In F. T. L. Leong & A. Barak (Editors)
Contemporary models in vocational psychology:
A volume in honor of Samuel H. Osipow (pp. 295-320)
Mahwah, NJ: Lawrence Erlbaum Associates

Chapter 12

Toward a Comprehensive Theory of Career Development: Dispositions, Concerns, and Narratives

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One of Osipow's major contributions to the fields of vocational psychology and career counseling continues to be his efforts to describe, evaluate, and compare theories of career choice, development, and adjustment. Osipow's interest in this topic spans his career in counseling psychology. He began his reading and reflection on career theory when, as a graduate student at Syracuse University in the late 1950s, he wrote a term paper on the topic. After completing his doctoral studies, Osipow worked in the Counseling Center at Pennsylvania State University (1961–1967) which was directed by Donald Ford who had written a book on theories of counseling and psychotherapy (Ford & Urban, 1963). Osipow's relationship with Ford, along with the intellectual climate at Penn State, nurtured Osipow's ambition to expand his term paper into a textbook that organized and explained the theories of career development. That book, Theories of Career Development, first published in 1968, is now in its fourth edition (Osipow & Fitzgerald, 1996). Osipow's (1968) book along with Crites' book on Vocational Psychology (1969) helped crystallize vocational psychology as basic science discipline, distinct from the applied psychology of career counseling. Furthermore, Theories of Career Development became the standard textbook for generations of graduate students enrolled in career counseling courses.

In the preface to the first edition, Osipow (1968) explained that he wrote *Theories of Career Development* to examine and evaluate current theories and pertinent empirical findings as well as to compare similarities

and differences in the theories. "A further purpose of this book is to attempt to synthesize some general theoretical statements which might integrate the more useful and effective constructs of the various theoretical positions, as well as to identify the ingredients common to most of the theories" (p. viii). Osipow's enduring interest in identifying and synthesizing common elements in career theories, in due course, resulted in a landmark article written to celebrate the 20th anniversary of the Journal of Vocational Behavior, which he founded. In this article, entitled "Convergence in theories of career choice and development: Review and prospect," Osipow (1990) examined the convergence in four major career theories that had remained central in vocational psychology and career counseling for at least the life of the journal he founded: trait-and-factor (Holland, 1997), social learning (Krumboltz, 1994), developmental (Super, Savickas, & Super, 1996), and work adjustment (Dawis, 1984). Osipow explained that these four theories now resemble each other in important ways, prompting him to examine the possibility of theory unification. This seminal article induced vocational psychologists to consider the possibility of theory integration (e.g., Borgen, 1991; Super, 1992; Hackett, Lent, & Greenhaus, 1991), which in due course led to a national conference and subsequent book on Convergence in Theories of Career Development (Savickas & Lent, 1994).

PROBLEMS IN CONVERGENCE FROM PERSPECTIVE OF LIFE-SPAN, LIFE-SPACE THEORY

The convergence in career theories strongly influenced the prevailing presentation of life-span, life-space theory (Super, Savickas, & Super, 1996). The life-span, life-space approach to comprehending careers evolved over a 50-year period as Super used the functionalist approach to empirically integrate existing knowledge. He synthesized what had been learned by researchers and scholars into conceptual models that allowed him and others to note contradictory findings, locate gaps in research, and attempt explanatory efforts. Thus, the current life-span, life-space model includes four distinct theory segments: individual differences (including vocational interests and abilities), development (including life stages and career maturity), self-concept (including dimensions and their implementation), and context (including life roles and their salience). Each segment was developed independently, and during a different historical epoch, with the hope that someday the segments would be conceptually and empirically integrated into a comprehensive description of career development.

In preparing the most recent presentation of the theory, I tried to integrate as tightly as possible the four segments. The time seemed right for such an attempt because of the interest in theory unification. Furthermore, any success in such a unification would have heuristic implications for further converging life-span, life-space theory with other major career theories. As I worked toward integrating the segments of life-span, lifespace theory, I concluded that each distinct segment was internally consistent yet weaving them together into a coherent whole was difficult. One of the major stumbling blocks was the core construct of career maturity, a hallmark of the developmental segment in life-span, life-space theory. This predicament prompted an article (Savickas, 1997a) raising the possibility that further advances in career development theory might require replacing maturity with a new construct, one that would allow tighter integration with the other three theory segments. In that article, I proposed that "adaptability" could replace maturity. After thinking about adaptability and maturity, I have come to some new realizations and I must thank Crites (1997) for the motivation to pursue this line of thinking and Vondracek (1997) for specific ideas that elaborated my thinking.

In the first half of this chapter, I interrogate the vitality of career maturity as a life-span construct by enumerating 12 reasons why career development theories, and their unification, might benefit from redefining or replacing the construct of maturity. I use these criticisms to prescribe a dozen criteria that must be met by any replacement for career maturity. In the second half of the chapter, I describe a framework for more completely comprehending careers, one that allows consideration of vocational personality dispositions, career concerns, career narratives, and developmental processes. A second goal for the chapter is to examine contemporary theorizing in personality, motivational, and developmental psychology to identify potential ways to integrate the segments of lifespan, life-space theory and then link this theory to other major theories of career, development, personality, and motivation.

Vitality of Career Maturity for Future Theorizing

Career maturity has long been the principal construct in the developmental theory of vocational behavior. Originally, it was conceived of as readiness to make educational and vocational choices. In a short period of time, choice readiness became vocational maturity, and in due course, career maturity. The construct of career maturity was generalized across the life-span to denote a readiness to deal with the vocational development tasks appropriate to an individual's life stage. Having held center stage in career development theory for 40 years, career maturity has garnered an impressive amount of empirical support concerning its opera-

tional definition, nomological network, and construct validity. Unfortunately, some critics have shown that conceptualizations of career maturity have not remained current with advances in life-span, developmental psychology. Prompted by an interest in unifying the four distinct segments within life-span, life-space theory and then converging it with other career development theories, I have become concerned about 12 limitations inherent to the career maturity construct that may weaken its viability and vitality for future theorizing about careers.

1. Career Maturity Fosters a Function-Centered Theory but Hinders a Life-Span Theory

Baltes, Lindenberger, and Staudinger (1996) differentiated between two metatheoretical strategies for developing a life-span theory. They called the first strategy a person-centered or holistic approach. This strategy for theory construction emphasizes the longitudinal study of lives, in fact, a life is the very unit of study. Age periods, states, and stages are connected into "one overall, sequential pattern of lifetime individual development" (p. 3). Vocational psychologists think of this as the biographical study of lives and refer to it as life-course psychology. Theories familiar to vocational psychologists include Erikson's (1950) ontogenetic theory of psychosocial development and Buehler's (1933) life stages. When Super (1954) decided to study careers, he adopted Buehler's five stages in designing the Career Pattern Study (CPS). As originally conceived, this longitudinal study was to follow careers from ninth grade through age 35. CPS researchers accumulated tremendous amounts of data on 100 ninthgrade boys. While waiting for career patterns to unfold, CPS researchers concentrated on using this data to characterize the vocational developmental tasks and coping behaviors of the exploration stage in a career. This concentration on vocational maturation during adolescence represented a switch away from a life-course perspective, a switch that would prevail for about 20 years.

The research on adolescents in the exploration of their careers represents what Baltes, Lindenberger, and Staudinger (1996) identified as the second strategy for advancing life-span psychology. This function-centered strategy focuses on a category of behavior, such as initial choice of an occupation by adolescents, and examines the processes and mechanisms involved. The function-centered approach typically produces an age-specialized developmental theory. Of course, Super (1942, p. 135) and his colleagues knew that eventually they would have to characterize the life course with career patterns and a model of maturity specific to each career stage—at each period conceptualizing a new structure and mechanisms. Taken together, career patterns across the life course and a developmen-

tal sequence of stage-focused models and mechanisms of maturity would portray the overall landscape of career development theory. Unfortunately, this never happened because Super spent the majority of his own career studying adolescents and young adults.

2. Scant Empirical Evidence Exists Concerning the Predictive Validity of Career Maturity Relative to Subsequent Career Stages

If a researcher is primarily interested in one segment of the life course, as Super was, that segment must eventually be related to later segments in the life course (Brown, 1990; Osipow & Fitzgerald, 1996; Swanson, 1992). This is major problem with career maturity; researchers have rarely related adolescent career maturity to its sequella and long-term consequences. Of course, vocational psychologists relied on Havinghurst's developmental maxim as they argued that people who do not choose a viable and suitable occupation would later encounter significant problems in implementing and stabilizing these choices. Unfortunately, there is little empirical evidence that adolescent career maturity predicts adult occupational adjustment. Some evidence exists (Savickas, 1993) but evidence also exists that shows maturity makes no difference (Noeth, 1983), or even that more mature people may be more likely to change occupations (Gribbons & Lohnes, 1982). This is a complicated issue that can only be resolved through longitudinal research that examines connections between earlier developmental processes and later developmental processes and outcomes.

3. Maturity Denotes a Linear and Unidirectional Movement Toward Higher Levels of Functioning

Career maturity represents a unidirectional, linear, and hierarchical model. As such, it describes a universal and cumulative sequence of increased functioning aimed at a single end state, namely, work adjustment. The original conceptions of career maturity followed the biological concepts of growth and maturation articulated by Werner (1948), Beilin (1955), and Harris (1957). Although vocational maturity seems to loosely fit the conceptual needs of the growth and exploration stages, it certainly does not fit the needs of subsequent stages. Maturation privileges the exploration stage as the most important period in a career. Establishment, maintenance, and decline do not necessarily involve linear increases. For example, Super characterized the establishment stage with five coping behaviors, only two of which are positive: instrumentation and stabilizing. The other three are negative in connotation: drifting, floundering, and

stagnating. The maintenance stage obviously involves little growth. As its name implies, maintenance denotes a period of holding on at worst and updating at best. In fact, the maintenance substages articulated by Super are not developmental; instead, they reflect distinct styles of maintaining oneself in an occupational position. Decline or disengagement is not growth, and one would be hard pressed to stretch the construct of maturity to describe this final stage in a career.

4. Maturity has Inadvertently Encouraged a Reliance on Age as the Developmental Indicator

Physical maturation is an age-based process, so many researchers implicitly or explicitly use age as an indicator of maturation. Thus, age becomes a proxy for development. For example, in constructing the Vocational Development Inventory, Crites (1965) selected only items that showed a monotonic increase with age, arguing that this relationship was a necessary yet not sufficient condition for an operational definition of career maturity. However, career maturity should not be treated as an age-based process similar to physical maturation. Researchers need to attend more closely to developmental organizers other than age. These organizers should reflect the ontogenetic processes involved in continuity and change across a career. The concept of development should still be used to organize the evidence about life-long adaptive processes, yet it should be operationally defined by variables such as identity, self-concept, and coping mechanisms.

5. Development Includes Losses as Well as Gains

An open and plastic system that does not rely on age as a developmental indicator would account for losses as well as gains. Growth denotes an increase in adaptive functioning whereas development denotes improvement. Whereas growth connotes increase following gain, development can follow gain, decrease, or loss. Thus, development is not linear; it comes in fits and starts. Therefore, life-course psychologists and sociologists assert that a life-span theory must comprehend loss, as well as growth. For example, Baltes, Lindenberger, and Staudinger (1996) argued that any truly life-span theory needs to comprehensively address issues of gain, loss, and resilience. Each life stage has some combination of all three and should be characterized by a different proportions of growth, resilience, and loss. This means that in career development theory, the stages of growth and exploration could be characterized primarily by growth, yet some attention should be paid to loss and resilience. For example, as adolescents become more independent (and therefore more

career mature), they lose some amount of affective and instrumental dependence on their parents. As a teenager moves from a group of chums to partner with a friend of the other sex, she or he loses the sense of identity anchored in the former clique. The balance of gains and losses may be an a heuristic way to characterize the school-to-work transition (Savickas, 1997c). The establishment and maintenance stages may involve more resilience and renewal than growth and, certainly as one progresses through them, losses will accumulate. When viewing the declines of the disengagement stage, regulation of loss is predominant, yet growth and recovery from loss are more or less possible depending upon an individual's biological state and cultural resources. Career development theory needs more complexity than provided by viewing maturation only as a progression of advances and gains.

6. Career Maturity Models Are Structural Not Developmental

The existing models of career maturation are structural not developmental. For example, Super's model structures career maturity in adolescence using four dimensions. Two attitudinal dimensions deal with response tendencies for foresight and curiosity: attitudes toward career planning and career exploration. Two cognitive dimensions deal with fund of information and rational decision making: knowledge about occupations and about decision making. These four dimensions are operationally defined by the Career Development Inventory. Notice that the model does not conceptualize maturation as improvement following recursive cycles of differentiation and integration like Neimeyer's (1988) developmental model. Rather, it is structural in defining maturation as increases on four trait-like dimensions. Crites has pointed out, however, that development in structure can be noted by increasing differentiation of the structure with increased age.

7. The Processes of Career Maturation Are Poorly Defined

The actual processes and mechanisms of career maturation are insufficiently described. Processes are mechanisms of action; they are distinct from the developmental tasks that prompt them and the attitudes and competencies that condition them. The construct of maturation, with its connotation of unfolding, does not encourage researchers to examine the actual processes that unfold career development. Career maturity models have been criticized because they generally ignore the learning and decisional processes that foster development (Brown, 1990; Hackett & Lent,

1994; Krumboltz, 1994). Certainly, developmental researchers could study, at a microlevel of analysis, the learning and decisional processes involved in life-span career development.

8. Some Dimensions of Career Maturity Privilege Traits More Highly Valued at Midcentury Than Now

The traits that compose career maturity may be less adaptive now than they have been in the past. In effect, the career maturity model takes the cardinal developmental task of adolescence, choosing a vocation, and outlines how to cope with that task in a planful, systematic, and rational manner. The maturity model privileges dimensions such as future orientation, emotional independence, systematic exploration, fund of information, rational decision making, and linear planning. With the advent of constructivist epistemologies, some scholars have attacked career maturity by deconstructing these dimensions and arguing for interdependence, other-than-rational decision making, and a focus on work rather than career. Taking the posture of "reconstructive postmodernism" allows researchers to consider new alternatives to these traditional either/or constructs. For example, rather than independence being the goal, maybe the goal should be interdependence or the judicious expression of dependence and independence contingent upon the situation.

9. Careers Today Do Not Follow a Fixed Course

At midcentury, vocational psychologists could be confident that dynamics between biology and culture prefigured pathways of development and forged an agenda of adaptive challenges called vocational development tasks. The tasks are really social expectations. Super weaved these expected tasks or anticipated developments into a script that can be called a grand narrative of career. The story expresses Western Christian values and middle-class attitudes, with little acknowledgment of cultural and personal diversity. This grand narrative of career rests in unalterable school curricula and predictable status passages, as well as a social opportunity structure that too often assigns developmental pathways based on gender, race, and ethnicity. The story of the stages articulated by Super and others tells a grand narrative about psychosocial maturation in a stable and predictable work world. Maybe no one individual ever lived all of it, yet the narrative, written at midcentury, portrays the then current societal expectations for a life, especially a male life. Today, society is revising the grand narrative, but the new storylines for contemporary lives are far from being clear, coherent, and complete. Today, in an unstable and rapidly changing society, individuals must create their own futures in various contexts. The new narratives will emphasize self-organization and self-regulation that advance individuals into an open and plastic tomorrow. Counselors might no longer talk about developing a career; instead, they may talk about managing a career.

10. Career Maturity May Manifest Some Aspects of Social Class

Holland once criticized career maturity as being interchangeable with the outcomes of growing up in a middle-class home. Postmodern and feminist critics implicate the normative and hierarchical position inherent in career maturity when it suggests that something is more grown, more mature, more developed than something else. Accordingly, it is important to examine whether the dimensions of career maturity rest on arbitrary grounds that consciously or unconsciously unfairly advantage some people. In other words, psychologists must ask whether the construct of career maturity is an objective variable or a manifestation of social class and cultural hegemony.

11. The Concentration on Maturity has Caused Career Development Theory to Isolate Itself From Person-Environment Fit Theory

Developmental and differential career psychology have evolved from two perspectives on the same behavior into two distinct discourse communities. Articles on career development theory and person-environment theory tend to appear in different journals and different graduate training programs emphasize one over the other. Clashes between the two research camps hinder advances in their common goal of researching and developing careers (Savickas & Lent, 1994). This bifurcation between differential and developmental approaches to career has not promoted the conceptual integration required by a life-span psychology of careers. Theorists must move beyond the antagonism caused by contrasting stabilityoriented and change-oriented approaches to a position from which researchers can study the ontogenesis of both general commonalities in development and unique individual difference, as well as specify their age-related interplay. In collaboration, differentialists and developmentalists can create a comprehensive career theory that has as its primary substantive focus, the structure, sequence, and dynamics of the entire life course. For example, vocational psychology could benefit from a comprehensive theory about the development of interests. Such a theory might explain the origins and development of Holland's (1997) six vocational interest types (also known as RIASEC types) by integrating works that view

the development of interests from the perspectives of aspirations (Gott-fredson, 1981), ego-strength (Crites, 1960), intrinsic motivation (Blustein & Flum, 1999), personal meaning (Savickas, 1995), and cognition (Barak, 1981; Lent, Brown, & Hackett, 1994).

12. The Concentration on Maturity has Caused Career Development Theory to Ignore Advances in Developmental Psychology

Concentrating on maturity, which at midcentury was part of mainstream developmental psychology, seems to have caused career psychology to divert from contemporary developmental psychology that now focuses much more on interaction than unfolding and on contextual particulars rather than universal principles (Vondracek, Lerner, & Schulenberg, 1986). Developmental psychologists no longer rely on maturity as the central construct for conceptualizing human development. Accordingly, I propose that vocational psychologists retire the name "career maturity" and return to its original name "career choice readiness," that is, readiness for making educational and vocational choices during adolescence. This will allow life-span, life-space theory to retain its impressive conceptual and empirical literature on choice readiness while at the same time circumscribing its use to the career exploration stage. Rather than stretch career maturity beyond its range of convenience, educational/vocational choice readiness can retain its status as a heuristic stage-specific, function-centered construct and a noteworthy contribution to life-span developmental psychology.

What Next?

With the retirement of the career maturity construct, life-span, life-space career theory requires a new general theory of ontogenetic development from growth through disengagement. In response, researchers must construct new career development theories that, as their primary substantive goal, focus on the structure, sequence, and dynamics of the entire life course. Following from the twelve criticisms of career maturity as a central construct in life-span, life-space theory, I wish to propose a list of requirements for this new theorizing. Life-span, life-space developmental constructs must:

- 1. Serve both life-course theorizing and stage-specific, function-centered theorizing.
- 2. Emphasize connections between earlier and later developmental processes.

- 3. Allow an open and plastic construction of career development.
- 4. Not rely on age as a developmental organizer.
- Comprehend gains as well as losses.
- 6. Avoid unique structural models for each stage.
- 7. Specify mechanisms of development for microlevel analysis.
- 8. Be bipolar and culturally sensitive.
- Attend to the particular contexts that constrain individual developmental pathways.
- Avoid normative and hierarchical connotations that privilege certain groups.
- 11. Reintegrate the developmental and differential perspectives on vocational behavior.
- 12. Exploit conceptual and empirical advances in developmental psychology and life-course sociology.

This list enumerates the criteria for a framework that integrates the theory segments of life-span, life-space among themselves and with other career theories. Such a framework does not currently exist, yet advances in personality, developmental, and motivational psychology suggest an outline for an initial framework. One such outline could be articulated by adapting a conceptual framework such as the one proposed by McAdams (1995) to describe personality theories. The second half of the present chapter attempts an initial effort to transpose McAdam's tripartitie model of personality theories to the vocational realm.

LEVELS OF PERSONALITY AND CAREER THEORY

McAdams (1995) advanced the idea that "personality descriptors encompass at least three independent levels: (a) dispositional traits, such as the Big Five (McCrae & Costa, 1990); (b) contextualized concerns, such as developmental tasks and personal strivings (Cantor & Zirkel, 1990); and (c) integrative narratives of the self." McAdams asserts that a full description of personality requires all three levels: dispositional traits, personal concerns, and life stories.

Each level of personality description has a particular range of convenience, with its own models. methods, and materials. Theory and research pertinent to each of these three levels "requires its own indigenous nomenclatures, taxonomies, theories, frameworks, and laws" (McAdams, 1995, p. 365). As postmodern scholarship instructs, theory is never neutral or objective because it shapes the very system of observations. Thus,

a theory channels the data that is chosen for observation and the categories used to organize this data. McAdams (1995) conceptualized the levels of personality theories to link the theories, rather than continue epistemic wars about which theory is best and force scholars to join distinct discourse communities.

I believe that vocational psychologists interested in the unification of career theories and the eventual construction of a comprehensive theory can benefit from transporting McAdams' (1995) analysis of personality theories to the realm of vocational psychology. A full description of vocational behavior and career development, similar to a full description of personality, may also require at least three distinct levels of analysis. The remainder of the chapter examines this possibility, and then broaches the possibility of supplementing McAdams' tripartite conceptualization with a fourth level of analysis that concentrates on a construct which is indispensable to career development theory, namely, mechanisms of development.

Level I: Vocational Personality Types

The career theory that parallels McAdams' Level I dispositions, with an emphasis on the Big Five, appears to be Holland's (1997) typology of vocational personalities. Vocational personality types and Big Five dimensions both differ from traits in that they are dispositions. Traits attribute recurring uniformities in a person's social behavior to personality structure. Behavioral continuity reflects personality traits. A collection of traits into syndromes and dispositions constitute a type. Holland's conceptual framework provides a broad band tool for organizing phenomenon into type categories. Types represent abstract syndromes that emerge from concrete trait patterns. In fact, types are at a rather high level of abstraction despite being composed of a broad variety of concrete experiences. Types show a dispositional signature and include skills, interests, and abilities for dealing with life roles. Types can be thought of as blueprints, tools, guidelines, or preferences for adaptation to life tasks. As an abstraction of the thematic properties that form a generic, loose adaptive strategy, types constitute the content of personality. Furthermore, dispositional types have an organizing influence that affects how individuals construe reality and their core roles. Thus, dispositions represent a self-organization of core structure that influences construing and interpreting the world. Holland's (1997) RIASEC model of personality types offers a practical structure for identifying the personological and vocational results of an individual's efforts at self-organization.

Similar to the personality dispositions in McAdams' Level I, the six RIASEC personality types are decontextualized and relatively noncondi-

tional constructs that describe syndromes of traits. The trait syndromes or vocational personality types provide extremely useful comparative dimensions for conducting a vocational appraisal of individuals because RIASEC dimensions have proven social and career significance. Furthermore, the types demonstrate cross-situational consistency and longitudinal stability. They are relatively nonconditional, meaning that they are recurrent theme across diverse situations under different conditions and in manifold contexts. Their longitudinal stability may eventually prove to involve a genetic component. For example, recent research suggests that genetic factors may explain as much as 40 or 50% of the variance in vocational interests (Gottfredson, 1999). There also seems to be strong cross-cultural evidence regarding the usefulness of the RIASEC model (Rounds & Tracey, 1996). In short, similar to personality traits (McAdams, 1995, p. 375), Holland's RIASEC types appear to have two valuable features: comparative dimensions and nonconditionality.

Level II: Career Concerns

Level I descriptors of personality and career concentrate on self-organization and may be viewed as psychological variables. In contrast, Level II descriptors emphasize self-extension into the social environment and may be viewed as psychosocial variables. The psychosocial descriptors are at level II because intrapersonal self-organization precedes interpersonal self-extension. Level II psychosocial variables describe how individuals reach out to integrate with society and regulate their own behavior relative to normative expectations. Level II descriptors provide an orientation to the particular historical time, culture context, life stage, and social role which locates an individual.

McAdams denotes Level II variables as personal concerns. In contrast to Level I dispositions, Level II personal concerns are contingent on contextual factors such as time, place, and role. These noncomparative and highly conditional personal concerns "speak to what people want, often during particular periods in their lives or within particular domains of action, and what life methods people use (strategies, plans, defenses, and so on) in order to get what they want or avoid getting what they don't want over time, in particular places, and/or with respect to particular roles" (McAdams, 1995, p. 376). McAdams operationally defines personal concerns borrowing a sentence from Cantor, Acker, and Cook-Flanagan (1992, p. 644): "those tasks that individual see as personally important and time consuming at particular times in their lives."

In addition to being contingent on life stage and historical era, personal concerns also depend on situational conditions. Conditional patterns (Thorne, 1989) influence behavior in a particular situation. Where-

as vocational personality types refer to what people typically have, career concerns refer to what individuals do in a particular time and place. McAdams points out that Level II descriptors account for behavior that "is by and large local rather than general, subject to norms and expectations of a given social place or space" (p. 377). These actions are age-appropriate life adaptations whereas personality dispositions constitute a central structure of the self.

In the vocational realm, personal concern variables have been termed career concerns. These Level II descriptors of vocational behavior and career development concentrate on issues of social integration and self-regulation. Career concerns involve the situated use of strategies for effective performance of a specific role in a particular place at a certain time. An individual's career concerns include contextualized strategies, motivational systems, and domain-specific skills for dealing with age-appropriate developmental tasks and social expectations and for pursuing personal projects.

Career concerns have typically been studied by adherents to the developmental perspective on vocational behavior. They have attempted to chart the natural course of career concerns from grade school through retirement. In so doing, they have divided careers into ontogenetic stages and thematic issues denoted by periods of concern about vocational growth, exploration, establishment, maintenance, and decline (Super, 1957). Each of these five periods has been characterized by prototypical developmental tasks; pertinent attitudes, beliefs, and competencies; and relevant coping behaviors. For example, the construct of career maturity discussed in the first half of this chapter has been used to describe the exploration stage during which adolescents make educational and vocational choices. Researchers have characterized this process with developmental tasks of crystallizing and specifying; attitudes toward planning and exploring; beliefs about the work world and succeeding in it; competencies for decision making and problem solving; and coping behaviors.

The temporal context assumed by a life-span view distinguishes the developmental psychosocial perspective on vocational behavior from the differential psychological perspective which emphasizes individual differences in traits and types. Whereas RIASEC types are individual differences used to compare people, career concerns are psychosocial considerations used to compare an individual to himself or herself across developmental eras, as well as to other people.

In addition to addressing the temporal context of career concerns, life-span, life-space theory also addresses the situational context. Accordingly, it explicitly meets McAdams' (1995) suggestion of "seeking information on the most salient settings and environment that make up the ecology of the person's life" (p. 378). Life-span, life-space theory uses the construct

of role salience to evaluate an individual's participation in, commitment to, and value expectations for five central life roles: student, worker, citizen, family member, and leisurite. Each role calls for different motivational strivings (i.e., values and goals) and requires different competencies and skills. How these interrelate, and which roles are most salient, strongly shapes career development.

The descriptors used in the life-span, life-space approach co locating career concerns in time and place all focus on self-regulation strategies and goal implementation during a particular ontogenetic period and in a specific social ecology. Thus, career concerns display themes and patterns of social meaning making arising from joint social activity that occurs in a certain cultural context, during a specific life stage, and in a distinct historical era. In short, Level II career concerns are highly contingent on the psychosocial context. In contrast, Level I vocational personality types seem to possess near-universal applicability, generalizing across numerous contexts. This difference may explain why Holland's (1997) RIASEC model and measures such as the Vocational Personality Inventory and the Self-Directed Search have been shown to be more easily transportable to other cultures than models of career concern and measures such as the Career Maturity Inventory and the Career Development Inventory.

McAdams (1995, p. 378) makes an interesting point when he compares Level I and Level II personality descriptors. Level I descriptors are now well-defined and clearly organized in taxonomies such as the Big Five, whereas Level II descriptors are still ill-defined and unorganized. This conclusion certainly extends to the realm of vocational psychology. Level I vocational personality types are well-defined and tightly organized, but Level II career concerns are merely summarized as an accumulation of empirical knowledge loosely organized into segmental theories such as the life-span, life-space approach to careers. A possible reason for this contrast, in addition to the fact that psychologists have studied Level I variables more intensively and for a longer time period, is that Level I variables concentrate on continuity and stability in occupational interests and vocational dispositions, whereas Level II variables emphasize change and development across the life span.

Level III: Career Narratives

Level III personality theories involve self-defining, life stories that are substantive, retrospective narratives about the self and others. These internalized narratives of the self usually include reflective descriptions about how the individual adapted to tasks and traumas. These narratives do more than explain where individuals have been and who they hope to become. By constructing a plot, the narratives address the question of

"Who am I?" The plot explains how they are agentic and to whom they feel connected. These stories of competence and connection impose a narrative structure on lived experience, one that explains the purpose and meaning for a life. The goal is to dramatically portray a dynamic life story and to narrate a theme or secret that makes a whole of an individual's life. For McAdams (1995), it is essential that this life story bring overall unity, purpose, and meaning to a life. Although, narratives explain discrete episodes, as whole they consciously organize and bound together a life. They give a life meaningful continuity over time. In short, the narratives about life path compose a life, that is, they "provide a purposeful self-history that explains how the self of yesterday became the self of today and will become the anticipated self of tomorrow" (p. 382).

Through construction of meaning, life-enhancing narratives foster selfunderstanding and enrich Level I self-organization and Level II selfextension. McAdams, Diamond, de St. Aubin, and Mansfield (1997) assert that Level III narratives begin to emerge during late adolescence and early adulthood as individuals create a self out of the fabric of their complex and contradictory experiences. They seek "to construct a more-orless integrative narrative of the self to provide their life with a semblance of unity and purpose" (p. 678). In addition to being unique to adulthood, McAdams and his colleagues hypothesize that life narrative descriptors of personality are germane to modern and postmodern democratic societies that emphasize individuation of the self. "From this standpoint, life stories are jointly constructed by the person whose story it is and the culture within which that story has its constitutive meanings" (McAdams et al., 1997, p. 690). North American cultures foster individualism and, thus, promote stories of uniqueness and identity. Therefore, Level III life narratives are more unique than Level I vocational dispositions or Level II career concerns because these unique stories fully contextualize the self in time, place, and role.

Narrative construction of meaning interprets lived experience by concentrating on a story line that reveals unity and purpose in the self. Obviously, these interpretations include constructs and events that lie outside personality theories of Level I and II. In constructing life narratives, individuals are free to interpret the facts of their life experiences. The narrative explains how individuals interpret the life they have lived and the self they have constructed. Because narratives depend on interpretation of a unique life course, narratives are never as self-evident as dispositional types or the outcomes of developmental and motivational strivings. This is why full knowledge of RIASEC types tells nothing about identity and may be a reason why Holland developed the Vocational Identity Scale to augment his theory of vocational personality types.

In the vocational domain, the counterpart of life narrative descriptions of personality seems to be career; more precisely, subjective career. Level I and II personality theories typically rely on objective conceptions of the individual formed by observers or resulting from personality inventories. In contrast, the subjective life narratives of Level III consist of individuals' conceptions of their personalities from their own point of view as well as the meaning which they give to their lives. These narratives are not composed in terms of psychological traits or psychosocial concerns; instead, they articulate needs and goals, purpose and intentional action, as well as the resultant life patterns—the very stuff of career. Career is how we interpret our work and understand our productive and generative strivings. It embodies dispositional continuity and psychosocial change.

From the objective perspective of society, career is defined as the sequence of occupational positions that an individual holds during her or his life-span. Everyone has an objective career; it is a record of where they have been and what they have done. However, not everyone self-consciously reflects on his or her objective career to construct a life narrative that comprehends it. A subjective career denotes this self-conscious narrative about the vocational past, present, and future. People who do not think about their vocational past, present, and future still demonstrate an objective career yet they do not construct a subjective career. Hughes (1958) appears to be the first social scientist to distinguish between objective and subjective career: "a career consists, objectively, of a series of status and clearly defined offices . . . Subjectively, a career is the moving perspective in which the person sees his [or her] life as a whole and interprets the meaning of his [or her] various attributes, actions, and the things which happen to him [or her]" (p. 63). Miller-Tiedeman and Tiedeman (1985) best articulated the essence of a subjective career when they defined career as "the imposition of direction on vocational behavior."

Postmodern researchers and counselors have been using constructivism as an interpretive science with which to comprehend the narratives that compose a subjective career (Savickas, 1997b). Constructivism embodies a metatheory and epistemic stance that emphasizes the self-conceiving features of human knowing (R. Neimeyer, 1995). Applications of constructivist metatheory to career can be grouped into three categories: personal construct psychology, biographical hermeneutics, and the narrative paradigm. Personal construct approaches (G. Neimeyer, 1992) make meaning of vocational behavior by examining the personal constructs that individuals use to anticipate and interpret the role that work plays in their lives. George Kelly (1955) initiated this line of research when, in his monumental Psychology of Personal Constructs, he wrote that vocation is "one of the principal means by which one's life role is given clarity and meaning"

(p. 751). A second major constructivist approach to career narratives originated with Super's (1954) life history model for comprehending career patterns. Today, this career pattern approach is subsumed by biographical hermeneutics that concentrates on the psychobiographical construction of careers (Bujold, 1990; Young & Collin, 1988, 1992). The third, and most recent approach to constructing careers integrates personal construct and biographical-hermeneutic approaches into a more comprehensive model with the idea that narration constructs meaning. With regard to the work role, narration forms career as a superordinate construct that guides vocational action along thematic lines of development. The work of Cochran (1997) and Jepsen (1992) exemplify the narrative approach to "career as story."

Clearly, Level III personality theories share much in common with the narrative construction of subjective career. Similar to life narratives about identity, career narratives seem germane to modern industrial and post-industrial societies, especially for middle class individuals who have the privilege of charting their career course. Furthermore, career narratives concentrate on creating meaning for the work-role, and their substance integrates individual lives with that of a community in telling about their productive and generative efforts to contribute to and cooperate with a social group.

Level IV: Mechanisms of Development

McAdams (1995) tripartite scheme of dispositional traits, personal concerns, and life narratives concentrates on the "content" of personality. He acknowledges that "process" constructs do not fit neatly into the three levels. The tripartite model addresses "features of personality that are potential candidates for inclusion within the person's self-concept," that is the self as "me" rather than the ego processes of the "I" (McAdams, 1995, p. 390). In eschewing process while focusing on content, the model ignores variables such as learning, cognition, and decision making. This coincides well with the vocational domain where researchers have generally ignored the actual mechanisms of vocational development. Research on the process of career development should not be mistaken as involving attention to true process variables. Instead, the focus has been on attitudes, competencies, and beliefs that condition these process variables. Attitudes toward and beliefs about career choice and decisional competencies are not decision making. Thus, a comprehensive theory about career development requires attention to a fourth level of descriptors, a category that directly addresses mechanisms of action.

Although vocational psychologists such as Gati (1996), Hackett and Lent (1992), and Krumboltz (1994) have nominated learning and decision making as critical process variables for explaining the actual mechanisms of career development, I prefer the model of selective optimization with compensation (SOC) advanced by Baltes and his colleagues (Baltes & Baltes, 1990; Baltes, Lindenberger, & Staudinger, 1996; Marsiske, Lang, Baltes, & Baltes, 1995) because it could link research in career development directly to a contemporary model in developmental psychology. Furthermore, the SOC model recommends itself to the study of career development because it was constructed to be applied to issues of general ontogenesis and domain-specific issues of adaptation. "Without specifying the substantive goals and outcomes of development, the SOC model is intended to characterize the processes that result in desired outcomes of development while minimizing undesirable ones" (Baltes, Lindenberger, & Staudinger, 1996, p. 42). Thus, the SOC model can be used to comprehend the development of Level I vocational personality types, Level II career concerns, and Level III subjective career.

Selective optimization with compensation is a conceptual model for analyzing changes in the adaptive potential of the self, or more simply, what is gained and what is loss by the person in everyday life. Baltes, Lindenberger, and Staudinger (1996, p. 37) view development as a process of selective adaptation and then define "successful development as the conjoint maximization of gains (desirable goals or outcomes) and the minimization of losses (avoidance of undesirable goals of outcomes)." The central mechanism of development is transactional adaptation to the environment. The actual process of development involves selection and then selective change in adaptive capacity. Thus, the basic component processes for the development of adaptive fitness are selection, optimization, and compensation. Selection and compensation are tools for the optimization of development and means of striving for desired outcomes and goals. Therefore, selection, compensation, and optimization represent fundamental agentic processes of personality that actually constitute the processes for advancing development, operationally defined by improvements in adaptive fitness.

"Selection involves goals or outcomes; Optimization involves goal related means to achieve success (desired outcomes); and Compensation involves a response to loss in goal-relevant means in order to maintain success of desired level of functioning (outcomes)" (Baltes et al., 1996, p. 38). Optimization involves procedural methods and processes that generate and refine means-end resources to achieve selected goals. Because there is no selection without loss, the individual must compensate for these losses. Compensation constitutes the response to loss of resources that were previously available for goal striving. Compensation can mean development of new resources or a change in selected direction. "It is also assumed that in reality the three components are always intertwined, that they form a

cooperative (interactive) system of behavioral action or outcome-oriented functioning" (Baltes et al., 1996, p. 42). Selection, optimization, and compensation can be internal or external, conscious or unconscious, and active or passive.

Clearly, the SOC model can be used to comprehend vocational personality types, explain career concerns, and provide a close reading of career narratives. However, applying selective optimization with compensation at these three levels of analysis (psychological, psychosocial, and self) requires the use of different conceptual models, research methods, and assessment materials. Nevertheless, at Level I the SOC model may be useful in explaining the origins and development of vocational personality types. Certainly, selective optimization with compensation can be used to comprehend processes of self-organization and the development of dispositional response tendencies. Adaptive fitness also could help specify the dynamics involved in person-environment congruence. At Level II, adolescent career concerns about selecting educational and vocational paths involve issues of separating from childhood certainties and the comfort of authority rooted in the past while optimizing strivings for uniqueness and compensating for loss of connection to childhood chums. At Level III, the SOC model can be used to give close reading to career narratives. SOC processes can be used to highlight what is considered and selected as individuals become who they are, how choices are implement and optimized, and which regrets people feel about paths not taken and concomitant losses.

TOWARD A COMPREHENSIVE THEORY OF CAREER

Based on my analysis of career maturity and adaptation of McAdams' (1995) tripartite model of personality, I propose a four-level model for comprehending career theories and integrating them into a comprehensive model of careers. A first proposition states that the emergence of a RIASEC structure of personality is a precondition for adaptation. It represents the central structure of personality. The RIASEC model involves self-organization and it explains continuity and coherence in development. Stable RIASEC traits frame how adaptation takes place and influence potential for developmental changes. The adaptive orientation represented by a RIASEC type gives an individual a sense of continuity and coherence, as well as provides coping processes to master developmental changes and to adapt flexibly to changing circumstances.

A second proposition suggests that a secondary system of self-regulatory mechanisms emerges in conjunction with personality self-organization. These mechanisms, which remain generally the same throughout the life-

span, meditate successful transactional adaptation. Currently, these mechanisms include concern, control, conviction, competence, and commitment (Super, Savickas, & Super, 1996). Their definitions integrate research findings from the career maturity literature with Erikson's (1950) constructs of psychosocial development. For example, career concern across the life span involves Erikson's trust versus mistrust theme, Super's future time perspective and planful attitudes, Crites' attitudes of orientation and involvement, Tiedeman and O'Hara's anticipation, and other closely related general purpose mechanisms such as optimism and hope.

Career narratives are the focus of the third proposition. Individuals who self-consciously reflect on their objective career can construct a subjective career in the form of a narrative. A career narrative comprehends the vocational self and shapes the further elaboration of this self-conception in the work world. Narratives about subjective career foster self-knowledge and clarify personal goals. A sense of subjective career heightens self-understanding and self-definition. More importantly, subjective career guides adaptation as it negotiates opportunities and constraints, and uses the self-organized personality dispositions to address self-regulatory concerns.

The fourth proposition seeks to specify the actual processes of continuity and change in career adaptation by adopting Baltes and Baltes' (1990) model of selective optimization with compensation. The process of career development involves selection, optimization, and compensation. These three process can be used at the microbehavioral level to specify the actual processes and mechanisms of development for vocational personality types, career concerns, and career narratives.

Taken together, the self-organization of personality dispositions, self-regulatory concerns, self-definitional narratives, and selective optimization processes should be sufficient to portray the landscape of life-span career development. But this raises an important practical question. Should researchers begin reflection and research aimed at linking the levels or just continue examining the variable in usual, separate levels of analysis. McAdams (1995) advises, for the personality domain, against trying to gain order by linking Level I to Level II. Instead, he recommends years of research to let order emerge empirically on Level II. He argues that it would be a mistake to try to explain Level II behavior in terms of Level I constructs; rather he urges researchers to "explore the terrain of Level II directly, without the maps provided by the Big Five" (p. 379). Transposing his argument to the vocational realm means that studying career concerns in disposition terms could be counter-productive, and produce a hierarchy of knowledge that privileges RIASEC traits as explanations of career concerns.

I expect different researchers to respond differently to this issue. On the one hand, some researchers probably will follow McAdams' advice and

work to structure Level II concerns and Level III narratives until they are organized by a model as elegant as Holland's (1997) hexagon. Hopefully, the thematic issues of concern, control, convictions, competence, and commitment can someday be formed into a developmental model of recursive career concerns. On the other hand, some researchers will prefer to immediately begin linking variables across the three levels, as has been started by some personologists (e.g., C'raziano' Jensen-Campbell, & Finch, 1997). Vocational researchers study, at multiple levels of analysis, how dispositions become situated strategies and goal directed activities. They could investigate improvements in person-environment interaction and movement toward increased congruence between self and situation at any age. Focusing on how improvements in person-environment fit eventuate across the life span requires understanding both continuity and change and should use development and individual differences as two organizers for and indicators of improvements in adaptive fitness. From an applied perspective, researchers could investigate practical problems such how Realistic personality types cope with the career decision-making process and what themes characterize their narratives about subjective career. This seems an intriguing tactic because different personality types probably express their career concerns differently and benefit from different interventions. Something as simple as routine interest inventory interpretations might be formulated and communicated differently for each RIASEC type. Regardless of researchers' preferences for investigation within or between levels of career theory, practitioners should be urged to comprehend clients' dispositional types, vocational concerns, and career narratives. Appropriate models, methods, and materials from each level of career theory should be used to assist clients in their quest for meaningful work and quality lives.

CONCLUSION

This chapter, prompted by Osipow's (1990) article on convergence in career theories, has analyzed problems in integrating the four segments of life-span, life-stage theory. This analysis led to suggestions for improving theorizing about life-span career development by incorporating advances in personality and developmental theory and by integrating differential and developmental perspectives on vocational behavior. Four propositions, emanating from transposing McAdams' (1995) tripartitie model of personality theories to the vocational realm, were advanced to provide an initial framework for research on unifying career theories into a comprehensive description of the structural and mechanism of vocational behavior across the life-span and in relation to other life roles. At a minimum, this

framework for conceptualizing career at the levels of personality dispositions, psychosocial concerns, self-construction, and mechanisms of development allows for the systematic comparison of career theories, including each theory's core constructs, their range of convenience, epistemologic assumptions, and research domain. Career counselors are encouraged to continue to comprehend their clients' vocational behavior in terms of dispositions, concerns, and narratives while vocational psychologists work to link these variables into a comprehensive career theory.

REFERENCES

- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), Successful aging: Perspectives from the behavioral sciences (pp. 1-34). New York: Cambridge University Press.
- Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (1996). Life-span theory in developmental psychology. In R. M. Lerner (Ed.), Theoretical models of human development Volume 1: Handbook of child psychology (5th ed.), Editor-in-Chief: William Damon. New York: Wiley.
- Barak, A. (1981). Vocational interests: A cognitive view. Journal of Vocational Behavior, 19, 1-14.
 Beilin, H. (1955). The application of general developmental principles to the vocational area. Journal of Counseling Psychology. 2, 53-57.
- Blustein, D. L., & Flum, H. (1999). A self-determination perspective of exploration and interests in career development. In M. Savickas & A. Spokane (Eds.), Vocational interests: Their meaning. measurement. and counseling use (pp. 345-366). Palo Alto, CA: Davies-Black.
- Borgen, F. (1991). Megatrends and milestones in vocational behavior: A 20-year counseling psychology retrospective. *Journal of Vocational Behavior*, 39, 263-290.
- Brown, D. (1990). Summary, comparison, and critique of the major theories. In D. Brown, L. Brooks, & Associates, Career choice and development: Applying contemporary theories to practice (2nd ed., pp. 338-363). San Francisco: Jossey-Bass.
- Buehler, C. (1933). Der menschilche lebenslauf als psychologisches problem. Leipzig: Hirzel.
- Bujold, C. (1990). Biographical-hermeneutical approaches to the study of career development. In R. A. Young & W. A. Borgen (Eds.), Methodological approaches to the study of career (pp. 57-69). New York: Praeger.
- Cantor, N., Acker, M., & Cook-Flanagan, C. (1992). Conflict and preoccupation in the intimacy life task. Journal of Personality and Social Psychology, 63, 644-655.
- Cantor, N., & Zirkel, S. (1990). Personality, cognition, and purposive behavior. In L. Pervin (Ed.), Handbook of personality theory and research (pp. 135-164). New York: Guilford Press. Cochran, L. (1997). Career counseling: A narrative approach. Newbury Park, CA: Sage.
- Crites, J. O. (1960). Ego-strength in relation to vocational interest development. Journal of Counseling Psychology, 7, 137-143.
- Crites, J. O. (1965). Measurement of vocational maturity in adolescence: 1. Attitude Test of the Vocational Development Inventory. Psychological Monographs. 79 (2, Whole No. 595). Crites, J. O. (1969). Vocational psychology. New York: McGraw-Hill.
- Crites, J. O. (1997, August). The validity of career maturity: Messick's model. In M. L. Savickas (Chair) Career maturity: The construct's validity, vitality. and viability (Cassette Recording No. APA 97-1116A-B/Sound Images, Englewood, CO). Symposium conducted at the meeting of the American Psychological Association, Chicago.

Dawis, R. (1984). The theory of work adjustment and person-environment correspondence counseling. In D. Brown, L. Brooks, & Associates, Career choice and development (3rd ed., pp. 75-120). San Francisco, CA: Jossey-Bass.

- Erikson, E. H. (1950). Childhood and society. New York: Norton.
- Ford, D. H., & Urban, H. B. (1963). Systems of psychotherapy. New York: Wiley.
- Gati, I. (1996). Computer-assisted career counseling: Challenges and prospects. In M. L. Savickas & W. B. Walsh (Eds.), Handbook of career counseling theory and practice (pp. 169-190). Palo Alto, CA: Davies-Black.
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations [Monograph]. Journal of Counseling Psychology, 28, 545-579.
- Gottfredson. L. S. (1999). The nature and nurture of vocational interests. In M. Savickas & A. Spokane (Eds.), Vocational interests: Their meaning, measurement, and counseling use (pp. 57-86) Palo Alto, CA: Davies-Black.
- Graziano, W. G., Jensen-Campbell, L. A., & Finch, J. F. (1997). The self as a mediator between personality and adjustment. Journal of Personality and Social Psychology, 73, 399-404
- Gribbons, W., & Lohnes, P. (1982). Careers in theory and experience. Albany: State University of New York Press.
- Hackett, G., & Lent, R. W. (1992). Theoretical advances and current inquiry in career psychology. In S. D. Brown & R. W. Lent (Eds.), Handbook of counseling psychology (2nd ed., pp. 419-451). New York: Wiley.
- Hackett, G., Lent, R., & Greenhaus, J. (1991). Advances in vocational theory and research: A 20-year retrospective. *Journal of Vocational Behavior*, 38, 3-38.
- Harris, D. B. (Ed.). (1957). The concept of development. Minneapolis: University of Minnesota Press.
- Holland, J. L. (1997). Making vocational choices: A theory of vocational personalities and work adjustment (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Hughes, E. (1958). Men and their work. Glencoe, IL: The Free Press.
- Jepsen, D. A. (1992, March). Understanding careers as stories. In M. L. Savickas (chair) Career as story. Symposium conducted at the American Association for Counseling and Development, Baltimore, MD.
- Kelly, G. A. (1955). The psychology of personal constructs. New York: Norton.
- Krumboltz, J. D. (1994). Improving career development theory from a social learning perspective. In M. L. Savickas & R. W. Lent (Eds.), Convergence in career development theories (pp. 9-31). Palo Alto, CA: CPP Books.
- 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.
- Marsiske, M., Lang, F. R., Baltes, M. M., & Baltes, P. B. (1995). Selective optimization with compensation: Life-span perspectives on successful human development. In R. A. Dixon & L. Blackman (Eds.), Compensation for psychological defects and declines: Managing losses and promoting gains (pp. 35-79). Hillsdale, NJ: Lawrence Erlbaum Associates.
- McAdams, D. P. (1995). What do we know when we know a person? Journal of Personality, 63, 365-396.
- McAdams, D. P., Diamond, A., de St. Aubin, E., & Mansfield, E. (1997). Stories of commitment: The psychosocial construction of generative lives. *Journal of Personality and Social Psychology*, 72, 678-694.
- McCrae, R. R., & Costa, P. T. Jr. (1990). Personality in adulthood. New York: Guilford Press.
- Miller-Tiedeman, A., & Tiedeman, D. (1985). Educating to advance the human career during the 1980's and beyond. Vocational Guidance Quarterly, 34, 15-30.
- Neimeyer, G. J. (1988). Cognitive integration and differentiation in vocational behavior. The Counseling Psychologist, 16, 440-475.

- Neimeyer, G. J. (1992). Personal constructs in career counseling and development. Journal of Career Development, 18, 163-173.
- Neimeyer, R. A. (1995). An appraisal of constructivist psychotherapies. In M. J. Mahoney (Ed.), Cognitive and constructive csychotherapies: Theory, research, and practice (pp. 163-194). New York: Springer.
- Noeth, R. (1983). The effects of enhancing expressed vocational choice with career development measures to predict occupational field. *Journal of Vocational Behavior*, 22, 365–375.
 Osipow, S. H. (1968). Theories of career development. New York: Appleton-Century-Crofts.
- Osipow, S. H. (1990). Convergence in theories of career choice and development: Review and prospect. Journal of Vocational Behavior, 36, 122-131.
- Osipow, S. H., & Fitzgerald, L. F. (1996). Theories of career development (4th ed.). Needham Hts., MA: Allyn & Bacon.
- Rounds, J., & Tracey, T. J. (1996). Cross-cultural structural equivalence of RIASEC models and measures. *Journal of Counseling Psychology*, 310-329.
- Savickas, M. L. (1993). The predictive validity of career development measures. Journal of Career Assessment, 1, 93-104.
- Savickas, M. L. (1995). Examining the personal meaning of inventoried interests during career counseling. Journal of Career Assessment, 3, 188-201.
- Savickas, M. L. (1997a). Adaptability: An integrative construct for life-span, life-space theory. Career Development Quarterly, 45, 247-259.
- Savickas, M. L. (1997b). Constructivist career counseling: Models and methods. In R. Neimeyer & G. Neimeyer (Eds.), Advances in personal construct psychology: Volume 4 (pp. 149-182). Greenwich, CT: JAI Press.
- Savickas, M. L. (1997c, August). Developmental perspective on the transition from school to work. In R. L. Worthington & R. W. Lent (Co-chairs) Applying vocational psychology theories to the school-to-work transition (Cassette Recording No. APA 97-2122A-B/Sound Images, Englewood, CO). Symposium conducted at the meeting of the American Psychological Association, Chicago, IL.
- Savickas, M. L., & Lent, R. (Eds.). (1994). Convergence in theories of career development: Implications for science and practice. Palo Alto, CA: Consulting Psychologists Press.
- Super, D. E. (1942). The dynamics of vocational adjustment. New York: Harper.
- Super, D. E. (1954). Career patterns as a basis for vocational counseling. Journal of Counseling Psychology, 1, 12–19.
- Super, D. E. (1957). The psychology of careers. New York: Harper.
- Super, D. E. (1992). Toward a comprehensive theory of career development. In D. Montross & C. Shinkman (Eds.), Career development: Theory and practice (pp. 3-64). Springfield, IL: Charles C. Thomas.
- Super, D. E., Savickas, M. L., & Super, C. M. (1996). The life-span, life-space approach to careers. In D. Brown, L. Brooks, & Associates. Career choice and development: Applying contemporary theories to practice (3rd ed., pp. 121-178). San Francisco, CA: Jossey-Bass.
- Swanson, J. L. (1992). Vocational behavior, 1989–1991: Life-span career development and reciprocal interaction of work and non-work. Journal of Vocational Behavior, 41, 101–161.
- Thorne, A. (1989). Conditional patterns, transference, and the coherence of personality across time. In D. M. Buss & N. Cantor (Eds.), Personality psychology: Recent trends and emerging directions (pp. 149–159). New York: Springer.
- Vondracek, F. W. (1997, August). The viability of career maturity theory: A developmental-contextualist perspective. In M. L. Savickas (Chair) Career maturity: The construct's validity, vitality, and viability (Cassette Recording No. APA 97-1116A-B/Sound Images, Englewood, CO). Symposium conducted at the meeting of the American Psychological Association, Chicago, IL.
- Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (1986). Career development: A life-span developmental approach. Hillsdale, NJ: Lawrence Erlbaum Associates.

Werner, H. (1948). Comparative psychology of mental development. New York: International Universities Press.

- Young, R. A., & Collin, A. (1988). Career development and hermeneutical inquiry Part I: The framework of a hermeneutical approach. Canadian Journal of Counselling, 22, 153-161.
- Young, R. A., & Collin, A. (1992). Interpreting career: Hermeneutical studies of lives in context. Westport, CT: Praeger.