CHAPTER 5

Career Development and Counseling: A Social Cognitive Framework

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P eople's work possibilities and developmental trajectories are affected by many variables, including their personal attributes (e.g., interests, abilities, values), learning and socialization experiences, and the resources, opportunities, and barriers afforded by their environments. Occupational paths are forged not by any one of these forces, but rather by the complex interactions among them. The process of career development plays out over multiple life periods, encompassing preparation for work (education and training), work entry, adjustment to work, and work transitions and changes. Career theories provide systems for explaining how multiple variables operate together to help determine occupational choice and development over the life course. In particular, we rely on theories to assemble the many parts of career development into a plausible whole; to organize existing research and generate new knowledge about how people live their work lives; and to devise practical methods to help promote optimal career/life outcomes.

Social cognitive career theory (SCCT; Lent & Brown, 2006, 2008, 2013; Lent, Brown, & Hackett, 1994, 2000) is a relatively well-studied approach to understanding educational and occupational behavior. It brings together common elements identified by earlier career theorists—especially Super, Holland, Krumboltz, and Lofquist and Dawis—and seeks to create a unifying framework for explaining how people (a) develop vocational interests, (b) make occupational choices, (c) achieve varying levels of career success and stability, (d) experience satisfaction or well-being in the work environment, and

(e) manage more and less predictable work/life events (e.g., making decisions, balancing multiple roles, negotiating transitions).

This chapter contains three main sections: (a) an overview of SCCT's basic elements and predictions; (b) a brief summary of the theory's research base, including study of diverse populations (e.g., people of color, women, persons with disabilities, gay and lesbian workers); and (c) consideration of developmental and counseling applications for maximizing career options, fostering career choice-making, and promoting work success and satisfaction. More comprehensive presentations of SCCT, its research base, conceptual underpinnings, relations to other career theories, practical implications, and applications to particular populations can be found in other sources (e.g., Betz, 2008; Brown & Lent, 1996; Flores, Navarro, & Ali, 2017; Fouad & Santana, 2017; Hackett & Byars, 1996; Lent & Brown, 2006, 2008; Lent et al., 1994, 2000; Lent & Hackett, 1994; Lent, Morrison, & Ezeofor, in press; Morrow, Gore, & Campbell, 1996; Sheu & Bordon, 2017; Thompson, Dahling, Chin, & Melloy, 2017).

OVERVIEW OF SCCT

This section begins by considering SCCT's connections to other theories of career development and then introduces SCCT's basic elements and models.

Connections and Contrasts with Other Career Theories

Trait–factor (later known as P–E fit) career models, such as Holland's theory (Nauta, Chapter 3, this volume), tend to view people and work environments in trait-oriented terms, emphasizing variables that are relatively global and constant across time and situations. These models assume that much of what drives career behavior is based on personal attributes—like interests, abilities, values, and personality dispositions—that are largely molded by genetic endowment and early learning experiences. They also assume that individuals' particular mix of attributes make them better suited to certain work environments than others. P–E fit models have contributed much to the field's understanding of career behavior, and have helped inform career counseling, by highlighting relatively stable features of persons and environments that, if appropriately matched, are likely to lead to choices that are both satisfying (from the perspective of the person) and satisfactory (from the perspective of the environment).

Developmental career theories (e.g., Hartung, Chapter 4, this volume) emphasize the relatively predictable tasks and challenges that accompany career development, such as learning about oneself, exploring the world of work, developing a vocational identity, narrowing career options down from the larger fund of possibilities, and establishing and maintaining one's

career. Certain developmental theories are also concerned with how the work role relates to other life roles (e.g., parent, leisurite), how contextual factors (e.g., socioeconomic status) affect career trajectories, and, in the case of constructionist–developmental models, how people partly construct, or author, their own career/life stories (Savickas, Chapter 6, this volume).

SCCT shares certain features with the P–E fit and developmental perspectives. For example, like P–E fit theories, SCCT acknowledges the important roles that interests, abilities, and values can play within the career development process. With the developmental theories, SCCT shares a focus on how people negotiate particular tasks and milestones (e.g., career choice). Yet, SCCT is also relatively distinctive and designed to complement these other theories. In contrast to P–E fit approaches, SCCT highlights relatively dynamic and domain-specific aspects of both people (e.g., self-views, future expectations, behavior) and of their environments (e.g., social supports, financial barriers). While the relative stability of traits helps in predicting outcomes such as occupational choice, people and environments do not always remain the same; indeed, they sometimes change dramatically. Witness, for example, the huge changes brought about in the workplace by technological advances, corporate downsizing, and economic globalization—and the consequent demands that such changes have placed on workers to update their skills and to cultivate new interests (or to find a new home for their old ones).

By focusing on cognitions, behavior, and other factors that, theoretically, are relatively malleable and responsive to particular situations and performance domains, SCCT offers an agenda that complements the P–E fit perspective. An SCCT agenda asks, for example, how are people able to change, develop, and regulate their own behavior? How do interests differentiate and intensify, or shift, over time? What factors, other than traits, promote career choice and change? How can career skills be nurtured and work performances improved? How can work lives be made more satisfying?

Relative to developmental theories, SCCT tends to be less concerned with the specifics of ages and stages, yet more concerned with theoretical elements that may promote or hinder career behavior across developmental tasks and periods. For this reason, SCCT may provide a complementary framework from which to address questions that are relevant to particular developmental theorists—such as how work and other life roles become more or less salient for particular individuals, how individuals' career options become constricted or circumscribed over time, and how people are able to affect their own developmental progress.

Finally, SCCT may also be contrasted with the psychology of working theory (PWT; Blustein & Duffy, Chapter 7, this volume). The two share an interest in social and economic constraints on work behavior and a concern

with promoting understanding of persons previously understudied in the career literature. However, they represent distinctive intellectual roots (e.g., social cognitive theory vs. an emancipatory communitarian perspective) and emphasize different predictors and dependent variables. For example, PWT highlights precursors and consequences of "decent work," regardless of career field, whereas SCCT focuses on the specific occupations people enter (choice content) and how they navigate their work environments (adaptive process). Like PWT, SCCT is concerned with the nature of people's work conditions and rewards and with issues of social justice, but it deals with these concerns in different ways. For example, rather than labeling work as decent (or not) on an a priori basis, SCCT aims to understand the socially constructed processes that shape people's career development opportunities and through which uneven playing fields might be leveled.

Basic Cognitive-Person Elements of SCCT

The primary foundation for SCCT lies in Bandura's (1986) general social cognitive theory, which emphasizes the complex ways in which people, their behavior, and environments mutually influence one another. As in Bandura's general theory, SCCT assumes that people have the capacity to exercise some degree of *agency* or self-direction—and that they also contend with many factors (e.g., environmental supports and barriers) that can strengthen, weaken, or even override their personal agency. SCCT highlights the interplay among three cognitive-person variables that partly enable the exercise of agency in career development: self-efficacy beliefs, outcome expectations, and personal goals.

Self-efficacy beliefs refer to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). These beliefs are among the most important determinants of thought and action in Bandura's (1986) theory. Self-efficacy is not a unitary or global trait, like self-esteem (i.e., general feelings of self-worth), with which it is sometimes confused. Rather, self-efficacy is conceived as a dynamic set of self-beliefs that are linked to particular performance domains and activities. An individual might, for instance, hold strong self-efficacy beliefs regarding his or her ability to play piano or basketball, but feel much less competent at social or mechanical tasks.

These beliefs about personal capabilities, which are subject to change based on future experiences and are responsive to environmental conditions (e.g., How supportive is the piano teacher? How tough is the basketball competition?), are acquired and modified via four primary informational sources (or types of learning experience): (a) personal performance accomplishments, (b) vicarious learning, (c) social persuasion, and (d) physiological

and affective states (Bandura, 1997). The impact that these experiential sources have on self-efficacy depends on a variety of factors, such as how the individual attends to, interprets, encodes, and remembers them. Prior performance accomplishments often have the greatest influence on self-efficacy. Compelling success experiences with a given task or performance domain (e.g., math) tend to strengthen self-efficacy beliefs in relation to that task or domain; convincing or repeated failures tend to weaken these beliefs.

Outcome expectations refer to beliefs about the consequences or outcomes of performing particular behaviors. Whereas self-efficacy beliefs are concerned with one's capabilities (e.g., "Can I do this?"), outcome expectations involve imagined consequences of particular courses of action (e.g., "If I do this, what will happen?"). Bandura (1986) described three types of outcome expectations, including the anticipation of physical, social, and self-evaluative outcomes. He maintained that self-efficacy and outcome expectations both help to determine a number of important aspects of human behavior, such as the activities that people choose to pursue and the ones they avoid. Self-efficacy may be particularly influential in situations that call for complex skills or potentially costly or difficult courses of action (e.g., whether to pursue a medical career). In such situations, people may hold positive outcome expectations (e.g., "a medical career would offer lots of prestige and chances to help others"), but avoid a certain choice option if they doubt they have the capabilities required to succeed at it (e.g., "I am not good at science"). However, one can also envision scenarios where self-efficacy is high but outcome expectations are low (e.g., a young woman who is confident in her math-related capabilities but who refrains from taking elective math courses because she anticipates negative social reactions).

People develop outcome expectations regarding different academic and career paths from a variety of direct and vicarious learning experiences, such as perceptions of the outcomes they have personally received in relevant past endeavors and the secondhand information they acquire about different career fields (e.g., by observing family and community members or seeing how different forms of work are portrayed in various media). Self-efficacy can also affect outcome expectations, especially in situations where outcomes are closely tied to the quality of one's performance (e.g., strong performance on a classroom test typically results in a high grade and other favorable outcomes). This is because people usually expect to receive positive outcomes (and to avoid negative ones) when performing tasks at which they feel competent.

Personal goals may be defined as one's intention to engage in a particular activity or to produce a particular outcome (Bandura, 1986). Goals address the questions, "How much and how well do I want to do this?" SCCT distinguishes between *choice-content goals* (or, more simply, choice goals—the type

of activity or career one wishes to pursue) and *performance goals* (the level or quality of performance one plans to achieve within a given task or domain). Goals offer an important means by which people exercise agency in their educational and occupational pursuits. By setting personal goals, people help to organize, direct, and sustain their own behavior, even over long intervals without external payoffs. The amount of progress people perceive they are making toward their goals can have important affective consequences (e.g., feelings of satisfaction/dissatisfaction), which may help to reshape future choices.

Social cognitive theory maintains that people's choice and performance goals are affected by their self-efficacy and outcome expectations. For example, strong self-efficacy and positive outcome expectations relative to musical performance are likely to nurture music-relevant goals, such as the intention to devote time to practice, to seek performing opportunities, and, perhaps (depending on the nature and strength of one's self-efficacy and outcome expectations in other domains), to pursue a career in music. Progress (or lack of progress) in attaining one's goals, in turn, has a reciprocal influence on self-efficacy and outcome expectations. Successful goal pursuit may further strengthen self-efficacy and outcome expectations within a positive cycle.

SCCT's Models of Interest, Choice, Performance, Satisfaction, and Self-Management

SCCT consists of five conceptually distinct yet overlapping models focusing on (a) the development of interests, (b) the making of choices, (c) the influences on and results of performance, (d) the experience of satisfaction, or well-being, in educational and occupational spheres, and (e) processes involved in career self-management. In each model, the basic cognitive-person elements—self-efficacy, outcome expectations, and goals—are seen as operating in concert with other important aspects of persons (e.g., gender, race/ethnicity), their environments, and learning experiences to help shape the contours of academic and career development. SCCT's original three models (interest, choice, and performance) were introduced together 25 years ago and were joined more recently by the educational/work satisfaction and career self-management (CSM) models. Because the original models form the basic foundation for the two newer models and have also had more time to attract empirical and practical attention, they will be described in a bit more depth.

Interest model.   Home, educational, and community environments expose children and adolescents to an array of activities—like crafts, sports, math,

socializing, and computing—that form the substrate for later career or leisure options. Young people are selectively encouraged by parents, teachers, peers, and important others for pursuing, and for trying to master, certain activities from among those that are available to them. By practicing different activities—and by receiving ongoing feedback, both positive and negative, about the quality of their performances—children and adolescents gradually refine their skills, develop personal performance standards, and form self-efficacy and outcome expectations regarding different tasks and domains of behavior. For example, receiving consistent rebuke about one's athletic skills or praise about one's math skills is likely to be reflected in the self-efficacy and outcome expectations that one develops in relation to these two performance domains.

According to SCCT's interest model, illustrated in Figure 5.1, self-efficacy and outcome expectations regarding particular activities help to mold career interests (each person's particular pattern of likes and dislikes in relation to career-relevant tasks). Interest in an activity is likely to blossom and endure when people (a) view themselves as competent (self-efficacious) at the activity and (b) anticipate that performing it will produce valued outcomes (positive outcome expectations). At the same time, people are likely to develop disinterest or even aversion toward activities (such as athletics, in the example above) at which they doubt their efficacy and expect to receive negative outcomes.

As interests emerge, they—along with self-efficacy and outcome expectations—encourage intentions, or goals, for sustaining or increasing one's involvement in particular activities. Goals, in turn, increase the likelihood of activity practice, and subsequent practice efforts give rise to a particular pattern of performance attainments which, for better or worse,
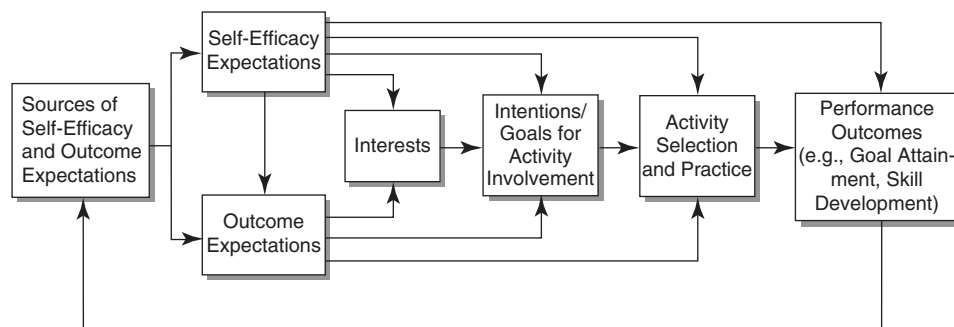
FIGURE 5.1 Model of how basic career interests develop over time.
Source: From Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance [Monograph]. Journal of Vocational Behavior, 45, 79–122. © 1993 Elsevier. Reprinted with permission from Elsevier.

help to revise self-efficacy and outcome expectations within an ongoing feedback loop. This basic process is seen as repeating itself continuously prior to work entry. As recognized by P–E fit theories, career-related interests do tend to stabilize over time and, for many people, are quite stable by late adolescence or early adulthood (see Hansen, Chapter 15, this volume). SCCT assumes that interest stability is largely a function of crystallizing self-efficacy beliefs and outcome expectations. On the other hand, SCCT maintains that adult interests are not set in stone. Whether interests change or solidify is determined by factors such as whether initially preferred activities become restricted and whether people are exposed (or expose themselves) to compelling learning experiences (e.g., by engaging in volunteer, leadership, or mentoring roles or interacting with new technologies) that enable them to rethink or expand their sense of their capabilities and the outcomes offered by different work activities. Thus, SCCT assumes that, when they occur, shifts in interests are largely due to changing self-efficacy and outcome beliefs.

SCCT also takes into account other aspects of people and their environments that affect the acquisition and modification of interests. For example, abilities and values—staples of P–E fit theories—are important in SCCT, too, but their effects on interest are seen as largely funneled through self-efficacy and outcome expectations. That is, rather than determining interests directly, objective ability (as reflected by test scores, trophies, awards, and the like) serves to raise or lower self-efficacy beliefs which, in turn, influence interests. In other words, self-efficacy functions as an intervening link between ability and interests. Career-related values are contained within SCCT's concept of outcome expectations. Values are traditionally measured as people's preferences for particular work conditions or reinforcers (e.g., status, money, autonomy). Outcome expectations are measured by examining people's beliefs about the extent to which their values would be fulfilled by pursuing particular activities or occupations (e.g., how likely is a career in nursing to provide the work conditions or reinforcers I most value?).

It should be emphasized that self-efficacy and outcome expectations do not arise in a social vacuum; neither do they operate alone in shaping interests or other vocational outcomes. Rather, they are forged and function in the context of other aspects of persons and their environments, such as gender, race/ethnicity, genetic endowment, physical health or disability status, and socioeconomic conditions, all of which can play important roles within the career development process. Figure 5.2 offers an overview of how, from the perspective of SCCT, selected person, environment, and learning or experiential variables contribute to interests and other career outcomes. Given space limitations, we will focus on the roles that gender and race/ethnicity may play relative to the development of self-efficacy and outcome expectations.
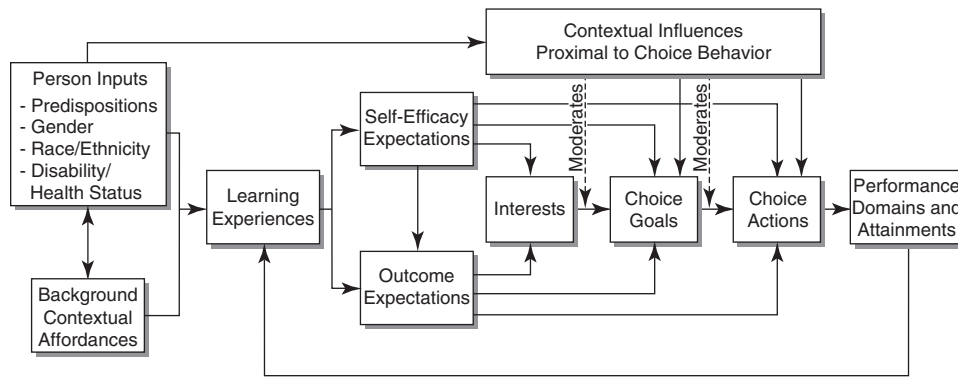
FIGURE 5.2 Model of person, contextual, and experiential factors affecting career-related choice behavior.
Source: From Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance [Monograph]. Journal of Vocational Behavior, 45, 79–122. © 1993 Elsevier. Reprinted with permission from Elsevier.

SCCT is concerned more with the psychological and social effects of gender and ethnicity than with the view of sex and race as categorical physical or biological factors. Gender and ethnicity are seen as linked to career development in several key ways, especially through the reactions they evoke from the social/cultural environment and from their relation to the opportunity structure to which individuals are exposed (e.g., one's access to career-relevant models and performance experiences). For example, gender and ethnicity can influence the context in which children acquire self-efficacy and outcome expectations. Gender role socialization processes tend to bias the access that boys and girls receive to experiences necessary for developing strong efficacy beliefs and positive expectations regarding male-typed (e.g., science) and female-typed (e.g., helping) activities. Such processes may help to explain why boys and girls are more likely to develop skills (and beneficial self-efficacy and outcome expectations) and, in turn, interests at tasks that are culturally defined as gender-appropriate (Hackett & Betz, 1981). In time, these interests, and the choices they nurture, help to perpetuate patterns of gender segregation in certain fields (see Schultheiss, Chapter 9, this volume).

To a large extent, then, variables like gender and ethnicity may affect interest development and other career outcomes through socially constructed processes that may appear to operate in the background but that nevertheless can powerfully influence the differential learning experiences that give rise to self-efficacy and outcome expectations—leading, at times, to skewed conclusions about what interests or career options are "right" for certain types

of persons. At later stages in the career choice process, gender, ethnicity, culture, socioeconomic status, and disability conditions may also be linked to the opportunity structure within which people set and implement their career choice goals, as will be discussed next.

Choice model. In keeping with developmental theories, choosing a career path is not viewed as a single, static event but, rather, is part of a larger set of dynamic processes. As SCCT's interest model illustrates, career choice is preceded by the development of self-efficacy, outcome expectations, interests, and skills in different performance domains. Over time, these processes make certain choice paths attractive and viable for a given individual, and render other options less appealing or likely to be pursued. Moreover, once initial career choices are made, they are subject to future revision because individuals and their environments can change. Events and circumstances may well transpire that could not have been foreseen during initial choice-making or career entry. New paths (or branches from old paths) may open up; barriers (e.g., glass ceilings) or setbacks (e.g., job loss) may arise; value and interest priorities may shift over the course of one's work life. Thus, it seems prudent to think of career selection as an unfolding process with multiple influences and choice points.

For conceptual simplicity, SCCT divides initial choice-making into three components: (a) the expression of a primary choice (or goal) to enter a particular field; (b) taking actions designed to implement one's goal (e.g., enrolling in a particular training program or academic major); and (c) subsequent performance experiences (e.g., a pattern of successes or failures) that form a feedback loop, affecting the shape of one's future choice options. This conceptual division identifies logical intervention targets for preparing people to make career choices as well as for helping them to deal with problems in choice-making. Throughout the choice process, it is well to keep in mind that people do not choose careers unilaterally; environments also choose people. Thus, career choice (and choice stability) is a two-way street that is conditioned, in part, by the environment's receptivity to the individual and judgments about his or her ability to meet training and occupational requirements, both initially and over time. In other words, environmental agents play a "potent role in helping to determine who gets to do what and where, for how long, and with what sorts of rewards" (Lent & Sheu, 2010, p. 692).

Similar to Holland's theory, SCCT assumes that, just as "birds of a feather flock together," people's vocational interests tend to orient them toward certain choice options that, under supportive conditions, enable them to perform preferred activities and to interact with others who have similar work personalities. For example, a person whose primary interests lie in the social domain is likely to gravitate toward socially oriented occupations, allowing

him or her to work with others in a helping or teaching capacity. However, SCCT explicitly recognizes that environments are not always supportive of individuals' preferences and people are not always free to pursue their primary interests. Choice may be constrained, for example, by family wishes, economic realities (e.g., the need to bring in immediate income, lack of funding for training), or the quality of one's prior education. In such situations, as will be discussed shortly, personal interests may play little, if any, role in choice. SCCT, therefore, takes into account variables that, in addition to (or apart from) interests, can influence the choice process.

SCCT's choice model, shown in Figure 5.2, acknowledges the processes that both precede and follow occupational choice. As described earlier, self-efficacy and outcome beliefs are seen as jointly influencing career-related interests, which tend to foster career choice *goals* (i.e., intentions to pursue a particular career path) that are congruent with one's interests. Goals, then, motivate choice *actions* or efforts to implement one's goals (e.g., seeking relevant training, applying for certain jobs). These actions are, in turn, followed by a particular pattern of performance successes and failures. For instance, after gaining entry to an engineering college, a student may have difficulty completing the required math and physics courses. He or she may also discover that the work conditions and rewards available in engineering suit him or her less well than had been initially anticipated. These learning experiences may prompt the student to revise his or her self-efficacy beliefs and outcome expectations, leading to a shift in interests and goals (e.g., selection of a new major or career path).

Let us also take a closer look at the ways in which people's environments affect the choice process. Each person derives certain "affordances" from the environment—for instance, social and material resources or deficits—that help to shape his or her career development (Vondracek, Lerner, & Schulenberg, 1986). In SCCT, these affordances are divided into two general types, based on when they occur within the choice process. The first type includes more *distal, background influences* (e.g., cultural and gender role socialization, available career role models, skill development opportunities) that help to shape self-efficacy, outcome expectations, and, in turn, interests. We had earlier considered these more distal effects of contextual variables in SCCT's interest model. The second type involves *proximal environmental influences* that come into play during the active phases of choice-making. Figure 5.2 includes consideration of these distal (lower left) and proximal (upper right) contextual affordances.

SCCT's choice model highlights several means by which proximal contextual factors may function during the processes of setting and implementing career choice goals. First, SCCT posits that certain conditions may *directly* affect people's choice goals or actions (these direct influences are

represented by the solid arrows from contextual variables to goals and actions in Figure 5.2). In certain cultures, for example, one may defer one's career decisions to significant others in the family, even where the others' preferred career path is not all that interesting to the individual. People may also encounter environmental supports or barriers in relation to the options that they, themselves, most prefer. Examples include emotional or financial support for pursuing a particular option, job availability in one's preferred field, and sociostructural barriers, such as discrimination. Second, supports and barriers may affect choices *indirectly* by boosting or deflating self-efficacy and outcome expectations (e.g., see Sheu et al., 2010) (this indirect role is not shown in the figure).

Third, contextual variables may affect people's ability or willingness to translate their interests into goals and their goals into actions. According to SCCT, career interests are more likely to blossom into goals (and goals are more likely to be implemented) when people experience strong environmental supports and weak barriers in relation to their preferred career paths. By contrast, non-supportive or hostile conditions can impede the process of transforming interests into goals and goals into actions. In statistical terms, this implies that contextual supports and barriers can *moderate* the goal transformation process (shown by the dotted paths in Figure 5.2). That is, the relations of interests to goals, and of goals to actions, are expected to be stronger in the presence of favorable versus restrictive environmental conditions.

SCCT explicitly acknowledges that, for a variety of reasons (often economic in nature), many people do not receive support for pursuing their vocational interests but instead are presented with "choice" from a fairly narrow range of occupational options. Moreover, as Bandura once observed (personal communication, March 1, 1993), people are not necessarily drawn to work on assembly lines or in coal mines by a consuming interest in the work itself. Their interests may, in essence, be beside the point. Job availability in the context of financial need may be an overriding consideration. In SCCT, self-efficacy and outcome expectations are shown as producing separate paths to goals and goal actions, above and beyond their effects on interests (see Figure 5.2). Thus, when people perceive the need to pursue work options for reasons other than interests or that sacrifice their interests (e.g., due to economic demands, environmental barriers, or limited opportunities), their decisions may be driven more by contextual factors, self-efficacy, and outcome expectations. For example, a worker might consider things such as what work is available, what does my family want me to do, do I have the skills to do this work, and are the payoffs worth it?

In sum, SCCT posits that educational and occupational choices are often, but not always, linked to people's interests. Economic, cultural, and other conditions sometimes neutralize the role of personal interests in

work selection. In such instances, choices may then be determined by the options experienced as available to the individual, the nature of his or her self-efficacy beliefs and outcome expectations, level of economic need, and messages received from others who have a stake in the decision. Contextual factors (supports and barriers, such as access to affordable transportation or childcare) may also facilitate or hinder the choice implementation process, regardless of whether or not people are pursuing preferred or interest-consistent options.
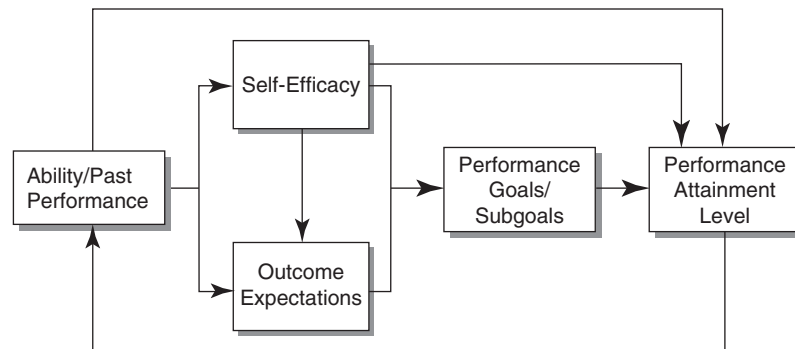
Performance model.   SCCT's model of performance focuses both on the level (or quality) of attainment individuals achieve in educational and work tasks (e.g., measures of success or proficiency) and the degree to which they persist at particular tasks or choice paths, especially when they encounter obstacles. It should be noted that SCCT's choice and performance models overlap in their focus on persistence. This is because persistence can alternatively be viewed in terms of choice stability (the decision to endure at a particular course of action) or performance adequacy. From the perspective of the environment, persistence is often considered a sign of performance success because it is assumed that competent performers will persist (and *be allowed to persist*) longer, resulting in school/college retention and job tenure. However, persistence is an imperfect indicator of performance adequacy because people can shift educational or occupational plans for reasons other than deficient capabilities (e.g., a college student may drop out because of funding problems, a worker may decide voluntarily to pursue attractive options elsewhere or be laid off during corporate downsizing).

As shown in Figure 5.3, SCCT sees educational and vocational performance as involving the interplay among people's ability, self-efficacy, outcome expectations, and performance goals. More specifically, ability—as assessed by indicators of achievement, aptitude, or past performance—affects performance attainments both (a) directly, for instance, via the task knowledge and performance strategies that people develop and (b) indirectly, by serving to inform self-efficacy and outcome expectations. That is, people base their self-efficacy and outcome expectations partly on their perceptions of the skills they currently possess (or can develop) as well as on how well they have performed, and what outcomes they have received, in relevant past performance situations. Self-efficacy and outcome expectations, in turn, influence the level of performance goals that people set for themselves (e.g., aiming for an A in algebra or a certain sales figure at work). Stronger self-efficacy and positive outcome expectations promote more ambitious goals, which help to mobilize and sustain performance efforts.

Consistent with general social cognitive theory (Bandura, 1986), SCCT posits a feedback loop between performance attainments and subsequent

FIGURE 5.3 Model of task performance.
Source: From Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance [Monograph]. Journal of Vocational Behavior, 45, 79–122. © 1993 Elsevier. Reprinted with permission from Elsevier.

behavior. That is, markers of success or failure become part of one's performance history or learning experiences, with the capacity to confirm or revise one's self-efficacy and outcome expectations within a dynamic cycle. Although the performance model focuses on person variables, it should be recalled that people develop their talents, self-efficacy, outcome expectations, and goals within a larger sociocultural, educational, and economic context. As shown in Figure 5.2, the learning experiences to which people are exposed, and the outcomes they derive from their performances, are intimately related to features of their environments, such as educational quality, the nature of available role models, gender role socialization, peer and parental supports, and community and family norms.

It should be emphasized that, in SCCT's performance model, self-efficacy is seen as complementing—not substituting for—objectively assessed ability. Complex performances rely on requisite abilities yet are also aided by an optimistic sense of efficacy, which helps people to organize, orchestrate, and apply their talents. What people can accomplish depends partly on how they interpret and apply their skills, which helps to explain why individuals with similar objective abilities can achieve performances that vary greatly in quality (Bandura, 1986). Those who doubt their capabilities may, for instance, be less likely to use their skills effectively or to remain focused and perseverant when problems arise.

While it may be tempting to conclude that higher self-efficacy is always a good thing, the effects of self-efficacy may, in fact, depend on how high or low it is in relation to current levels of objective ability. People can encounter problems when they greatly misjudge their capabilities in either the positive or negative direction. Self-efficacy that greatly overestimates current capabilities (i.e., overconfidence) may encourage people to attempt tasks for which they are ill-prepared, risking failure and discouragement. By the same

token, self-efficacy beliefs that seriously underestimate ability (underconfidence) may interfere with performance by prompting less effort and perseverance, lower goals, greater performance anxiety, and avoidance of realistic challenges (Bandura, 1986). Both types of perceptual bias may hamper skill development. By contrast, self-efficacy that slightly overshoots but is reasonably congruent with current abilities (slight overconfidence) promotes optimal skill use and motivation for further skill development.

Satisfaction model. SCCT is also concerned with the factors that influence people's experience of satisfaction, or well-being, in academic and work settings (Lent & Brown, 2006, 2008). As shown in Figure 5.4, satisfaction (i.e., the degree to which one likes or is happy with one's school or work environment) is expected to be influenced by several sets of variables that overlap with the previous SCCT models. In particular, the model posits that people are likely to be happy at school or work to the extent that they are involved in activities they value, see themselves as making progress at personally relevant goals, possess strong self-efficacy at required tasks and at achieving personal goals, and have access to resources in the environment for promoting their self-efficacy and aiding their goal pursuit.

In addition, satisfaction is seen as affected by aspects of one's personality and work conditions. Certain personality traits (e.g., positive and negative affect) have been found to be reliably linked to job satisfaction. Work conditions include a variety of environmental features (e.g., favorable
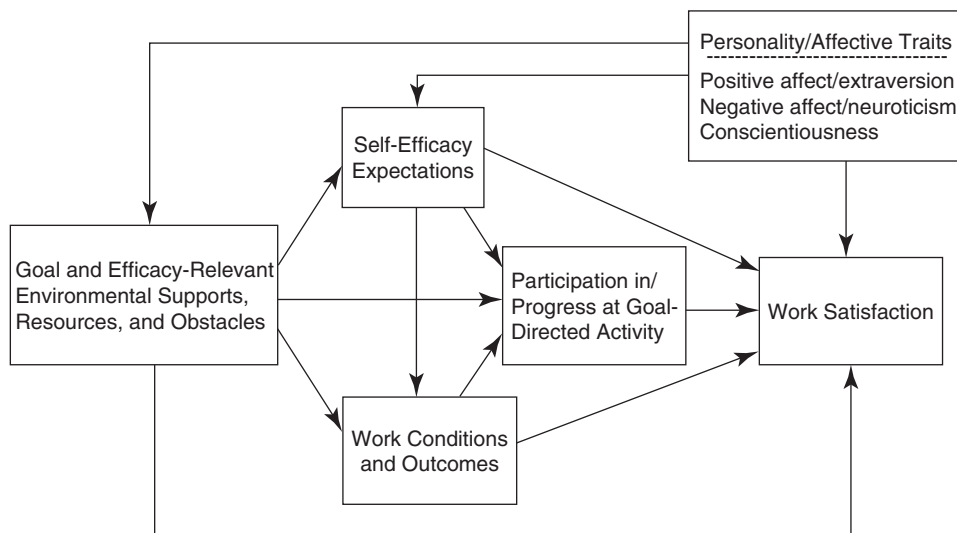
FIGURE 5.4   A social cognitive model of work satisfaction.

Source: From Lent, R.W., & Brown, S.D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. Journal of Vocational Behavior, 69, 236–247. © 2006 Elsevier. Reprinted with permission from Elsevier.

work characteristics, needs–supplies fit, perceived organizational support) that have also been associated with satisfaction. In addition to their direct relations to satisfaction, the model acknowledges several indirect paths by which personality and environmental factors may affect work satisfaction. For example, certain personality factors may affect perceptions of self-efficacy and environmental support that, in turn, influence satisfaction. Although these indirect paths add complexity to the model, they are necessary to capture the means by which person and situation factors operate together to affect satisfaction. From a counseling perspective, the model emphasizes potentially malleable features of the individual (e.g., self-efficacy, outcome expectations, goal selection and progress) and environment (e.g., supportive supervision, mentoring) that can be harnessed to design satisfaction-promoting interventions.

Career self-management model. The CSM model (Lent & Brown, 2013) relies on many of the same social cognitive elements as the other SCCT models. It differs primarily in its focus on process rather than content aspects of career development. For example, whereas the interest and choice models aim to help explain the types of interests people develop and the fields they would prefer to enter (e.g., carpentry, teaching), the CSM model was developed to predict *how* people make decisions and negotiate planned and unplanned events and challenges in their academic and work lives (e.g., job finding, job loss), regardless of the occupations they enter. It focuses on behavioral, cognitive, and affective aspects of the work adjustment (or adaptation) process and is designed to complement the other SCCT models.

The CSM model, which is similar in general form to the SCCT choice model (Figure 5.2), posits that the adaptive behaviors people engage in to help achieve desirable career outcomes (and avoid negative ones) are partly guided by their self-efficacy beliefs, outcome expectations, and goals (interests are not included in the CSM model because people often engage in adaptive work behaviors for reasons apart from their inherent interest in the behaviors themselves). Examples of adaptive behaviors include exploring possible career paths, making career decisions, searching for jobs, updating skills, networking, managing multiple roles, and planning for retirement. To take job finding as an example, people are assumed to engage more actively in the search process when they have specific job search goals, favorable efficacy beliefs regarding their ability to manage the search process, and optimistic expectations about the outcomes of the search. Actions, such as attending job fairs, are intended to lead to favorable outcomes (e.g., job interviews and offers), but are only imperfectly linked to them because, for example, outcomes can depend on a number of factors beyond the

individual's control, such as the number of job openings available, the qualifications of other applicants, or discriminatory hiring practices.

As in the earlier SCCT models, person (e.g., gender, race/ethnicity, personality traits) and contextual variables (e.g., supports, barriers, socioeconomic conditions) are also seen as relevant to engagement in adaptive career behaviors and their possible outcomes, though the specific variables and their pathways depend on the behaviors and outcomes under consideration. For example, the job search process may be enabled by the emotional and financial support of family members and by one's trait tendencies toward conscientiousness and extraversion; conversely, it may be hindered by discouragement from significant others and by personal tendencies toward negative affectivity and disorganization.

RESEARCH ON SCCT

SCCT's models and many of their specific predictions have attracted a good deal of attention from researchers (e.g., see Brown & Lent, 2019, and Lent & Brown, 2019, for recent reviews). A full-scale review of research relevant to SCCT is beyond the scope of this chapter, though some of the major research trends and findings can be summarized here. The theory's overall empirical status will first be considered, followed by an overview of selected applications of SCCT to the career behavior of diverse populations.

General Trends and Findings

A substantial body of findings suggests that social cognitive variables aid understanding of educational and career behavior prior to, during, and after work entry. Among the social cognitive variables, self-efficacy has received the most attention, with traditional qualitative research reviews concluding that (a) domain-specific measures of self-efficacy are predictive of career-related interests, choice, achievement, persistence, indecision, and exploratory behavior; (b) intervention, experimental, and path analytic studies support certain hypothesized causal relations between measures of self-efficacy, performance, and interests; and (c) gender differences in self-efficacy help to explain male–female differences in occupational consideration (e.g., Betz, 2008; Hackett & Lent, 1992; Sheu & Lent, 2015).

Meta-analytic reviews provide a helpful, quantitative way to integrate findings from a large number of independent studies, allowing conclusions about the strength of relationships across all studies that have addressed particular hypotheses. Several meta-analyses of research, primarily involving late adolescents and young adults, have directly tested a number of

SCCT's hypotheses. An early meta-analysis of the interest hypotheses, for instance, indicated that self-efficacy and outcome expectations were each good predictors of occupational interests and that, as predicted, the relation of ability to interests was mediated by self-efficacy (Lent et al., 1994) (see Figures 5.1 and 5.2). That is, abilities may be most likely to spark interests when they translate into positive beliefs about one's performance capabilities. Subsequent meta-analyses including many more studies and larger samples have also found support for the predictions that self-efficacy and outcome expectations account for large amounts of the variation in vocational interests, both generally and in specific Holland themes (Lent et al., 2018; Rottinghaus, Larson, & Borgen, 2003; Sheu et al., 2010). Such findings suggest that people tend to develop interests in activity domains in which they feel efficacious and expect to receive beneficial outcomes.

Meta-analysis of SCCT's choice hypotheses has shown that career-related choices are strongly predicted by interests and that self-efficacy and outcome expectations also relate to career choice both directly and indirectly, through their linkage to interests (see Figure 5.2) (Lent et al., 1994). Extending earlier findings, Sheu et al. (2010) found that interests, self-efficacy, and outcome expectations together strongly predicted choice goals across each of the six Holland themes. Lent et al. (2018) reported similar findings, focusing specifically on science, technology, engineering, and mathematics (STEM) fields. Meta-analytic findings also suggest that environmental supports and barriers tend to be linked to choice goals more indirectly (through their relations to self-efficacy and outcome expectations) than directly (Lent et al., 2018; Sheu et al., 2010). That is, supports may promote, and barriers may hinder, development of favorable efficacy and outcome beliefs which, in turn, yield direct paths to interests and choices. Lent et al. (2018) also found evidence that the model helped explain choice actions.

Meta-analyses of SCCT's performance model predictions have focused on the relation of self-efficacy to various indicators of performance. Findings have shown that self-efficacy is a useful predictor of both academic (Multon, Brown, & Lent, 1991) and occupational (Sadri & Robertson, 1993; Stajkovic & Luthans, 1998) performance, and that certain factors affect the strength of the self-efficacy–performance relationship. For instance, Multon et al. (1991) found that self-efficacy was more strongly related to performance in older versus younger students and in low-achieving versus adequately achieving students. Recent meta-analyses have confirmed the utility of self-efficacy in predicting work performance (Brown, Lent, Telander, & Tramayne, 2011) and academic performance and persistence (Brown et al., 2008), although performance goals explained unique variance beyond self-efficacy only in predicting academic persistence. Consistent with hypotheses (see Figure 5.3), ability

and past performance success have been linked to future performance outcomes both directly and indirectly, through intervening self-efficacy beliefs (Brown et al., 2008, 2011; Lent et al., 1994).

Sheu et al. (in press) reported a meta-analytic test of the SCCT satisfaction model, finding that the data generally fit the model well both in academic and work settings. The CSM model has begun to attract a number of research applications, for example, in relation to career decision-making, sexual identity management, retirement planning, managing multiple roles, and job searching. The size of this literature is generally yet too modest to warrant extensive meta-analytic synthesis, though Kim, Kim, and Lee (2019) did conduct a meta-analysis of part of the CSM model in the job search context, finding largely theory-consistent relations between job search self-efficacy and its hypothesized correlates (e.g., outcome expectations), antecedents (supports and personality), and consequences (job search goals and outcomes).

Finally, two meta-analyses have focused on the sources of information, or learning experiences (see Figure 5.2), that are assumed to give rise to outcome expectations and/or self-efficacy beliefs (Byars-Winston, Diestelmann, Savoy, & Hoyt, 2017; Sheu et al., 2018). Both suggest that, as a set, the four primary sources (performance accomplishments, vicarious learning, social persuasion, physiological and affective states) usefully predict the social cognitive variables, though they yielded somewhat different findings regarding the specific predictors. Because these sources are embedded in all of the SCCT models and suggest ways to modify or enhance self-efficacy and outcome expectations, such findings offer valuable implications for the design of interventions to promote various career outcomes.

Collectively, the meta-analyses are consistent with theoretical assumptions that (a) self-efficacy and outcome expectations are good predictors of interests; (b) one's ability or performance accomplishments are likely to lead to interests in a particular domain to the extent that they foster a growing sense of self-efficacy in that domain; (c) self-efficacy and outcome expectations predict career-related choices both directly and indirectly through their linkage to interests; (d) performance success is enabled both by abilities and self-efficacy, which can aid people to organize their skills and persist despite setbacks; (e) satisfaction in school and work settings is linked to social cognitive predictors; and (f) self-efficacy beliefs and outcome expectations are reliably related to some, if not all, of their theorized experiential sources.

It should be noted that the meta-analyses have been mainly based on the findings of cross-sectional studies and that the strength of certain relationships has been found to vary as a function of moderating conditions such as task complexity, age, and context (e.g., educational vs. work setting). The findings of longitudinal and experimental studies need to be considered as well in order to provide stronger grounds for inferring causal relations

among variables and for designing practical interventions (e.g., see Lent & Brown, 2019; Sheu & Lent, 2015). Finally, there is the key question of how well SCCT's hypotheses generalize across diverse groups and cultures. Several of the meta-analyses have found that particular SCCT models do tend to fit the data well across dimensions such as gender, race/ethnicity, and nationality, though the strength of certain variable relationships may vary somewhat by group (e.g., Lent et al., 2018; Sheu et al., 2018, in press). In the next section, we consider the application of SCCT to diverse groups of students and workers, focusing on selected lines of research.

APPLICATIONS TO DIVERSE POPULATIONS

SCCT was designed to aid understanding of the career development of a diverse array of students and workers, taking into account factors such as gender, race/ethnicity, socioeconomic status, culture, age, and disability status. Hackett and Betz (1981) were the first scholars to extend social cognitive theory to career behavior, focusing on how self-efficacy might illuminate women's career development. They noted that gender role socialization processes tend to provide girls and young women with biased access to the sources of efficacy information (e.g., gender-traditional role models, differential encouragement to pursue gender-typed activities). Such experiences nurture self-efficacy for traditionally female activities but may limit self-efficacy in non-traditional career domains. Consistent with their thesis, Betz and Hackett (1981) found that college women reported stronger self-efficacy for performing occupations that are traditionally dominated by women than by men, and that these beliefs were linked to their interests in and consideration of traditional and non-traditional choice options.

Much subsequent research has examined social cognitive variables in relation to gender. For example, Williams and Subich (2006) found that, while occupational self-efficacy beliefs and outcome expectations tended to be associated with the four primary sources of efficacy across Holland themes and gender, women and men reported having received differential exposure to these efficacy sources in particular gender-typed domains (e.g., women reported more social-type and men more investigative-type learning experiences). Such findings suggest that gender differences in occupational membership may be partly attributable to gender-based learning/socialization experiences that give rise to self-efficacy and outcome expectations and, ultimately, interests and choices. Although a number of studies have reported gender differences in self-efficacy regarding gender-typed tasks and fields (e.g., mathematics) in general samples of students, such differences are less often observed in samples in which women and men are likely to have profited from comparable

efficacy-building experiences (e.g., engineering majors, Lent et al., 2005). These sorts of findings suggest that women's and men's career pursuits can be constricted or expanded by environmentally guided (and self-sought) learning experiences—and by the types of self-efficacy beliefs and outcome expectations that such experiences enable.

Bandura (1997) has observed that "cultural constraints, inequitable incentive systems, and truncated opportunity structures are … influential in shaping women's career development" (pp. 436). Various writers have observed that men's career development can also be limited by sociostructural factors (e.g., Schultheiss, Chapter 9, this volume). Social cognitive theory implies several developmental routes for redressing or preventing socially imposed learning limitations. Such routes include, for example, educating parents and teachers about the implications of gender-typed efficacy development and about ways to foster self-efficacy and support systems, thereby enabling children to acquire (and profit from) performance experiences in as wide a range of activity domains as possible. Indeed, encouragement to engage in non-gender-stereotypic activities may need to be provided relatively early in children's lives in order to preserve the maximum number of options for later educational and career consideration.

Similar social cognitive dynamics have been discussed in relation to the career development of persons of color. Hackett and Byars (1996) noted, for example, how culture-based exposure to sources of efficacy information (e.g., social encouragement to pursue certain options, experience with racism, role modeling) may differentially affect African American women's career self-efficacy beliefs, outcome expectations, goals, and subsequent career progress. Hackett and Byars suggested theory-based methods, such as developmental interventions, social advocacy, and collective action, to promote the career growth of African American women. A number of other writers have considered SCCT relative to race/ethnicity (Fouad & Kantamneni, Chapter 10, this volume); sexual minority status (Lyons, Prince, & Brenner, Chapter 12); disability status (Fabian & Morris, Chapter 13; Lent et al., in press); social class (Flores et al., 2017; Juntunen, Ali, & Pietrantonio, Chapter 11); employment status (Thompson et al., 2017); and nationality (Sheu & Bordon, 2017).

In sum, research provides support for many of SCCT's theoretical assumptions about how cognitive-person variables relate to career interests, choice, performance, satisfaction, and career self-management. The applications described in this section also convey SCCT's potential utility in understanding and facilitating the career development of persons across a number of diversity dimensions. Despite the promise of these applications, there is need for additional research on how social cognitive variables operate together with culture, ethnicity, socioeconomic status, sexual orientation,

and disability status to shape the career development of students and workers across the life course. While additional research is also needed on the efficacy of SCCT-based interventions, currently available findings offer valuable implications for career education and counseling practice. We consider such implications in the next section.

APPLYING SCCT TO PRACTICE

SCCT suggests a variety of ideas for promoting development of academic and career interests and competencies, for preventing or forestalling career-related difficulties, and for remediating existing problems in choosing, finding, or adjusting to work. Suggestions for developmental and preventive applications can be derived from SCCT's basic models. In remedial applications, the theory may be used as an organizing framework for adapting standard counseling methods and for developing novel techniques. In this section, we consider ways in which SCCT may be used to address common developmental and remedial concerns.

PROMOTING ASPIRATIONS AND INTERESTS IN YOUNG PERSONS

Several researchers have used SCCT as a basis for conceptualizing (Prideaux, Patton, & Creed, 2002) or evaluating (McWhirter, Rasheed, & Crothers, 2000) career education programs. Given the typical narrowing of career options over time, school-based applications of SCCT may have particular import in preserving as wide a range of occupational alternatives as possible for later consideration. From the perspective of the theory, several key processes occur during childhood and adolescence—within academic, family, peer, and other settings—that set the stage for later choice-making. These processes include acquisition of self-efficacy and outcome expectations related to diverse activities, development of career-relevant interests, and formation of career aspirations (i.e., provisional occupational goals or daydreams). They represent prominent developmental tasks of the elementary and middle school years, and are continually revisited and refined in high school and beyond (Lent, Hackett, & Brown, 1999).

Young children typically have a very limited grasp of their capabilities, not to mention career activities and paths. Given their limited experience and exposure to career role models, their career-related interests and aspirations are likely to be somewhat stereotypical, narrow, and fluid. Over the course of childhood and adolescence, people typically receive increasing experience with varied performance tasks as well as direct and vicarious exposure to a widening range of career possibilities. These experiences lead to differentiated beliefs regarding one's capabilities in diverse activity domains and an

expanded sense of the working conditions and reinforcers afforded by different career paths. Emergent self-efficacy and outcome expectations, in turn, nurture career-relevant interests and goals that tend to become more defined and crystallized over time, yet are still relatively modifiable based on additional learning about the self (e.g., personal capabilities, values) and careers (e.g., skill requirements, available reinforcers). In this way, career aspirations tend to become increasingly responsive to personal interests, capabilities, values, and environmental conditions (e.g., family and cultural expectations, economic realities).

This analysis suggests that self-efficacy and outcome expectations—and the experiences on which they are based—are key to the cultivation of students' academic and career interests and to the range and types of occupational options they are willing to consider. At the same time, students' career aspirations can become constricted either because they acquire inaccurate self-efficacy or outcome expectations or because their environments provide limited or biased exposure to particular efficacy-building experiences (e.g., few opportunities to succeed at scientific pursuits, an absence of gender-similar role models in math). Developmental interventions designed to promote favorable self-efficacy and outcome expectations are likely to be most useful during the formative years, before interests and aspirations become more stable and certain options become foreclosed.

The four sources of efficacy information can be used as an organizing structure for psychoeducational interventions. Personal performance accomplishments are a particularly valuable intervention target, given their potent effects on self-efficacy. Incrementally graded success experiences can foster a sense of efficacy at particular tasks, yet it is also important to attend to how students interpret the quality of their performances. For example, objective successes may not impact self-efficacy if students attribute their good grades to luck, effort, or task ease. This is a common occurrence in the case of girls' achievements in math, science, and other nontraditional activities (Hackett, 1995). Efforts to modify students' self-efficacy may, therefore, profit from inclusion of cognitive restructuring procedures that encourage students to entertain self-enhancing performance attributions (e.g., crediting one's success to developing personal capabilities, viewing ability as an acquirable attribute rather than a fixed, inborn entity).

Useful intervention elements can also be fashioned from the other three sources of efficacy information. For example, modeling can be used to assist students to explore academic and career domains that they may not have previously encountered or been encouraged to consider. Students are most likely to identify with role models whom they perceive as being similar to themselves in terms of gender, ethnicity, and other demographic features. Social support and persuasion can be used to encourage students

to attempt new tasks, to persist despite initial setbacks, and to interpret their performances favorably, for example, by focusing on skill growth versus ultimate task success. Physiological and affective states may also require attention where, for example, task-related anxiety appears to be diminishing self-efficacy and disrupting performance. Relaxation exercises and other cognitive-behavioral strategies can be used to reduce debilitative anxiety.

Content-specific efficacy beliefs (e.g., in math and other school subjects) need not be the only focus of efficacy-building efforts. It also seems desirable to encourage self-efficacy and skills at career process behaviors such as communication, teamwork, conflict management, leadership, and multicultural sensitivity. Such general skill domains have been seen as integral to students' transition from school to work (Lent et al., 1999). In addition to a focus on self-efficacy enhancement, SCCT would encourage a variety of other developmental intervention targets. In particular, exposure to accurate career information (see Gore & Leuwerke, Chapter 19, this volume) is key to fostering acquisition of realistic outcome expectations (as reflected by knowledge of the working conditions and reinforcers available in diverse occupations).

SCCT would also encourage age-appropriate interventions designed to help students to explore their emerging interests and the occupational options with which they may be compatible. Such interventions would best be approached with the explicit understanding (communicated to parents, teachers, and students) that interests, goals, values, and skills are fluid attributes that can change and grow with additional experience. Assessment may, thus, best be viewed as a snapshot at a single point in time, rather than as a reflection of immutable qualities. Finally, SCCT would encourage a focus on fostering skills at decision-making and goal-setting (e.g., breaking larger distal goals into proximal sub-goals, locating supports for personal goals). Such self-regulation skills can be taught by using examples from domains, such as studying or friendships, that are meaningful to young people and that can be generalized to career development.

FACILITATING CAREER CHOICE-MAKING AND IMPLEMENTATION

In an ideal scenario, people arrive at late adolescence or early adulthood with (a) a good appreciation of their interests, values, and talents; (b) an understanding of how these self-attributes correspond with potential vocational options; (c) clear goals that link their self-attributes to suitable occupational paths (i.e., ones that can engage their interests, satisfy their values, and value their talents); (d) adequate skills at making decisions, setting goals, and managing goal pursuit; (e) an environment that provides support for their goals (e.g., social encouragement, mentors, financial resources) and minimal goal-related barriers; and (f) a set of personality

traits (e.g., low levels of negative affectivity, high levels of conscientiousness) that can generally aid the process of making and implementing important life decisions by, for example, minimizing chronic indecisiveness and maximizing follow-through with goals and plans.

Those who possess ample amounts of these personal and environmental resources are unlikely to seek the services of a career counselor. Unfortunately, however, problems may occur in any of these or other areas (e.g., in health or relationship domains) that can hamper an individual's efforts at occupational choice-making and implementation. Well-prepared career counselors are able to assist with a wide array of these choice-limiting problems. While a full-scale discussion of career choice problems and solutions is beyond the scope of this chapter, it is possible to highlight a few strategies, derived from SCCT, that can aid in navigating certain impasses to choice-making and implementation.

Expanding choice options.   Like most approaches to career choice counseling, SCCT aims to help clients select from an array of occupations that correspond reasonably well with important aspects of their work personalities (e.g., interests, values, skills). Some clients are blocked in this effort because their work personalities are not sufficiently differentiated (e.g., measured interests produce a low, flat profile) or because they feel stifled by a constricted range of career options. In such instances, it may be possible to explore social cognitive processes that can underlie choice problems, adapting assessment strategies that are commonly used in career counseling (e.g., see Brown & Lent, 1996; Lent & Brown, in press). An important implication of SCCT's interest model is that people often reject potentially viable options because of inaccurate self-efficacy and outcome expectations (e.g., a person may believe, erroneously, that he or she does not have the skills to perform effectively in a given occupation or that the occupation does not offer reinforcers that would fulfill their values). By revisiting previously discarded options, and considering the reasons they have been discarded, clients might clarify their interests, skills, and values—and also expand the range of potentially satisfying options from which they may choose.

We have used two strategies to explore discarded options. In the first strategy, standardized measures of vocational interests, values/needs, and aptitudes are administered, and the results are examined for discrepancies between the choice options generated by the various measures. We especially look for aptitude–interest and value–interest discrepancies. Instances in which clients appear to have the aptitude to succeed at particular occupations, but where they show relatively low interest in them, may suggest that personal capabilities are being discounted (i.e., that interests may not have developed because one's self-efficacy is unrealistically low). Similarly,

instances in which a client's values appear compatible with particular options, but where the client shows little interest in them, may suggest inaccurate outcome expectations (i.e., he or she may possess limited or biased information about the occupations, resulting in faulty assumptions about their potential to meet his or her needs). Such discrepancies are targeted for further discussion and, possibly, counseling aimed at boosting self-efficacy or instilling accurate outcome expectations.

A second strategy for exploring foreclosed occupational options uses a modified vocational card sort procedure. We first ask clients to sort a list of occupations into three categories: (a) might choose, (b) would not choose, and (c) in question. We then focus on those occupations that are sorted into the "would not choose" and "in question" categories. The client is encouraged to sort these occupations into more specific categories reflecting self-efficacy beliefs (i.e., "might choose if I thought I had the skills"), outcome expectations (i.e., "might choose if I thought it could offer things I value"), definite lack of interest (i.e., "wouldn't choose under any circumstances"), or other. Occupations sorted into the self-efficacy and outcome expectation subcategories are then explored for accuracy of skill and outcome perceptions. As with the first strategy, further assessment, efficacy-building, or information-gathering may then be employed to challenge faulty assumptions about self or career and to maximize the range of possible choice options (see Brown & Lent, 1996, for case examples of the use of each strategy with adult clients).

Coping with barriers and building supports. A key assumption of SCCT's choice model is that people are more likely to implement career choices (i.e., to translate their goals into actions) if they perceive that their preferred options will be accompanied by minimal barriers and ample supports. Conversely, clients who expect, for example, that their significant others will discourage their favored path, or that they will be unable to access the financial support they need to pursue it, may be less willing to follow through with their goals. These assumptions have led us to build consideration of potential supports and barriers directly into the choice counseling process. In particular, we have developed a set of steps to help clients (a) anticipate possible barriers to implementing their choices, (b) analyze the likelihood of encountering these barriers, (c) prepare barrier-coping strategies (i.e., methods for preventing or managing likely barriers), and (d) build supports for their goals within their family, peer, and other social networks.

We have used a modified "decisional balance sheet" procedure to help clients identify potential choice barriers. Specifically, we ask clients to generate both positive and negative consequences in relation to each career option they are seriously considering. We then have them focus on the negative consequences that might prevent them from pursuing each option.

Next, the client is asked to estimate the chances that each barrier will actually be encountered, and strategies are developed and rehearsed for preventing or managing the most likely barriers. Brown and Lent (1996) illustrated the use of these barrier-coping methods with a client who had been reluctant to pursue her preferred option because she feared it would jeopardize her romantic relationship. After analyzing this barrier, the client was helped to neutralize it by negotiating a dual-career strategy with her partner, enabling her to preserve her favored career option.

In addition to anticipating and preparing to deal with barriers, it can be very useful to assist clients in building support systems to sustain their choice efforts (Lent et al., 2000). In fact, support-building has been identified as a critical ingredient in successful career choice counseling (see Sampson, Osborn, & Bullock-Yowell, Chapter 21, this volume). Once clients have identified preferred career goals, they can be encouraged to consider (a) what steps they need to take to implement their goals, (b) what environmental (e.g., social, financial) resources could help them to achieve these steps, and (c) what resources they could use to offset likely choice barriers. Counselors can also help clients to consider where and how to access needed supports. In many cases, clients' existing support systems can provide resources useful to their goal pursuit (e.g., access to relevant job contacts). In other cases, resources may be obtained by cultivating new or alternative support systems (e.g., developing friendships with peers who will support, rather than ridicule, their career aspirations).

Clients' families are often central to their career choice-making and implementation efforts, particularly in collectivist cultures. It is, therefore, useful to build into counseling a consideration of how the client's preferred options mesh with the wishes of his or her family (or significant others). Clients sometimes need assistance in negotiating conflicts between their own and others' goals. Barrier-coping and support-building strategies in such instances can, for example, include role-played or two-chair dialogues with significant others or, depending on the cultural context and the client's preferences, inviting significant others to participate in a portion of choice counseling.

Goal-setting and self-regulation. Some clients need assistance with the processes of setting goals and sustaining goal pursuits, especially if they tend to demonstrate low levels of conscientiousness. These processes can be conceived as adaptive behaviors or self-regulation skills that can help clients to achieve their plans, especially in the future, after counseling has been completed. Once a choice goal has been selected, many factors can affect the likelihood that clients will act on it. We have already considered the possible effects of environmental supports and barriers. Another important factor affecting choice implementation involves the manner in which people frame

their goals. It has been found, for example, that larger, distal goals are more likely to be enacted if they are clear, specific, and broken into manageable, proximal subgoals (e.g., taking preparatory courses, applying to educational programs), set close in time to intended actions, stated publicly, and held with strong commitment (Bandura, 1986). By contrast, vague, amorphous, distal, private, and weakly held goals provide less reliable guides for action. Clients can, therefore, be encouraged to frame their goals in facilitative (e.g., clear, specific, proximal) terms and to consider specific steps and resources needed to implement their goals. Because not all possible barriers can be anticipated and averted, clients can be encouraged to take a preparedness stance, for example, by formulating backup plans (Lent & Brown, in press).

FACILITATING WORK PERFORMANCE

SCCT offers several implications for efforts to promote academic/career success and optimize performance. The basic hypotheses of SCCT's performance model suggest that self-efficacy beliefs can facilitate attainment in a given academic or career domain as long as an individual possesses at least minimally adequate levels of the skills required in that domain. This does not mean that increased confidence alone will guarantee success, but it does imply, as suggested earlier, that self-efficacy can help people to make the most of the skills they have and can also facilitate further development of one's skills. Thus, methods designed to boost self-efficacy beliefs may be valuable both in developmentally oriented skill-building programs (discussed earlier in relation to promoting aspirations) and in remedial efforts with persons experiencing performance difficulties.

A basic strategy for improving performance begins with examining possible discrepancies between self-efficacy estimates and data on objectively assessed skills or past performance. Intervention procedures may then be designed that are responsive to the type of discrepancy that is identified. For example, where the client possesses adequate skills but weak self-efficacy beliefs in a given performance domain, the theory would suggest the value of activities designed to help him or her to (a) obtain personal mastery experiences with progressively more challenging tasks in that domain; (b) review past success experiences; and (c) interpret past and present successes in ways that promote, rather than discount, perceived competence. Similar to earlier suggestions for promoting self-efficacy beliefs, clients can be encouraged to attribute success experiences at skill development to internal, stable factors, particularly personal ability, rather than to internal, unstable (e.g., effort) or external (luck, task simplicity) factors. As clients succeed at performance tasks, or as they review past experiences, they can also be asked for their perceived reasons for task success. Nonadaptive attributions can be challenged,

for example, by having clients generate and evaluate alternative interpretations for their performance successes (Brown & Lent, 1996).

This focus on mastery experiences can be augmented by counseling activities that draw on the other sources of self-efficacy. For instance, providing exposure to relevant models, verbal support, or assistance with anxiety coping can help to elevate self-efficacy and, in turn, promote skill development and performance. In addition, SCCT points to outcome expectations and performance goals as operating, along with self-efficacy, as key motivators of performance. Thus, performance-focused counseling might also entail efforts to instill beneficial outcome expectations (e.g., accurate knowledge of work conditions and reinforcers) and realistic, yet challenging performance goals (e.g., ones that are achievable yet that can stretch and further refine one's skills).

More intensive remedial skill-building efforts, organized around the sources of efficacy information, may be indicated in cases where clients exhibit both weak self-efficacy and deficient skills. There will also be situations where the extent of the skill deficit is very large, the client is unwilling to engage in (or may be unlikely to profit from) remedial activities, or the environment (e.g., college, work organization) is unwilling to support remediation. In P–E fit terms, such scenarios reflect a serious mismatch between the individual's skills and the skill requirements of the setting. In such cases, counseling can be directed at the goal of identifying suitable alternative educational or career options having ability requirements that better correspond with the client's current skills. It should be emphasized that SCCT does not imply that self-efficacy will compensate for a lack of requisite skills or that efforts to boost self-efficacy are always indicated—in fact, such efforts seem unlikely to affect performance (and gains in self-efficacy may not be sustained) if they ignore seriously deficient skills.

Promoting Work Satisfaction

The central variables of SCCT's satisfaction model could be used as a structure for assessment as well as for designing interventions to promote satisfaction. Because a variety of person, behavior, and contextual factors can contribute to work satisfaction, it is important to identify the key factor or set of factors that may be relevant for a particular client. Counseling for work satisfaction would then depend on how the source(s) of satisfaction (or dissatisfaction) are conceptualized. SCCT-based strategies could include, for example, helping clients to access desired work conditions, activities, or reinforcers (e.g., via job redesign or skill updating); to set and make progress toward valued goals (e.g., by framing clear, proximal, intrinsic, and challenging yet attainable goals); to marshal needed supports and resources for

goal pursuit and other aspects of career development; to enhance task and goal-related self-efficacy; to refine skills (e.g., interpersonal, self-regulation, technical skills) required for work success and the rewards it can bring; to cope with negative aspects of one's job (e.g., managing stress); to engage in self-advocacy (e.g., in dealing with harsh or uncivil work conditions); or to manage cognitive and behavioral aspects of affective traits that may predispose one toward work dissatisfaction.

Like P–E fit theories, SCCT acknowledges that work dissatisfaction can result from incongruence between personal and environmental attributes, and that this displeasure can, therefore, be reduced by improving the fit between P and E. For example, value–reinforcer discorrespondence may be addressed via worker–supervisor negotiation, job restructuring, or skill development. One important difference from traditional P–E fit theories, however, is that SCCT assumes that poor fit can occur along any number of dimensions (e.g., interest, personality, value, skill, work conditions) that may be salient to the individual. Another difference is the assumption that the subjective perception of P–E fit is often more influential than objectively assessed fit in determining one's satisfaction with the work environment. These differences underline the value of multifaceted fit assessment and counseling strategies that may extend beyond what P–E theories would prescribe. Brown and Lent (1996) described examples of SCCT-based counseling that had been initiated by clients experiencing work dissatisfaction due to poor perceived fit between their values or skills and the reinforcers or requirements of their work settings.

Although focusing on potentially modifiable aspects of work satisfaction, SCCT also acknowledges person and contextual factors that may limit gains in satisfaction (e.g., non-supportive organizational leadership or policies). Where work satisfaction cannot be promoted in other ways, job or career change counseling may be considered, assuming that individuals feel free to make such changes and that they have the necessary resources to do so. Where work change options are constrained, or where work is not one of the individual's most central life domains, coping and compensatory strategies might be considered, such as pursuing goal-directed activity in other life domains (e.g., leisure, family, community) that offer alternative outlets for satisfaction.

Assisting Career Self-Management

Lent and Brown (2013) noted several ways in which the CSM model may be used in designing developmental and preventive interventions to help students and workers anticipate and prepare for predictable career developmental tasks and transitions (e.g., making career decisions, engaging in

the job search process, planning for retirement). Programs can be designed that focus on proactive work/life adjustment (e.g., skill-updating, managing multiple roles, self-advocacy, networking) as well as career sustainability and preparedness for work instability (e.g., job loss). The model may also help to structure remedial counseling or coaching applications to assist individual clients deal with troublesome work events or experiences (e.g., job plateauing, conflict resolution) or to improve their role-related functioning (e.g., leadership). The specific intervention ingredients and strategies would resemble those used in applying SCCT to choice-making, performance, and satisfaction issues (e.g., attending to skill development, self-efficacy beliefs, outcome expectations, goal-setting, and barriers and supports), only geared to relevant self-management tasks and challenges.

CONCLUSIONS AND PRACTICAL TAKE-HOME MESSAGES

SCCT is a still evolving framework that highlights cognitive-person variables, such as self-efficacy, and considers how they function along with other person and environmental factors (e.g., gender, culture, barriers, supports) in shaping people's occupational paths. While SCCT assumes that people exercise varying degrees of agency in their own career development, it also recognizes conditions that can either limit or strengthen their ability to influence their school and work lives. The theory consists of models of academic and career interest, choice, performance, satisfaction (or well-being), and self-management.

The following are some practical messages to take away from this chapter:

- Interests are generally a reliable predictor of educational and career choices—but they are not the only such predictor. Especially in cases where people need to compromise their interests in making choices (e.g., due to family or financial considerations), self-efficacy and outcome expectations can augment or surpass interests in directing choices. This underlines the importance of promoting self-efficacy beliefs and outcome expectations that are positive yet realistic.
- The four primary sources of efficacy information can be used to structure interventions designed to promote the development of interests and skills. Efficacy-based interventions can be especially helpful in cases of flat interest profiles or where interests have been constrained by biased or limited exposure to efficacy-building experiences.
- Incrementally graded success experiences, coupled with efforts to ensure favorable interpretation of those experiences, can be especially useful in bolstering self-efficacy and skill performance.

- Outcome expectations can be fostered by ensuring exposure to accurate sources of educational and occupational information, which helps clients to learn about choice options that can satisfy their values.
- Choice-content and performance goals, respectively, help to motivate behavioral choices and the levels of performance and persistence people attain at school and work. Progress toward personal goals also promotes feelings of work satisfaction. It is important, therefore, that people set and pursue goals in ways that enable them to achieve their own objectives (e.g., by framing clear, specific, proximal sub-goals).
- Career development occurs in a social learning context and is facilitated by the presence of supportive environmental conditions (e.g., good-quality education) and the relative absence of barriers (e.g., lack of financial resources for training). Career development can be promoted by exposing children and adolescents, as much as possible, to favorable conditions (e.g., access to diverse coping models) that might help to offset negative ones (e.g., gender discrimination).
- Support-building and barrier-coping methods can be especially useful adjuncts to educational and career choice counseling. By anticipating and preparing for likely obstacles to their preferred choices, and by marshaling needed supports, clients might be enabled to persist toward their goals despite setbacks.
- Adjustment to work, as defined by satisfaction and effective performance, can be facilitated by interventions that attend to self-efficacy, outcome expectations, goals, and behaviors, along with supportive work conditions (and neutralization of negative ones).
- The CSM model can also be mined as a source of ideas for helping people to make career-related decisions, navigate work transitions, manage work and non-work roles, engage in ongoing career advancement and renewal strategies at work, and take steps to prepare for periods of career instability (Lent, 2018).

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