extensively researched with adolescents with disabilities, the Self-Determined Learning Model of Instruction (Shogren et al., 2018a; Wehmeyer et al., 2000), as well as the modified version focused on career design, the SDCDM (Wehmeyer et al., 2003), introduced previously.

8.1.1   Self-Determined Learning Model of Instruction (SDLMI) and Self-Determined Career Design Model (SDCDM)

The SDLMI is a model of instruction designed to enable trained facilitators (e.g., general or special educators, related service providers, family members, self-advocates) to teach self-regulated problem-solving skills listed in Table 5.1 across contexts (e.g., academic instruction, transition planning, community settings). The goal of using the SDLMI is to engage people in directing their goal-setting and attainment by learning the steps necessary to identify goals, develop action plans, and evaluate attainment, solving problems and navigating barriers encountered along the way. This approach differs from how instruction and supports are typically provided in the disability field, where there has been a strong and historic focus on other-directedness. Instead the SDLMI focuses on providing the person with supports they identify to direct the learning process toward goals that are important in their life.

There are three distinct phases of the SDLMI (see Fig. 8.1): Set a Goal (Phase 1), Take Action (Phase 2), and Adjust Goal or Plan (Phase 3) that are aligned with volitional action (decide), agentic action (act), and action-control beliefs (believe). In each SDLMI phase, students are supported to solve an overall problem (Phase 1: What is my goal?; Phase 2: What is my plan?; Phase 3: What have I learned?). To support facilitators and students to engage in the SDLMI, there are three core components highlighted in Fig. 8.2: Student Questions, Teacher Objectives, and Educational Supports. Students solve the overall question in each phase by answering a series of four Student Questions in each phase (for a total of 12 Student Questions) that support them in moving from where they are (i.e., not having their goal-related needs and interests satisfied) to where they want to be (i.e., the goal state of having their needs and interests satisfied). Each Student Question is associated with Teacher Objectives that provide SDLMI facilitators with a road map of
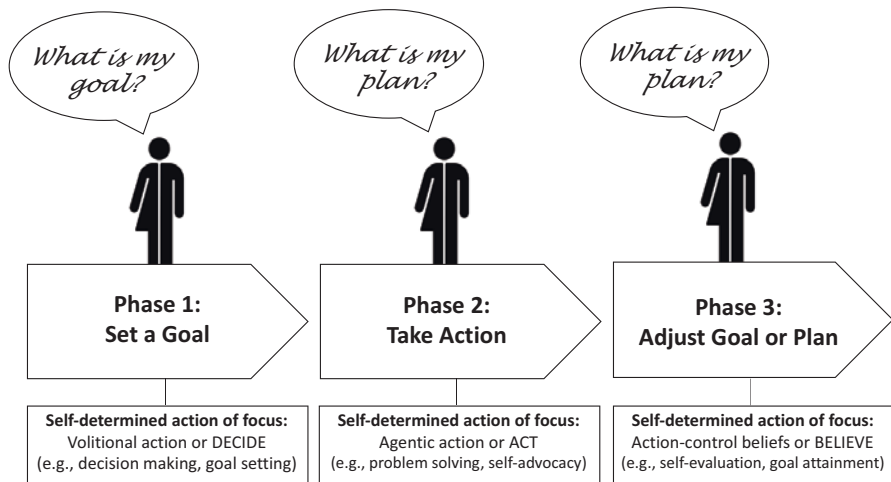
Fig. 8.1 Self-Determined Learning Model of Instruction alignment with self-determined actions. (Note. Adapted from Shogren et al. (2018a, b). Copyright 2021 Kansas University Center on Developmental Disabilities)

what they must do to support students in answering the targeted Student Question. To meet Teacher Objectives, SDLMI facilitators utilize Educational Supports (e.g., goal-setting, decision-making, or self-scheduling instruction) to enable students to learn the skills needed to answer the Student Questions and self-direct learning. For example, when implemented in inclusive, general education settings, in Phase 2 (Take Action), facilitators can use the Educational Support of goal-setting instruction to meet the Teacher Objective of enabling students to state a goal and identify criteria for achieving the goal (associated with Student Question 4: What can I do to make this happen?). To provide this goal-setting instruction, teachers identify a brief period of instructional time in which they explicitly teach students how to set a goal that is relevant to the areas students identify linked to their academic success.

In school settings, students typically work through the 12 SDLMI Student Questions one to two times over the course of an academic semester, and they can set and work to attain multiple goals (typically between two and four goals) over the course of a school year, creating multiple opportunities to learn and develop abilities associated with self-determination. In other words, the SDLMI is designed to be iterative, supporting the person to move from one goal to another, using their goal-setting and attainment experiences from one cycle of the SDLMI to inform the next. This cyclical process enables the person setting and working toward goals using the SDLMI to become increasingly self-directed and self-determined over time as they have multiple opportunities to work to build volitional action [decide], agentic action [act], and action-control beliefs [believe]. Across contexts in which the SDLMI is used, it is important to note that implementation is an individualized process that should be tailored to the person's preferences, interests, beliefs, and values as well as their support needs and past experiences, and resources are
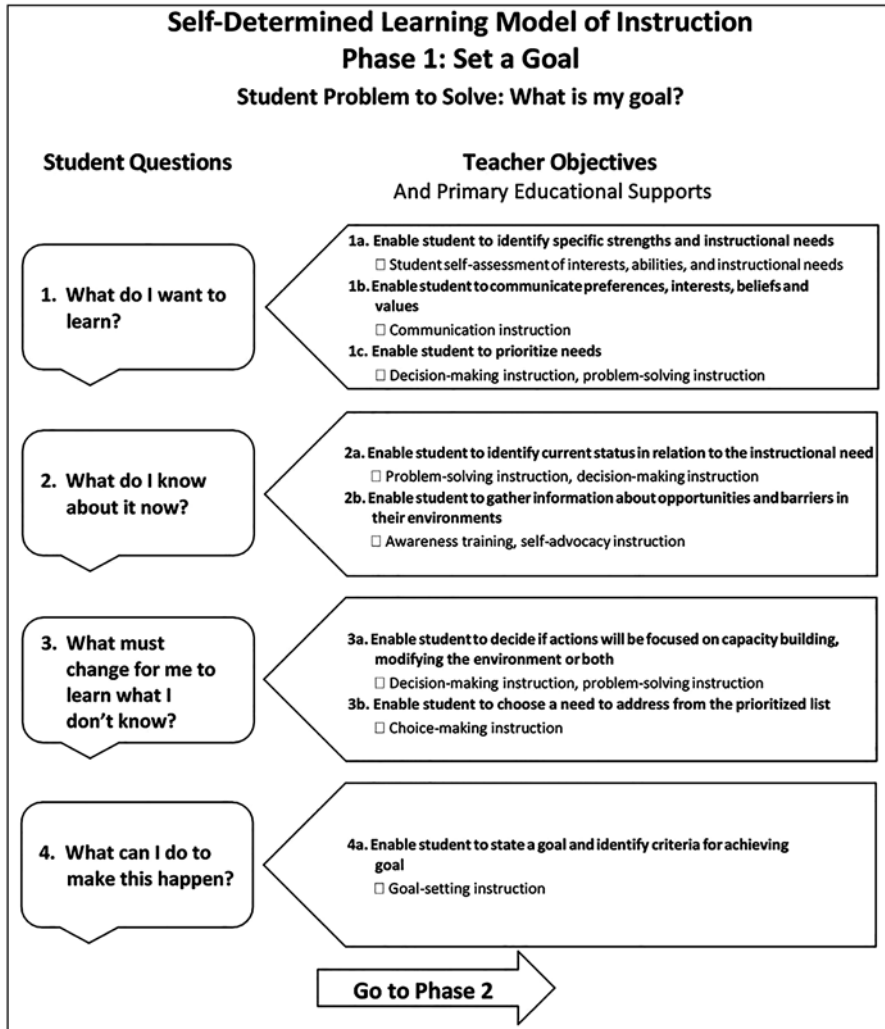
Fig. 8.2 Self-Determined Learning Model of Instruction. (Note. Copyright 2021 Kansas University Center on Developmental Disabilities)

available to support students with complex communication needs, with autism, and during transition planning. Specifically, in addition to the SDLMI Teacher's Guide (Shogren et al., 2018a), developers of the SDLMI have created supplemental resources with instructional supports and examples designed to make the Student Questions accessible for students with complex communication needs (Shogren & Burke, 2019) as well as resources for facilitators engaging autistic youth in the SDLMI with embedded examples of how to provide evidence-based supports (e.g., prompting, self-management, visual supports, modeling, social narratives, augmentative, and alternative communication; Hume et al., 2021) and best instructional
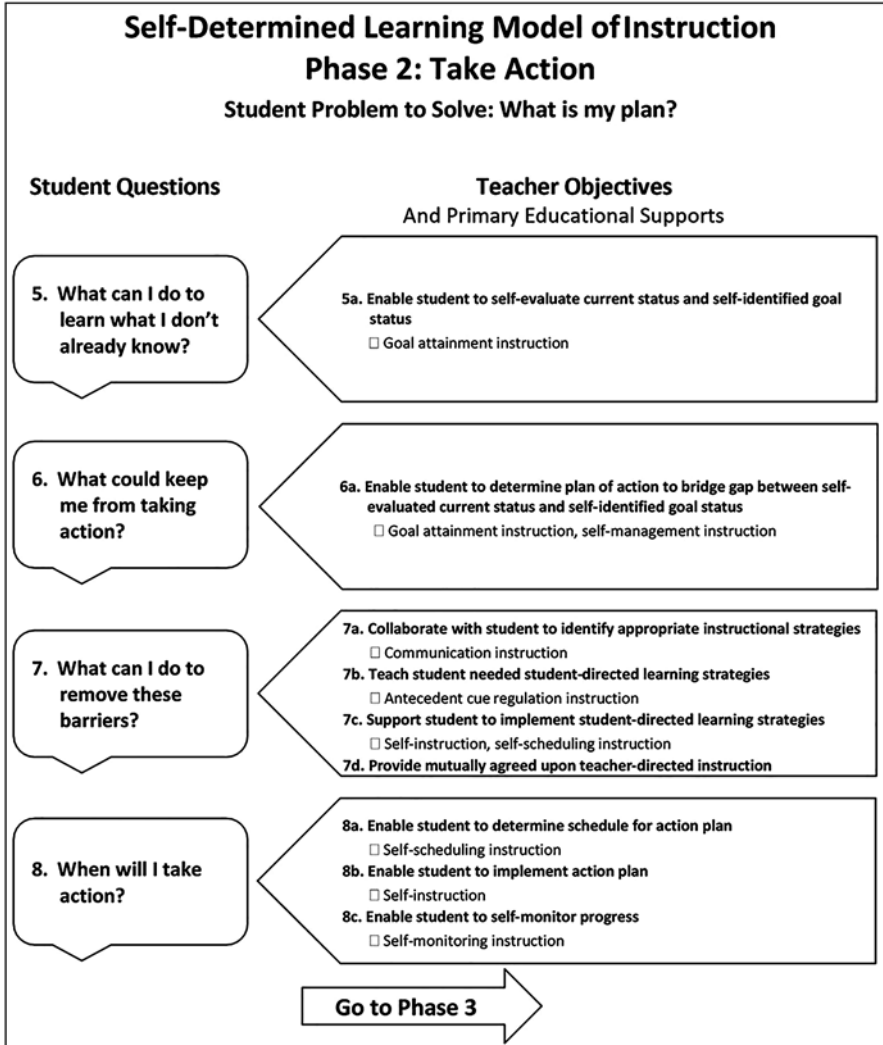
Self-Determined Learning Model of Instruction
Phase 2: Take Action
Student Problem to Solve: What is my plan?

Student Questions

Teacher Objectives
And Primary Educational Supports

5. What can I do to learn what I don't already know?

5a. Enable student to self-evaluate current status and self-identified goal status
☐ Goal attainment instruction

6. What could keep me from taking action?

6a. Enable student to determine plan of action to bridge gap between self-evaluated current status and self-identified goal status
☐ Goal attainment instruction, self-management instruction

7. What can I do to remove these barriers?

7a. Collaborate with student to identify appropriate instructional strategies
☐ Communication instruction
7b. Teach student needed student-directed learning strategies
☐ Antecedent cue regulation instruction
7c. Support student to implement student-directed learning strategies
☐ Self-instruction, self-scheduling instruction
7d. Provide mutually agreed upon teacher-directed instruction

8. When will I take action?

8a. Enable student to determine schedule for action plan
☐ Self-scheduling instruction
8b. Enable student to implement action plan
☐ Self-instruction
8c. Enable student to self-monitor progress
☐ Self-monitoring instruction

Go to Phase 3

Fig. 8.2 (continued)

practices (e.g., commitment to neurodiversity, focus on high expectations) for students with autism as they answer the 12 Student Questions.

A modified version of the SDLMI, the SDCDM (Shogren et al., 2021a; Wehmeyer et al., 2003), focuses on career design and includes similar core components of the SDLMI that are adjusted to incorporate the focus on career design and use in adult contexts. The core components of the SDCDM are called Person Questions, Facilitator Objectives, and Employment Supports. Like the SDLMI, there are 12 Person Questions that guide people through the SDCDM as they answer overall questions in each SDCDM phase (Phase 1: What are my career and job goals?;
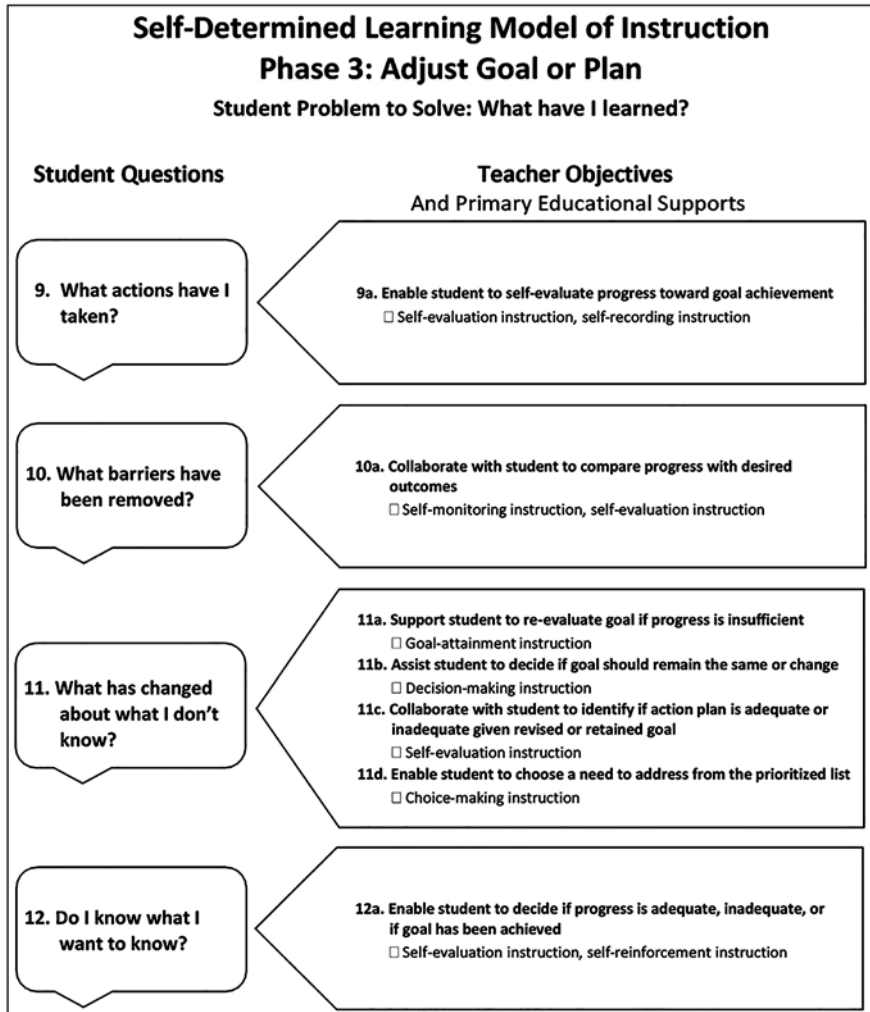
Self-Determined Learning Model of Instruction
Phase 3: Adjust Goal or Plan
Student Problem to Solve: What have I learned?

Student Questions

Teacher Objectives
And Primary Educational Supports

9. What actions have I taken?

9a. Enable student to self-evaluate progress toward goal achievement
☐ Self-evaluation instruction, self-recording instruction

10. What barriers have been removed?

10a. Collaborate with student to compare progress with desired outcomes
☐ Self-monitoring instruction, self-evaluation instruction

11. What has changed about what I don't know?

11a. Support student to re-evaluate goal if progress is insufficient
☐ Goal-attainment instruction
11b. Assist student to decide if goal should remain the same or change
☐ Decision-making instruction
11c. Collaborate with student to identify if action plan is adequate or inadequate given revised or retained goal
☐ Self-evaluation instruction
11d. Enable student to choose a need to address from the prioritized list
☐ Choice-making instruction

12. Do I know what I want to know?

12a. Enable student to decide if progress is adequate, inadequate, or if goal has been achieved
☐ Self-evaluation instruction, self-reinforcement instruction

Fig. 8.2 (continued)

Phase 2: What is my plan?; Phase 3: What have I achieved?). Facilitator Objectives also provide a road map for trained implementers to enable the person to answer the Person Questions. Trained SDCDM implementers might include self-advocates, transition coordinators or career counselors, direct support professionals, vocational rehabilitation counselors, or job coaches. Facilitators can use Employment Supports (e.g., self-assessment of job and career preferences and abilities, career and job exploration activities, job shadowing and sampling) within each phase to provide specific instruction to meet Facilitator Objectives. Implementation of the SDCDM can occur in diverse settings, including at home, within a high school transition program, in college/university settings, workplaces, or a community location. To

support facilitators in using the SDCDM, resources have been developed to support the use of the SDCDM, including accessible session plans in plain language focused on each of the 12 Person Questions and associated materials facilitators can use to provide Employment Supports (Shogren, et al., 2021a). For example, in the Person Question 1 (What career or job do I want?) session, facilitators can use an SDCDM resource designed to support people in identifying their strengths and areas for growth related to a career they are interested in, providing an Employment Support related to self-assessment of job and career preferences and abilities.

8.1.1.1 Research on the Impact of the SDLMI and SDCDM

Since its initial introduction to the field (Wehmeyer et al., 2000), extensive research has demonstrated the efficacy of the SDLMI for enabling secondary students with disabilities to (a) set educationally relevant goals, (b) create an action plan to achieve those goals, and (c) evaluate their progress, revising their goal or action plan as needed (Hagiwara et al., 2017). With a specific focus on secondary students with disabilities who are engaging in transition planning, the SDLMI has been established as an evidence-based practice for enhancing self-determination and post-school outcomes (e.g., competitive employment, community participation; National Technical Assistance Center on Transition, 2017). Overall, researchers have found that the SDLMI leads to positive student outcomes, including enhanced self-determination (Shogren et al., 2019; Wehmeyer et al., 2012), access to the general education curriculum for students with disabilities (Agran et al., 2001; Shogren et al., 2012), and academic- and transition-related goal attainment (Shogren et al., 2012, 2019). Although the majority of research using the SDLMI has focused on supporting adolescents to navigate the transition to adulthood (Hagiwara et al., 2017), this autonomy-supportive intervention was designed to be flexible in order for trained facilitators with a variety of expertise to enhance self-determination across settings. As such, there is a growing body of evidence on its implementation with younger students (e.g., Palmer & Wehmeyer, 2003) and in community-based settings (e.g., Shogren et al., 2017). Further, although some research has focused on examining the use of the SDLMI to enhance access to general education for students with disabilities (e.g., Agran et al., 2008; Kelly & Shogren, 2014), leaders in the field of school reform have more recently advocated for building integrated systems of supports and equity-based education to address the complexities of implementing whole-school interventions with fidelity that support *all* students (Artiles & Kozleski, 2016; Sailor, 2008). As described in greater detail below as an emerging direction, recent work has focused on using the SDLMI in inclusive contexts with all students with the innovative feature of aligning self-determination assessment and intervention with core content and college and career readiness to support all students in building self-determination (Morningstar et al., 2017; Shogren et al., 2016a, b).

With regard to the SDCDM, Wehmeyer et al. (2003) first explored using the SDCDM to enable vocational rehabilitation counselors to support six adults with

disabilities to work toward their career design goals, and findings suggested adults made progress toward their goals and felt they had gained important skills in the process. Shogren et al. (2016a, b) scaled up SDCDM implementation in community-based support organizations examining the use of the SDCDM by 22 direct employment support providers with 197 adults with disabilities. Results demonstrated that participants and the outcomes they experienced were influenced by multiple factors including each participant's own personal characteristics and experiences as well as the characteristics of the facilitator that implemented the SDCDM and the organization that provided services. Relevant to this chapter on autonomy-supportive interventions, autonomy across adults with disabilities showed greater change in the SDCDM treatment group over time, compared to the control group. Finally, Dean et al. (2019) explored the use and associated impact of the SDCDM within a community service agency for adults with intellectual disability with a targeted focus on promoting integrated, community employment. After using the SDCDM, 9 out of 12 participants (75%) found part-time, integrated employment, working an average of 3.8 h a day, 2.3 days each week.

8.2   Emerging Directions in Research and Practice

Although two decades of research and practice have demonstrated the SDLMI to be an evidence-based practice in transition planning, there remain areas for growth to support all students, and in particular students with multiple marginalized identities, to engage in the SDLMI as an autonomy-supportive intervention. First, the majority of studies that have investigated the impact of the SDLMI have targeted students with disabilities (Hagiwara et al., 2017); however, the potential benefits of implementing the SDLMI for all students, inclusive of students with disabilities, have been demonstrated in emerging research. Leaders in the field of school reform have advocated for building *integrated systems of supports* within schools to address the complexities of implementing whole-school interventions with fidelity that support all students (Sailor, 2008). This reframing of school structures shifts the focus toward equity-based education (Artiles & Kozleski, 2016), emphasizing the distribution of evidence-based supports and services on the basis of measured needs to successfully engage all students in the learning process. Integrated systems of supports are often designed around three-tiered models that are premised on providing high-quality, universal supports for all students (i.e., Tier 1 supports), with more intensive supports for students to learn and participate in the curriculum and address learning needs (i.e., Tiers 2 and 3 supports). It is important to note that within a tiered model of supports, the starting point for intervention supports is always Tier 1 with more intensive supports only provided after effective Tier 1 supports and instructional strategies are attempted with fidelity (Shogren et al., 2016a, b). Given the importance of self-determination for all students' postschool success, there is a critical need to examine the impact of interventions designed to promote

self-determination for *all* students on student career and college readiness outcomes when they are provided within multi-tiered systems of supports in inclusive contexts.

Shogren and colleagues (2021a, b, c) examined the relation between student and teacher ratings of goal attainment goals set when the SDLMI was used with 647 students with and without disabilities learning in inclusive general education classes as a part of a longitudinal, cluster randomized controlled trial (C-RCT) and identified the feasibility of engaging students with and without disabilities in rating their goal attainment process. They also found, however, there was only a fair amount of agreement across student and teacher ratings of goal attainment and discrepancies were shaped by factors, like students' disability. This suggests the need for ongoing focus on reducing systemic factors, like ableism and lowered expectations for students with disabilities. On a positive note, students' change in self-determination as a result of the SDLMI within the same C-RCT suggested a relatively small, but consistent, change in overall self-determination during the first year of the multiyear study, across students with and without disabilities (Raley et al., 2021). However, building on previous research suggesting racially and ethnically marginalized students with disabilities might experience fewer opportunities to build self-determination due to systemic issues (e.g., absence of policies emphasizing equity and racial justice, lack of understanding of students' social and cultural capital; Shogren et al., 2018b) highlighted in Chap. 6, Shogren et al. (2021a, b, c) conducted an initial, exploratory analysis to determine if students with disabilities from racially and ethnically marginalized backgrounds in the C-RCT reported different self-determination outcomes as they engaged in the SDLMI in inclusive, general education classrooms. Findings suggested African American/Black students with and without disabilities as well as Hispanic/Latinx students without disabilities scored highest in self-determination at the beginning of the academic year (baseline) and that including disability status crossed with race/ethnicity as a predictor of self-determination baseline improved understanding of the data patterns. This emerging research focused on using the SDLMI inclusive contexts and focused on supporting marginalized students with and without disabilities suggests the need to (a) further consider how to build on strengths in racially and ethnically marginalized youth and (b) more systematically consider the integration of and supports for teachers to engage in culturally responsive teaching practices inclusive of racial/ethnic and disability identities within SDLMI implementation to advance research and practice.

A second emerging direction in SDLMI research and practice is using the evidence-based intervention to support adolescents outside of school-based supports and services and in the community. Although school-based SDLMI implementation has demonstrated positive outcomes for adolescents with disabilities, access to intensive transition planning instruction during the school day may be limited for some youth, or some youth might value and benefit from affinity-based groups focused on building self-determination and empowerment. Community-based delivery models have potential advantages, including the ability to leverage flexible instructional formats (e.g., whole group, small-group, one-on-one, technology-enabled instruction). Additionally, in community contexts, more explicit focus can be directed to the range of postschool transition goals that are relevant for

young adults, including employment and ongoing education goals. Relatedly, understanding potential modifications to the SDLMI to support students with diverse support needs can enable facilitators to more meaningfully engage students in the goal-setting and attainment process and create autonomy-supportive environments. For example, given the diverse strengths and support needs of the autistic community, working in full partnership with the autistic researchers to modify the SDLMI to include specific evidence-based supports (i.e., modeling, prompting, self-management, visual supports; Wong et al., 2015) and best practices (i.e., predictable structure, commitment to neurodiversity, focus on high expectations) in autism has the potential to enhance engagement in the SDLMI whether used in school-based or community settings.

Finally, an emerging direction in SDLMI research and practice is identifying how to use the SDLMI to support younger students in setting and working toward their goals. As we describe in detail in Chap. 10, it is critical to build environments supportive of self-determination for young children, as well as specific skills and abilities that can be fostered during childhood, particularly as building blocks for more complex skill development during adolescence and adulthood. This work would also provide an opportunity to further explicate the role of families, inclusive supports, and culturally sustaining supports during this developmental stage.

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Chapter 9
Individualizing Supports for Self-Determination

In this chapter, the last in Part III, we focus on how to plan for systems of supports that enable self-determination. We posit building effective systems of supports is foundational to designing and delivering individualized supports for all people, inclusive of those with disabilities, that lead to valued self-determination outcomes through assessment, environmental design, and intervention implementation discussed in previous chapters. As highlighted throughout this text, central to supporting the development of self-determination is recognizing that an understanding of the strengths and support needs of any person, inclusive of those with disabilities, must be centered on the person and the environments that they participate in (Shogren, 2013). Using this social-ecological perspective highlights there is no "one way" or a "right way" to build individualized supports for self-determination, instead understanding each person's capabilities, the demands of the environments they participate in, and the support needs created by the interaction of their capabilities and environmental demands is necessary. In parallel, and often overlooked, the broader, systemic context must also be understood and systems of supports created that modify structures that limit inclusion, equity, and recognition of the strengths of each person and perpetuate systemic racism, ableism, and sexism.

In this chapter, we first review the definition of context introduced in Chap. 2 and describe the application of a multidimensional model of context to individualizing supports for self-determination (Shogren et al., 2020a, b). We highlight various personal factors, environmental factors, and the interactions of these factors that are known to influence self-determination outcomes. We consider how we can advance participatory research and intervention development that considers a broader range of contextual factors to individualize supports for self-determination, concluding with emerging directions focused on taking a holistic view of each person and the context that they exist within to advance self-determination outcomes with a focus on culturally sustainable, self-determination outcomes.

9.1   Context: A Multidimensional Understanding

In Chap. 3, we highlighted the role of context in shaping all aspects of human functioning, including a person's experience of and expression of self-determination. Shogren et al. (2014a, b) defined context as "a concept that integrates the totality of circumstances that comprise the milieu of human life and human functioning" (p. 110). They elaborated that context encompasses factors that typically define one's personal culture and are not typically manipulated such as age, language, gender, and family structures as well as intervening factors that can be manipulated to enhance outcomes such as community, organization, system, and societal beliefs, policies, and practices. Shogren et al. (2020a, b) situated these factors in a multidimensional model highlighting that contextual factors are multilevel, multifactor, and interactive. Multilevel refers to the layers of influence within which contextual factors shape how people live, learn, work, and recreate. An ecological framework (Bronfenbrenner, 1979) is used to define these layers and includes the *micro* or the immediate social setting including the person, family, close friends, and advocates; *meso* that includes the neighborhood, community, and any organizations providing supports; and *macro* that includes the larger policy context and support delivery system and the overarching pattern of culture, society, country, or sociopolitical influences. Multifactorial refers to the array of personal and environmental factors that influence the lives of people across layers. These factors both shape one's personal culture and describe the overarching factors that can facilitate (e.g., adoption of social-ecological, strengths-based understandings of disability in policies, organizations, and practice) and hinder (e.g., structural racism and ableism reflected in policies and practices that limit access and opportunities) valued outcomes. Finally, context is interactive as the layers and factors interact, creating a complex web of influence amplifying various levels and factors for each person. This is why understanding and situating efforts to promote valued outcomes within a system of supports framework are so critical as only recognizing and/or addressing one level or one factor will not recognize or address the totality of experiences that must be considered in individualizing supports for self-determination. To build systems of supports that enhance self-determination outcomes, systems must be responsive to these contextual factors by taking concrete actions to make systemic change and instantiate policies and practices that enhance personal outcomes, driven by the values, preferences, and interests of people impacted by the systems. Only in doing so can the responsibility to build supportive contexts and directly engage people with disabilities in such activities be furthered (Shogren et al., 2018c).

In the following section, we briefly review literature that highlights what is known about contextual factors and their influence on self-determination. It is important to first acknowledge that this literature is limited by the factors that have been studied and the lack of focus on specific contextual factors does not necessarily indicate importance or lack thereof; instead it reflects what researchers have chosen to study. And, as research has often operated without the full participation of people impacted by the research, ongoing work is needed to more fully elaborate on

the range of contextual factors that are important to understand systemically and for each person from the perspective of people with disabilities And, when considering systemic factors, work is only emerging to better understand how the structure of education, community support, and healthcare systems limits and facilitates self-determination, specifically the role of systemic racism, ableism, and sexism and their interactive effects on opportunities for equity and inclusion. Ongoing work is needed that adopts participatory research approaches that allow the voice of people with disabilities to be better reflected in the identification of factors to study (Shogren et al., 2021a).

9.2   Research on Impact of Contextual Factors on Self-Determination

There is insufficient room to highlight all existing research that has examined the impact of contextual factors on self-determination outcomes, and other sources provide more comprehensive overviews (Hagiwara et al., 2020, 2021; Shogren, 2013; Walker et al., 2011). For these reasons, we will briefly highlight several key findings, but organize the presentation of these findings within a broader framework of understanding personal culture and how factors interact across layers of influence.

9.2.1   Culture

One's personal culture is shaped by multiple factors that interact across layers of ecological systems (Triandis & Suh, 2002). As such, understanding, respecting, and valuing each person's culture is central to providing meaningful, individualized supports for self-determination. An ecological framework (Suarez-Balcazar et al., 2014) recognizes the "inclusive and interacting nature" (Trainor, 2008, p. 57) of multiple contextual factors in shaping cultural identities. Recognizing disability as a contextual factor that shapes one's personal culture as well as one's experience with institutions and systems is necessary. Trainor et al. (2008) highlights multiple personal factors that can contribute to cultural identity, including gender identity, disability, race/ethnicity, language, and family structures that are embedded in communities and society. Further, Trainor et al. (2008) describes how certain cultural identities—particularly disability identities—have shared experiences of oppression, exclusion, and discrepant education and postsecondary opportunities that are shaped by systems that fail to recognize disability as a natural part of the human experience. The Americans with Disabilities Act (ADA), first passed into law in the United States in 1990, represented fundamental civil rights legislation for people with disabilities, attempting to challenge these systems of oppression, exclusion, and inequity, stating:

physical and mental disabilities in no way diminish a person's right to fully participate in all aspects of society, but that people with physical or mental disabilities are frequently precluded from doing so because of prejudice, antiquated attitudes, or the failure to remove societal and institutional barriers.

The Convention on the Rights of Persons with Disabilities (United Nations, 2006) was introduced to recognize that not enough progress has been made in breaking down systemic barriers across the world to the full inclusion of people with disabilities and the need for fundamental and systemic change in how people with disabilities are regarded in society:

> [The CRPD] takes to a new height the movement from viewing persons with disabilities as "objects" of charity, medical treatment and social protection towards viewing persons with disabilities as "subjects" with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society.

As such, it provides a "human rights instrument" that "reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms." Despite these policy mandates, there still remains limited enforcement of these mandates and the systemic issues that perpetuate them. Ongoing advocacy by the disability community reflects the strength and power of collective self-advocacy and self-determination, but also the entrenched systemic issues that limit personal self-determination outcomes. As such, increased understanding and recognition of the ongoing evolution in language, such as the #SaytheWord movement (Andrews et al., 2019), the growth of identity-first language in the autistic community and push to recognize and celebrate neurodiversity (Autistic Self-Advocacy Network, n.d.), and efforts to enhance a focus on disability history and culture throughout all aspects of society is needed and needs to be studied to explore the impacts on self-determination.

As systemic changes are targeted using policy instruments like the ADA and CRPD and as changes are pushed forward in societal attitudes through ongoing efforts by disability justice leaders, we propose there is also a need to think about how personal factors that shape one's cultural identities informs individualized supports to participate in current and future systems. For example, researchers in cross-cultural psychology emphasize that values differ not only inter-culturally but also intra-culturally—consistent with the idea of each person having a personal culture and the need to assess the array of factors that influence them and their preferred supports. Further, a person's cultural identity is not static and is shaped by many factors, which can vary across contexts and environments and over time. Research has found that individuals can, and often do, hold more than one cultural belief system (e.g., an individual may endorse both individualist and collectivist values) and may draw on the different systems based on situational demands or characteristics (Hong & Chiu, 2001). As such, to apply a multidimensional understanding of context that recognizes the role of personal culture, it is important to understand an array of contextual factors that operate at the personal and environmental levels and that preferred and needed personal supports will vary over time and across contexts. As such, this highlights the nuanced need to understand an array of contextual

factors. However, as noted in subsequent paragraphs, contextual factors have typically been studied in isolation.

For example, one of the most consistently analyzed personal factors that has been analyzed in the self-determination literature is disability status and label. While having a disability is both a personal factor that shapes each person's culture, being perceived as having a disability also operates at a systemic level as it characterizes how systems interact with people based on disability label and identification, as recognized by the CRPD and ADA. Researchers have found—across self-determination assessments as highlighted in Chap. 6—that people without disabilities across the life course tend to report higher levels of self-determination than those with disabilities although the degree to which this is related to personal versus systemic factors (e.g., racism, ableism, and sexism and associated oppression and discrimination in opportunities to choose where to live, learn, work, and play) has not been consistently addressed. Shogren and colleagues (2018a, b, c, d) found in a sample of over 4000 youth with and without disabilities that adolescents that identified as White/European American and without disabilities consistently scored higher on self-determination assessments than marginalized groups. Black/African American and Hispanic/Latinx students as well as students from other racially and ethnically marginalized groups (Native American or Alaskan Native, Asian American, and Native Hawaiian or Pacific Islander) scored lower than White/European American students with and without disabilities. Disparities were further compounded when students reported having a disability across racial/ethnic groups (Shogren et al., 2018d). These findings recognize the role of intersectionality and the way that various contextual factors interact to shape experiences and outcomes.

However, disability labels shape educational opportunities and other service system experiences and practices, often based on how others perceive those labels. For example, Carter et al. (2009a, b) examined perceptions of members of community employment networks, including Chamber of Commerce members. They found that community members were significantly less likely to rate an employment activity as "feasible" if "youth with disabilities" were referenced as opposed to simply "youth" (p. 148). Similarly, when asking teachers about the self-determination abilities of their students, they tend to rate abilities lower for students with disability and with more extensive support needs. Even more problematically, they also rate the opportunities available lower, meaning that attitudes are likely shaping practices and outcomes (Carter et al., 2008, 2009a). This can become even more complex when systems of ableism and racism interact. For example, Shogren (2012) explored the perspectives of Hispanic mothers of adolescents with disabilities in the United States on self-determination and found that conflicts often that emerged between family values and operationalization of self-determination in school systems. Mothers strongly endorsed the importance of self-determination, as one mother notes: "she needs to learn [to solve problems] because we are not always going to be around her, to fix things, to guide her all the time" (p. 173). The mothers, however, also felt that the way schools operationalized this was associated with "mainstream" culture and often in direct conflict with their family values. The mothers described how goals within their families and culture were influenced by family

considerations and that these considerations were equally as important as personal considerations, and they wanted these considerations to be respected. As one mother said "when she sets goals, you see a little bit of her cousins, her grandma and grandpa and all of that like a network…" (p. 181). However, when schools emphasized goals related to independence and excluded family members from decisions, these interactions rather than promoting self-determination limited its development and expression, in school contexts.

Relatedly, and showing the interaction of these factors, researchers have found that teachers' perceptions of their abilities and skills in implementing self-determination interventions impact student outcomes during instruction (Shogren et al., 2020a). However, researchers have also found teachers reporting having low support for learning to teach self-determination skills (Agran et al., 1999; Cho et al., 2011; Wehmeyer et al., 2000), although this increases after professional development (Bojanek et al., 2021). As such, there is a need to consider how school- and community-level systems can be supported to enhance their resources to enable self-determination (Dean et al., in press).

There is also a need to recognize the interaction of these factors. For example, emerging research also suggests that students with disabilities from marginalized groups may have disparate self-determination experiences and outcomes during high school (Scott et al., 2021; Shogren et al., 2021a, b), which aligns with research in other domains. For example, Shogren et al. (2021a, b) found that marginalized groups in a longitudinal, self-determination intervention study reported higher levels of self-determination when they began high school but decreases during the first semester of receiving the Self-Determination Learning Model of Instruction (described in Chap. 8) from their general education teachers. While this drop during the first semester was small and there was a rebound to baseline levels by the end of the year, this raises significant questions about the factors that led to these findings. It is important to acknowledge this was just one study and more work is needed, but it also suggests—as communicated by Hispanic mothers in Shogren (2012)—that there may be a need to more strongly consider how to advance teachers' abilities and the supports needed to incorporate evidence-based culturally responsive teaching practices (Brown et al., 2019) in SDLMI instruction as well as to challenge biases within school systems that shape teaching practices. A focus must be on the strengths racially and ethnically marginalized youth brings to self-determination instruction, their schools, and their communities. A lack of focus on student strengths has led to justifiable criticism of self-determination research (Trainor, 2008; Trainor et al., 2020) and further perpetuates racism and ableism in educational systems (Scott et al., 2021).

9.2.2 Creating Individualized Systems of Supports

The brief summary in the previous section suggests the interaction of contextual factors across ecological systems and the critical need to more robustly understand the influence of personal culture and systemic bias on self-determination

experiences and outcomes. There remains significant work to be done, for example, the needs of students with more extensive support needs and complex communication needs in self-determination assessment and intervention have rarely been addressed, with notable exceptions (Shogren, Burke, Anderson, et al., 2018a, b). Further, ongoing work must be undertaken using participatory research approaches to understand how to meaningfully create opportunities for participation and use culturally responsive practices to build cultural sustainability by leveraging the voice and leadership of people with lived experiences (McDonald & Raymaker, 2013; McDonald & Stack, 2016).

Ongoing focus needs to be placed on educational practices that reflect and celebrate diverse personal cultures. For example, Valenzuela and Martin (2005) provided a framework for educators to use to modify existing interventions to enable cultural sharing in curricular materials used in schools to promote self-determination to leverage the cultural strengths of all students and educators. They explored how materials could be modified so that they were more aligned with a range of cultural identities, including increasing the emphasis on interdependence and group decision-making and developing a family/group identity. Such integration of a range of personal cultures can be leverages to support all students to engage and be represented. Additionally, there is a need to create more diversity in the systems that support youth and adults with disabilities. For example, research has shown a lack of representation of diverse teachers in special education services and supports, including Black/African American male teachers (Scott & Alexander, 2018), and the need to consider systemic issues that could advance training and workforce development issues.

Work to personalize supports, therefore, must advance ways to center the voice of those for who self-determination interventions are designed. It must also incorporate participatory approaches that enable these voices to guide development and implementation activities. In such work, it will be critically important to think about how to plan not only for person-level supports for self-determination but also organization- and system-level supports as well as systemic changes to advance work on disability justice. For example, with regard to using the SDLMI (described in Chap. 8), it is critical to provide effective, culturally responsive education supports. For example, identifying when people, across the life course, need additional supports to build specific abilities, skills, and attitudes associated with self-determination (e.g., targeted goal-setting, decision-making, choice-making) and how to personalize educational supports based on one's personal culture is critical and an area in need of ongoing work. The SDLMI, for example, includes providing individualized educational supports for specific abilities, skills, and attitudes associated with self-determination as a core component of intervention delivery and training, although specific planning for designing and delivering those supports, particularly in a culturally responsive way, is in its infancy (Raley et al., 2020; Shogren et al., 2021a, b). This re-introduces the issues introduced earlier related to supporting systems to integrate self-determination throughout their practices, in adequately resourced and meaningful ways (Dean et al., in press). Researchers have consistently argued that self-determination must be considered across systems (e.g., home, school, community, workforce) for all people, including people with disabilities. In doing so, it is

important to remember that all people with and without disabilities need opportunities to develop and express self-determination (universal supports), but that some will need more intense supports to develop specific abilities and skills (e.g., increasingly explicit instruction in problem-solving, goal-setting, self-advocacy, or transition planning; Shogren et al., 2016). Further, it is important to remember that a focus on self-determination can contribute to changing attitudes and expectations, as research has shown supporting the implementation of self-determination interventions can raise teachers' expectations for students with disabilities (Shogren et al., 2014a, b).

9.2.3   Emerging Directions

The existing research on contextual factors that impact self-determination outcomes is not yet robust enough to fully address the multilevel and multifactors that interact to influence outcomes. Work is needed that better addresses how to collaborate and partner with people with disabilities and their supporters to understand the impact of personal culture and systemic factors, using such partnerships to advance cultural and disability justice in support development, individualization, and evaluation. In doing so, we can move forward and align efforts to ensure that all people are recognized for their inherent value and empowered to fully participate in their communities in systems of support that promote equity and individualization across the life course.

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Part IV
Implications of Casual Agency Theory for Promoting Self-Determination

Chapter 10
Supporting Self-Determination in Childhood

Part IV focuses on the implications of Causal Agency Theory for promoting self-determination across the life course. Considering how to support self-determination throughout childhood, adolescence, and adulthood is critically important, particularly as the environmental demands and needed supports for self-determination will vary significantly within each individual across development. This, the first chapter in Part IV, focuses on supporting self-determination in childhood. It will be followed by chapters focused on supporting self-determination in adolescence and adulthood. While, to date, a majority of research on Causal Agency Theory has focused on adolescents, increased attention is being directed to understanding how to support self-determination throughout childhood as Causal Agency Theory holds that the development of self-determination begins in early childhood where supportive environments can be built that create the foundations for self-determination and its development throughout the life course. As such, integrating the literature that informs supports for self-determination in childhood is critical to advance efforts to build self-determination across the life course.

In this chapter, we discuss how to build environments supportive of self-determination for young children, as well as specific abilities, skills, and attitudes that can be fostered during childhood, particularly as building blocks for more complex skill development during adolescence and adulthood. We also highlight the critical role of families, inclusive supports, and culturally sustaining supports during this developmental stage.

10.1 Environmental Supports for Promoting Self-Determination in Childhood

There is much that can be done to support the development of self-determination throughout childhood. During early childhood, building autonomy-supportive environments across home, school, and community environments can lay the foundation for the development of intrinsic motivation and self-determined actions (volitional action [decide], agentic action [act], and action-control beliefs [believe]) across the life course. For example, having opportunities to respond to barriers in one's environment in developmentally appropriate ways creates a natural opportunity for the use of volitional and agentic actions, supporting the development of action-control beliefs throughout childhood and into adolescence (Palmer et al., 2013; Stang et al., 2009).

Research on motivation suggests significant changes throughout childhood that can inform supports needed particularly during the transition to adolescence (Geldhof & Little, 2011; Gottfried et al., 2001; Muenks et al., 2018). The development of intrinsic motivation, in particular, may not follow a linear path. For example, researchers have found decreases in student intrinsic motivation during upper elementary and middle school. This may be related to changing demands in schools settings during this time, but it highlights the criticality of building autonomy-supportive contexts that provide children in this life stage opportunities to learn to navigate different environmental demands, given changing academic, social, and home and community living demands. In classrooms, Reeve (2002) summarized ways that teachers can support students to build intrinsic motivation by supporting their need for autonomy, noting that "autonomy-supportive teachers distinguished themselves by listening more, spending less time holding instructional materials such as notes or books, giving students time for independent work, and giving fewer answers to the problems students face" (p. 186). Particularly important during this time can be establishing opportunities for choice and supporting students to feel that they have agency over their environments. For example, Vansteenkiste et al. (2012) found a link between teachers creating choice-making opportunities, clearly explaining expectations, and soliciting student opinions and students feeling volitional over their learning. This creates an environment supportive of the development and expression of volitional actions.

Another important issue to consider when building autonomy-supportive contexts during childhood is changes that are occurring in children's understanding of constructs like effort, ability, and luck change, particularly as they move from elementary to secondary school (Nicholls, 1979; Nicholls & Miller, 1984). These changes shape how children begin to understand the relationship between their actions, efforts, and outcomes. Talking through these relationships, acknowledging the relationship between effort and outcomes and action and outcomes can be a way to support positive action-control belief development and lay the foundation for the use of volitional and agentic actions as described by Causal Agency Theory. Key to this, particularly during the movement from elementary to secondary school, can be

creating self-directed learning opportunities in classrooms and communities and opportunities for self-direction at home by enabling children to be more and more engaged in collaborative opportunities to prioritize their priorities and goals.

10.2 Teaching Abilities, Skills, and Attitudes Associated with Self-Determination During Childhood

Within autonomy-supportive contexts, there are opportunities to further support the development of abilities, skills, and attitudes associated with self-determination. Specific opportunities can be created for teaching and structuring opportunities to enhance abilities, skills, and attitudes associated with self-determined action, as shown in Table 4.1. Specifically, Table 4.1 provides an overview of self-determined action introduced in Chap. 4 and the aligned abilities, skills, and attitudes defined by Causal Agency Theory. As many of the abilities, skills, and attitudes are the level at which instruction can occur at home and school, there are natural opportunities throughout childhood to teach abilities, skills, and attitudes related to self-determination. In autonomy-supportive contexts, opportunities for them to practice using these abilities, skills, and attitudes can enhance intrinsic motivation, creating a context for the further growth, development, and use of self-determined actions.

There are an array of resources and research-based practices for supporting children with and without disabilities to build abilities, skills, and attitudes associated with self-determination. Although self-determination is more than just skills, teaching and creating opportunities for these abilities, skills, and attitudes, in developmentally supportive environments, creates a strong foundation of the integrated use of these abilities, skills, and attitudes during later developmental stages while working to make things happen in one's life, enhancing intrinsic motivation and causal agency. For these reasons, we will highlight research and practice strategies relevant to supporting children with and without disabilities in developing abilities, skills, and attitudes associated with self-determination.

10.2.1 Teaching Choice-Making and Decision-Making Skills

One skill for which frequent opportunities can be created, particularly during early childhood, is choice-making (first introduced in Chap. 4). Choices can be naturally embedded in a range of activities, and research shows even relatively small choices (e.g., what color pen to use, which activity to complete first) can impact engagement and motivation (Shogren et al., 2004). However, key to teaching and creating opportunities for choice-making across the life course is building more and more complex choice opportunities as well as balancing types of choices and choice opportunities throughout childhood. For example, across home, school, and the community, choices can be created between-tasks (e.g., ordering chore completion at home,

ordering academic tasks at school) or within-tasks (e.g., identifying materials [writing with a pencil or typing]) (Dibley & Lim, 1999). Choices can also be offered about materials to use (Powell & Nelson, 1997), reinforcers to access after completing tasks (Skerbetz & Kostewicz, 2015), and peer partners or social activities (Bicard et al., 2012; Cole & Levinson, 2002).

As young children have increased opportunities to grow and develop in choice-making skills and opportunities, they can also be supported to participate in decision-making and problem-solving, as choice-making skills are embedded in these more complex skills. There is less research on decision-making and problem-solving in younger children, although existing research suggests that these skills can be learned and applied by elementary-age children. Decision-making with younger child can involve beginning to support students to move beyond simply making choices about activities at home, school, and in the community, to more robustly supporting them to engage in some or all of the steps of decision-making process, including identifying options, identifying outcomes of each option, and making the decision about the best option and outcomes. Researchers have engaged younger children in decision-making about goals for their learning (Kleinert et al., 2010; Palmer & Wehmeyer, 2003) or in the context of selecting reinforcers for self-management interventions (see Bruhn et al., 2015 for a review). In each instance, the focus is supporting children to considering the outcomes of choices and prioritizing and weighing different options to inform making a decision. Beginning with less complex decisions can then build to more complex decisions across multiple life domains. For children with disabilities, supports needed to enable these steps should be considered.

10.2.2   Teaching Problem-Solving Skills

Problem-solving (first introduced in Chap. 4) and the steps of the problem-solving process can also be an area of focus, particularly when young people begin to identify barriers that they need to navigate around using problem-solving and pathway thinking. The process of problem-solving involves (1) identifying the problem, (2) generating and selecting solutions to the problem, (3) identifying and analyzing how to resolve any barriers to the problem, and (4) enacting the solution (Agran et al., 2002). One way to scaffold decision-making and problem-solving is to share and model how other people engage in the steps of decision-making and problem-solving; ensuring culturally responsive practices are used in selecting and sharing models is critical. For students with disabilities, engagement in the problem-solving process can be supported visually, by presenting possible solutions to problems through visual representations (e.g., the solution suitcase; Hemmeter et al., 2006). Other strategies identified as effective in research with young children include facilitated problem-solving with adult conversation and coaching (Wehmeyer & Palmer, 2000) and explicit instruction (Joseph & Strain, 2010). Problem-solving is also naturally embedded in many academic tasks, particularly math and other core

content areas (Peltier & Vannest, 2017; Powell, 2011). Connecting choice-making and problem-solving can begin to build self-determination abilities by linking more complex self-determination skills.

10.2.3 Teaching Executive Abilities

Another key area of development in childhood is executive abilities, including self-regulation. Self-regulatory abilities involve learning to manage emotions, behavior, thinking processes, and social interactions (Bronson, 2000). In young children, relationships with families, peers, and other adults provide a key context to explore emotions, interactions, and develop the foundation for inhibitory control and cognitive flexibility (Center on the Social and Emotional Foundations for Early Learning, n.d.; Shogren et al., 2021). Self-regulation also may develop as young students interact with diverse settings, activities, and people across environments. Young children learn by navigating new environments and activities, and this can be an excellent opportunity to practice problem-solving and decision-making as well as self-regulation (Dunn, 2010). Specific self-regulation strategies are often fostered during childhood, including self-monitoring, self-reinforcement, and even self-evaluation. These self-management strategies are targeted far more often than the other self-determination components during elementary education (Didion et al., 2020).

10.2.4 Teaching Self-Advocacy Skills

As children move to upper elementary and middle school, self-advocacy skills (first introduced in Chap. 4) can become important for all students, but particularly for students with disabilities. Students may need to begin to express in school and in their communities how they effectively learn (Merlone & Moran, 2008), how they prefer to communicate (Schoffstall et al., 2015), and how they prefer to interact with and engage with peers. A student with disabilities can also begin to take on more and more of a role in their Individualized Education Program (IEPs; Neale & Test, 2010). However, limited research has focused on this area; a recent review of studies to promote self-advocacy skills in students with disabilities found only one study was conducted with elementary students (Roberts et al., 2016). But with supports and instruction in self-advocacy, particularly around identifying and advocating for strengths and needs during Individualized Education Program (IEP) meetings, elementary students improved the quantity and quality of their contributions to their IEP meetings (Neale & Test, 2010). This is an opportune time for students and their families to explore ways to support the young person to apply growing goal-setting and problem-solving skills across contexts (Kleinert et al., 2010).

10.2.5   *Teaching Goal-Setting and Attainment Skills*

One way to promote engagement in learning for all students as well as IEP meetings for students with disabilities is to focus on engaging elementary students in identifying and building action plans to progress toward personally meaningful goals related to their learning. For example, researchers have found that—with individualized supports—students can set relevant and personally meaningful literacy, math, behavioral, and social goals (Kleinert et al., 2010; Palmer & Wehmeyer, 2003). The *Self-Determined Learning Model of Instruction* (SDLMI; Shogren et al., 2018), first mentioned in Chap. 8, provides a model of instruction that can be used by educators to engage students in setting and going after goals while applying multiple abilities, skills, and attitudes associated with self-determination. Researchers have highlighted the potential of the SDLMI in early childhood settings, with modified supports for the instructional process often used with adolescents. For example, one empirical evaluation of the SDLMI was conducted with 50 kindergarten to third-grade students with disabilities in elementary schools (Palmer & Wehmeyer, 2003). Teachers reported the SDLMI was feasibly implemented and that early elementary students were able to use the SDLMI to set goals, develop action plans, and evaluate their progress toward their goals, including goals related to math, literacy, and self-management (e.g., checking work, following direction). Students also rated their goal attainment similarly to their teachers (Palmer & Wehmeyer, 2003). Teachers also identified that, particularly in elementary school, it was important to provide small-group instruction, incorporate peers supports, introduce concepts repeatedly and check in on understanding, and infuse discussions of goals across multiple aspects of the school day and home and community activities.

10.3   Supports for Self-Determination: Families and Self-Determination in Childhood

Although families can be a critical support throughout the life course, they are particularly important during childhood, as families play a key role in providing a foundation for self-determination. Families model self-determined actions, naturally, in familial and cultural contexts, creating opportunities for students to observe, imitate, and grow into their own ways of expressing self-determination. Recognizing that each individual child and their family will vary in their operationalization of self-determination and what it means in their lives is something that other supporters can recognize and celebrate, particularly as children begin to participate in school and community environments with other peers, educators, and community members.

Research with families, particularly from diverse backgrounds (Shogren, 2011), suggests that the construct of self-determination has relevance and is valued across cultures, but that conflicts often emerge when White, upper-middle class values are

the only lens through which self-determination is understood (Goff et al., 2007; Shogren, 2012; Trainor, 2005). Many families value deep and ingrained family connections and decision-making process (Palmer et al., 2013; Valenzuela & Martin, 2005). Communal goal-setting and decision-making can still be self-determining, and it is important for this to be recognized across contexts. A flexible self-determination perspective (Shogren, 2011) recognizes the need to understand and embed cultural considerations in efforts to support the development of self-determination to enable children to begin to initiate and direct their action toward goals aligned with their personal cultural identities. Thus, the actions and outcomes of self-determined action can and will look different and will vary across contexts and cultures and over the life course.

10.4   Inclusive and Culturally Sustaining Supports

Overall, there is a critical need to further research how to build inclusive, culturally responsive ways to conceptualize and support the development of self-determined actions throughout the life course, but particularly during childhood. An integrated approach that engages families, communities, early childhood and elementary school supports, as well as other networks will be important to develop a flexible, integrated approach to building contexts and instructional opportunities and supports that target multiple abilities, skills, and attitudes associated with self-determination throughout childhood. This foundation for intrinsic motivation and causal agency will enable ongoing development and expression of self-determination across the life course, in ways that are culturally meaningful and valued.

As has been reflected throughout this chapter, these supports, abilities, skills, and attitudes associated with self-determination are critical for all children. However, for children with disabilities, it is critical to support the development of self-determination in inclusive classrooms and communities to jointly engage and motivate all students, raising expectations and creating opportunities for young people, inclusive of those with disabilities, to learn skills and grow in their abilities and begin to perceive themselves as self-regulated, goal-oriented learners from childhood through adulthood. Researchers have suggested the feasibility of engaging young people with and without disabilities to build their self-determination abilities in inclusive elementary contexts (Palmer & Wehmeyer, 2003). Ongoing work is needed to explore ways to create home-school-community partnerships, build supportive environments, and personalize instruction to student support needs and cultural and familial beliefs and values. For students with disabilities, personalized supports needed to focus on building self-regulated, goal-directed actions during childhood. Existing research in early childhood and elementary education targeting abilities, skills, and attitudes associated with self-determination can be used to guide ongoing research across contexts and linking to outcomes over the life course for people with and without disabilities.

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Chapter 11
Supporting Self-Determination in Adolescence

11.1 Environmental Supports for Promoting Self-Determination in Adolescence

Providing opportunities, supports, and experiences to build self-determination in adolescence has been a key area of focus in the secondary/transition field over the past three decades (Shogren et al., 2015a). During this time, evidence of the relationship between self-determination and positive school and postschool outcomes has accumulated (Algozzine et al., 2001; Burke et al., 2020). Specifically, enhanced self-determination is linked to academic and transition goal attainment (Raley et al., 2018, 2020; Wehmeyer et al., 2012), improved employment outcomes (Dean et al., 2017), increased community participation (Shogren et al., 2015b), and perceived quality of life (McDougall et al., 2010). However, despite this evidence and the identification of promoting self-determination as a research-based practice in transition (Mazzotti et al., 2021; Test et al., 2009), adolescents with disabilities continue to experience systemic barriers to building self-determination. Adolescents with disabilities have access to fewer opportunities, supports, and experiences to become more self-determined. This contributes to disparities when compared to peers without disabilities, which are further exacerbated when students are multiply marginalized (Shogren et al., 2018). Although there is an abundance of research examining the impact of promoting self-determination during adolescence, there is a continued need to understand how to build autonomy-supportive environments aligned with students' cultural identities across home, school, and community environments during adolescence to support the transition to adulthood through self-determined actions (volitional action [decide], agentic action [act], and action-control beliefs [believe]).

Similar to research on motivation in childhood described in Chap. 10, motivation in adolescence is influenced by the degree to which environments support

intrinsic motivation or autonomous regulation of one's actions versus external control or regulation by other people or environmental contingencies (Deci & Ryan, 2012). The importance of intrinsic or autonomous motivation during adolescence has been widely documented (Vansteenkiste & Ryan, 2013; Vansteenkiste et al., 2012), including the role of creating environments (e.g., school classrooms, community-based settings) that support autonomy, competence, and relatedness (De Naeghel et al., 2014; Niemiec & Ryan, 2009). For example, Reeve et al. (2004) explored the degree to which 20 high school general education teachers could incorporate autonomy-supportive practices into their teaching as a way to promote students' engagement in instruction. Trained teachers displayed significantly more autonomy-supportive practices, and, most interestingly, the more teachers used autonomy support during instruction, the more engaged were their adolescent students.

Further, when conceptualized as a launching platform for adulthood, adolescence is a period of potentially intense transitions with dynamic demands in new environments. The role of autonomy-supportive contexts is critical for adolescents to learn how to navigate changing academic, social, home, and community participation contexts. In particular, identifying opportunities for adolescents to make decisions, set goals, and self-manage their progress toward goals can be especially important to prepare for the transition to adulthood, which could include significant and highly impactful decisions about different pathways, like enrolling in postsecondary education, beginning a career, or moving out of the familial home. It is critical that all adolescents, including those with disabilities, have access to the full range of experiences and opportunities to build self-determination as they navigate the transition to adulthood. However, for young people with disabilities, particularly those with intellectual and developmental disabilities, such access is often limited. Perske (1971) first used the term "dignity of risk" to describe the negative impact of the overprotection of people with intellectual and developmental disabilities which thwarted their opportunities to experience "the risk-taking of ordinary life" (p. 195). The concept of dignity of risk contextualizes risk as a human right and a pathway to outcomes valued by all people including enhanced abilities, skills, and attitudes associated with self-determination (including problem-solving and decision-making skills), meaningful relationships, and increased quality of life (Blatt, 1987; Ward, 2005). The need for support in identifying and navigating pathways should not be used as a means to deny opportunities for people with intellectual and developmental disabilities.

11.2 Teaching Abilities, Skills, and Attitudes Associated with Self-Determination During Adolescence

Within autonomy-supportive contexts, there are opportunities to support the development of abilities, skills, and attitudes associated with self-determination during adolescence. Specific opportunities, supports, and experiences can be used to teach

abilities, skills, and attitudes associated with self-determined action, as shown in Table 4.1. Over the past three decades, an abundance of research-based practices have been identified to create autonomy-supportive environments for adolescents with and without disabilities to have opportunities, supports, and experiences that would lead to enhanced self-determination (Algozzine et al., 2001; Burke et al., 2020). These evidence-based practices have been examined across contexts (e.g., secondary school classrooms, community-based settings) to facilitate the transition to adulthood and improve in-school (e.g., access to general education, academic and transition goal attainment) and postschool (e.g., competitive employment, community participation) outcomes. In the following sections, we highlight research and practice strategies relevant to supporting adolescents with and without disabilities in specific abilities, skills, and attitudes associated with self-determination. A focus on teaching specific skills, in addition to evidence-based practices that target multiple abilities and skills like the Self-Determined Learning Model of Instruction (SDLMI) that was introduced in Chap. 8, can be used to support the development of self-determination during adolescence.

11.2.1 Teaching Decision-Making Skills

As youth and adolescents approach the transition to adulthood, they have more frequent opportunities to engage in decision-making, which incorporates both problem-solving and choice-making skills (first introduced in Chap. 4). Decisions during adolescence often relate to planning for the future (e.g., post-graduation), which involves weighing the pros and cons of a decision. Critical to making more complex decisions is being able to grow in the use of both inductive (or drawing a general conclusion from a set of specific observations) and deductive (or making an inference based on widely accepted facts) reasoning. Key to teaching and creating opportunities for increasingly complex decision-making during adolescence is understanding the personalized supports a person needs to make a decision. Shogren and Wehmeyer (2015) suggested that to understand and apply supports for decision-making, there is a need to understand (a) contextual factors relevant to decision-making, (b) environmental demands for decision-making, and (c) supports needed for decision-making. To investigate personal and environmental factors as well as demands that likely influence decision-making, Shogren et al. (2017) conducted a broad synthesis of the literature to identify what is known about contextual factors, demands, and supports that influence decision-making. They noted the impact of specific personal factors (i.e., sociodemographic and disability characteristics, co-occurring conditions, and emotional factors) and environmental factors and demands (i.e., accessibility of information, complexity of decision, relationships with supporters, living arrangements, opportunities for decision-making, family attitudes about decision-making) on the decision-making process.

During adolescence, contextual factors and environmental demands for decision-making are dynamic as adolescents are encountering complex and, at times, high-stakes decisions (e.g., choosing to attend a postsecondary education program or start their career after graduating high school), requiring a personalized system of systems for decision-making. Assessment tools like the Supported Decision-Making Inventory System (SDMIS; Shogren et al., 2017), which is described in detail in Chap. 12, can be used to support assessment of personal factors, environmental demands, and supports needed to engage in decision-making. Future research is needed focusing on the specific decision-making needs of adolescents as much of the current research using the SDMIS has focused on adult contexts. However, with or without an assessment of personal factors, environmental demands, and supports for decision-making, across home, school, and the community, decision-making opportunities can and should be created (e.g., selecting academic classes for each high school semester, deciding how to travel to an after-school job or internship).

11.2.2 Teaching Self-Management Skills

Self-management skills (first described in Chap. 4) include self-monitoring, self-evaluation, self-reinforcement, self-recording, and other related abilities that enable young people to determine if they are taking actions that are aligned with their goals during the transition to adulthood and make course corrections when needed. There is an abundance of research highlighting strategies to support self-management during adolescence with positive impacts on student outcomes (Odom et al., 2010). For example, self-monitoring has been shown to increase independence and decrease prompt dependency (Bouck et al., 2014; Hume et al., 2009) and improve overall quality of life (Lee et al., 2007). To support self-monitoring and self-recording in adolescence, self-management strategies should be aligned to students' preferences and support needs. For example, low-tech strategies can be used (e.g., using a writing utensil to write, circle, or check a response) after the presentation of a cue (e.g., timer, buzzer, phone reminder) or high-tech strategies (e.g., technology-delivered application, vibrating pager; Bouck et al., 2014). Because low-tech strategies for self-monitoring can be stigmatizing, obtrusive, and time-consuming, technology-enabled solutions that have the capabilities to record and store data, cue youth and young adults, and customize prompts all in one device have shown increasingly positive results (e.g., Gulchak, 2008). Other strategies identified as effective in research with adolescents include self-evaluation of important skills needed to prepare for the transition to adulthood (Zhang, 2001) and self-management contracts related to academic and social activities (Martin et al., 2003). Providing opportunities, experiences, and supports to build self-management skills as early as possible in adolescence, building on strategies used developed in childhood, enables young adults to develop these critical skills as they encounter new contexts and demands during the transition to adulthood.

11.2.3   Teaching Goal-Setting and Attainment Skills

Another key area during adolescence is the development of goal-setting and attainment skills. Goal-setting is the act of creating a target or plan for what a person would like to achieve, and goal attainment includes skills associated with directing actions toward the desired goal (Lee et al., 2009). In adolescence, similar to other developmental stages, goal content usually reflects the important issues in the person's life. For example, Burke et al. (2021) analyzed 1546 goals set by transition-age students with intellectual disability over 3 years while engaging in the Self-Determined Learning Model of Instruction (SDLMI; described in Chap. 8), and findings reflected students' desire to plan for multiple aspects of their lives in the adult world, including community living, vocational education and employment, academics, leisure and recreation, communication, transportation, social relationships, finances, community access, and postsecondary education. Similarly, goals set by students with and without disabilities learning in inclusive, secondary English Language Arts and science classrooms focused on increasing grades or achieving passing grades, completing assignments, or turning them in regularly (Raley et al., 2021).

As young adults progress through their adolescent years, the nature of their goals changes as they develop greater self-awareness, self-identity, and understanding of their future goals (Brunstein, 1993). Engaging in goal-setting and planning during adolescence is a natural opportunity to ensure a young adult's beliefs, values, and preferences based on their cultural and linguistic backgrounds are meaningfully understood and respected. For example, Shogren (2012) explored the perspectives of Hispanic mothers of adolescents with disabilities and highlighted how students' goals were influenced by family considerations and values. As such, goals could not be made without considering the family and involving them in the goal-setting and attainment process.

11.2.4   Teaching Self-Advocacy Skills

Self-advocacy skills are a key area of focus for adolescents, building on what is learned in childhood (see Chap. 10). Self-advocacy skills are particularly important for students with disabilities as they approach the transition to adulthood. Self-advocacy (first introduced in Chap. 4) involves advocating for oneself or for a cause that one supports. Test et al. (2005) introduced a framework of self-advocacy including (a) knowledge of self (understanding and knowing strengths, preferences, goals, support needs), (b) knowledge of rights (understanding and knowing personal, community, human service, and educational rights), (c) communication (effectively communicating one's knowledge of self and rights), and (d) leadership (moving from individual self-advocacy to advocating for others as a group of individuals with common concerns). During adolescence for students with disabilities, there is

an abundance of opportunities and experiences to build self-advocacy skills and develop knowledge of self and rights, communicate preferences and values, and engage in leadership, including taking on greater roles in their Individualized Education Program (IEPs). The 1990 reauthorization of the Individuals with Disabilities Education Act (IDEA) included mandates that students with disabilities must be invited to their IEP meeting when transition-related goals (required to start before the student turns 16 years old) were discussed. This requirement activated a focus on efforts to actively engage and involve young adults in their own transition planning (Wehmeyer & Sands, 1998), serving as a natural opportunity for building self-advocacy skills. Despite this natural and meaningful opportunity to build self-determination and engage adolescents to develop self-advocacy skills, researchers consistently document little emphasis on the student's role in the IEP process. For example, using large-scale national survey data, Sanderson and Goldman (2021) found only a third of a sample of almost 1200 parents reported their child attended their most recent IEP meeting. Of the students that had the opportunity to attend, most did not actively participate (e.g., providing input or sharing preferences about IEP content), highlighting an ongoing need to utilize natural and meaningful opportunities for adolescents to build self-advocacy skills. In addition to individual self-advocacy, adolescents can also engage in collective advocacy efforts as they bring about systemic change in their communities (Wehmeyer, 2014). Knowledge of and involvement in current social justice movements, including Anti-Arab and Anti-Muslim Racism, Black Lives Matter, immigration advocacy, LGBTQ rights, Stop Asian American Pacific Islander (AAPI) Hate, and the Me Too movement, can also provide opportunities for youth with and without disabilities, including adolescents from racially and ethnically marginalized backgrounds to build self-advocacy skills by advocating for systemic change and challenging bias.

11.3   Supports for Self-Determination: Families and Self-Determination in Adolescence

Family involvement, or the involvement of "people who think of themselves as part of the family, whether related by blood or marriage or not, and who support and care for each other on a regular basis" (Poston et al., 2003, p. 319), positively influences transition planning and postschool outcomes for adolescents with disabilities (Boehm et al., 2015; Lindstrom et al., 2011). Similar to childhood, families play a critical role during the transition to adulthood as they likely continue to provide information that inform goal-setting and attainment, engage in planning related to postsecondary opportunities, support self-advocacy efforts in context of employment and community participation, and engage in supported decision-making (Boehm et al., 2015; Neely-Barnes et al., 2008; Shogren, 2012; Timmons et al., 2011). Through these familial and cultural contexts, families provide opportunities, experiences, and supports for adolescents to build self-determination as they approach adulthood.

To demonstrate the role of families in building self-determination during adolescence, researchers consistently demonstrate that when families are highly involved in and advocate for their child's with disabilities support needs during high school, students demonstrate increased self-advocacy skills in secondary and postsecondary education settings (Defur et al., 2001; Newman, 2005). For example, Morningstar et al. (2010) examined the relationship between high school transition preparation (school and family based) and self-determination across 66 postsecondary students with disabilities, and results suggested the family plays a crucial role in supporting students during transition and the students' involvement in IEPs as well as opportunities to make decisions and plan for postschool outcomes. Most interestingly in the context of this chapter, the influence of families was the only variable to exhibit moderate to high correlations with student self-determination.

11.4 Inclusive and Culturally Sustaining Supports

As highlighted in Chap. 10 related to supporting self-determination in childhood, there is an ongoing need to further research how to build inclusive, culturally responsive ways to conceptualize and support the development of self-determined actions throughout the life course, including during adolescence. Researchers consistently demonstrate that people with disabilities and their supporters (e.g., family members, school professionals) value self-determination across the life course, but how people perceive, express, and engage in self-determined actions differs based on cultural identities (Shogren & Wehmeyer, 2017). Cultural identities shape the expression of self-determination (Hagiwara et al., 2021; Wehmeyer et al., 2011). For example, Scott et al. (2021) interviewed Black youth with intellectual and developmental disabilities and their families about opportunities to build abilities, skills, and attitudes associated with self-determination during transition planning. Both youth and families expressed that school professionals did not engage in family-school partnerships that respected and valued the families' needs and concerns, particularly related to inclusion and starting transition planning early. Adolescents also emphasized the importance of teachers who understood and empowered them to use their voices to self-advocate. These findings as well as others (e.g., Shogren, 2011, 2012) highlight misalignments that can easily occur across adolescents' perceptions of self-determination and their supporters (e.g., school professionals) and the critical need to ensure the utility of inclusive and culturally sustaining supports. For all adolescents, and particularly students with disabilities from marginalized racial and ethnic backgrounds, there is a critical need for a greater attention in research and practice on how to develop shared understanding and communication about self-determination to create equitable opportunities for self-determination across the life course that leverages the cultural resources that each student and their family bring to transition planning and adolescence.

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Chapter 12
Supporting Self-Determination in Adulthood

Check for updates

12.1   Environmental Supports for Promoting Self-Determination in Adulthood

As described in the previous chapters in Part IV, the development of abilities, skills, and attitudes associated with self-determined actions is critical throughout the life course. The foundational self-determination skills and abilities built in childhood and further developed in adolescence continue to grow and expand throughout adulthood. However, there are specific issues throughout adulthood, particularly as people navigate through early to mid and late adulthood that create new and differing demands for self-determination skills and abilities. Key transitions (e.g., career development and progression, changes in social networks and relationships, transition to retirement) will create new support needs and opportunities for the expression of self-determination. Autonomy-supportive environments are critical for adults with disabilities to counter environmental barriers to the expression of self-determination, as all too often adults with disabilities, particularly intellectual and developmental disabilities, are denied opportunities for community participation, continuing education, and competitive, integrated employment throughout adulthood (Larson et al., 2018; Lipscomb et al., 2017; Winsor et al., 2018).

Highlighting the voice of adults with disabilities, Shogren and Broussard (2011) interviewed adults with intellectual disability about their dreams for the future, and participants mentioned many environmental barriers to living self-determined, adult lives rooted in ableist systems and beliefs. For example, adult interviewees described how others (e.g., parents, family members, paid supporters) did not believe they could achieve their dreams as well as the lack of availability of and access to systems of supports (e.g., Medicaid Home and Community-Based Services Waiver). In addition to environmental barriers, adults with intellectual disability described how major life transitions often created barriers that they did not have the supports to navigate (Shogren & Broussard, 2011). To complement the perspectives of adults

with disabilities on their self-determination, recent research examining how environmental factors influence adults' with intellectual and related developmental disabilities perceptions of self-determination using the Self-Determination Inventory: Adult Report (SDI:AR; first introduced in Chap. 6) suggests level of education attainment, employment status, and living arrangement shapes the expression of self-determination during the stages of adulthood (Hagiwara et al., 2020). Specifically, adults with disabilities reported higher self-determination when they (a) had attained their bachelor's degree or a graduate degree, (b) worked full or part time, and (c) had opportunities to live in their communities. These findings likely reflect the greater opportunities and expectations for self-determination for adults who have access to opportunities for education, employment, and community participation throughout adulthood.

Many adults with disabilities, particularly adults with intellectual and developmental disabilities, report significant barriers to accessing these opportunities that lead to higher self-determination. Further, limited research gives voices to the lived experiences of people with disabilities throughout adulthood (Shogren & Broussard, 2011). As such, there is a critical need to further examine that environmental factors are strong indicators of how people develop and express self-determination throughout adulthood (Hagiwara et al., 2020). Existing research confirms the importance of community participation throughout the adult life course and the role of self-determination in supporting adults with disabilities to live and work in the community (Wehmeyer & Garner, 2003) and attain greater competitive, integrated employment and community access (Martorell et al., 2008; Shogren et al., 2015b). Researchers have found associations between higher quality of life and enhanced self-determination in adulthood (Lachapelle et al., 2005).

Building on research demonstrating the relation between self-determination and positive adult outcomes, researchers have examined effective ways to build opportunities, supports, and experiences in adulthood that enhance self-determination and promote more valued work and community living outcomes (Dean et al., 2019). For example, Shogren et al. (2016) examined outcomes of a multicomponent intervention targeting several abilities, skills, and attitudes associated with self-determination (e.g., goal setting and attainment, problem-solving), the Self-Determined Career Development Model (SDCDM; first introduced in Chap. 8), when implemented in community-based support organizations by direct employment support providers. Across 22 community support provider organizations and 197 adults with disabilities over a 1-year implementation period, results suggested potential positive impacts of the SDCDM on adults with disabilities autonomy. As highlighted in Chap. 4, autonomy is associated with decide or volitional action and one of the first self-determined actions to change when intervening to promote self-determination (Shogren et al., 2015a), suggesting more opportunities, supports, and experiences using the SDCDM could lead to even more positive impacts of adults' self-determination and adult outcomes. More research is needed, however, that focuses on how to build autonomy-supportive environments and interventions aligned with adults' cultural identities across home, work, and community environments to support major life transitions through self-determined actions (volitional action [decide], agentic action [act], and action-control beliefs [believe]).

12.2 Teaching Abilities, Skills, and Attitudes Associated with Self-Determination During Adulthood

In adulthood, specific strategies can be used to teach abilities, skills, and attitudes associated with self-determination as described in Table 4.1. Evidence-based practices may target a single ability, skill, or attitude associated with self-determination (e.g., self-advocacy skills) or involve a multicomponent intervention targeting several abilities, skills, and attitudes associated with self-determination like the SDCDM or Self-Determined Learning Model of Instruction (SDLMI; first introduced in Chap. 8). In the following sections, we highlight research and practice strategies relevant to supporting adults in building abilities, skills, and attitudes associated with self-determination.

12.2.1 Teaching Problem-Solving Skills

As described in Chap. 4, problem-solving skills in the context of self-determination involve identifying pathways to achieve goals and generating solutions to barriers encountered when acting to make progress toward one's goals. Adulthood can involve major life transitions which may be stressful (e.g., early adulthood relationships, career development and progression, intimate relationships and marriage; Almeida & Wong, 2009), necessitating adults to navigate new barriers and generate solutions using the problem-solving skills they have developed throughout childhood and adolescence. A wide array of research has suggested positive impacts of teaching problem-solving skills on overall well-being and other valued, adult outcomes (Smith, 2003). For example, providing supports and opportunities to enhance social problem-solving, or abilities related to working cooperatively and resolving conflicts (Chang et al., 2004), in employment contexts had positive impacts on the social problem-solving skills and social skills of adults who identified as autistic (Bonete et al., 2015). Teaching problem-solving skills also has shown positive impacts on health outcomes, including diabetes self-management (Fitzpatrick et al., 2013), cancer self-management (Howell et al., 2017), and mental health supports related to depression (Kirkham et al., 2016).

12.2.2 Teaching Self-Advocacy Skills

A common skill highlighted across childhood (Chap. 10), adolescence (Chap. 11), and now in adulthood is self-advocacy. Test et al. (2005) conducted a content and methodological review of self-advocacy intervention research, and across 25 empirical studies, only six (24%) included adults with disabilities as most studies included high school students as participants. Although the results from this review suggested less research on promoting self-advocacy has been conducted with adults, the

overall frameworks of self-advocacy that have been developed for transition-age adolescents and young adults can be applied to adult contexts. For example, Gould (1986) described two types of rights that are central to self-advocacy: (a) legal or statutory rights that apply to citizens by virtue or laws or regulations enacted political representatives and (b) personal or human rights that apply to everyone by common agreement. For adults with disabilities, an unfortunately frequent situation in which self-advocacy skills are essential is when self-advocating for alternatives to plenary guardianship.

Guardianship is a "legal process where a court removes some or many of the legal and decision-making rights from an individual and transfers all or some of them to another person, called a guardian or conservator" (National Council on Disability, 2019, p. 23). While data on guardianship is limited, it is frequently applied to people with intellectual and developmental disabilities and ordered in the vast majority of cases for people with intellectual and developmental disabilities (Teaster et al., 2007). Because guardianship can remove the most basic human and civil rights from people—including "the power to choose where they will live, what medical treatment they will get and, in rare cases, when they will die"—it has been described as "the most punitive civil penalty that can be levied against an American citizen" (House of Representatives, 1987, p. 4). The estimated number of American adults with guardians tripled (from 0.5 to 1.5 million) between 1995 and 2011 (Uekert & Van Duizend, 2011). Guardianship should generally be considered as a last resort after exhausting all other legally recognized options (National Council on Disability, 2019); however, all too often the only option considered is guardianship. This occurs because of a lack of knowledge and expectations of the legal and service system that adults with intellectual and developmental disabilities can engage in decision-making, including complex decision-making, with an effective system of support.

There are available alternatives to guardianship that can empower adults with and without disabilities to using self-advocacy skills and retain their legal rights (Shogren et al., 2018). For example, supported decision-making (SDM) is recognized as a legal and practice alternative that empowers people to voluntarily enter into SDM agreements with supporters they identify, including friends, family members, or others with expertise in certain areas (e.g., financial, legal; Hatch, 2015; King, 2019). The designated support person agrees to provide assistance to the person in areas chosen by that person, and supports may include, but is not limited to, obtaining information about options, advising the person on potential consequences, helping the person evaluate possible outcomes, and communicating decisions (Quality Trust, 2013). The most critical aspect of SDM is that the final decision is made by the person with a disability. In that way, SDM supports individual self-determination and ensures that people use their self-advocacy skills to retain their legal decision-making rights across life domains with needed supports planned for and in place.

12.3 Supports for Self-Determination: Families and Self-Determination in Adulthood

Supportive networks, including families, play a critical role in adults' quality of life and happiness (Bigby, 2004; Kennedy, 2004). Family support networks are crucial throughout the life course, as demonstrated in Chaps. 10 and 11, and particularly important in adult contexts given dynamic changes in supports and services for adults with disabilities. For example, Williamson and Perkins (2014) conducted a systematic review of family caregiver outcomes for families caring for an adult with intellectual and developmental disabilities and identified physical health, mental health, and economic impacts. To support families in caring for adults with intellectual and developmental disabilities, this review highlighted the importance of better understanding the needs of family caregivers through caregiver assessments that consider the diverse challenges, supports, and resources each caregiver may experience. Adults with disabilities should be a key part of this process of identifying their and their family's needs.

To further understand how families that include adults with intellectual and developmental disabilities identify strategies to persevere in complex adult service systems, Caldwell et al. (2018) examined the association between family empowerment and family skills and knowledge to access needed services, among family members of adults with intellectual and developmental disabilities following deinstitutionalization. Findings across 56 family members suggested that family empowerment plays a key role in positive family adaptation when adult children with disabilities face major life transitions, particularly in where they are living.

There is an ongoing and critical need to identify how to support families that include adults with intellectual and developmental disabilities as the lack of adult services and supports results in high unmet needs for person-centered planning training, networking with other families, respite, advocacy services, assistive technology, and home modifications (Heller, 2020). Ways to balance the vision and dreams of the adult with intellectual and developmental disabilities and their families must be explored. Further, regardless of the quantity of adult supports and services received by families of adults with intellectual and developmental disabilities, family members and adults with intellectual and developmental disabilities from marginalized racial and ethnic backgrounds have more unmet needs than White/European American family members, suggesting the need for more targeted efforts to reach marginalized families (Heller, 2020).

12.4 Inclusive and Culturally Sustaining Supports

Providing and maintaining culturally sustaining supports in adulthood is an ongoing need in research and practice to ensure adult contexts (e.g., home, work, community) are inclusive and culturally responsive. For adults who have been historically

marginalized given personal characteristics including disability, race/ethnicity, gender, or more than one marginalized identity, becoming more self-determined in adulthood is increasingly not only about individual self-determination but also a political act in service of social justice. Advocating for inclusive and culturally sustaining supports begins in adolescence, as highlighted in Chap. 11, but intentional, community-oriented involvement in social justice movements including Anti-Arab and Anti-Muslim Racism, Black Lives Matter, immigration advocacy, LGBTQ rights, Stop Asian American Pacific Islander (AAPI) Hate, and the Me Too movement builds in adulthood can provide another opportunity for people to develop and apply abilities, skills, and attitudes associated with self-determination that enable them to advocate for systemic change and challenge bias. Early disability rights movements led by people with disabilities challenged the perceptions that people with disabilities were incapable of being self-determined and self-directing their lives (Bersani, 1996; Ward, 1996). These movements continue to guide ongoing advocacy to challenge bias and drive systemic change, paving the way for current and future self-advocates and allies to relentlessly fight for an equitable system that serves all. A key part of self-determination in adulthood for adults with disabilities will be advocating for inclusive and culturally sustaining supports. In discussing the next generation of research, policy, and practice that will push forward self-determination, self-advocate leader Teresa Moore said, "I believe in people and believe that if we support the next generation and make opportunities for them to speak up, they will see their work improving their own lives and the lives of others" (Moore, 2020).

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Part V
Conclusions and Future Directions in Research and Practice

Chapter 13
Ongoing Research and Theory Development

This, the final section of this text, briefly highlights key themes from research, theory, and applications of the self-determination construct described in previous sections and identifies ongoing needs in the field to continue to advance equitable opportunities and supports for people with disabilities to live self-determined lives. The text began with a description of how conceptualizations of disability shape the opportunities, supports, and experiences available to people with disabilities. The impact of the shift from deficit-based models to strengths-based, social-ecological models in disability services and supports was highlighted, with a focus on the often-underappreciated role that people with disabilities themselves played in uniting and advocating for their right to make decisions and self-determine their own lives.

However, we also acknowledged ongoing and pervasive systemic barriers to people with disabilities actualizing these rights throughout research, policy, and practice. To continue to challenge these barriers, we summarized the evolution of the self-determination construct, emphasizing how the disability community advocated for a greater emphasis on self-determination in theory, research, policy, and practice and where efforts have been focused, including in school-based transition services. We then introduced Causal Agency Theory, a theory that synthesizes work in the disability field, the voice of people with disabilities, and the emergence of strengths-based positive psychological constructs and their application to the disability field. We reviewed ways to assess self-determination, to create autonomy-supportive interventions and environments, to individualize supports for self-determination, and to consider self-determination across the life course including throughout childhood, adolescence, and adulthood.

A key theme throughout this text is the need to expand the simultaneous consideration of (a) individualized supports for self-determination that are aligned with

each person's support needs, preferences, values, beliefs, and community and (b) environmental changes that advance broader, systemic changes that challenge able-ism, racism, sexism, and other "-isms" that limit opportunities and resources for self-determination. Social-ecological models emphasize that disparities in self-determination outcomes are not inherent to disability but are instead a result of con-texts that continue to perpetuate deficit-based understandings of disability leading to biased systems, policies, practices, and beliefs. Within such systems, individual self-determination interventions cannot be as effective. And, all too often the focus has *only* been on individual-level supports without a full consideration of contextual factors; however, Causal Agency Theory recognizes that without systemic changes which recognize the need to challenge deficit-based views of disability and their insidious roots in policy, research, and practice, true change and actualization of the right to self-determination of people with disabilities cannot be achieved.

In the following sections, we describe directions for future research and practice that can advance theory, research, policy, and practice, enabling a joint focus on individualized supports and environmental changes needed to advance equitable self-determination outcomes for *all*. These directions are based on our thinking and what is currently known; however, we look forward to them being further expanded and refined by new and emerging leaders.

13.1   Implications for Theory

When we provided an overview of the history of self-determination in the disability field and introduced Causal Agency Theory, we noted the self-determination con-struct is complex and has an array of meanings and applications to the lives of all people, including at the societal and personal level. While Causal Agency Theory attempts to integrate multiple understandings and existing theoretical frameworks, more work is needed to continue to integrate theory, make it accessible to all people, and recognize the right of people with disabilities to have a voice in developing theory that shapes understandings of constructs that matter to them.

Further, self-determination research and Causal Agency Theory has more strongly focused on specific developmental periods (i.e., adolescence) as well as on individual-level assessment and intervention. While broader life course and sys-temic issues are acknowledged in existing theory, there is a need to more fully integrate a joint focus on the individual and the contexts that shape their life, to advocate for large-scale contextual change, and to recognize that individual-level interventions alone cannot fully lead to the broader changes that are needed to re-envision how people with disabilities are viewed and equitably supported in society. This must occur across the life course and in full partnership with communities that are currently marginalized in theory development and application.

13.2   Implications for Research

Relatedly there is a need, in full partnership with people with disabilities using participatory approaches, to engage in development research focused on creating ways to change biased policies and practices and to research new solutions that celebrate diversity and advance research, policy, and practice focused on supporting all people, including people with disabilities. Simultaneously targeting large-scale contextual changes and individual-level supports needs to be evaluated. Scaling up evidence-based practices throughout various sectors (e.g., education, community-based supports and services, public policy) across the life course is needed. However, scaling up evidence-based practices must more robustly include assessments not only of individual-level self-determination and opportunities available but also assessments of the attitudes of supporters and the readiness of systems to challenge biased policies and practices and fully adopt inclusive, strengths-based approaches. There is a critical need to advance a focus on anti-ableism throughout society and to evaluate the impact of changes in societal attitudes and biased policies and practices to advance a focus on self-determination throughout the life course for all people, inclusive of those with disabilities.

13.3   Implications for Policy

Relatedly, there is a need to focus on ensuring that policies that guide research and practice recognize the importance of strengths-based approaches, of challenging bias and ableism, and of the right of people with disabilities to be supported in inclusive communities and promote accountability for these outcomes. As discussed in various chapters, there are existing human rights treaties, including the United Nations Convention on the Rights of Persons with Disabilities (CRPD), and laws, such as the Americans with Disabilities Act in the United States, that recognize these rights. However, full actualization of CRPD and related civil rights laws requires all countries signing on—including the United States—and using these values to guide implementation of policy and practice as well as to challenge and change existing societal structures that are not aligned with these values. Necessary to this is ensuring that all people understand that disability is a natural part of the human experience, recognize the contributions that neurodiversity can bring to society, and embrace a model of universal supports for all people, with individualized supports for those that need them.

13.4   Implications for Practice

Finally, any advances in theory, research, and policy development must be integrated into existing and future practices to support all people, including those with disabilities, to have opportunities and supports for self-determination embedded in all systems that they interact with across the life course. Critical to such efforts will be engaging people with disabilities more directly in defining the practices that work for them, in researching the impacts of these practices, and in challenging systemic biases that create barriers to effective, inclusive practices. Ensuring that all people recognize and celebrate the contributions of people with disabilities and embrace people with disabilities as leaders and experts in their own lives and their right to live in a society where they are not marginalized through existing systems is critical to actualizing the intent of a strengths-based, social-ecological approach to understanding and building systems of support for people with disabilities that advances self-determination for all members of our society.

Chapter 14
Future Directions: Self-Determination, Causal Agency Theory, and Positive Psychology

In this final chapter, we build from the key implications for theory, research, policy, and practice summarized in Chap. 13 and synthesize broad, future directions that we identified as critical to advance work to enable self-determined lives in partnership with people with disabilities. We acknowledge there are other directions that others may justly identify and that new and emerging research, theory, practice, and policy will continue to shape these directions in ways we have not yet even imagined. All these efforts are needed to achieve the large-scale change necessary to effectively challenge and eliminate the long-standing disparities faced by people with disabilities and other marginalized identities that limit opportunities for self-determined lives.

First, as we have noted throughout this text, the emergence of the self-determination construct was rooted in a recognition of the fundamental injustices experienced by people with disabilities in society because of the widespread adoption and use of deficit-based approaches to characterizing people with disabilities and organizing services and supports. Strengths-based, social-ecological approaches provide an alternative way to conceptualization disability and the creation of systems of supports. However, there is a need for ongoing alignment of efforts to support all people, inclusive of those with disabilities, with parallel efforts to advance diversity, equity, inclusion, and belonging throughout society. Advancing disability justice is key to promoting social justice, and the valuing and inclusion of people with disabilities throughout all aspects of society will advance opportunities for equity and self-determination for all.

Second, to enable self-determined lives for all people, there is an ongoing need to challenge bias, particularly disability bias, and break down systemic barriers to self-determination for people with disabilities that are rooted in ableism, racism, sexism, and other "-isms." Such work must occur concurrently with other social justice initiatives. Further, such work must concurrently advance systemic changes as well as implement and test effective individual-level supports in existing systems

to jointly make change in existing and future practices. All people have a right to effective supports within our current systems, but also have the right to be part of efforts that strive to build better systems that focus on equitable outcomes. Rather than focusing on either individual-level intervention or systemic-level change, we need to work to figure out how to merge and advance efforts that are driving systemic changes as well as providing individual-level supports that recognize the right of all people, regardless of broader, systemic factors, to have access to systems of supports that address their current and future support needs.

Third, people with disabilities identified the importance of self-determination in their lives and have been the drivers of advocacy and policy change. There is an ongoing need to create more opportunities and remove systemic barriers to the inclusion of people with disabilities in all aspects of research, theory development, and policy and practice. There has not yet been widespread adoption of participatory approaches that fully engage people with disabilities, particularly those with intellectual and developmental disabilities, in all aspects of the research process. People with disabilities have more to contribute than just serving as research participants and can and should have opportunities for participation in all phases of research, theory development, policy, and practice. This can create opportunities for career development, more valid research, and more ready transition of research to policy and practice.

Finally, there is a critical need to ensure all people, regardless of support needs, have equitable opportunities to participate in all aspects of self-determination theory, research, policy, and practice. Unfortunately, people with disabilities with the most extensive support needs, particularly those with intellectual and developmental disabilities and complex communication needs, are marginalized in multiple ways because of ineffective communication supports, bias in beliefs and systems, and a lack of resources and opportunities. Even the evidence-based practices described in this text are not yet fully inclusive of the needs of all people, and ongoing work is needed to ensure practices are developed with the flexibility and planning to enable appropriate individualization and inclusion of all members of society.

Index