Feature Article

A Critique on the Current State of Research on the Social and Emotional Experiences of Gifted Individuals and a Framework for Moving the Field Forward

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Abstract

Despite multiple edited volumes dedicated to the various theories and conceptions of giftedness and talent that have been published over the past 40 years, the field of gifted education is still definitionally and paradigmatically fractured. These differences have led to a misunderstanding about the social and emotional experiences of gifted individuals that has further divided the field of gifted education. One purpose of this paper is to explain how varying definitions and paradigms of giftedness lead us to different answers and assumptions about the social and emotional experiences of gifted individuals, and the implications of those. The other purpose of this paper is to outline a framework for moving forward in thinking about and conducting research on the social and emotional experiences of gifted individuals.

Keywords

social and emotional, psychosocial, paradigms, gifted, talented

Do gifted individuals have unique social and emotional needs? Do the characteristics and/or social and emotional experiences related to being gifted render them particularly vulnerable to social and emotional difficulties? Do "the characteristics associated with giftedness [sensitivity, intensity, and psychomotor, intellectual, sensual, emotional, and imaginational overexcitabilities] . . . make the subjective experience of meeting normal challenges qualitatively different from others' experience?" (Peterson, 2009, p. 280, 281).

Those questions were addressed as part of a special issue focused on demythologizing gifted education in *Gifted Child Quarterly* (Treffinger, 2009). Peterson (2009) wrote on the myth, *gifted and talented individuals do not have unique social and emotional needs* and answered the question not only by saying they do, actually, have unique social and emotional needs, but that they are vulnerable to an array of social and emotional difficulties and vulnerabilities without intervention, and further, that "positive stereotyping of gifted and talented individuals has dangerous implications" (p. 281). Indeed, this perspective on the social and emotional needs of gifted individuals was considered the norm at the time. In 2002, Neihart and colleagues published a book about the state of research on the social and emotional development of gifted children, which was the result of the work of a Task Force on Social-Emotional Issues for Gifted Students put together by the National Association for Gifted Children in the United States (see Neihart et al., 2002, p. 295). That book focused on gifted children as a group with unique social and emotional experiences and needs, including vulnerabilities and difficulties.

Now, though, our understanding about the social and emotional experiences of gifted individuals has expanded, to some extent because the definition of giftedness has expanded (Rinn, 2020). Indeed, we have 20 more years of research upon which to draw, and we undoubtedly know more than we did 20 years ago. In many ways, the field of gifted education should have a much better consensus regarding the social and emotional experiences of gifted individuals, as well as what *giftedness* itself is. Because *giftedness* is a social construct, the definition can shift and change over time; indeed, there are multiple edited volumes dedicated to the various theories and conceptions of giftedness and talent that have been published over the past 40 years (see Cross & Olszewski-Kubilius, 2020; Plucker et al., 2017; Sternberg & Ambrose, 2021).

However, the field of gifted education is still somewhat definitionally and paradigmatically fractured (Ambrose et al., 2010; Dai & Chen, 2014), and the answers to the series of questions posed at the beginning of this article are not straightforward and may depend on who you ask, what their

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definition of giftedness is, and perhaps how dogmatic their thinking is (Ambrose et al., 2012). Parents, teachers, counselors, researchers, and lay people are likely to have a different answer to those questions, and their answers likely stem from a variety of sources such as their implicit beliefs about giftedness, the culture in which they are situated, and the explicit definition of giftedness used in the community in which they live. Even just within research in gifted education, there are differences in the ways in which researchers operationalize a sample as "gifted," such as adults with very high IQs in a psychology service center, adult Mensa members, undergraduate honors students, high school Advanced Placement or International Baccalaureate students, students with high ability or performance in a domain, students with high creativity scores, and elementary school students identified on their campus for gifted services. However, findings regarding the social and emotional experiences of individuals across each of those samples are not necessarily generalizable to one another. For example, it seems questionable to compare the social and emotional experiences of adult Mensa members to those of elementary school students identified on their campus for gifted services, as illustrated further throughout this paper. Yet, it is these comparisons and other definitions and paradigm-related issues that can help explain why there is such conflicting evidence (or lack thereof) in the area of social and emotional research in the field of gifted education.

One purpose of this paper is to explain how those definitions and paradigms of giftedness lead us to different answers and assumptions about the social and emotional experiences of gifted individuals, and the implications of those. As such, this paper is a critique on the current state of research on the social and emotional experiences of gifted individuals.[1] The other purpose of this paper is thus to outline a framework for moving forward in thinking about and conducting research on the social and emotional experiences of gifted individuals.

Definitions and Beliefs About Giftedness

Definitions of giftedness can be implicit or explicit. As mentioned, there are at least four decades worth of explicit definitions, models, theories, and conceptions of the construct of *giftedness* that have been published across multiple edited volumes (Cross & Olszewski-Kubilius, 2020; Plucker et al., 2017; Sternberg & Ambrose, 2021). The National Association for Gifted Children (2019) has a definition of *giftedness*, each state in the United States can have its own definition of *giftedness* (Rinn et al., 2022), and there are definitions, models, theories, and conceptions of *giftedness* across numerous countries throughout the world (e.g., see Dai & Kuo, 2015). There is no single agreed upon definition of the construct of *giftedness*.

An implicit definition is an individual's own belief about a phenomenon, such as personality, intelligence, or giftedness. Implicit beliefs of ability, for example, drive the way in which people perceive and evaluate their own abilities and those of others. In a study of teachers' implicit beliefs regarding the personalities of gifted students, the teachers *perceived* gifted students to be more open to new experiences but also to be more introverted, less emotionally stable, and less agreeable (Baudson & Preckel, 2013). Other research on perceptions of gifted students held by preservice and practicing teachers also reveals that they associate giftedness with social, emotional, or behavioral difficulties (Matheis et al., 2018; Preckel et al., 2015). Lay people have similar beliefs about gifted children and adolescents, which Baudson (2016) calls the "mad genius stereotype" (p. 368). From these findings, it seems the implicit definitions about giftedness held by the individuals in these studies are focused on a belief about giftedness that implies social and emotional difficulties and vulnerabilities.

Implicit and explicit definitions impact the way in which we both ask and answer questions about the social and emotional experiences of gifted individuals, and lead to different outcomes, not only in research. Collective implicit and explicit definitions of giftedness that make their way into school districts and inform practice, impacting, for example, the alignment between identification and services, also have different implications for the way we ask and answer questions about the social and emotional experiences of gifted students in schools (see Callahan et al., 2017; McBee & Makel, 2019). These many varied collective definitions of giftedness can be categorized into paradigms.

Paradigmatic Frameworks

Several researchers have reviewed the paradigm shifts that have happened in the field of gifted education over the past century (Dai & Chen, 2014; Lo et al., 2019; Lo & Porath, 2017; Matthews & Foster, 2005). Lo and Porath (2017) identified three paradigms in gifted education. Early conceptions of giftedness involved *demystification*, as giftedness was seen as some sort of manifested wonder and "scientists and scholars strived to unpack individual differences through systematic investigation and measurement" (Lo & Porath, 2017, p. 345). Attempts at defining and measuring intelligence resulted in the first iteration of the modern-day IQ test in the early 1900s, as well as the notions of intelligence and human ability as IQ based (see Jolly, 2018). This led to a paradigmatic shift and focus on the *identification* of giftedness, such that giftedness was something that could be measured through an IQ test or ability test. Currently, Lo and Porath (2017) note the field has moved toward *transaction*, or a focus on the effectuation of human possibilities, or what some like Subotnik et al. (2011) call talent development.

Dai and Chen (2014) similarly explore paradigmatic shifts in gifted education, with some overlap in the way Lo and Porath (2017) explored the shifts. Dai and Chen (2014) refer to three paradigms, namely the gifted child paradigm, the talent development paradigm, and the differentiation paradigm.

Across paradigms, there are differences in preferred terminology and a shift away from using the label "gifted." Depending on one's paradigmatic lens, different wording is used to label gifted individuals, such as gifted, gifted and talented, advanced learner, identified for gifted services, high ability, and talented in a domain.[2] Note too how a paradigmatic lens regarding giftedness could shape the way one asks and answers questions about the social and emotional experiences of gifted individuals. Much of the research in the field of gifted education related to the social and emotional experiences of gifted individuals is conducted through the gifted child and talent development paradigmatic lenses.

Gifted Child Paradigm. Giftedness was operationalized as a high IQ, starting with the advent of the IQ test in the early 1900s and Terman's longitudinal study of gifted children starting in the 1920s (Jolly, 2018). Giftedness based on high IQ or high ability level is still extremely pervasive today. Indeed, *advanced intellectual ability* is included in the majority of state definitions of giftedness in the United States (Rinn et al., 2022).

The gifted child paradigm is based on this notion, too, as well as that gifted children are a distinct category with unique social and emotional needs, that gifted children should be educated differently than other children, and that "once gifted, always gifted," meaning the unique experiences that come along with having a high IQ or the label *gifted* stay with someone throughout adulthood. Much of the research in the field of gifted education that pertains to the social and emotional experiences of gifted individuals is conducted through this paradigmatic lens (Dai & Chen, 2014; Rinn, 2020). Studies that compare "gifted individuals" to "individuals of average ability" fall into this category, as do studies that examine how issues like perfectionism (e.g., Ogurlu, 2020; Stricker et al., 2020), sensitivity (e.g., Gere et al., 2009; Rinn et al., 2018), and overexcitabilities (e.g., Winkler & Voight, 2016) are experienced within gifted populations. Numerous definitions and models of giftedness also fall into this paradigm (e.g., see the Autonomous Learner Model, Betts, 1986; Columbus Group, 1991).

One of the major premises of the gifted children paradigm is that gifted children experience asynchronous development (see Silverman, 1997), or an uneven rate of development across cognitive, social, emotional, and physical stages. Assuming that an intellectually gifted individual has advanced or accelerated cognitive development, but typically paced physical, social, and emotional development,[3] development for that individual becomes asynchronous. The higher the general intellectual ability, the more asynchronous the development is thought to be.

Theories of development are based on typical human development, such that developmental milestones and trajectories are fairly consistent across most typically developing individuals. There are no theories to explain how advanced intellectual ability affects one's social and emotional development, or if it does at all. There is no research to suggest social and emotional development occurs early or is accelerated among intellectually gifted individuals, per se. Gifted individuals go through the same stages of human development that apply to individuals of other ability levels, whether physical, cognitive, social, or emotional (see E. M. Miller et al., 2022). However, one *assumption* of the gifted child paradigm is that the advanced cognitive and intellectual developmental trajectory will differ from the typically paced social and emotional developmental trajectory and may alter it. Advanced or accelerated intellectual and cognitive trajectories *may* lead to a unique social and emotional developmental process, which leads to the assumption that gifted children have different social and emotional experiences than children of average ability, and that they are vulnerable to an array of negative issues if those social and emotional experiences are not addressed. This assumption has dominated the field for many years.

Talent Development Paradigm. If giftedness is viewed as something more than just high intellectual ability or high IQ (e.g., as advanced academic abilities or domain-specific talents), then a focus on unique social and emotional issues (e.g., perfectionism and sensitivity) among the "gifted" becomes muddled because the group included as "gifted" is much larger in this operationalization of giftedness. Giftedness based only on a high IQ includes less than 3% of the population, who may have unique social and emotional experiences (although the evidence is limited, see below). But "giftedness" based on domain-specific abilities and talents comprises a much larger group of individuals that is even less homogeneous than those in the top 3% of the normal distribution, and it becomes more difficult to pinpoint unique social and emotional experiences with such a diverse group. The focus thus shifts in this paradigm to factors and circumstances that influence the development of talent rather than factors that differentiate one group of individuals (identified as gifted) from another (not identified as gifted; Dai & Chen, 2014).

Researchers and practitioners who focus on the factors and circumstances in which domain-specific talent develops within an individual have paradigmatic beliefs that align with the talent development paradigm (Dai & Chen, 2014). Although advanced intellectual ability plays a role in a particular line of talent development, the talent development paradigm assumes a broader psychosocial basis of talent development rather than a focus on innate ability. The talent development paradigm focuses on the evolving and increasingly differentiated or domain-specific nature of talent; the significant role of motivation and other psychosocial skills; the role of timely opportunity and in-depth domain experiences; differential trajectories and pathways across domains; and technical and social support (like mentoring and psychosocial interventions) throughout the process of talent development (Dai & Chen, 2014). Numerous models of talent development and definitions of intelligence and giftedness through a talent development lens exist in the

field of gifted education: see Bloom (1985), Gardner (1983), Renzulli (1978), Renzulli and Reis (1985, 1997, 2014), Stanley (1976), Tannenbaum (1983), and others, including some described as follows.

Subotnik et al. (2011) developed a megamodel of talent development intended to apply across domains. Relevant to the current paper, the megamodel focuses on the importance of psychosocial skills:

> This model recognizes the importance of non-cognitive characteristics in the development of exceptional ability, but, contrary to other models, focuses on the deliberate cultivation of psychosocial skills rather than simply identification of traits within individuals. These psychosocial skills also drive transitions through stages of talent development. The psychosocial skills that are important vary with domain and also with stage of talent development within domains. Motivation drives progress to higher levels of talent development. (Olszewski-Kubilius et al., 2015, p. 196)

In the field of gifted education, numerous studies on various constructs that could be called a *psychosocial skill* exist, although the terminology unique to the megamodel is not always used in those studies. For example, quite a bit of literature on the motivation of gifted individuals exists (see Rubenstein & Siegle, 2012; Snyder & Wormington, 2020), but it can be divided based on the paradigmatic lens through which it was written: studies comparing the motivation levels of samples identified as gifted and not identified as gifted (gifted child paradigm), and studies examining the role of motivation as it relates to another psychosocial skill and/or the role it plays in achievement or success (talent development paradigm).

In their megamodel and subsequent work, Subotnik et al. (2011) and Olszewski-Kubilius et al. (2019) have outlined a number of psychosocial skills central to the development of talent across domains and across time, such as self-efficacy/self-confidence, accepting ambiguity, collegiality, goal setting, rage to master, teachability, and reputation management. Research on a number of these constructs exists in the field of gifted education (e.g., self-beliefs and goal setting; see Rinn, 2020), but much of it is written through the gifted child paradigmatic lens and not the talent development paradigmatic lens. For many of the other psychosocial skills for talent development listed in Subotnik et al. (2011) and Olszewski-Kubilius et al. (2019), as well as psychosocial skills that matter for all children in school (see Lipnevich et al., 2016), research on these constructs as *psychosocial skills that facilitate the development of talent* is very limited in the field of gifted education.

A Framework for Moving the Field Forward

There is tremendous room for growth in the area of research regarding the social and emotional experiences of gifted individuals that could contribute further to the field of gifted education as a whole. Having a deeper understanding of the social and emotional experiences of gifted individuals would allow everyone who works with gifted individuals to better serve them. We cannot develop talent without a strong understanding of the *person* behind the ability, skill, and talent. The following list is not at all exhaustive but is meant to serve as a framework for advancing research on the social and emotional experiences of gifted individuals. I suggest we start by focusing on Operationalization of Terms; Psychosocial Skills . . . For Whom? When? Under What Conditions?; the Environment; and Research from Other Disciplines.

A Focus on Operationalization of Terms

Researchers should be intentional on how they operationalize terms used in research related to the social and emotional experiences of gifted individuals. Researchers should clearly specify what they mean by *gifted* in their sample, and they should take note of and account for what that implies, paradigmatically. And, researchers should take care to clearly define the constructs they are measuring in their study, from both a theoretical or conceptual lens and also from a measurement lens.

Operationalizing "Gifted". It is not necessarily accurate to make broad claims like *gifted and talented individuals have unique social and emotional needs*, as discussed by Peterson (2009) in the *Gifted Child Quarterly* special issue discussed earlier. It is also not necessarily accurate to say gifted individuals are vulnerable to an array of social and emotional difficulties. One reason for this is simply because how the sample of individuals is operationalized as gifted in one study could differ so drastically from how a sample of individuals is operationalized as gifted in another study that comparison might not be possible, thus deducing *all gifted individuals are one way* is not possible or accurate. Consider the following example to illustrate.

Two constructs frequently examined in research on gifted individuals include emotional intelligence (see Mayer et al., 2004; Salovey & Mayer, 1990) and perfectionism (see Frost et al., 1990; Hewitt & Flett, 1991; Smith et al., 2022). In two independent meta-analyses of emotional intelligence among samples of gifted individuals (Abdulla Alabbasi et al., 2020; Ogurlu, 2021), findings from both studies indicate gifted individuals scored *higher* on measures of emotional intelligence than individuals not identified as gifted. Similarly, in two independent meta-analyses on perfectionism among samples of gifted individuals (Ogurlu, 2020; Stricker et al., 2020), findings indicate there are *no significant differences* regarding maladaptive perfectionism between gifted individuals and individuals not identified as gifted. Combined, these findings provide support for the idea that gifted individuals are reasonably emotionally healthy and not necessarily at risk for something like maladaptive perfectionism. However, the idea that gifted individuals are socially and emotionally at risk persists,

as seen throughout this paper so far, both in the field of gifted education (e.g., National Association for Gifted Children, n.d.) and as indicated by research on implicit beliefs of giftedness (e.g., Baudson, 2016).

Most empirical findings actually indicate higher IQ is associated with more favorable outcomes, including good mental health (Harrison et al., 2015), life satisfaction (Gonzalez-Mulé et al., 2017), and subjective well-being (Wirthwein & Rost, 2011). These findings do, though, assume a linear relationship between IQ and the outcome being measured; there is less known about the mental health of individuals with very high IQs. Karpinski et al. (2018) argued the relationship between IQ and mental health is not linear but is likely curvilinear, such that after a threshold, the higher the IQ, the greater likelihood of mental health concerns.

Karpinski et al. (2018) conducted a study with about 4,000 adult members of American Mensa, Ltd., and their findings seem to lend support for their hypothesized curvilinear relationship, as they found that "highly intelligent individuals are at a significantly greater risk for mood and anxiety disorders, ADHD, and conditions involving inflammation and dysregulation of the immune system such as allergies, asthma, and autoimmune disease when compared to national averages" (p. 15). They termed this finding the *Hyper Brain/Hyper Body Association*. They explain their findings as:

> The model posits a unique psychoneuroimmunological process such that those with a hyper brain in the form of a very superior cognitive ability lend themselves to a greater tendency to respond to environmental stressors by ruminating and worrying which are positive predictors of risk for psychological overexcitabilities leading to affective disorders. These disorders are closely associated with a hyper body which manifests in physiological overexcitabilities which take the form of immune and inflammatory dysregulation, which can also bi-directionally instigate psychological effects. (p. 15)

This study has been used to support the claim that gifted individuals are uniquely at risk for various social and emotional issues, specifically based on research "that demonstrate[s] a significant positive relationship between high intelligence and both mood and anxiety disorders" (De Bondt et al., 2021, p. 4).

However, comparing adults with a high IQ who are self-selected into a high IQ society to other samples of individuals who may be labeled as gifted is problematic. How Karpinski and colleagues operationalized giftedness, namely that of an IQ high enough to qualify for Mensa, is not generalizable to studies of children who may be identified for gifted services, for example. In a systematic literature review of 18 studies that examined the relationship between intellectual giftedness and psychopathology in children and adolescents, Francis et al. (2016) found that most gifted children and adolescents actually demonstrated "superior socioemotional adjustment and fewer behavioral difficulties than their typically developing peers" (p. 279). Any mental health issues that arise during childhood could be due to a plethora of environmental and individual factors, but high ability likely does not *cause* these mental health issues. Likewise, it is probably fair to say having a very high IQ could likely *relate* to some unique social and emotional experiences, but one cannot say that a very high IQ *causes* unique social, emotional, or psychological experiences. A reader should also note whether a study design results in correlation or causation in interpreting results. Finally, though, in some meta-analyses in the field of gifted education, samples of "gifted individuals" include articles with samples of young children identified for gifted services during elementary school and adults with a high IQ in one comparison of "gifted individuals," which is a practice that might affect the outcome of the meta-analysis unless age range or developmental period is included as a moderator, for example.

Another issue with the Karpinski et al. (2018) study is their reliance on the construct of *overexcitabilities* to explain their findings, which they label "psychological and physiological overexcitabilities" in their paper. They define and measure *physiological overexcitabilities* (their terminology) as issues like allergies, asthma, and autoimmune diseases. They define and measure *psychological overexcitabilities* (again, their terminology) as issues like mood disorders, anxiety disorders, and ADHD/ADD. However, they frame their discussion of overexcitabilities around Dąbrowksi's (1938/2019, 1964) notion of overexcitabilities, which is something altogether different, in theory, as operationalized, and as measured, which will be discussed in greater detail as follows. This leads to the importance of defining constructs in research.

Defining Constructs. Researchers should operationalize constructs used in research related to the social and emotional experiences of gifted individuals from a theoretical or conceptual lens and also from a measurement lens. This will help researchers avoid issues related to the *jingle-jangle fallacy*, which is a phrase first coined by Kelley (1927) in reference to construct measurement issues. When two scales with similar names measure different constructs, this is a *jingle fallacy*, which is likely what has happened in the Karpinski et al. (2018) study. When two scales with dissimilar names measure similar constructs, this is a *jangle fallacy*.

Jingle Fallacy. The construct of perfectionism can be used to explore the jingle fallacy. There are numerous definitions and ways to measure perfectionism in the research literature. As an explicit example of the jingle fallacy, there are two scales with an identical name, the *Multidimensional Perfectionism Scale*, that both measure perfectionism but do so from quite different theoretical lenses. In the Frost et al. (1990) version, the *Multidimensional Perfectionism Scale* measures six factors of perfectionism (personal standards, concern over mistakes, doubts about actions, parental criticism, parental expectations, and organization). In the Hewitt

and Flett (1991) version, the *Multidimensional Perfectionism Scale* measures three factors of perfectionism (self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism). It would not make sense then to conduct a study on perfectionism while discussing perfectionism through one theoretical lens in the literature review (e.g., the Frost et al. notion of personal standards, concern over mistakes, doubts about actions, parental criticism, parental expectations, and organization) but measuring it using a measure designed for a different theoretical lens (e.g., the Hewitt and Flett (1991) notion of self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism). In the field of gifted education, both approaches have been used to study perfectionism among gifted students (e.g., Lee et al., 2021; Mofield & Parker Peters, 2015). When compared, as in the case of meta-analyses on perfectionism, two higher-order factors are often created: something akin to positive and negative perfectionism, healthy and unhealthy perfectionism, or perfectionistic strivings and perfectionistic concerns.

In neither of the meta-analyses mentioned earlier (Ogurlu, 2020; Stricker et al., 2020) did they find negative or unhealthy perfectionism is a characteristic of giftedness despite numerous studies suggesting perfectionism is a concern among gifted individuals (Basirion et al., 2014; Portešová & Urbánek, 2013; Wang et al., 2012). Rice and Ray (2018) argued that the inconsistent findings regarding the construct of perfectionism have to do with inconsistent definitions and inconsistent ways of measuring it. Madigan (2019) found that the measure of perfectionism used in a study impacted the findings, such that the measure used moderated the relationship between perfectionism and academic achievement. In the field of gifted education, if age or developmental period is not included as a moderator in the meta-analysis, it seems plausible the findings could be affected. Considering there are multiple measures of perfectionism, factor structures of the construct, ways to define perfectionism, and ways to define giftedness, it seems like an overly broad generalization to suggest gifted individuals are more perfectionistic than individuals not identified as gifted.

Jangle Fallacy. Evidence of the jangle fallacy, in particular, can be seen in the study of social, emotional, and psychological constructs in the field of gifted education. When two constructs are labeled differently, it is easy to assume they are different, even when there is quite a lot of similarity between them at face value.

For example, consider the construct of *overexcitabilities*, as mentioned earlier, which is a component of Dąbrowksi's (1964) Theory of Positive Disintegration (see Harper et al., 2017; Mendaglio, 2008). In this theory of personality development, Dąbrowksi (1964) described the notion of developmental potential as an innate endowment that differs among individuals. The stronger the endowment, the greater the potential for advanced development. The first component of developmental potential comprises talents, specific abilities, and levels of general intelligence. Another component of developmental potential is the capacity for self-directed emotional growth, self-determination, and autonomy. The last component of developmental potential is *overexcitabilities*, which are an innate tendency to respond to internal and external stimuli in an intensified manner (see Dąbrowksi, 1938/2019; Wells & Falk, 2021). Overexcitabilities may be expressed in one or more of five dimensions: *psychomotor, sensual, intellectual, imaginational*, and *emotional*.

There is some evidence for the jangle fallacy regarding the overexcitabilities and the Big Five Theory of Personality, which is the most widely used and validated model of personality that exists (Fiske, 1949; Goldberg, 1981; McCrae & Costa, 1987). The version of the model outlined by McCrae and Costa (1987), commonly called the Big Five, includes the factors of *Extraversion, Agreeableness, Conscientiousness, Emotional Stability*, and *Openness to Experience*, each of which are also made up of narrow facets. There are a number of different interpretations of the narrow facets, one of which is based on a long-standing measure of personality, the Revised NEO-Personality Inventory (NEO-PI-R; Costa & McCrae, 1992), a 240-item measure that assesses the five factors of personality, as well as six facets for each factor.

Limont et al. (2014), Gallagher (2022), and others have shown that studies on the overexcitabilities and the Big Five both have roots in personality development, both are measured using self-report inventories, a number of items across said inventories are very similar, and researchers are increasingly focusing on the relationship between intellectual giftedness and overexcitabilities and/or the Big Five factors of personality. Vuyk et al. (2016) even suggested that Openness to Experience, one of the Big Five factors of personality, actually encompasses and explains overexcitabilities:

> Individuals who are open to new experiences enjoy both outer and inner worlds, are curious, and hold novel ideas. They have high aesthetic sensitivity, intellectual curiosity, vivid imagination, and evolving value systems. This description appears extraordinarily analogous to descriptions of OEs [overexcitabilities], which describe active imaginations, enjoyment of sensory pleasures such as art and beauty, intensity of feelings, love of learning, and a pull for action. (p. 192)

Other research indicates the constructs of overexcitabilities and Openness to Experience might be distinct (e.g., De Bondt et al., 2021). There are other ways, too, to conceptualize and measure the Big Five personality factors, as well as personality in general. Thus, across different theories and measures of personality and a measure of overexcitabilities, there becomes great potential for the jangle fallacy at play.

Further, though, could overexcitabilities be explained by other constructs, such as sensory processing sensitivity? Greven et al. (2019) describe sensory processing sensitivity as the result of "an underlying phenotypic (temperament) trait characterized [sic] by greater depth of information

processing, increased emotional reactivity and empathy, greater awareness of environmental subtleties, and ease of overstimulation" (p. 288). Dąbrowksi's (1938/2019) original notion about overexcitability, what he termed a *psychic superexcitability*, is nearly identical to the modern-day construct of sensory processing sensitivity:

> symptoms evoked in some individuals by stimuli that do not evoke them in others; excessive intensity of the responses, their disproportion to the stimuli, and their frequency; responding to different stimuli in a characteristic manner, indicating that the individual has a [triggering] [sic] point of "irritation" that appears in reactions without any direct connection to the stimuli evoking them, etc. (p. 3)

The word *overexcitability* is a translation of the Polish word *nadpodbudliwość*, which means "superstimulatability," and dates back to a publication in a medical journal, *The Lancet*, in 1899. A Scottish physician described a condition he termed "over-excitability, hyper-sensitiveness, and mental explosiveness" marked by "an undue re-activeness to mental and emotional stimuli which in ordinary children would evoke only slight response" (Clouston, 1899, p. 292).

Aron and Aron (1997) proposed the notion of the *highly sensitive person*, which is indicative of individuals who are highly sensitive to subtle or lower intensity stimuli and who tend to become easily distressed or overwhelmed in response to those high levels of sensitivity. In other words, individuals with high sensory sensitivity have low stimulus sensitivity thresholds. On paper at least, the highly sensitive person and a person with high levels of overexcitabilities look similar. Further, given the established empirical relationship between Openness to Experience (the personality factor most associated with intelligence) and sensory processing sensitivity (Bridges & Schendan, 2019; Lionetti et al., 2018; Pluess et al., 2018; Smolewska et al., 2006), the jangle fallacy associated with overexcitabilities becomes even more tenable.

Could it be that we are simply trying to explain the personalities of gifted individuals through different paradigmatic lenses? Overexcitabilities are being used as a way to explain the sensitivities and vulnerabilities that are believed to exist among intellectually gifted individuals, or individuals with a very high IQ, as seen in research coming out of the gifted child paradigm. The Big Five personality factors are used to explain the personality factors or traits that relate to other psychosocial skills and predict achievement and performance-related outcomes among individuals talented within a domain, as seen in research coming out of the talent development paradigm.

More research is needed to explore the ways in which the *jingle-jangle fallacy* (Kelley, 1927) has impacted our understanding of the social and emotional experiences of gifted individuals. In the same vein as being specific about how constructs are defined and measured and how giftedness is defined and measured, an added level of specificity is needed when discussing psychological constructs such as psychosocial skills.

A Focus on Psychosocial Skills . . . For Whom? When? Under What Conditions?

Research needs to focus on the notion of psychosocial skills that are important in the development of talent, but with an added focus on which skills matter for whom, when, and under what conditions. And, can these psychosocial skills be developed through intervention? Further, what factors cause these psychosocial skills to develop in the first place?

According to Subotnik (2015), "psychosocial skills are the levers of success for the whole talent development process . . . and the good thing is that they are malleable" (p. 44). Subtonik argued for psychosocial strength training, suggesting that "psychosocial skills be explicitly and deliberately cultivated via programming, coaching, and counseling of gifted students as part of their talent development in any domain of ability" (p. 41). We need more research to understand how psychosocial skills matter in the development of talent. Indeed, many unique combinations of abilities and skills may contribute to talent development, some individuals will achieve success despite all odds, and some may use one skill or ability to compensate for deficiencies in others (i.e., the compensation phenomenon; Williams & Ericsson, 2005).

A more nuanced look at psychosocial skills is needed, however, beyond just looking at which ones matter in the development of talent. Dai uses additional questioning to get at nuances in research across a number of his theoretical contributions to the field of gifted education, such as Where, When, and Who in his work on the Big-Fish-Little-Pond Effect (Dai & Rinn, 2008) and What, Why, Who, and How in his work on the paradigms of gifted education (Dai & Chen, 2014). We can take a similar approach in the study of psychosocial skills within the field of gifted education by focusing on which skills matter For Whom? When? and Under What Conditions?

To answer the question, "For whom?," researchers should answer this question both by clearly operationalizing *gifted* within a particular sample but also by including in their research design ways to examine which individuals within a sample of gifted individuals the psychosocial skill is most relevant. In other words, do all gifted individuals within a sample experience the psychosocial skills of accepting ambiguity, collegiality, and goal setting similarly, for example, or might some subgroups of gifted individuals experience those skills differently and thus benefit differently from instruction or intervention designed to develop those skills?

Researchers might consider adopting a lens of *intersectionality* in their work, which is a theoretical and/or analytical approach that simultaneously considers multiple categories of identity, difference, and inequality (see Cho et al., 2013;

Crenshaw, 1991), as one way to examine the experiences of individuals within the field of gifted education, and on the study of marginalized groups in gifted education in particular (see Anderson, 2020; Wikoff et al., 2021). By using an intersectional lens to examine how gender intersects with racial/ethnic background, for example, we could answer more questions about social and emotional experiences than by just examining gender or racial/ethnic background separately. Using an intersectional lens could also be useful when examining experiences faced by students who are identified as twice-exceptional, as these students may face social and emotional experiences that are unique from students identified as gifted or students identified as having a disability (Cormier, 2022; Foley-Nicpon & Assouline, 2015).

Researchers might also consider the use of variable-centered analysis or person-centered analysis in quantitative research design. Variable-centered analysis looks at how two (or more) variables relate to one another. We might ask, *How does self-concept relate to achievement?* Common analytics methods for variable-centered analysis include analysis of variance and regression. Person-centered analysis looks at how two (or more) variables relate to one another for the entire sample or subgroups within the sample based on characteristics of the sample. For example, *How does self-concept relate to achievement for Subgroup A? How does self-concept relate to achievement for Subgroup B? How does self-concept relate to achievement for Subgroup C?* Common analytic methods for person-centered analysis include cluster analysis, latent class analysis, and Q-sort analysis.

To answer the question, "When?," researchers should be inclusive of the point in development when the psychosocial skill is most important (e.g., childhood and emerging adulthood) and the point along the talent development continuum when the skill is most applicable or relevant (e.g., beginning and middle). Social and emotional processes are developmental. One's friendships and relationships, for example, serve a different purpose and are experienced differently across childhood and into adulthood. One's ability to regulate emotions changes from childhood to adolescence and into adulthood. Feelings about the self-differ during childhood and adolescence, work ethic differs, social skills differ, and the list could go on. Chronological age and developmentally appropriate social and emotional experiences will impact an individual's ability to develop psychosocial skills.

Psychosocial skills are also developmental. Consider any point along the talent development continuum: For example, do individuals who have attained eminence need the same sorts of psychosocial skills that individuals just starting out in a domain need? Olszewski-Kubilius et al. (2019) conducted a study to determine which psychosocial skills are most important by domain (e.g., dance, sports, and academics) and stage of talent development (e.g., transition of abilities into competencies, competencies into expertise, and expertise into creativity productivity or eminence). They found some skills were important across all stages of talent development (e.g., regulation of arousal/relaxation and self-efficacy/self-confidence) and also that the importance of some psychosocial skills varied depending on the stage of talent development (e.g., rage to master and teachability).

Consider both social and emotional development and psychosocial skills at the same time, though. To illustrate, the social and emotional experiences of an 18-year-old elite gymnast and a 50-year-old professor who has achieved eminence in their academic domain are not likely to be the same, despite both individuals achieving eminence in their fields. The chronological age and the domain may impact the development of psychosocial skills, and the way we choose to research the social, emotional, and psychosocial skill development will impact our understanding of those developmental processes.

There would also be different approaches to the improvement of psychosocial skills for each of these hypothetical individuals as they move through the talent development process (Jarvin & Subotnik, 2010; Olszewski-Kubilius et al., 2019; Subotnik et al., 2011, 2018). The study of psychosocial skills thus needs to be situated in an environment and within a context or domain to answer the question, "Under what conditions?"

A Focus on the Environment

Human development does not happen in isolation. Human development, including social and emotional development, is something that happens to an individual via interaction with their environment. It is important we conceptualize the study of psychosocial skills in the same way. As such, we need to conceptualize giftedness, gifted education, and talent development from a *systems perspective* rather than from isolated perspectives (Ziegler & Phillipson, 2012; Ziegler & Stoeger, 2017). This aligns with both the gifted child paradigm and the talent development paradigm (Dai & Chen, 2014), as the *systems* in which an individual interacts help shape social and emotional development, the development of psychosocial skills, and the development of talent within a domain. An examination of systems allows us to answer the question, *under what conditions* do psychosocial skills develop? As such:

> Systems theory offers an alternate perspective on the relationship between components and the whole: rather than explaining the whole when the components are understood; an understanding of the whole allows us to understand its components. In other words, systems theory focuses on the contextual organization of its components and not about the components *per se* [italics in original]. Thus, systemic thinking is always concerned with the context. (pp. 10–11)

Bronfenbrenner (1976) is among the most well-known systems theorists. He focused mostly on context, but he also focused on the developing individual, realizing that while one cannot study individual development out of context, one

also cannot study context without studying an individual within it. In his early model, he saw the individual as situated within various environments or systems: The *microsystem* is composed of groups or settings that most immediately and directly impact the individual's development. A child's microsystems might include their home, their classroom and school, and their peer group. The *mesosystem* is the interaction between microsystems. Communication between parents or caregivers and a teacher involves an interaction between the home and the school. The *exosystem* is the interaction between a setting in which the individual does not have an active role and the individual's immediate context. For a child, a parent or caregiver's workplace is an exosystem. A parent/caregiver's relationship with a child could be impacted by the hours a parent/caregiver works, a parent/caregiver's income level, and stress from work or work/life balance. The *macrosystem* is the culture in which one lives, including sociocultural factors, norms, and expectations. The *chronosystem* is the Zeitgeist of the time, or the historical period in which one lives. Bronfenbrenner's later work focuses less on the individual being situated within various systems and more on the relationship between the individual and the multiple contexts in which they live and develop (see Bronfenbrenner & Evans, 2000).

Although Bronfenbrenner and Morris (1998) included *ability* as a resource characteristic that impacts one's development, Bronfenbrenner's work has not been applied much in the field of gifted education with some exceptions. Crawford et al. (2020) used Bronfenbrenner's theory as a framework with which to explore "identification issues for underrepresented minority students with gifted capabilities who have not been formally identified for gifted programming" and "challenges faced by underrepresented minority students who have participated in a gifted program after having been formally identified as gifted" (p. 43). Chowkase (2022) used Bronfenbrenner's theory to explore and explain the school experiences of nine high-ability students from secondary schools in rural India. Garces-Bascal and Yeo (2017) used Bronfenbrenner's theory to explain the reading habits of 24 gifted students in Singapore.

Systems Perspective in Gifted Education. There are other models in gifted education, though, that align with a systems perspective. Gagné's (2017) Integrative Model of Talent Development is a systems theory of talent development that focuses on the interaction between the individual and the environment in the development of talent. From his perspective, a number of environmental and intrapersonal catalysts work together with natural abilities and developmental processes in developing talent, all of which, he notes, are affected by chance. In the Actiotope Model of Giftedness, Ziegler and colleagues (Ziegler et al., 2019; Ziegler & Vialle, 2017) argue gifted education should be concerned with the development of actiotopes as opposed to the development of individuals or single attributes, such as intelligence or self-concept. In their model, an actiotope denotes the system of an individual and the material, social, and informational environments with which the individual interacts.

In the Evolving Complexity Theory of Talent Development, Dai (2017) argues the developmental nature of talent is nonreductionist, dynamic, and organismic, and hence involves a systems approach of evolving complexity. Dai described how the elements of domain, person, development, and culture work together as an interacting system. The person is central in the development of talent, rather than a domain, such that talent development in a domain does not just happen to a person; a person is the one who "organizes and transforms their domain experiences" (p. 174) and who is driven by both endogenous and exogenous forces. The developing individual and their endogenous resources interact with exogenous forces, namely the environmental press (or opportunities and challenges) and sociocultural mediation (or resources, tools, and values). Dai also outlined four stages of talent development, describing how cognitive or developmental, affective, and social processes work together to facilitate the development of talent in a person. The *foundational stage* involves developing basic aptitudes and dispositions, the *transitional stage* involves exploration and expansion, the *crystallizing stage* involves making commitment to a line of work or to a field, and the *advanced stage* involves doing cutting-edge work and developing a personal niche. What Dai (2017) and others have done in the development of their systems theories of talent development is incorporate literature from other fields, like psychology, and apply it to what we know in the field of gifted education.

A Focus on Research From Other Disciplines

Incorporating research from other disciplines into the field of gifted education would enrich the field's understanding of the social and emotional experiences of gifted individuals. There are positive implications for sharing analytic techniques and research methods across disciplines, but there is obvious overlap in what is studied in the field of gifted education with what is being studied in some other disciplines that seems largely like an untapped resource. For example, the field of developmental psychology is the study of how and why human beings change over the course of their life (see P. H. Miller, 2016). This field is subdivided into the dimensions of physical development, cognitive development, and social and emotional development. As discussed earlier regarding theories and stages of human development, we naturally use these as a base from which to explore individual differences. When looking at individual differences in cognitive, social, and emotional dimensions of human development, that field of study is called personality and individual differences (see Maltby et al., 2017). Research in this field examines topics like IQ, intelligence theories, and personality theories; this extensive literature would help navigate issues of the jingle-jangle fallacy in the field of gifted education, for example.

As another example, a relevant subfield of study is the area of social and emotional learning. Social and emotional learning is defined as a process for helping children and adults develop the fundamental skills for life effectiveness including recognizing and managing emotions, developing caring and concern for others, establishing positive relationships, making responsible decisions, and handling challenging situations constructively and ethically (see Durkak et al., 2015). In a recently published handbook on social and emotional learning (Durkak et al., 2015), despite chapters on the social and emotional learning experiences of numerous different groups of students, such as students from varying socioeconomic backgrounds and students with disabilities, there are no chapters on gifted students. However, the field of social and emotional learning uses a systems perspective to understand social and emotional learning that occurs in schools, and the field of gifted education could use that body of research to explore the ways in which social and emotional learning might differ for gifted students.

Two other examples of research from disciplines that could be incorporated into the field of gifted education include the fields of sport psychology and career development and counseling. Both are discussed further as follows.

Sport Psychology. The field of sport psychology is the study of how psychological factors influence sport, athletic performance, exercise, and physical activity (see Weinberg & Gould, 2019). There is an obvious overlap here with the field of educational psychology, which is the study of how psychological factors influence the teaching and learning process (see Ormrod et al., 2019). The two fields could undoubtedly learn from each other.

Faber et al. (2021) conducted a review of Western approaches to identification and development of talent in schools and in sport contexts. The authors outlined the similarities and differences between identification and development of talent across both contexts and then outlined ways in which one context could use findings from the other context. Faber et al. suggest school contexts might benefit from a talent transfer pathway, by differentiating for maturity-level and sex, by emphasizing deliberate practice, by monitoring load-ability, and by acceleration. Faber et al. suggest sport contexts might benefit from universal screening, by paying attention to underserved populations, by focusing on creativity and enrichment, and by enhancing the accountability and education level of trainers and coaches.

There is also a large amount of research on the relevance of psychosocial skills in the development of athletic talent. Gledhill et al. (2017) conducted a systematic review of the literature on psychosocial factors associated with the development of talent in football (or American soccer). Across an examination of 43 studies, Gledhill et al. identified 22 internal psychological factors, 21 external social factors, and five player-level behavioral indicators associated with talent development in football. In looking at the 22 internal psychological factors, the list looks similar to psychosocial skills that are believed to impact achievement and success in academic domains of talent (e.g., discipline, self-control, self-awareness, commitment, determination, intrinsic motivation, self-regulation, resilience, psychological well-being, and perceived competence; see Olszewski-Kubilius et al., 2019). It makes sense to examine how these psychosocial skills are impactful in the domain of sport, as well as what research designs and analytic techniques have been used to study them and use that information to better inform our understanding of the role of psychosocial skills in the development of talent in academic and other domains.

Career Development and Counseling. Research derived from the fields of career development and career counseling would be helpful to researchers and practitioners in the field of gifted education. Theories of career development and career counseling have existed for decades, and there is an obvious overlap in end goal between the field of gifted education and the fields of career development and career counseling: that of matching a unique individual to a domain in a field and helping that individual get there.

In one of the most widely studied career development theories, Super (1980) outlined a Life-Span, Life-Space Theory of Career Development that considers individual and contextual characteristics, and focuses on life and career stages, as well as work and nonwork roles that people occupy across their lifespan. Super described five developmental stages of career development that are loosely tied to age (*growth*—development of a capacity, attitudes, and interests; *exploration*—choices are narrowed but not finalized; *establishment*—trial and stabilization within a career through work experiences; *maintenance*—continual adjustment process to improve working position and situation; *disengagement*—preretirement considerations, reduced work output, and eventual retirement), although he specified that individuals may go through these stages multiple times, irrespective of age. He specified four types of career patterns: stable, conventional, unstable, and multiple trials. Further, each of Super's stages is impacted by environmental determinants (such as the labor market), situation determinants (such as historical or socioeconomic factors), and personal determinants (such as psychological or biological factors). As a theory developed over 50 years, there is extensive research evidence in support of Super's theory (see Super et al., 1996).

Super's theory of career development and other theories of career development (e.g., Social Cognitive Career Theory, Lent et al., 1994) can be used to enhance and expand on our current theories of talent development. As an example, consider Dai's (2017) stages in his Evolving Complexity Theory of Talent Development alongside Super's stages of his Life-Span, Life-Space Theory of Career Development. The overlap in developmental stages is obvious (e.g., *transitional stage = exploration; crystallizing stage = establishment*). The field of gifted education

could learn so much about the childhood and adolescence stages of career development, for example, and use that information in a talent development framework during elementary and secondary school. Jung (2013, 2014, 2017) has incorporated some of these ideas in his study of the occupational and career decision-making processes of gifted adolescents, but more research is needed, particularly with cross-cultural samples. Also, for example, Super discusses how his stages are impacted by environmental determinants, situation determinants, and personal determinants. Those same social and emotional determinants are part of the various systems theories of talent development that have emerged in the past couple of decades in the field of gifted education. The field of gifted education could learn more about how personal determinants like psychological factors, for example, impact career development and then use that information to better understand the role psychological factors play in talent development. The field of gifted education could further that knowledge by incorporating the notion of intersectionality and a systems perspective (c.f., the Systems Theory Framework of career development, McMahon & Patton, 1995; Patton & McMahon, 2014), for example, in the study of psychosocial skills that impact the development of talent.

Conclusion

As shown, there are numerous ways we can advance the study of the social and emotional experiences of gifted individuals. Because the definition of *giftedness* has changed and expanded over time, so must the approach to conducting research about gifted individuals. Paradigms of giftedness and the implications of those lead to different questions, and different answers, about the social and emotional experiences of gifted individuals. This paper has outlined those trajectories, making it clear researchers must be mindful of their lens and the nuances involved in conducting research within somewhat competing paradigmatic lenses.

This paper has also provided a framework for moving forward in thinking about and conducting research on the social and emotional experiences of gifted individuals. Starting with a focus on the Operationalization of Terms; Psychosocial Skills . . . For Whom? When? Under What Conditions?; the Environment; and Research from Other Disciplines, there are many directions in which to advance the field. The guidelines provided in this paper are not exhaustive; however, I hope these four areas can serve as a framework for graduate students and early career scholars, in particular, but not just those with research interests in the area of social and emotional experiences. Regardless of our paradigmatic lens, our implicit beliefs about giftedness, our backgrounds, or our current positions as researchers and practitioners, we must all have an understanding of the social and emotional experiences of gifted individuals to better serve them.

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Notes

1. This includes some of the author's own research.
2. For the purposes of this paper, I am choosing to use "gifted individual." Although the terminology is not paradigmatically neutral, I might argue that no terminology is paradigmatically neutral. The phrase "gifted individual," though, is generic and well-recognized in the field. Furthermore, I am trying to write through a paradigmatically neutral lens in this paper. In my own research and writing, I have written through both lenses.
3. Physical, social, and emotional development could also be advanced or delayed, depending on the individual.

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