Introduction to the Special Topic Issue on Self-determination and Neurodevelopmental Disabilities

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In late 1990, I was provided what turned out to be a life- and career-changing opportunity. That opportunity was to direct a U.S. Department of Education, Office of Special Education Programs–funded model demonstration project to develop a curriculum to promote the self-determination of students with intellectual disability. My newly minted (August, 1989) PhD was in Human Development and Communication Sciences. My training prior to that point was as a special educator, a vocation in which I was engaged throughout my doctoral studies. But, as fate would have it, the doctoral program nearest to me did not have a doctoral program in special education, but instead a doctoral program in, basically, developmental psychology that included an emphasis in atypical development. As such, when the advertisement for that project director's position appeared in the newspaper, I had the good fortune of not only having training and experience in secondary special education for students with intellectual and developmental disabilities but also having studied social and personality development as part of my doctoral program, so I knew what self-determination was, or at least had a passing understanding of the work in intrinsic motivation pertaining to self-determination.

The first thing I did when I began the work on that project in 1990 was to go back to the library at the university from which I'd graduated (I was teaching a class that year, so I still had library privileges, which since this was before the Internet, proved essential) and to dig into the card catalog, scavenge the bookshelves, and search the bound periodicals and journals for any information on self-determination in a disability context. There was exactly one article published at that time that discussed the importance of intrinsic motivation and self-

determination in the education of learners with learning disabilities. The co-author for that article was Edward Deci, a cofounder of what we now refer to as Self-Determination Theory, or SDT.

It was in several books published by Ed Deci and his collaborator and SDT cofounder, Richard Ryan, that I learned the most about what the self-determination construct meant. At that time, work on self-determination in motivation theory was not as fully fleshed out as it later became but from that work, I understood that self-determination was about acting volitionally in one's life: making or causing things to happen in one's life. I latched on to the idea of causal agency, discussed briefly in a 1985 text by Deci and Ryan titled *Intrinsic Motivation and Self-Determination in Human Behavior*. Causal agency meant that people caused things to happen in their own lives, rather than someone or something else causing them to act in some other way.

While these early texts in what became SDT were critical to my understanding of self-determination, they were not as helpful for my task at hand to develop a curriculum to promote the self-determination of young people with intellectual disability. Motivation theories explain why people act in one way or another (in the case of self-determination, why people act volitionally) but do not focus much on how to teach skills that enable people to act in those ways. I set about cobbling together knowledge from personality psychology, developmental psychology, cognitive psychology, and motivational psychology to construct what I called a functional model of self-determination (Wehmeyer 1992) from which I could operationally define the construct in ways that enabled me to, in turn, begin the design of interventions to promote self-determination.

There were five other federally funded projects that started in 1990, and over the next four years, an additional 21 such model-demonstration projects were funded. From those 26 projects, a small cadre of researchers continued to develop interventions, assessments, and theoretical models over the following decade such that, by the turn of the millennium, promoting the self-determination of youth with disabilities

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had at least a toehold in the canon of important, research-supported practices to promote more positive transition outcomes, with the original cadre of researchers joined by other transition researchers who had turned their focus to self-determination and student involvement. In the subsequent decade, many of the interventions developed in the 1990s were examined using larger, more rigorous efficacy studies and a new generation of scholars began to contribute to the knowledge pertaining to theory, assessment, and intervention in self-determination.

Busy with grant writing and research in applications to promote self-determination, I had lost touch with development of what by then was called Self-Determination Theory. But, throughout the 1990s and into the 2000s, my understanding of the self-determination construct had deepened and the theoretical framework that framed our work evolved, as did how we defined in the construct. In the mid-2000s, I purchased a book, again edited by Edward Deci and Richard Ryan, which included chapters from an inaugural international conference on self-determination. The *Handbook of Self-Determination Research*, published in 2004, detailed what had become in the 20 years since the publication of *Intrinsic Motivation and Self-Determination in Human Behavior* a fully formed motivational meta-theory called Self-Determination Theory.

Because readers of *Advances in Neurodevelopmental Disorders* may not be as well versed in SDT as in research on self-determination in the field of special education, I think it's worth providing a very cursory introduction to the theory at this point. SDT is a comprehensive, meta-theory of motivation that “details the origins and outcomes of human agentic action” (Vansteenkiste et al. 2010, p. 106). SDT proposes that there are three basic psychological needs—competence, autonomy, and relatedness—that are either supported or challenged by social contexts and the satisfaction of which leads to autonomous motivation, enhanced well-being, and healthy physical and psychological development (Deci and Ryan 2012).

The basic psychological need for autonomy describes the drive people have to be able to make choices and act volitionally. The psychological need for competence refers to the motivation to be effective within environments. The psychological need for relatedness is the sense of connectedness and belonging with others (Deci and Ryan 2004). Environments that are supportive of the attainment of these needs enable people to become energized about engaging in actions for their own sake to meet their needs (Vansteenkiste and Ryan 2013).

SDT is a meta-theory because it consists of six mini-theories, each explaining a set of observed motivation phenomena in many domains (Deci and Ryan 2012). *Cognitive Evaluation Theory* explains the types of external events that enhance or diminish intrinsic motivation, identifies autonomy supportive social contexts versus controlling social contexts, and explains the interactions of external events and social contexts and their

effects on intrinsic motivation. *Causality Orientations Theory* proposes three different personality orientations based on the source of initiation and regulation of behavior: autonomous, controlled, and impersonal. The autonomous orientation is associated with orienting towards internal and external cues in a way that supports ones' autonomy and the informational significance of cues, as when one acts based upon preferences, or “internalizes” external priorities as one's own. The controlled orientation is associated with perceiving internal and external cues as controlling and demanding (e.g., when someone's action is regulated by extrinsic rewards, externally dictated deadlines, directives of others that are not internalized as one's own). The impersonal orientation, illustrated by believing that some task or goal is beyond one's control, is associated with perceiving cues as indicators of incompetence and is linked with amotivation (Deci and Ryan 2012).

Organismic Integration Theory explains behavior that is externally motivated but also either controlled or autonomous. Deci and Ryan (1985) proposed five types of motivation on a continuum from extrinsic to intrinsic: external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic motivation. *Basic Psychological Needs Theory* was formulated based upon findings that environments and contexts that support psychological needs satisfaction were associated with greater feelings of well-being, psychological health, and greater positive affect in work and non-work environments (Ryan et al. 2010). *Goal Content Theory* posits that extrinsic goals are less likely to satisfy the three basic psychological needs than are intrinsic goals. Finally, *Relationships Motivation Theory* describes supportive elements that are most likely to lead to sustained and satisfying relationships and address the need for relatedness (Deci and Ryan 2014).

SDT proposes that people are driven to engage in actions to fulfill their need for autonomy, relatedness, and competence, and that environments supportive of the fulfillment of these needs enable people to become energized about initiating and maintaining action and achieving goals. The theory posits a continuum of behaviors (non-self-determined, self-determined), motivation types (amotivation, extrinsic motivation, intrinsic motivation), regulation types (non-regulation, external, introjected, identified, integrated, and intrinsic), and loci of causality (impersonal, external, somewhat external, somewhat internal, internal) that govern goal-directed activities.

A more detailed look at SDT is beyond the scope of this introduction, but readers who want a thorough grounding in the most recent literature pertaining to SDT should refer to *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness* (Ryan and Deci 2017).

In 2013, my colleague Karrie Shogren and I were funded to develop a new measure of self-determination that would be normed with youth and young adults with and without

disabilities. Given the significant progress in SDT and in the growth of theory and measurement in areas of positive psychology (in which the self-determination construct is visible), we decided that it was a good time to update our theoretical framework. The resulting theory, Causal Agency Theory (Shogren et al. 2015), defines self-determination as a “dispositional characteristic manifested as acting as the causal agent in one’s life” (p. 258). Self-determined people “act in service to freely chosen goals” and “self-determined actions function to enable a person to be the causal agent is his or her life” (p. 258). Causal Agency Theory is grounded in human agentic theories, which assume that action is self-caused. Self-determined action refers to the degree to which action is self-caused, volitional, and agentic, driven by beliefs about the relationships between actions (or means) and ends. The theory posits three essential characteristics—volitional action, agentic action, and action-control beliefs—that contribute to causal agency and the development of self-determination. These refer not to specific actions performed or the beliefs that drive action but to the function the action serves for the person, that is, whether the action enabled the person to act as a causal agent and enhances the development of self-determination (Shogren et al. 2017). One thing that Causal Agency Theory allowed us to do was to align work in disability with SDT to describe the development of self-determination during childhood and adolescence and to refine and expand interventions to promote self-determination. Readers who desire more information on Causal Agency Theory and its alignment with SDT are referred to *Development of Self-Determination Through the Life-Course* (Wehmeyer et al. 2017).

This brings us, finally, to the reason for this special issue of *Advances in Neurodevelopmental Disorders*. The issue has a number of defining characteristics that I would note before you explore each article individually. First, one reason I provided the somewhat long-winded description of the history of the application of the self-determination construct to the disability construct and provided overviews of SDT and Causal Agency Theory is because this issue is a first for the disability field in that there are articles and research studies from both theoretical orientations (and in one paper, both theoretical orientations in one study) as applied to the disability context.

Second, one thing I did not recount in the prior description was the internationalization of the application of self-determination to the disability context. As it became clear that promoting self-determination was critical to improved transition outcomes for youth with disabilities and that promoting self-determination aligned well with a human rights perspective on disability, there emerged an international focus on the construct. For this issue, in addition to colleagues from the United States, I have invited researchers from Taiwan, South Korea, and Italy who report on work in promoting self-determination in their countries (Chao et al. 2019; Cho and

Seo 2019; Dean et al. 2019; Landmark and Zhang 2019; Lee et al. 2019; Maggio et al. 2019; Palmer et al. 2019; Seong et al. 2019; Shogren et al. 2019; Williams-Diehm et al. 2019). Further, researchers from Belgium who are among the most visible researchers in SDT have provided papers on SDT and disability issues (De De Clercq et al. 2019; Dieleman et al. 2019).

Third, this issue has a life span focus. From a paper examining foundational skills in early childhood that are critical to later self-determination, to papers on self-determination in school contexts, to a paper on an intervention to promote self-determination and employment for adults with intellectual and developmental disabilities, the issue illustrates the lifespan contexts in which self-determination is important.

It seems clear to me that the future of research and knowledge generation in self-determination is interdisciplinary and international, and I hope that the papers in this special topic issue will provide a primer to readers with regard to where that future is headed.

Author Contributions MLW conceptualized and wrote the introduction.

Compliance with Ethical Standards

Conflict of Interest The author declares that he has no conflict of interest.

Ethical Approval The introduction had no human subjects.

Informed Consent The introduction had no human subjects.

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