

CAREER COUNSELING AND THE GIFTED INDIVIDUAL: APPLYING SOCIAL COGNITIVE CAREER THEORY TO THE CAREER DECISION MAKING OF GIFTED INDIVIDUALS

Susannah M. Wood, Carol Klose Smith, and David K. Duys

Determining a career direction is a central focus for adolescents who are entering adulthood and is an iterative process that may be revisited several times in their lifespan. Research suggests the similarities among adolescents' career decision making are greater than the differences (Jung, 2014). Yet, "enough differences exist to warrant specialized career interventions for gifted and talented students. Being gifted and talented can make career choice easier or more difficult" (Sampson & Chason, 2008, p. 332). In 1986 *the Journal of Counseling and Development* released a special issue focusing on the various counseling needs of gifted individuals. In that issue, Ronald H. Fredrickson wrote the following:

Gifted and talented individuals need more information and assistance with career planning than do other persons because of the many more options and alternatives they can realistically consider. Too often, gifted and talented young people are expected to succeed on their own . . . a frequent argument of certain individuals is that because resources and staff time are limited, they should be devoted to those who really need it. (p. 556)

Fredrickson's statement underscores the assumption that gifted individuals who succeed in K–12 education will move on to successful careers with little or no assistance (Jung, 2013; Maxwell, 2007; Muratori & Smith, 2015). This assumption is similar to the myth

that gifted and talented students are somehow inoculated from problems or challenges by the very nature of having gifts and talents (J. S. Peterson, 2009). In this case, the assumption is that because they are gifted, these students have no need for career development assistance or career counseling (Greene, 2006; Maxwell, 2007), and they can somehow intuitively achieve a meaningful and satisfying work life (Muratori & Smith, 2015). The career development of gifted and talented individuals is inextricably tied to their high potential, specialized talents, and socioemotional development. These decisions are likely to be the vehicles by which individuals are placed into positions where they can make valuable contributions to society (Subotnik, Olszewski-Kubilius, & Worrell, 2011). However, career satisfaction is not guaranteed for gifted individuals, nor is it a smooth linear process. Some gifted students will delay this decision for as long as possible, some will frequently change their minds, whereas others feel stuck in a field because of an early investment made in their chosen career. Therefore, it is no surprise that career counseling has been and continues to be reported as one of the most often requested services among gifted students and their parents (Yoo & Moon, 2006).

Apart from specific programming offered through centers for gifted education, career counseling remains the purview of professional school counselors, career counselors, and counseling psychologists, many of whom have had only minimal

exposure to the nature and needs of gifted individuals (Colangelo & Wood, 2015). However, these professionals rely on informative research by which to inform their practice. Although the research examining the intersection of career development and academically gifted students has been a somewhat neglected topic (Jung, 2014), the emerging literature has begun to identify specific factors that contribute to our understanding of the process of career development among academically gifted individuals.

In the past two decades, many researchers have argued that gifted and talented individuals are a special population deserving a better understanding and recognition of the need for their career decision making, career goals, and career counseling services (Chen & Wong, 2013; Fredrickson, 1986; Greene, 2006; Hall & Kelly, 2014; Hook & Ashton, 2002; Jung, 2014; Kelly, 1996; Muratori & Smith, 2015; Parris, Owens, Johnson, Grbevski, & Holbert-Quince, 2010; Rysiew, Shore, & Leeb, 1999; Sampson & Chason, 2008; Watters, 2010; Yoo & Moon, 2006). A foundational set of studies has suggested that abilities and preferences play an important role in career decision making for academically gifted students (Lubinski & Benbow, 2006; R. M. Webb, Lubinski, & Benbow, 2002). Additional research has established that there are a variety of factors that influence career planning, including psychological, sociocultural, and prior educational experiences (Miller & Cummings, 2009; Zeldin, Britner, & Pajares, 2008). However, there has been little work with regard to how gifted individuals respond to unexpected opportunities in their career development trajectories (Watters, 2010).

Career development theories are one attempt to provide informed guidance to an individual and to explain how one chooses an occupational direction in life on the basis of a number of factors. Social cognitive career theory (SCCT) can be an appropriate conceptual framework through which counselors can explore and support gifted individuals' career decision making (Watters, 2010). Counselors and psychologists, by nature of their training, are also commonly versed in this vocational theory and could apply it in their work with gifted students. The purpose of this chapter is fivefold:

(a) elaborate on the tenets of SCCT in comparison with

other historical and contemporary career theories; (b) detail specific research findings pertaining to the use of career theories, including SCCT, with gifted and talented individuals; (c) offer an overview of the career needs of gifted individuals; (d) provide examples of how SCCT can be applied by school counselors and career counselors to gifted and talented young adults; and (e) suggest support strategies for gifted individuals' career development and related lines of research.

HISTORICAL AND CONTEMPORARY PERSPECTIVES

Choosing a career is a lifelong process and career decision making is about making significant choices about one's future vocational life (D. Brown, 2002). Throughout their lives, individuals make a series of iterative decisions and progress through many different stages of career awareness and maturity. Central to these stages are the common issues of decision making, development of identity, and exploration. This is often referred to as the content of *occupational choice* (Savikas, 2002). *Career planning* is a complex and lifelong process which requires accurate self-perceptions of one's abilities, talents, values, and drive (Kelly, 1996), as well as a close examination of the contextual factors of environmental supports and barriers. Career planning focuses on how an individual makes occupational decisions, which may include dynamic variables such as career maturity and career adaptability, decision-making styles, self-efficacy, career beliefs, and personality constructs. For the purposes of this chapter *career decision making* is defined as the content and process of a making an occupational choice (Swanson & D'Achiardi, 2005).

Historical Theories of Career Decision Making

Contemporary forms of career counseling were seen as early as the 1890s (Herr, 2013). However, it was not until the industrial revolution, when workers were needed for a wider variety of occupations, that career counseling truly began to arise. To help others navigate these challenges, Frank Parsons

(1909) developed a three-point framework that launched the field of career counseling.

- (1) A clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and knowledge of their causes;
- (2) a knowledge of the requirements, conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work;
- (3) true reasoning on the relations of these two groups of facts. (p. 5)

Parsons believed that individuals should actively and deliberately engage in choosing a vocation, rather than let chance be the sole deciding factor in their career. This fundamental concept is still salient within career counseling today. Since Parson's time, many theories have emerged about the process of making a vocational choice. Early theories of career development viewed the person and environment variables as trait-factor interactions (Dawis, 1996) or typologies (Holland, 1997). Each of these theories has acknowledged that vocational outcomes are influenced by interactions between people and their environment (Osipow, 1990), including Gottfredson's (2005) theory of circumscription, Super's (1963) theory of career stages, and the cognitive information processing (CIP) theory (G. W. Peterson, Sampson, Lenz, & Reardon, 2002).

Gottfredson's (2005) theory of circumscription, compromise, and self-creation was inspired by examining gender and class differences in career counseling. *Circumscription* was described as the process by which individuals narrow their career options by eliminating vocations that conflict with their sense of self or individuals' beliefs, behaviors, and/or feelings. *Compromise* was described as the process in which individuals consider their remaining options and pursue the most accessible and affordable career preferences. Using this theory, counselors help students prevent or reverse premature constriction of career choices to facilitate more intentional decision making.

CIP is another theory that has been used to understand the career development needs of gifted and talented individuals (G. W. Peterson et al., 2002). CIP theory approaches career and

vocational counseling from the cognitive psychology perspective, and examines the thought and memory processes involved with solving career problems in three areas: self-knowledge, occupational knowledge, and career decision making. The aim of this theory is to assist individuals in becoming skillful and competent career decision makers throughout their lifetime.

More recent theories have examined the cognitive processes of career decision making and as such, posit career decision as a fluid and dynamic process (Lent, Brown, & Hackett, 2002; G. W. Peterson et al., 2002). Other, more recent, theoretical frameworks that have been used to better understand the unique challenges of gifted individuals in their career planning and decision making include ecological (Hook & Ashton, 2002) and constructivist perspectives (Maxwell, 2007), although these theories have garnered little research support to explain their effectiveness with gifted students.

Social Cognitive Career Theory

If career development is a lifelong process that begins in early childhood and is influenced by the interaction of individuals' internal and external sociocultural factors, then SCCT is well suited to address the needs of the gifted because of its focus on cognitive and social dynamics influencing vocational choices. Specifically, the theory examines the impact of career self-efficacy, outcome expectations, and goal setting. This theory traces its roots back to Bandura's (1986) social cognitive framework and was meant to expand on Holland's (1997) career theory by adding a focus on the antecedents of career choice, and a more sophisticated understanding of reported interests. Like Bandura's theory, SCCT highlights individuals' capacity to make their own occupational decisions and to direct their own vocational behavior, which is also known as human agency (Lent, 2005). However, SCCT has been expanded to incorporate the issues of gender, culture, and diversity in career decision making. SCCT currently consists of four overlapping tenets or predictive models aimed at understanding (a) educational and/or occupational interest development, (b) choice making, (c) performance and persistence, and (d) satisfaction and well-being (Lent & Brown, 2013).

The first tenet described within SCCT is the educational and occupational interest development model (Lent et al., 2002). This tenet focuses on individuals' vocational interests, such as their likes and dislikes, and examines the role of these interests in helping to motivate choices. The tenet further posits that self-efficacy beliefs and outcome expectations directly influence people's interests and career interests. Self-efficacy beliefs are defined as individuals' "judgements of their capacity to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 396). Outcome expectations are beliefs about the imagined consequences or outcomes of a particular vocational behavior or trajectory (Lent, 2005). Whereas self-efficacy is focused on the question, "Can I do this?", outcome expectations are focused on the question, "If I do this, what will happen?" According to SCCT, individuals' perception of personal competency in an activity—as well as their evaluation of the value of that activity—influences their likes and dislikes associated with that activity. Other factors such as gender, race/ethnicity, physical health or disability, genetic endowment, and socioeconomic conditions are considered inextricably linked to career interests as well.

The second tenet is choice making, specifically the expression of goals, actions, and subsequent performance. Career choice making represents an interplay between self-efficacy, outcome expectations, interests, abilities, and skills. Once initial choices are made they are further refined over time by events and circumstances (Lent, 2005). Because self-efficacy and outcome expectations play a direct role in career goal setting and actions, some individuals may choose a career pathway that is not based on interests or they make choices that reflect what they expect to be future barriers or anticipated challenge.

The third tenet in SCCT is the performance and persistence model, which examines the factors that impact individuals' career and academic performance. These factors include four cognitive and behavioral variables: (a) general cognitive ability and specific skill sets, (b) outcome expectations, (c) self-efficacy beliefs, and (d) goal mechanisms. "SCCT hypothesizes that general cognitive ability and academic or work skills that people develop

through past direct and vicarious experiences influence academic and work performance directly and indirectly via self-efficacy beliefs and outcome expectations" (S. D. Brown, Lent, Telander, & Tramayne, 2011, p. 81). This model posits that individuals with more positive self-efficacy beliefs and outcome expectations are more likely to establish additional challenging goals for themselves.

Most recent writings on SCCT, which integrated vocational and organizational psychology literature, have begun to include a fourth tenet of satisfaction and well-being (Lent & Brown, 2008) as valuable outcomes in their own right, as opposed to merely predictors of employment longevity. Therefore, work satisfaction emerges because of self-efficacy expectations, work conditions/outcomes, and participation in goal-directed activities. Research has indicated that job satisfaction and life satisfaction are bidirectional in nature (Heller, Watson, & Iles, 2004), meaning that each variable influences the other and may be particularly salient for those individuals who place work as a central aspect of their lives.

As Savikas (2002) noted, there are a great many theories on career choice and career development each focusing on different aspects of the career development process. Current authors suggest that educational and helping professionals can use SCCT in career counseling in ways that specifically address some of the unique issues gifted students encounter in their career development.

RESEARCH REVIEW

There have been some studies examining how and to what extent these theories are applicable to the career development of gifted and talented students. Although it is outside the scope of this chapter to fully elaborate on each study, a short summary of the research conducted on these theories is provided next.

Gottfredson's (2005) career counseling theory has been applied to working with gifted and talented students to better understand their internal and external influences (Muratori & Smith, 2015). Researchers examining career choices among the gifted have noted that students choose careers from a narrow set of choices, and that they lean toward

high prestige careers (Kher-Durlabhji, Lacina-Gifford, Carter, & Lalande, 1997).

Much like Parsons's (1909) work, CIP posits there are three lines of inquiry: self-knowledge, occupational knowledge, and career decision making. Research pertaining to career decision making and gifted students has examined the thought processes by which students integrate self-knowledge and occupational knowledge to arrive at a career pathway (Jung, 2012, 2014). Jung (2013, 2014) has focused not just on the destination or end result of the process, but on the journey or the process itself. Most adolescents place higher value on occupations that are interesting or associated with high-income considerations and recognition. But gifted adolescents are more sensitive to interactions between the variables of occupational interest/enjoyment and intellectual stimulation and challenge. Interestingly, the research conducted by Jung (2014) found a negative relationship between a desire to achieve one's full potential and occupational attitude, indicating that gifted students may experience a complicated relationship between noted abilities and domains of occupations. Some gifted students report negative reactions to career choices that are directly related to the area in which they have a high ability. This negativity may be the result of devaluing their abilities to pursue a more lucrative career, or it may represent resistance to pressures gifted students may feel in selecting the "right" occupation. Research is beginning to point to a rather complicated picture between abilities, occupational interests, and the need for intellectual stimulation and challenge among gifted students.

Frequently cited in the career literature, SCCT has inspired robust lines of inquiry and application over the past 20 years. The model has received some support in empirical studies using variables to predict satisfaction (Chang & Edwards, 2015). It has also been used in studies that provide direct comparisons between this model and prior satisfaction-based theories like the theory of work adjustment (Foley & Lytle, 2015). The model has been positively linked to problem-focused coping styles (Chang & Edwards, 2015), proactive personalities and career management strategies (Barnett & Bradley, 2007), academic

satisfaction in college (Lent et al., 2015). Foley and Lytle (2015) found other variables that may also explain significant variance in work satisfaction, including the negative effects of workplace discrimination and bias that are not currently accounted for in the model.

Most of the studies investigating the relationship between SCCT and gifted populations have focused on variables related to self-efficacy and outcome expectations. Generally, the findings have supported the idea that gifted students' career self-efficacy and outcome expectations can be influenced over the short term via counseling interventions and by participating in career development programs. Quantitative studies have examined the impact of role models, parental support, acceleration, and perceived barriers. Qualitative studies have explored issues with twice-exceptional students (gifted students with learning disabilities), teacher impact, and influence of perfectionism. These studies support the idea that self-efficacy influences gifted students' career trajectories; thus helping professionals can explain and anticipate some of the factors that affect their outcome expectations.

In the quantitative literature, Shin, Levy and London (2016) found gifted students who are exposed to science, technology, engineering, and math (STEM) role models are more likely to identify with STEM careers, and increase their level of academic self-efficacy and their expectation to do well in professional training settings. However, this exposure did not seem to immediately affect their selection of college majors. Kim (2014) noted that students with high academic self-efficacy can experience significantly higher career outcome expectations despite reduced parental support and involvement in their career decision making. Boazman and Saylor (2011) found that gifted students with stronger self-efficacy who experienced early acceleration into college reported higher levels of well-being and life satisfaction during and following college. Perrone, Civileto, Webb, and Fitch (2004) reported that the influences of career barriers on career outcome expectations were mediated by coping efficacy in gifted students. Specifically, if more barriers were anticipated, higher coping efficacy may improve career outcome expectations for gifted students.

In the qualitative literature, Wang and Neihart (2015) discovered that twice-exceptional students had higher than previously reported levels of self-efficacy if they had opportunity to focus on their academic strengths and exposure to training methods that took advantage of their preferred learning style. Siegle, Rubenstein, and Mitchell (2014) found that teachers had the largest impact on gifted students' self-efficacy and preparation for college and career selection. They noted that the more helpful teaching style included attention to content learning beyond immediate textbooks and traditional resources, and included variable instructional methods and greater content knowledge provided by the students' instructors. Neumeister (2004) noted that gifted college students who deal with higher levels of perfectionism suffer with lower self-efficacy if they have never experienced less than perfect grades and academic evaluations. They also reported that their authoritarian parents' high expectations and fear of disappointing them negatively influenced their health and well-being while in college.

These studies demonstrate that SCCT is a helpful theoretical lens to assess and anticipate problems that gifted students experience, and that identifiable factors can help predict and anticipate these problems. Counselors and psychologists who work with gifted students can become more intentional with their efforts to consult with parents and teachers in anticipation of the dynamics described previously. Specifically, career counselors can work to mediate the harmful effects of perfectionism, expose students to more role models that fall outside of traditional gender roles and stereotypes, assure parents that challenging students with acceleration early may actually yield unanticipated positive outcomes, increase gifted students' coping skills, and provide gifted students with educational and exploratory activities that are sensitive to their learning styles and have an early impact on their confidence and outcome expectations.

PRACTICE AND POLICY ISSUES

Assumptions often made about gifted individuals is that they will all excel in their educational pursuits, easily move into an occupation that will fulfill their

potential, and achieve anything to which they apply themselves (Achter, Lubinski, & Benbow, 1996). To provide career counseling to gifted and talented students, counselors and psychologists need to understand the unique aspects of career development of this population that are directly rooted in their gifted identity.

Early Emergence

Because of their advanced cognitive abilities, many gifted individuals begin considering career choices earlier than their peers (Greene, 2003, 2006; Muratori & Smith, 2015). Early emergence of career interests appears to parallel the emergence of specific academic talents or passion areas of learning (Matthews & Foster, 2005). For some students, talents and interests will change as they develop over time and explore new concepts, activities, and experiences (Greene, 2006; Muratori & Smith, 2015). Alternatively, students who have a narrow focus or concentration in one of their talent areas, especially one in which they are very proficient, may foreclose early on a career interest or trajectory (Greene, 2006). Some researchers suggest that this is an area of concern because students may not have been exposed to the entire range of potential career options (Muratori & Smith, 2015; Ryseiw, Shore, & Lee, 1999). However, Jung (2012) suggested that those gifted individuals who have a wider and deeper access to career-related information may be able to make more informed decisions.

The narrow focus versus a wide range of interests of gifted students presents a complicated dilemma for counselors. On one hand, students may foreclose on a career path because they wish to avoid a perceived outcome of failure or avoid the risks of engaging in new experiences, which could turn into new avenues of potential careers (Greene, 2006). On the other hand, counselors and other educators may embrace the idea of the "well-rounded student" and greet a student's persistent interest in a specific passion (a common characteristic among gifted students) with suspicion if they believe students are limiting their choices. Conversely, diminishing or discouraging passion may not be helpful in developing students' talents (Greene, 2006); indeed, passion about a topic or concept has been noted to be an

important part of talent development that can lead to eminence in their field (Subotnik et al., 2011).

Moral Sensitivity and Quest for Meaning

Sensitivity, empathy, and moral concern are characteristics of gifted students which have been noted anecdotally by researchers who have worked with gifted students (Hollingworth, 1926; Roeper, 2008). Many researchers and helping professionals (Hollingworth, 1926; Roeper, 2008) have discussed gifted students' concerns about "the basic problems of human experience" (J. T. Webb, Meckstroth, & Tolan, 1982, p. 183) and their struggle with determining their role in addressing society's "wrongs." In many ways, choosing a career path may feel to gifted students as a personal vocational calling, one that could result in significant world change (Greene, 2006; Hall & Kelly, 2014; Muratori & Smith, 2015). "A calling to a passion is an important aspect of identity education for gifted youth who seek deep meaning in their work because positive work, career, and general life outcomes accrue for people who experience their work as a calling" (Hall & Kelly, 2014, p. 41). However, first determining and then following one's calling is not an easy task.

Gifted students may experience the stress of parental and societal expectations regarding how they use their talents and which careers to choose (e.g., lucrative or socially prestigious jobs; Greene, 2006; Jung, 2012; Subotnik et al., 2011). Other influencing factors may include a preference for careers that require less risk taking or that align with specific cultural or gender expectations (Jung, 2012). These pressures and expectations may impact career choice in a variety of ways, including (a) which college to attend; (b) which major to study; and (c) how to invest time and financial resources, including money for advanced degrees needed in certain career fields (Greene, 2003, 2006; Rysiew et al., 1999). In some cases, gifted students encounter additional pressure once they learn that a specific career, which they perceive will provide the most amount of meaning and satisfaction, actually lacks a secure financial outlook or is considered "less than" other careers. Gifted students need grit, perseverance, coping

strategies, and the ability to stand behind their choices despite public criticism or lack of support (Subotnik et al., 2011). These qualities enable students to choose a more difficult path to fulfill their calling, and are hallmarks of eminence (Subotnik et al., 2011).

Perfectionism

In his review of career literature, Jung (2012) wrote that gifted students not only experience external pressures, but also experience high self-expectations for themselves and a need to fulfill their perceived potential. Perfectionistic behaviors and concurrent emotions can be seen on a continuum from helpful, healthy, and contributing to extraordinary successes to guilt, fear, unrealistic expectations of self, consistent personal dissatisfaction, risk avoidance, procrastination, and paralysis (Greene, 2006). Many researchers from a variety of different fields have examined the nature and role of perfectionism in the lives of individuals, including gifted students, but it is beyond the scope of this chapter to give a thorough overview of the concept.

Unhealthy perfectionism can negatively influence students' ability or desire to learn, can be related to underachievement, and can create obstacles to desired career paths (Sampson & Chason, 2008). Sampson and Chason (2008) described the influence of perfectionism on career decision making including (a) hypervigilance as a way to cope with the stress and anxiety in searching for career information leading to "frenetic and ineffective exploration" (p. 337), (b) an inability to make a commitment to a specific career choice because of the need to make the "one best choice," (c) a loss of interest in activities if there is an increased risk of failure, and (d) anxiety resulting from unrealistic high standards. In her study of 153 gifted high school students, Wood (2009, 2010) found that the majority reported experiencing issues tied to perfectionism, including feeling pressure to achieve and manage the expectations of self and others, as well as fear of failing. In addition, the majority (90%) reported worrying about choosing the correct college and career path, and not knowing how to fit their talents with those paths (Wood, 2009, 2010).

When gifted individuals experience unhealthy perfectionism, they may delay decision making for fear of not choosing the “right” college or career and look to others to make decisions on their behalf (Greene, 2006). Sampson and Chason (2008) suggested that some of those decisions come from parents who, while desiring their child to be successful, intervene in the career development process by offering less than helpful advice or “saving” the child from making decisions, because they fear the child is either too incompetent or cannot be trusted with the decision. For some gifted individuals, “procrastination becomes a de facto career choice strategy. By delaying a decision long enough, only one option remains which eliminates the need to choose” (p. 337).

Multipotentiality

The concept of multipotentiality has been hotly debated in gifted education with mixed research results (Sampson & Chason, 2008). *Multipotentiality* has been defined in several different ways—perhaps the best description is the phenomenon in which an individual has the ability to develop several talent areas to a high level, and who has a high-flat profile of scores on ability tests and interest inventories (Achter & Lubinski, 2005). However, it is possible that flat profiles for gifted students may merely be a manifestation of a ceiling effect, especially when the instruments used are not developmentally sensitive to gifted students’ advanced skills and levels of insight. Contained in the definition of multipotentiality are the concepts of having an overabundance of abilities, talents, and choice—so many that they can result in anxiety and confusion for individuals as they make decisions. Hall and Kelly (2014) cited Jung’s (2013) studies that found that multipotentiality “had a very small correlation with occupational indecision and intention. Rather than being indecisive, gifted students as a whole appear to enjoy the benefits of developing crystallized interest at a relatively early age” (Hall and Kelly, 2014, p. 52). Ultimately the struggle stems from a lack of decision-making skills along with the internal conflict with letting some interests go in favor of developing others (Greene, 2006; Rysiew et al., 1999).

Challenges Specific to Gifted Students From Special Populations

Professionals who provide career counseling should recognize how their students’ and clients’ experiences with racism, discrimination, and oppression can negatively affect their career development (Parris et al., 2010). The contextual and psychological barriers for gifted students of color are very real. Jackson and Nutini (2002) mentioned several specific barriers, including poverty, discrimination, peer pressure, and school and community environments that are unsafe. Internal obstacles cited by these authors include the level of students’ self-efficacy and their perceptions of educational and academic opportunities. The social-political and economic contexts of society affect gifted students’ access to career opportunities and these contexts coupled with low-education backgrounds can create obstacles to academic and career success.

APPLYING SCCT TO THE CAREER DEVELOPMENT OF GIFTED STUDENTS

Although career counseling has been consistently reported as a frequently requested service for gifted individuals (Yoo & Moon, 2006), it is not provided with regularity or consistency across the lifespan. Career counseling has been a component of gifted programming through centers that serve high-ability and talented youth. Other service providers include career counselors, school counselors, and school psychologists. Unfortunately, few of these providers are trained in their preparation programs to address the nuanced needs of the gifted individual in their career decision making (Colangelo & Wood, 2015; Muratori & Smith, 2015). Career development is a lifelong process, and career counseling needs to begin as early as possible, even in elementary school. If that is the case, then school counselors and other educational staff are in prime positions to offer counseling and support.

Provision of career counseling is one of three domains of service delivery for professional school counselors as suggested by the American School Counselor Association (ASCA; 2014). In fact, ASCA has recently produced the “ASCA Mindsets and Behaviors for Student Success: K–12 College- and

Career-Readiness Standards for Every Student” which details

the knowledge, skills and attitudes students need to achieve academic success, college and career readiness and social/emotional development. The standards are based on a survey of research and best practices in student achievement from a wide array of educational standards and efforts. (ASCA, 2014, p. 1)

School counselors who are equally well versed in the unique needs and development of students, including career development, may be in the best position to provide K–12 career counseling. School counseling preparation programs also include training and skills in career counseling models and theories, including SCCT, which can be used as a framework for working with gifted students.

Understanding Educational, Occupational, and Interest Development

Probably the most important process a counselor or other helping professional can facilitate for a gifted student in their career journey is that of self-awareness. Because career development is intertwined with other areas of student development, gifted students need to gain a deeper understanding of who they are and how this interacts with their talent domains. Understanding the “what and why” behind interests in academic or occupational areas is one part of SCCT theory. “Values focus on motivation to work while interests, skills, and abilities focus more on performance” (Sampson & Chason, 2008, p. 335).

Use of assessments. Using career interest inventories, value inventories, and other types of tests is one piece of career counseling. However, counselors need to take into consideration several issues when using and interpreting them. First, to avoid the high-flat phenomenon on some tests, which detracts from meaningful usable results as to what the student is good at and interested in, counselors need to consider when it is appropriate to use above level or adult scales. Greene (2002) cautioned against tests that require rapid, repetitive tasks and

recommends assessments that incorporate forced choice, self-reflection, and experiential components when possible. For example, examining leisure activities can provide important information in addition to what is found on standard interest inventories. Second, Muratori and Smith (2015) stressed counselors should provide interpretation of results that are meaningful to the specific student.

Interest inventories can be advantageous in the career development of gifted students; however, the results must be processed in small groups or individually with the student, allowing for ample reflection and discussion. (p. 179)

Exposure to occupations. Kim (2012) and Greene (2006) described many different avenues counselors can explore to help students become more familiar with different occupations as they matriculate through school. Career fairs, interviews with family and community members, career genealogies, and reading about careers via books, journals, and online venues are a common suggested practice. Muratori and Smith (2015) recommended facilitating students’ exploration of interests via extracurricular opportunities available after school or within the community, including clubs/activities and supplemental academic opportunities outside of school, such as academic summer or other enrichment programs. Counselors can use resources such as the magazine *Imagine: Big Ideas for Bright Minds* and the website <http://cogito.org> from the Johns Hopkins Center for Talented Youth, or O*NET’s Work Importance Profilers (Hall & Kelly, 2014; Muratori & Smith, 2015).

Gifted identity and self-exploration. Sampson and Chason (2008) endorsed reflection as a vital process in developing greater self-awareness and knowledge, including reflection on past academic successes and challenges, prior work experience (including paid, unpaid, and volunteer), leisure and extracurricular activities, and feedback from employers and supervisors. Some gifted students may encounter significant academic challenge later in high school when they enter more difficult classes or high-level internships or work environments, which may cause them to question their identity or talent in specific domains.

In these situations, students may learn skills like customer service or cashiering do not come easily to them as others that are required for various forms of employment. Counselors may wish to consider helping students address these concerns individually or in small groups. Group counseling allows for normalization of life experiences; gifted students may find solace when reflecting on their academic interests, successes, work experiences, and values with group members (J. S. Peterson, 2008). Another method is to use bibliotherapeutic techniques, which can facilitate discussion about talent development in various domains (see Appendix 41.1 for an example of using biographies of eminent individuals in a group counseling setting).

Choice Making and Goal Setting

Ambiguity in career development. SCCT theory posits that many times an individual's choice of work is predicated on what is available, and that life circumstances, challenges, and barriers may influence choices. Perhaps one of the most important services a counselor can do for a gifted person is normalize the general "messiness" in the career development process. Some gifted students may benefit from more concrete methods and discussions about the actual stages and process of decision making prior to addressing the roles of chance, opportunity, and ambiguity in career development. Being able to embrace or at least tolerate not knowing the future outcomes of choices or situations beyond their control may be one of the greatest skills gifted students can gain. Setbacks, challenges, and failures are a part of life, as are the emotions tied to them (e.g., grief, embarrassment, discouragement, questioning of purpose). Counselors can help students identify, name, and process their feelings, as well as assist them in developing positive coping skills needed for the world of work. Again, interviews with parents or role models or biographies can provide useful examples for students to analyze how others have worked through significant challenges in their careers. Providing examples of persistence in the face of setbacks or failures may enrich students' understanding of important personal characteristics that impact success. Another skill set gifted students can learn is self-advocacy and honoring themselves as agents in shaping their own career paths (Muratori & Smith, 2015).

Agency and advocacy. Agency and advocacy strategies are important frameworks and skill sets for gifted students of color, gifted women, and gifted students from poverty. Counselors need to consider that sex role indoctrination regarding career choice begins as early as elementary school (Kim, 2012). By middle school and high school, gifted girls may already be considering compromising their dreams and/or pursuing more stereotypical, sex-role defined career paths that are not reflective of their skills or abilities. Sampson and Chason (2008) underscored the importance of exposure to a wide variety of occupations and providing gender neutral and nontraditional occupational information for both sexes. Lack of specific occupational knowledge can lead to limited occupational educational and employment opportunities for men and women (Sampson & Chason, 2008). School counselors are in an optimal position to work with gifted women in the creation of academic blueprints that reflect higher level classes (especially in STEM areas), the development of goals consistent with their dreams and abilities, and the planning for countering internal and external barriers to reaching their goals (Sampson & Chason, 2008).

Sampson and Chason (2008) cautioned that gifted students frequently encounter negative or inappropriate statements (e.g., "You're so smart, why do you want to be a nurse and not a physician?"). These statements not only discourage students, but also demean members of specific occupations. Stambaugh and Ford (2015) indicated gifted students of color and/or students from poverty backgrounds may also receive negative messages, or microaggressions, that can compromise their self-efficacy and self-esteem. These authors write that prolonged exposure to microaggressions may result in "avoidance of more difficult course work or careers" (p. 193). These messages may have a significant impact on how students perceive themselves in relation to their future goals, including realization that some career paths may be closed to them because of racial discrimination. Parris et al. (2010) recommended counselors use Jackson and Nutini's (2002) examination of students' experiences with contextual and psychological resources including family, cultural support, bicultural

competence, and coping strategies, and create interventions on the basis of these areas. Muratori and Smith (2015) wrote, “throughout this process, counselors must continue to promote self-agency as they assist gifted students in devising strategies to overcome any real or perceived barriers or challenges” (p. 179).

For those who tend to experience anxiety or paralysis over making choices and/or hold themselves to unreasonable expectations or goals, Sampson and Chason (2008) recommended counselors explore (a) the difference between making choices and making commitments, (b) the freedom to make mistakes, and (c) the ability to make changes after choices are made if experiences lead to a need for reexamination. Sampson and Chason (2008) mentioned counselors could actually watch and observe students as they access, use, and apply career and occupational information and note areas of anxiety, confusion, and unrealistic expectations. Authors of this chapter also caution that for some students, additional resources and supports may be needed, including addressing mental health issues and/or diagnosing unseen exceptionalities, such as learning disabilities, that may inhibit decision making and goal setting.

Performance, Persistence, Self-Efficacy, and Skill Sets

SCCT suggests that self-efficacy beliefs and outcome expectations are part of career development. Therefore, real world work experience is a major factor in how students understand their abilities and skills. Gifted students may benefit more from direct exposure to different and nontraditional career paths through job shadowing, internships, and apprenticeships. Internships and apprenticeships facilitate students’ exposure to the world of work, and can enable them to acquire academic credit, expose them to mentors, and gain information on future careers. Wood (2010) found gifted high school students cited working as an apprentice or intern, having a mentor in their field of interest, and shadowing a professional in their chosen field ranked highest as career supports or interventions provided by a school counseling program. Gifted students need the opportunity to meet and work with adults who are already succeeding

in students’ field of interest or talent domain. These adults can speak knowledgeably about the world of work in that field, paths toward entrance into that field, and the necessary education and training required (Callahan & Dickson, 2008; Watters, 2010). Gifted education literature supports the need for life-long role models for gifted students, which is doubly important for gifted students who are girls, students of color, and/or from poverty backgrounds (Callahan & Dickson, 2008; Parris et al., 2010; Subotnik, Edmiston, Cook, & Ross, 2010).

Work and volunteer experience also allows for students to examine their strengths and areas of improvement in specific skill sets, including problem solving, leadership, team work and on-the-job flexibility and adaptability, and personal management and self-discipline (Greene, 2006). Other concrete skill sets that adults (including counselors and psychologists) assume gifted students have include organizational skills, time management skills, and follow through. Greene (2006) and Kim (2012) recommended programming that includes activities in which students can build these skills. “The skills of curiosity, persistence, flexibility, optimism and risk-taking are as important to develop as domain specific knowledge and skills in gifted and talented students, so that they may actively seize any unexpected career opportunities” (Greene, 2002, p. 227). Counselors may also need to facilitate students’ skills with resume building and interviewing through hosting mock interviews and requesting that community businesses provide feedback on resumes and job applications. Last, counselors can use role-playing and social skills training to help students be successful in social situations (Muratori & Smith, 2015).

Satisfaction and Well-Being

Work satisfaction is explained by many variables that examine the conditions, relationships, and accomplishments within a working environment (Lent & Brown, 2006). Gifted students need to be challenged and motivated to be successful at work by implementing their unique skills and engaging in work-related tasks that align with their deeper sense of purpose and their value system. Team based problem-solving experiences and projects that

require particular innovation may be more likely to generate a sense of satisfaction for gifted students during their educational experiences. Prolonged engagement with professionals in the field, such as formal internships, might make better use of their skill sets and enhance their interpersonal communication and shared responsibility. Gifted students may also benefit from accelerated career exploration activities. Activities normally planned and reserved for high school may be appropriate for gifted students at younger ages. Inclusion of these activities can help mitigate the negative effects of premature foreclosure on career choices at an early age by giving students an early opportunity to examine factors that contribute to career satisfaction.

FUTURE CONSIDERATIONS AND DIRECTIONS

Overall, there is a great need for research investigating the career development of gifted students. The literature and empirical research available (from multiple fields) does not create a coherent or conclusive picture of how these students' needs can be effectively met. Meaningful research can inform career counseling practices of educators and professionals, like school counselors. First, future research should examine the development of gifted students' interest areas and personal career goals, specifically, the innovative educational methods and experiential tasks for assisting students with clarifying and testing their interest areas. New counseling interventions and simulated activities may help gifted students enhance their personal agency and clarify their talent domains. Researchers should also investigate the intersection of gifted students' identity development and vocational identity as it affects students' generation of interests and the degree to which these interests are tied to their abilities. Gifted students may also benefit from new ways to understand the career decision-making process on a metacognitive level because they are already engaging in processes of conscription and compromise. Second, researchers should explore the challenges gifted students face with oppressive social conditions. Gifted students are not only sensitive to the social messages about high status jobs, but they are

sensitive to the negative impact of racial stereotypes and gender discrimination. These sensitivities and their influence on self-efficacy, interests, and career decision making require a much deeper understanding. A third opportunity for research has to do with the multitude of variables related to work satisfaction that remain relatively unexplored for the gifted population. Motivation, well-being, satisfaction, and meaning in academic environments have been shown to contain a host of complex interrelated variables that affect gifted student educational performance. The same is likely true for working environments as well. These three foci should be a priority for career counseling research as it pertains to gifted students. Additionally, findings from action research conducted in schools by helping professionals who work daily with gifted students would be valuable in understanding the concrete strategies of "what works" behind career counseling.

SUMMARY AND CONCLUSIONS

Helping professionals may assume that because they are gifted, these students do not require guidance around career planning and career decision making. The opposite is true: gifted students do require it. Being a gifted student does not mean career decision making automatically resolves itself (Fredrickson, 1986; Greene, 2002). Many gifted and talented individuals encounter difficulties related to early emergence, foreclosure, asynchronous development, moral sensitivity, perfectionism, and anxiety related to a perceived overabundance of choice. Although there are many different career development theories from which counselors and other professionals can choose, SCCT is a viable and utilitarian theory that can be applied to gifted and talented students. Not only does this theory have a growing body of research to support its efficacy in its application, it also honors the interaction of gender, culture, diversity, and systems in career decision making. SCCT can help facilitate career counseling by using the concepts of career self-efficacy, outcome expectations, and goal setting, and focuses on students' capacity to make their own vocational decisions. Psychologists and counselors already may be familiar with SCCT from their preparation programs.

Wedded with specific techniques such as using appropriate career inventories and interest assessments, bibliotherapy, and small-group counseling, professionals can use SCCT to explore some of the assets and challenges gifted students face in their career development, including perfectionism, multipotentiality, sensitivity, and early foreclosure. Although research in gifted students' career development is slowly growing, more is needed for helping professionals to have effective interventions from which to choose.

APPENDIX 41.1. EXAMPLES OF REFLECTIVE QUESTIONS WHEN WORKING WITH BIOGRAPHIES OF EMINENT INDIVIDUALS

1. How did the eminent individual discover his or her talents?
2. What stereotypes or negative messages did the eminent individual encounter? How did he or she work with them?
3. What did the eminent individual consider to be important in his or her life?
4. How did his or her choice of jobs or career trajectory demonstrate this?
5. How do his or her choices for jobs, volunteer work, or academic classes reflect what is important to the eminent individual?
6. How does the eminent individual determine what is important to him or her? Can he or she describe that process to a peer?
7. How did the eminent individual cope with challenges and obstacles in his or her work?
8. What role did education play in the eminent individual's choice of careers?
9. How did the eminent individual demonstrate the traits of flexibility? Problem solving? Leadership? Teamwork? Self-discipline? Perseverance? (Greene, 2006)
10. What skills or abilities was the eminent individual lacking that he or she had to gain or learn? How did he or she do this?
11. What was it like for the eminent individual when he or she didn't have all the answers or was uncertain about the future?

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