A Living Systems Theory of Vocational Behavior and Development

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The Living Systems Theory of Vocational Behavior and Development (LSVD) explains and illustrates the processes by which individuals construct their work experiences, vocational pathways and career patterns through episodes of interaction with affordances they recognize within their contexts, and how counseling can facilitate those processes.

The LSVD was created by combining the scientifically based systems theory that explicates the dynamics of all aspects of human functioning and development, called Humans as Self-Constructing Living Systems, with important ideas about vocational behavior and development. The resulting integrative theory represents the individual person as a dynamic, self-directing and self-constructing entity, i.e., a living system. Behavior Episodes (BEs) are the fundamental, person-in-context, dynamic units of analysis that serve as the “building blocks” by which individuals construct and retain their experiences in patterns that can be reactivated to facilitate future BEs. The book describes how individuals’ history of satisfying BEs and their current activities provide the means by which vocational and career counselors can assist them to create satisfying vocational pathways. It also describes for researchers how new, non-linear, person-centered, quantitative and qualitative research methods can be used to analyze BE patterns to advance understanding of person-level processes that play key roles in individuals’ vocational behavior and development. The LSVD was designed to be not just an integrative framework for the field of career development, but also to reconnect the field to related areas such as human resources and industrial-organizational psychology and to the range of human sciences that have already embraced a living systems theoretical model.
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Call for an integrative and comprehensive theory of vocational behavior and development have been issued fairly regularly during the past half century. The idea that one can isolate “segments” of human functioning and development and inspect and understand them in relative isolation from other domains has been losing out to the realization that holistic views of human functioning-in-context are not only necessary but actually feasible. Accordingly, we endeavored to utilize an existing, purely propositional model of humans as self-constructing living systems (the Living Systems Framework; D. H. Ford, 1987) and apply it to an important, substantive area of human functioning, namely, vocational behavior and development.

It may be tempting for some to view the apparent surge in “systems thinking” as a fad, which will pass and give way to other world views. The fact, however, is that the paradigms of classical science, exemplified by Newtonian physics, are rapidly being superseded by much more complex, dynamic conceptualizations that are more closely aligned with actual experience. The resulting revision of the scientific enterprise has produced new branches of established scientific fields that deal with organized complexity, that is, systems. Indeed, almost everyone is talking about systems nowadays, whether it is in reference to the universe, transportation, biology, or communications. Although this may appear to eliminate the distinction among them, Laszlo (1996) has pointed out that what they have in common is not aspects of their substance (as in reductionism) but aspects of their organization. It should thus not be surprising to discover that the Living Systems Framework (LSF) has already been applied to two different substantive fields to articulate a theory of development (D. H. Ford & Lerner, 1992) and a theory of motivation (M. E. Ford, 1992).

In our effort to utilize the LSF in creating a theory of vocational behavior and development, we were mindful of the fact that broad acceptance of “systems thinking” in various fields of science and engineering was always accompanied by demonstrations of “how to” accomplish the shift from familiar linear cause and effect paradigms that had been so successful in classical science to the much more complex world of systems. At the same time, reluctance of vocational psychologists and counselors to embrace a systems view in practice appeared to be due more to puzzlement as to how to do it than to a fundamental disagreement with the systems perspective. We thus decided to provide practical demonstrations of how to use the Living Systems Framework (LSF) in vocational research and in counseling practice.

We organized our book in a rather straightforward way to appeal and be useful to individuals who are already knowledgeable about systems thinking as well as to those who may be new to this framework. Chapter 1 tries (once more) to make the case for integrative theorizing in the area of vocational behavior and development. Among other things, the apparent decline of vocational psychology, in spite of the importance of its subject matter, should leave little doubt about the fact that
fresh perspectives, especially efforts that can restore the connection of vocational psychology to the mainstreams of psychology and human development, should be welcome. Chapter 2 represents a summary of the theoretical framework (LSF) that forms the basis of Chapter 3, which is the presentation of our *Living Systems Theory of Vocational Behavior and Development* (LSVD). Chapter 4 demonstrates how the LSVD can be used to guide counseling interventions with adolescents who are preparing themselves to enter the world of work, as well as with adults who face the challenges of changing their career pathways. Finally, Chapter 5 addresses the implications of the LSVD for the design and conduct of research. We view this as being of critical importance because it highlights research methodologies that can propel vocational psychology to the cutting edge of contemporary research in psychology and human development and at the same time eliminate the all-too-frequent reliance on standardized measures and group data that preclude gaining critical knowledge about the unique individuals who are the focus of our research and interventions.

For readers who would like a more extensive understanding of our living systems framework and the usefulness of its applications we suggest the following sources.


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CHAPTER 1

THE CASE FOR INTEGRATIVE THEORIZING IN VOCATIONAL BEHAVIOR AND DEVELOPMENT

Work is central to the economic welfare and the adaptive development and functioning of individuals and societies. Working occupies more of adults’ waking time than any other activity. The pervasiveness of work ensures that virtually no aspect of human functioning is unaffected by it. The type of work performed by people largely determines their socioeconomic status and the environment in which they spend much of their waking hours. Work roles significantly influence our personal identity, where we go and live, and our social network. Therefore, chances are high that we select our friends and spouse or partner from among individuals we get to know through those settings. Family and work activities are interconnected to such an extent that employers, labor unions, and policy makers are unlikely to consider one without the other. Our health and well-being are intricately linked to work activity. Some work is hazardous by its very nature or location and some is associated with long-term negative consequences that adversely affect health and happiness. In contrast, some types of work offer a high probability of enhancing life satisfaction, sense of well-being and health (Vondracek & Crouter, 2013).

Although the relationship between work and human development depends ultimately on how humans construct and use their work lives (e.g., Savickas, 2002), work is perhaps the single most important determinant of developmental pathways and the quality of life across the lifespan and across national and cultural boundaries. Societal norms are based upon the expectation that all able-bodied people should work to provide for their own wellbeing, and people generally assume that healthy societies should offer the opportunity for citizens to pursue occupational success, which is often seen as an important aspect of the “pursuit of happiness.”

Work is typically thought of as an essential activity that provides resources for basic needs and wants. However, there are many forms of work activity that are designed to not only sustain us but also to generate a sense of accomplishment and satisfaction. Moreover, many work activities are essential to our and others’ well-being when they include, for example, child rearing, community engagement, hobbies, or home maintenance. With the lengthening of the lifespan in most countries, a significant number of adults will have the opportunity to retire and engage in work activities aimed (at least in part) at satisfactions other than earning an income. Many others, however, will need to work into old age in order to support themselves and their families. Therefore, integrative theories of vocational behavior and development and their professional applications must be focused broadly enough to encompass this diversity of work activity and developmental pathways.
CHAPTER 1

CURRENT STATUS OF VOCATIONAL PSYCHOLOGY

Beginning in the 1930s, theory development and professional activity in vocational psychology have been constructed from two differing perspectives, one focused on industries and selection, the other on individuals and guidance (Savickas & Baker, 2005). The former perspective is now generally known as industrial and organizational psychology while the latter is represented by vocational psychology and counseling psychology.

Industrial and organizational psychology addresses its subject matter from the perspective of organizations and employers. The massive twelve-volume Handbook of psychology devotes an entire volume to industrial and organizational psychology, with sub-sections dealing with research, personnel psychology, organizational psychology, and the work environment (Schmitt & Highhouse, 2013). Typical topics in industrial and organizational psychology include defining the worker characteristics best suited for each kind of job, constructing effective work settings, and enhancing the efficiency of employees to meet and exceed workplace demands and economic goals (Gunz, 2009).

The perspective of vocational psychology attends to people becoming workers and identifying suitable work for them. Vocational psychologists employ theories of career development to understand how person characteristics like vocational interests, work values, aspirations, and aptitudes, career decision making, and vocational identity development contribute to favorable career choices. Practitioners in vocational psychology (most often counseling psychologists) assist clients in choosing and preparing for work that suits their personal goals, values, and competencies. Moreover, they work with individuals to help them adapt to changing circumstances and to create developmental pathways that optimize their ability to have meaningful occupational careers and lead satisfying lives (Vondracek & Porfeli, 2009).

Vocational psychologists’ focus on a person’s current attributes and potentials and on developmental processes and pathways that might lead to future desired outcomes is a unique strength. Such developmental interventions, focused on facilitating and cultivating a satisfying work role and life are in clear contrast to the remedial interventions that are the hallmarks of fields like clinical psychology and psychotherapy, which are focused on offering treatments for human dysfunction.

Unfortunately, the division of vocational psychology into two branches has persisted and deepened since its emergence many decades ago, and it has resulted in a situation where today little communication exists between the two. For example, the word “vocational” does not appear in the extensive subject index of the industrial and organizational psychology volume of the Handbook of psychology (Schmitt & Highhouse, 2013). This is true in spite of the fact that “the two camps share in common a concentration on vocational behavior and its development in careers from the perspective of the individual;” (Savickas & Baker, 2005, p. 43). Nevertheless, progress toward integrative theorizing and more effective communication will be all but impossible unless adherents of different perspectives can at least agree on the language they use to describe and define their subject matter.
Conceptual and Definitional Issues

Before we proceed we must note the existence of some conceptual and definitional issues that persist in vocational psychology and related areas despite repeated efforts to address them (e.g., Borow, 1964; Crites, 1969). These issues include the broad and often imprecise use of the term “career”, as well as the casual usage of the term “development.”

We first address the meaning and usage of the term “career.” It has become commonplace to acknowledge that careers in the traditional sense, representing a more or less coherent sequence of occupational positions, account for only a small (and decreasing) slice of people’s varied involvement with work (e.g., Blustein, 2006; Richardson, 2012; Savickas, 2011). Careers in contemporary industrial society have become less predictable, sequential, and ascendant than was the case in the past, leading to the postulation of boundaryless (Arthur, 1994) and protean (Hall, 1996) careers. It is thus apparent that in its traditional use the term career is too narrow and specific to encompass the full and changing range of phenomena associated with the central role of work in people’s lives.

In contrast, the field of career studies includes many social and behavioral science disciplines, suggesting that career studies represent not so much a field of inquiry as “a perspective on social enquiry” (Gunz, 2009, p. 19). Moreover, there are numerous differing taxonomies of the field of career studies “in which a multitude of scholars are working in their various isolated corners, each talking to a small group of others” (Gunz, 2009, p. 20). As a consequence, there is no widely accepted definition of “career” that could be used by scientists to build upon each other’s empirical research findings, representing a clear barrier to progressively building a knowledge base as is usually done in scientific inquiry.

Unfortunately, vocational psychology has contributed to the current lack of precision in using the term “career” and this is particularly true in the area typically referred to as “theories of career development.” For example, Osipow (1983, p. viii) stated that his important book on theories of career development actually “describes and assesses the major theories of career choice” [italics added]. Holland (1985, p. 1) claimed that the primary concern of his theory was “to explain vocational behavior.”

To deal with this rather confusing situation, we propose to adopt Crites’ (1969, p. 16) view that the subject matter of vocational psychology should be “the study of vocational behavior and development.” Consequently, we have chosen to name our theory a Living Systems Theory of Vocational Behavior and Development. We take issue with Crites, however, regarding his assertion that vocational behavior occurs primarily in response to occupational stimuli (even when the term “occupational” is interpreted very broadly to include macroeconomic conditions such as labor markets and labor and economic policies, as well as more specific job characteristics, tasks, and requirements). Our issue has to do with Crites’ implicit acceptance of a mechanistic, stimulus-response paradigm to account for vocational behavior and development. Systems theoretical perspectives, like the living systems framework
CHAPTER 1

(LSF; D. H. Ford, 1987a), eschew simple mechanistic, linear cause and effect, stimulus-response relationships in favor of more dynamic relationships involving causal fields and behavioral/developmental patterns.

In our view, vocational behavior occurs when individuals pursue personal goals that are occupational in nature. For example, pertinent goals could focus on seeking, inventing, or occupying work roles, experiencing joy and satisfaction at work (or avoiding distress and dissatisfaction), engaging in work that includes original thinking (or avoiding work that is boring or mindless), experiencing the freedom to make choices at work (or avoiding feeling constrained or coerced), promoting fairness and justice at work (or avoiding unfair or unjust actions), meeting a challenging standard of achievement (or avoiding incompetence and mediocrity), and increasing one’s compensation (or avoiding a decrease in compensation). Occupation-related goals may also differ in scope or pattern: They may be short term (e.g., getting a desirable assignment or getting to work on time) or long-term (e.g., graduating from high-school); they may be lifetime goals, sometimes called “core goals” (Nichols, 1991; e.g., founding a successful company, becoming CEO of a company or accumulating great wealth).

We propose to further expand Crites’ (1969, p. 16) definition of vocational behavior to include behavior involved in the acquisition of values, interests, aspirations, and goals that eventually shape a person’s work life. We make this proposal in recognition of the fact that children’s preparation for the world of work, although not necessarily conscious and deliberate, begins much earlier than previously assumed, namely, in early childhood (for reviews, see Goldstein & Oldham, 1979; Hartung, Porfeli, & Vondracek, 2005; Watson & MacMahon, 2005). It has been reported, for example, that school-age children and adolescents do not typically draw distinctions between leisure, school, and work activities/behaviors (Vondracek & Skorikov, 1997). Moreover, children develop attitudes and values related to work when they observe how their parents relate to their work activities and circumstances (Danto, 2003; Vondracek, Silbereisen, Reitzle, & Wiesner, 1999).

An additional consideration is that choosing and adjusting to an occupation is no longer a one-time occasion, as may have been the case for the majority of workers until mid-twentieth century, but making decisions related to work and adapting to the changing landscape of work is likely to be a recurrent feature of vocational behavior throughout the life course (e.g., Savickas, 2012). Because work contexts in modern society are now continually changing and evolving, workers must themselves be prepared to change and develop in their goals, interests, and capabilities and to seek supportive contexts for work during their working life.

Vocational behavior may or may not be developmental in nature, depending on the circumstances. It may thus be useful to define what we mean by development, and we can do so best by adopting the definition of development crafted by D. H. Ford and Lerner (1992, p. 49):

Individual human development involves incremental and transformational processes that, through a flow of interactions among current characteristics of
the person and his or her current contexts, produces a succession of relatively enduring changes that elaborate or increase the diversity of the person’s structural and functional characteristics and the patterns of their environmental interactions while maintaining coherent organization and structural-functional unity of the person as a whole.

We shall refer to this definition at various times to illustrate vocational developmental changes and distinguish them from other kinds of changes. For now it may suffice to note that vocational development is most likely associated with vocational behavior patterns that extend and evolve over considerable periods of time and persist across a diversity of contexts, thereby warranting the label career. Vocational behavior patterns that occur in response to specific circumstances at specific times are more likely to be associated with jobs, while those that endure across many different circumstances may come to be integrated into a career narrative with a past, present, and anticipated, but increasingly difficult to predict future.

In choosing this approach, we deliberately departed from the tripartite foundation of vocational psychology described by Crites (1969) as consisting of differential psychology, occupationology, and occupational differences in traits and factors. Although these foundational areas and their subsequent elaborations and extensions (as described previously) have continued to form the basis of most theorizing and research in vocational psychology, they may, in fact, collectively represent a major barrier to the kind of breakthrough progress needed to re-invigorate the field and to re-establish it as part of the larger scientific enterprise that has been so successful in transforming other areas of importance in human development, including, for example, medicine, nutrition, and child care.

We offer the above reflections and clarifications to explain why we propose, in the following chapters, a theory of vocational behavior and development and why we prefer this terminology to the more commonly used career development terminology. Nevertheless, to avoid needless confusion, when we refer to existing theories that are usually referred to as theories of career development, we will use the familiar terminology.

HISTORICAL PERSPECTIVE ON THE EVOLUTION OF CAREER DEVELOPMENT THEORIES

During the past seven decades, several influential theories of career development have emerged from somewhat different theoretical roots, each of which has stimulated a wealth of empirical research and professional practice innovations. Most of these are incremental modifications of mid to late 20th century theories. For example Holland’s (1985) theory is a faithful application of the trait and factor approach pioneered by the “Minnesota School.” The intellectual heritage of Super’s (1980) life-span, life-space model is derived in part from Bühler’s (1959) insights into life histories and Snygg and Combs’ (1949) ideas about the “self”. A number
of different career development theories are adaptations of Bandura’s (1986) social
cognitive theory (e.g., Lent & Hackett, 1994; Lent, Brown, & Hackett, 1994) or
general social learning theory (e.g., Mitchell & Krumholtz, 1990; Krumholtz &
theoretical approach utilizes several other theoretical formulations (e.g., a person and
context focus; narrative, ecological, hermeneutical, and constructivist theories). All
of these theories implicitly assume the person is the primary unit to be understood,
but emphasize specific aspects of a person and their development, and most offer
limited explanation of the role of contexts in career development.

In view of the central importance of work roles in individual and societal
functioning, it is surprising that current theories of career development have had
almost no impact beyond the boundaries of a few, relatively small sub-specialties in
the social and behavioral sciences (for reviews, see Collin & Patton, 2009; Savickas
& Walsh, 1996). These theories and their applications have failed to impress the larger
domain of human development sciences and professions (and our society) with the
central importance of work. Career development sciences have also failed to engage
the broader scientific community in the demonstrated knowledge and methods they
have established to effectively serve individuals’ vocational development. After
an exciting period of growth in the field during the middle of the 20th century, its
reputation and social impact has declined (Savickas & Baker, 2005).

There are at least four important reasons for this relative insularity of current
theories and sciences of career development: (1) Each theory focuses on only some
of the numerous attributes that enable a person to function as an adaptive unit in
varying contexts; (2) Collectively, they have not utilized and linked to significant,
potentially relevant theoretical and empirical advances in other fields (e.g.,
developmental psychology; cognitive science; systems biology); (3) Most theories
have primarily focused on individuals’ perspectives on work roles and experiences,
and generally underemphasized (or ignored) the employer imperative and social-
economic contexts on workers’ career development; (4) Some have failed (for the
most part) to demonstrate their relevance and usefulness to the work of practitioners
in the field.

These observations strongly suggest that integrative theories of vocational
behavior and development (i.e., theories of career development) are needed that (1)
combine a focus on the person as a unified organization of many attributes, the context
as a unified organization of many attributes, and the dynamics of person-context
interactions, (2) utilize relevant fundamental scientific and professional advances in
other fields, (3) provide pathways of linkage to other human development domains
that could continually facilitate future improvement in both (e.g., family, child,
adolescent and adult development), and (4) demonstrate clear links to the work of
counseling psychologists and other practitioners in the field.

In sum, if the study of vocational behavior and development is to take its rightful
place in the very center of integrative, multidisciplinary conceptualizations of human
development, the various disciplines who lay claim to aspects of this domain will need to look beyond their current theoretical, scientific, and professional boundaries and endeavor to integrate and claim their place in the larger science of understanding human functioning and development and promoting positive development across the lifespan. Specifically, scholars and professionals concerned with vocational behavior and development (although they may refer to it as career development) from any disciplinary perspective could connect their theories, methods and research findings to a larger shared framework and promote the importance of their work collaboratively. If successful, this could result in having a significantly greater impact on the quality of people’s lives in the domains of career and work and beyond.

Trends Toward Integrative Theorizing

There is growing agreement among scholars and professionals that understanding vocational behavior and development from cradle to grave for men and women within rapidly evolving diverse communities, societies, cultures and economies will require theoretical frameworks that are more comprehensive, dynamic and integrative. One consequence of accepting the person and context as inseparable, ever-changing units has been the growing recognition that career development can be understood only when the field moves beyond segmental and towards comprehensive and integrative theories (e.g., Borgen, 1991; Osipow, 1990; Patton & McMahon, 1999; Pryor & Bright, 2011; Super, 1980; Vondracek & Kawasaki, 1995). Some steps toward creating more integrative theories already appear in applications of social learning theory (e.g., Krumboltz, 1979; Krumboltz, Mitchell, & Jones, 1976), Bandura’s (1986) social cognitive theory (e.g., Lent et al., 1994), action theory (e.g., Young & Valach, 2000, 2008) and career construction theory (Savickas, 2005).

Three noteworthy efforts to create integrative and comprehensive theoretical or “meta-theoretical” frameworks have emerged (Patton & MacMahon, 1999, 2006; Pryor & Bright, 2011; Vondracek, Lerner, & Schelenberg, 1983, 1986). All include a systems perspective on person and environment, although different terminology is used to describe them.

Patton and MacMahon (1999, p.9) stressed dynamic person – context patterns:

– an emphasis on wholeness and the interrelationship of parts within a whole
– view of the whole as greater than the sum of its parts
– the inclusion of elements from a variety of fields . . .
– an emphasis on mutuality of action and interaction – that is, the dynamic and recursive impact of the individual and the context on each other

“Recursiveness” was used to describe key influences within and between systems and sub-systems, because it “incorporates many key aspects of influences, such as their being nonlinear, acausal, mutual and multidirectional, as well as including the ongoing relevance of the past, present and future” (Patton & McMahon, 1999, p. 163).
They asserted that career decision making is at the heart of career development processes, but did not define specific career decision processes. Pryor and Bright’s (2011) Chaos Theory of Careers represents a more recent effort to utilize dynamical systems thinking to articulate what they call “a new perspective on working in the twenty-first century.” The Chaos Theory of Careers views individuals as complex dynamical systems who operate within other complex dynamical systems and who self-organize not only to survive but also to find meaning. Self-organization can result in order, coherence, and “resilient stability,” but such dynamical systems are also “sensitive to change in initial conditions” (Pryor & Bright, 2011, p. 31).

The key elements of the Chaos Theory of Careers (Pryor & Bright, 2011, p. 184) state that both people and organizations can be seen as systems that are:

- Complex: i.e., subject to many different influences
- Changing continually: sometimes gradually or even trivially, and at other times suddenly and non-linearly
- Highly interconnected: all elements in the system are connected to every other element
- Emergent: a feature of the system is that over time a clear pattern emerges that can be seen at every level of the system: it is called Fractal Behavior
- Open: the system is open to external influences that generally serve to modify the overall pattern in minor ways, but have the potential to have a sudden and dramatic influence
- Inherently unpredictable: containing both pattern and surprise

The Chaos Theory of Careers represents a significant step toward a comprehensive model of individuals and work in the rapidly changing environment of the twenty-first century. Its focus on complexity and change represents a major departure from mid-twentieth century theories of career development. Nevertheless, the theory falls short in a number of important respects. One of these is an almost total reliance on the proposition of self-organization, i.e., “the propensity of phenomena to form increasingly complex patterns” (Pryor & Bright, 2011, p. 28). Processes of self-direction (i.e., goal setting and anticipatory thoughts) and self-construction (i.e., proceeding beyond organizing that which already exists) are ignored. Another problem is that throughout the book, Pryor and Bright (2011) do not explicitly define their units of analysis, which creates difficulties for the reader trying to gain an understanding of the system components and their organizational dynamics. For example, in attempting to apply nonlinear dynamical systems thinking to understanding cognition, no distinctions are made about different cognitive functions and how they interrelate (e.g., remembering; evaluating; goal setting; problem solving).

Vondracek et al. (1986) outlined an integrative life-span conception of career development and intervention, parts of which have influenced other new or revised theories of career development (e.g., Lent et al., 1994; Patton & McMahon, 1999;
Savickas, 2002; Valach & Young, 2004; Young, Valach, & Collin, 1996). They noted that “the ultimate result of embracing an interdisciplinary, systems theory-type view of career development will be a shift from simplicity to complexity…” (p. 6) and “both the individual and the context [are seen] as changing interdependently over time, which thus requires a dynamic interactional view of career development” (p. 8).

Vondracek et al. (1986) offered two basic postulates to guide more integrative theory development. The first of these concerned conceptual content and fundamentally alters the basic unit to be understood: The basic unit of analysis is not just the person; rather, it is the person-in-transaction-with-specific-contexts. This means that a person’s development cannot be studied and understood solely in terms of specific attributes (e.g. “personality traits”) and their interactions independent of the diverse kinds of contexts in which they develop and operate. Each person constructs a repertoire of diverse person-context functional patterns to flexibly serve different kinds of purposes in different kinds of contexts in different periods of life and development.

The second postulate concerned propositional content, and transforms how to comprehend causal processes: Person functioning and development results from patterns of multidirectional, mutual-causal processes among dynamic attributes of persons and their contexts, sometimes called causal fields. In other words, a causal field is composed of a set of variables that are organized to function as a unit in which its components continuously interact in complex linear and non-linear fashion. Therefore, to understand living systems, the traditional mechanistic linear sequence model of cause and effect (e.g. standard regression equations and path models) must be replaced. What is required is a process model depicting person functioning and development as simultaneously acting, multivariate causal fields in which components function both as causes and effects.

Vondracek et al. (1986) made a strong case for integrative and comprehensive theorizing but lacked adequate propositions about the dynamics they emphasized. For example, they identified some likely multi-directional influences among systems components, but did not specify the processes by which these influences operate. This has undoubtedly limited the utility of their meta-theoretical model in the conduct of research and raised doubts about whether any existing comprehensive theory of vocational behavior and development can offer a useable, comprehensive and integrative theoretical framework.

Long before the more recent efforts at integrative theorizing, Super (1980) recognized that a person is a complex entity composed of integrated, interactive, dynamic attributes and patterns organized to enable a person to function as an adaptive unit in varying contexts. It followed that a complete theory of career development would have to encompass all attributes of a person. His strategy was to first create separate smaller theories focused on different aspects or “segments” of a person, and then later try to add them all together to create a unified comprehensive theory of career development. He produced some segmental theories and worked toward integration in his later years (Super, Savickas, & Super, 1996), but never achieved the goal of combining them into one comprehensive theory.
CHAPTER 1

The complexity of the phenomena of human development is cited by some theorists as a main barrier to creating a unifying conceptual model that can include and bind concepts and propositions representing all basic attributes of a person and their developmental contexts. That complexity, however, is exactly what we need to embrace if our goal is to understand the nature and dynamics of vocational behavior as core aspects of human development.

As a practical matter, one can choose to focus on one or two “segments” of a comprehensive theory but ignoring other segments does not eliminate their influence because all “parts” of a person and their contexts always continually operate collaboratively, often exerting influence in unrecognized ways. Thus, while parts can be studied separately, that does not mean they function separately. They always function as mutually influential components, collectively producing unified functioning and selective transactions with their contexts.

Systems theory is often derided as a theory of “everything” and hence too unwieldy to be of much practical use. We expect that our proposed living systems theory of career will be subjected to a similar criticism until the older generations of variable-based, classroom-trained thinkers are replaced by younger generations of scientists socialized within highly-complex, data-saturated social systems contained within global web-based environments like Facebook, Twitter and the burgeoning virtual K-12 and university systems.

Theories of vocational behavior and development need not emphasize all of the complexity of human development, but they must be embedded in the larger framework of a person’s life. Vocational behavior and its development in careers across the life span is deeply embedded in the fabric of human life and development, especially in countries with advanced or emerging economies, and work is what sustains human life everywhere. Hence, theories of career development and work are, in fact, theories of human development and functioning, albeit with a special focus on the developing person in relation to the world of work (Vondracek et al., 1986).

Although creating an integrative theory has been an elusive goal of vocational psychologists for quite a long time, progress toward the goal has been made, and realization of this goal is within reach. A great deal of theoretical and empirical work has advanced our understanding of career decision making (e.g., Gati & Tal, 2008), the role of self-efficacy beliefs in career choice (e.g., Lent et al., 1994), the interwoven nature of action and context in careers (Young, Valach, & Collin, 2002), and the functioning of adaptability in career construction (Savickas, 2002, 2005). These (and other) “segmental” theories and their associated empirical findings will continue to be important within an integrative theoretical framework.

A STRATEGY FOR CREATING AN INTEGRATIVE THEORETICAL MODEL

Theory is a key scientific tool for clarifying, explaining, and understanding diverse, complex and varying patterns of different kinds of phenomena, and for
making predictions about or anticipating potential future events. The concepts (i.e., parts) of a specific theory delineate the phenomena it seeks to explain and the conceptual framework represents the organization of these concepts. The scope of theories can vary to encompass many or few phenomena. When attempting to create an integrative theoretical model for a human development science and professional practice, the first question should be “What are the phenomena the proposed theory should encompass?” The second question should then be “How do the phenomena relate to each other to create a larger pattern that functions as a unit?” To the extent that both questions can be answered with clarity and specificity, the better the chances that the conceptual framework of a theory can be effectively communicated, tested, evaluated and applied. As will be illustrated later, existing career development theories generally suffer from insufficient clarity and specificity.

Concepts

Each phenomenon within a theory must be specified. A theorist gives each phenomenon a name we refer to as a concept label, which is used as a “handle” for discussing each kind of attribute and unit of analysis (e.g., interests; abilities; actions; self-efficacy beliefs). Unfortunately, sometimes a concept label gets reified in its use when it is treated as if it were a “thing” that actually exists. For example, as Super made clear, “self-concept” is only a name for a complex and elaborately organized pattern (or a pattern of patterns) of self-referent ideas and thoughts (e.g., Super, Starishevsky, Matlin, & Jordaan, 1963). The self-concept is not an entity; it is a pattern of ideas and thoughts. Some scholars converted that meaning into a “thing” that functioned as an agent or cause, suggesting that a person’s self-concept is a guide to their vocational development.

Some phenomena initially represented as concepts are eventually directly observed and are elevated to the level of being a concrete entity (e.g., atoms in physical sciences; cells in biological sciences; the action of neurons in response to stimuli in the neurosciences). Others are inferred from a preponderance of observations of their manifestations (e.g., gravity and electricity in physical sciences; metabolism in biological sciences; thoughts in human development sciences). Concepts can vary in the size, amount, and diversity of phenomena they represent, and some can serve as subcategories of a larger concept (e.g., self-efficacy beliefs may be a subtype of a larger category called self or performance evaluations/expectations).

In the physical and biological sciences and their applications there is widespread agreement about how to categorize and label the parts or kinds of observable or readily inferred phenomena encompassed by their theories. There is limited agreement, however, about these issues in the human development sciences and professions, where people and disciplines often choose to invent their own labels for the phenomena they emphasize. As a result, different names are often used for similar categories of phenomena or similar terms for different categories across
researchers and disciplines. This problem is evident in contemporary theories of career development. For example, do the concept labels of “self-concept” and “identity” represent different or similar phenomena? Do “self-efficacy beliefs,” “personal agency beliefs,” “self-confidence,” and “self-evaluative thoughts” refer to the same, similar, or categorically different phenomena (for a review, see Hartung & Subich, 2011).

This lack of agreement about conceptual categories and names and their use creates three serious problems:

- The only way to be sure of the intended meaning is to search for (sometimes elusive) definitions, descriptions and examples of the category named.
- Without clarity of the intended meanings, it is difficult to understand whether different theories are focused on the same or different phenomena.
- Linking proposed concepts in one discipline or research program to potentially relevant knowledge in other areas carries an additional burden of building a semantic network to identify and bridge shared meanings.

When concepts are directly observable, we can more readily agree on their properties; therefore, we can more readily identify and define them. To the extent that concepts are not directly observable, as is the case in the social and behavioral sciences, establishing the precise definitions becomes increasingly important.

Contemporary theories of career development emphasize attributes of the person and of the context that are believed to relate to vocational behavior and career choice. Each theory’s concepts represent only a few “parts” or “segments” of a person’s attributes and even fewer attributes of their contexts. For example, many currently popular concepts in career theory represent different kinds of cognition (e.g., goals; values; interests; self-efficacy beliefs) but few refer to emotions. At the same time, contemporary theories may focus selectively on some proximal contexts (e.g., work place; family; school) but most career theories only offer a nod to more distal and sometimes not fully observable contexts such as the overall state of the economy, labor policies, or the level of infrastructure development. A theorist may, for various reasons, choose to focus on a few attributes of a person (e.g., some aspects of cognition but not others), or their contexts (e.g., work but not family), but that does not eliminate the influence of other attributes.

An illustrative example of how some prominent vocational psychologists (e.g., Holland, Super, and Lent and his colleagues) have selectively focused on some attributes of person and context in their theories of career development (and ignored others) is shown in the following table, adapted from Patton and McMahon (2006, pp. 44, 73, 98). A number of things are noteworthy about the table. First, Table 1.1 makes it clear that the domain “career development theory” includes a wide range of phenomena, and that there are other career development concepts not included in that list (e.g. decision making, exploration). The three theories featured in Table 1.1 show little agreement about the relative centrality of various phenomena, and none of the 17 theories reviewed by Patton and McMahon address all of
Table 1.1. Influences on Career Development (adapted from Patton & McMahon, 2006, pp. 44, 73, 98: \textbf{A}=Acknowledged; \textbf{N}=Not acknowledged; \textbf{SE}=Significant Emphasis)

<table>
<thead>
<tr>
<th>Content Influences</th>
<th>Holland</th>
<th>Super</th>
<th>Lent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intrapersonal System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>N</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Aptitudes</td>
<td>N</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Interests</td>
<td>SE</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Gender</td>
<td>A</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>A</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>Skills</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Beliefs</td>
<td>N</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Health</td>
<td>N</td>
<td>N</td>
<td>A</td>
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<tr>
<td>Disability</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Values</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Work knowledge</td>
<td>SE</td>
<td>SE</td>
<td>A</td>
</tr>
<tr>
<td>Personality</td>
<td>SE</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Self-concept</td>
<td>A</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>Physical attributes</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td><strong>Social System</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Family</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Peers</td>
<td>N</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Community groups</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Education institutions</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Media</td>
<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Workplace</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td><strong>Environmental-Societal System</strong></td>
<td></td>
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<tr>
<td>Political decisions</td>
<td>N</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Historical trends</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Employment market</td>
<td>N</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Geographical location</td>
<td>N</td>
<td>A</td>
<td>N</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>A</td>
<td>A</td>
<td>SE</td>
</tr>
<tr>
<td>Globalization</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Continued
the phenomena considered (at least by some theorists) to be salient in career development. Second, the kinds of phenomena represented by the sub-categories in Table 1.1 are relatively vague and undifferentiated in their meanings. For example, the “Intrapersonal System” includes a mixed bag of variables, ranging from demographics to physical and psychological characteristics. Third, “Influences on Career Development” is divided into “Content Influences” and “Process Influences,” a practice that the authors noted has precedent in career theory (e.g., Hackett, Lent, & Greenhaus, 1991; Minor, 1992), although it is not universally accepted.

Processes

The content-process distinction may be useful in organizing complex information in a table, but it may also perpetuate the dichotomous thinking that has obstructed the emergence of integrative and comprehensive conceptualizations about humans and their vocational behavior. Various kinds of phenomena (often referred to as content) have no direct influence by themselves; their influence results from the nature of their relationships with other components in the currently operating pattern and the current context. In living systems, those relationships are dynamic, varying across time and context. For example, a young man’s self-efficacy belief about his inability to dance is generally inoperative except when he is in a current context that pertains to dancing. Within that context, however, there will usually be other forms of influence as well, e.g., (1) he may fear embarrassing himself and thus refuse to dance; (2) he may desire a friendship and therefore give dancing a try; (3) he may respond to a ‘dare’ by a friend and thus dance despite his misgivings.

Career development theorists often offer inadequate descriptions of the processes by which different attributes of a person and their contexts relate to and influence one another (e.g., how thoughts influence actions). They often describe the outcomes that are likely to result from a sequence of activities rather than the simultaneous patterns of influence that produce the outcomes (Gati & Tal, 2008). The following quote (which is implicitly based on the old mechanistic model of sequential cause-effect processes) is illustrative; words implying processes have been italicized

Elaborating somewhat upon Bandura’s general model, we posit that emergent interests lead to intentions or goals … which increase the likelihood of subsequent task selection and practice … [which], in turn, produces particular
performance attainments... resulting in the revision of self-efficacy and outcome expectancy estimates....” (Lent et al., 1994, p. 89)

This statement implies processes with words like emergent, lead to, increase, produces, and revision of; but does not define the processes inducing relationships between concepts. Clear definitions of processes, or in other words activities, procedures or operations by which some influence or outcome occurs, would eliminate this ambiguity.

The kinds of functioning found in living systems cannot be understood with the classic linear cause-effect, mechanistic model. A living system is characterized by simultaneously occurring activities of components that interact in mutually influential ways within a larger pattern so the system can function flexibly as a unit. In modern science, these are recognized as self-organizing and self-constructing processes. It is thus essential to think of content and process as a dynamic, integrated package, sometimes referred to as a causal field unit. Scientists of various backgrounds have attempted over the last century to find ways of studying the complex processes involved (for historical reviews, see D.H. Ford, 1987a; Skyttner, 2005) to develop explicit descriptions of how phenomena function, relate to or influence one another or, in other words, the dynamics of a theory. The inescapable conclusion that has emerged is that one cannot obtain an accurate understanding of persons by studying their parts separate from their dynamic organization or separate from the specific content and dynamics of the specific context within which the functioning is observed.

Reframing the Task

When individuals or groups are “stuck” in their efforts to solve a problem or make a decision, a frequently used strategy for trying to break out of their stalemate is called reframing the task. By going back and re-examining their objectives, starting assumptions, and their ideas and methods, they can discover new ways of operating, new possibilities, and potentially more fruitful pathways. We think career development theorizing is at that point. We already noted previously that “career development” is not a satisfactory designation for all that is encompassed by our definition of vocational behavior and development, although we are well aware of the difficulty of changing a long-term pattern of language usage. Nevertheless, we believe that the terminology we suggest is more precise and descriptive of the subject matter of vocational psychologists and career counselors.

Dissatisfaction with the incompleteness of early- to mid-twentieth century theories has produced multiple new theories in the traditional segmental form with additional kinds of concepts, and has led to calls for more inclusive efforts. The progress towards more integrative theories, however, has been slow and limited. Thus, we start this section by making an attempt to reframe the issues. To accomplish this, we looked for the “real life” events that form the basis for the large and diverse array of
abstractions (concepts) used in all the existing theories of vocational behavior and development (i.e., career development theories).

Specifically, we asked, “What kinds of phenomena do theorists seek to understand and explain when they examine vocational behavior and development?” We were particularly interested in identifying basic ideas shared by multiple existing theories as one way of locating the phenomena to be included in a comprehensive, integrative theory. In addition, we were mindful of the fact that the basic ideas are usually conveyed in two ways within a theory: (1) They are explicitly stated, and (2) they are implied by the kinds and contents of examples used to illustrate them. The result of our inquiry was the identification of the following six basic assumptions that are shared, to a greater or lesser extent, by most current theories:

1. **The person, environment, and fit.** Existing theories over the past century (e.g., Parsons, 1909; Super, 1957) identify the basic unit to be understood as a person seeking to understand, make plans and prepare for a personal vocational development pathway. Because the person carries out these developmental activities through interactions with diverse contexts and must find a role in the work context, vocational psychology has identified person-environment (P-E) fit as the preeminent guiding imperative of vocational behavior and development (Osipow, 1987; Edwards & Shipp, 2007).

   The person side of the equation is often expressed in psychological terms like self, personality, and identity. Like the physical body is a collection of parts functioning as a whole, psychological theorists often assume that self (Super, 1957), personality (Holland, 1959), and identity (Erikson, 1956; Galinsky & Fast, 1966) are collections of psychological parts functioning as wholes and made manifest in one’s career and worker roles. While psychologists endeavor to identify and examine the anatomy of personality, self, and identity perceptions, humans generally do not experience them as a collection of interrelated parts, but rather as wholes and as manifested in sentences including “me,” “myself,” and “I”.

   In their “contextualist explanation of career,” Young, Valach, and Collin (2002, p. 213) explained that “career is full of goals, plans, and intentions, but these are virtually meaningless without reference to context.” Holland (1985, p. 47) proposed that “a person’s career or development over the life span can be visualized as a long series of person-environment interactions…” Even Super (1994), whose model of life career stages aligns him most closely with life span development, documented that almost half of his numerous publications placed him within the “person-environment” orientation. Lent et al. (1994) also acknowledged the influence of contextual factors (e.g., opportunity structure and support systems) as moderators between interests and choice goals. Moreover, they acknowledged that “socioeconomic conditions, such as extreme poverty, can powerfully affect career choice options based, in part, on their impact on other system elements, such as learning opportunities” (p. 88).

   Those scholars attending to the environment side of the equation emphasize the social structural aspects of work in a way that is more or less consistent with
Mills’ (1959) conception of social structure, and as Blustein et al. (2002) point out, work is deeply embedded in culture (Betz, 1993; Leong & Brown, 1995) and in the structure of opportunities and constraints (Sewell & Hauser, 1975). Even Elder’s (1974) often cited study of the children of the Great Depression can be viewed as a study of how the life course changes as a consequence of work disappearing on a massive scale. People are assumed to employ perceptions of their environment to develop a conception of the social structure of their environment and their location within this social structure to make work choices. Peoples’ subjective and objective location within the social structure is presumed to influence the nature and prestige of their work through the uneven availability and distribution of resources and opportunities across the lifespan. Some scholars, (e.g., Blustein, McWhirter, & Perry, 2005) emphasize the limiting role that the social structure can have upon vocational behavior and development, but few if any emphasize the facilitating role it can have.

More contemporary theories of vocational behavior and development have suggested that the P-E fit imperative offers an artificial dichotomy between the person and his/her environment and have proposed that the person-in-context is the basic unit whose characteristics, functioning, change and development represent the phenomena to be understood in relation to career development (Vondracek et al., 1986). A person-in-context is a complex, dynamic organization of multiple kinds of biological, psychological, behavioral, and contextual components and patterns. Although fully embracing the person-in-context as the focus of their efforts has been difficult and elusive, theorists, researchers, and practitioners have almost unanimously acknowledged that persons cannot be understood apart from the contexts within which they are functioning.

2. The principle of unitary functioning. A person always functions as an integrated unit, selectively organized to behave in specific ways for specific purposes in specific contexts. D. H. Ford (1987a, p. 5) named this the principle of “unitary functioning.” Although different theories may emphasize different aspects of human functioning, all of them agree that just because a particular aspect is not emphasized as a major influence, it does not mean that such “neglected” aspects are necessarily irrelevant.

The idea of holistic, integrated functioning is certainly not new in psychology or even in vocational psychology. Nearly a century ago, Münsterberg (1912, pp.43-44) observed that “life is not divided into a region of feeling and another of knowing and a third of doing. . . . Even in the most trivial activity, our feeling, thinking and doing at first and primarily appear as a unity. . . . This unity which we find in every trivial little experience dominates our vocational life. . . .” Pryor (1985, p. 226) wrote that “Dividing the person up into bits and theorizing separately about each piece is a fundamental denial of the totality of the human being . . . .” (cited by Patton & McMahon, 2006, p. 154). Similar sentiment is reflected in most current theories of career development, as exemplified by this statement by Lent, Brown, and Hackett (1996, p. 374): “. . . a complex array of factors – such as culture, gender,
genetic endowment, sociostructural considerations, and disability/health status – operate in tandem with people’s cognitions, affecting the nature and range of their career possibilities” (italics added). Jepsen (1990, p. 129) stressed that both theory and practice in vocational psychology must incorporate the idea that “the person functions as a unified system.”

Expressions of unitary functioning of person and environment can be found throughout the field of vocational psychology under the general concept of person-environment fit. Notions of fit are also expressed in terms like congruence, correspondence, and incorporation. Learning about the self and occupations through exploration and adjusting one or both to improve P-E fit are among the assumed fundamental processes of vocational development (Parsons, 1909; Super, 1957). Aside from exploration and associated learning, expressions of P-E fit lack specific descriptions of the processes (i.e., activities, procedures or operations by which some influence or outcome occurs) that enable and produce unitary person-environment functioning.

Although not generally conceptualized as pertaining specifically to a P-E fit framework, Savickas’ (2005, p. 48) definition of career adaptability “emphasizes the coping processes through which individuals connect to their communities and construct their careers.” This represents a shift from the cornerstone idea of self-concept implementation to the idea of self-constructed (and continually developing) personal adaptation narratives as the key components in shaping career development (Savickas, 2011). The basic rationale is that through their daily experiences people progressively construct, elaborate and alter a general and organized story about themselves that functions to guide future activities. In an important departure from most previous theories of career development, Savickas focuses more explicitly on the processes that enable and produce unitary person-environment functioning by transitioning from the view of P-E fit as a terminal goal to proposing that adapting is a lifelong task in career development.

3. Personal agency and self-regulation. Several theoretical formulations have contributed to what is now an almost universal acceptance of the key role of personal agency and self-regulation in vocational development and choice. People regulate themselves to establish and achieve goals and to maintain preferred functioning and assert themselves in context to create, expand and maximize opportunities and to eliminate, constrain and minimize barriers associated with their goals. Individuals use evaluative thoughts and evaluative affective and emotional experiences to set priorities, choose among alternatives, evaluate the current and potential future desirability and effectiveness of current functioning, and use such evaluations to help guide and regulate their decisions and actions (e.g., Gati & Tal, 2008).

Foremost among theoretical formulations that have emphasized personal agency and self-regulation in vocational behavior and development are those that are based on Bandura’s (1986) social cognitive theory (e.g., Lent et al., 1994, 1996), with its emphasis on people becoming both products and producers of their environment.
Self-efficacy beliefs, outcome expectations, and personal goals presumably operate in complex, interrelated ways in the self-regulation of behavior. For example, citing Bandura (1989), Lent et al. (1994, p. 83) note that one of the central constructs of their theory, self-efficacy beliefs, constitutes “the most central and pervasive mechanism of personal agency.” Individuals exercise agency by selecting goals they judge to be appropriate, given the self-efficacy expectations and outcome expectations associated with those goals. The developmental-contextual framework (Vondracek et al., 1986, p. 75) also recognized that individuals can act as producers of their own development in a number of ways, including shaping and/or selecting their contexts. Personal agency is also a key construct in Savickas’ (2005, p. 43) career construction theory, which proposes that “individuals construct their careers by imposing meaning on their vocational behavior and occupational experiences.” Moreover, through exercising “career control” individuals are able to construct their future by making deliberate choices and taking responsibility for their lives.

4. Cognitive guidance of behavior pattern construction and functioning. A number of vocational psychologists have commented on the trend of the past several decades toward greater use of cognitive variables and processes in accounting for vocational behavior and development (e.g., Borgen, 1991; Lent, Brown, & Hackett, 2002). Preference, anticipation, planning, goal setting, problem solving, beliefs, and decision-making have long been recognized as cognitive processes that play a major role in enhancing self-regulation, with personal agency capabilities playing a major role in guiding vocational choices and development. The social learning theory of career decision making developed by Krumboltz (1979), the social cognitive career theory offered by Lent and Brown (1996), and Gati’s Prescreening, In-Depth Exploration, and Choice (PIC) Model of career decision-making are prime examples of the growing recognition of the centrality of cognitive processes in guiding vocational behavior (Gati & Asher, 2001; Gati & Tal, 2008).

5. Affect and emotion. While affect and emotion are fundamental to human life, they have not played a major role in the theoretical formulations of most vocational psychologists (Kidd 1998). Exceptions to this observation include the recognition of felt anxiety sourcing from self- and other-imposed pressure to find and maintain work and the happiness and satisfaction that are associated with finding and developing a suitable work life (e.g., Blustein, 2006; Dawis, 2002). There is also a growing recognition that “affective disposition” is a factor to be considered in the formulation of self-efficacy beliefs (Lent et al., 1994, p. 102); “emotional aspects of career decision-making are also considered integral to the career decision-making process. . . .” (Gati & Tal, 2008, p. 175); attitudes are defined as “affective variables or feelings that fuel behavior . . . .” in the theory of career construction (Savickas, 2005, p. 52). In addition, there is an important body of research on the impact of positive emotions on the capabilities of individuals to build enduring personal resources, including social support, resilience, skills, and knowledge (Cohn & Frederickson,
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2009, p.16), which is garnering attention from vocational psychologists (e.g., Leong, Savickas, & Leach, 2011).

6. Preferences, capabilities and skills (i.e., interests, aptitudes and abilities). One of the most influential theories of vocational behavior and choice over the past half century is Holland’s (1997) theory of vocational interests. Interests are operationally defined by Holland to be a combination of preferences and capability beliefs. Holland believed that people usually prefer tasks that they can do and tend to do tasks they prefer. Most theories of vocational behavior and development implicitly assume that people must have the requisite capabilities and skills to succeed in pursuing their occupational aspirations and goals. Generally, needed skills may involve influencing one’s context to produce the required results and/or obtaining information that can be used to guide future action patterns. One theory that explicitly addresses the role of capabilities and skills in career development is person-environment correspondence theory (Dawis, 2002). In short, the theory holds that a person exercises skills to perform tasks to fulfill needs and thereby gain satisfaction. Person-environment correspondence is achieved when the responses of person and environment result in a satisfied environment and a satisfied person. Holland extended this basic notion by asserting and demonstrating how people and contexts could be classified into combinations of six different interest types.

Naturally, if a comprehensive and integrative theory is to emerge, it must be able to incorporate these basic ideas that are shared by most current theories of vocational behavior development. As noted previously, a number of vocational psychologists have suggested that some form of systems theory is most likely to meet this requirement (e.g., Krumboltz & Nichols, 1990; Osipow, 1983; Patton & McMahon, 1999, 2006; Vondracek & Kawasaki, 1995; Vondracek et al., 1986). An early advocate of a systems view in career development, Osipow (1983) demonstrated his keen understanding of the field by suggesting that an emerging systems view of career behavior . . . explicitly recognizes that various situational and individual factors operate to influence career behavior in a broad way. With a highly sophisticated systems approach to career development, questions about the role of the biological, social, and situational factors in occupational behavior would become more explicit and . . . understandings of the interactions between these views would be more likely to emerge (p. 314).

Patton and McMahon (1999, 2006) and Pryor and Bright (2011) have taken important steps toward realizing Osipow’s vision by articulating their respective systems theory perspectives. They succeeded in making the case for a systems framework in career theory and practice, and called attention to the need for more explicit articulation of the complex patterns of processes that are operative in any living system.

In the following chapter, we will introduce the Living Systems Framework (LSF; D. H. Ford, 1987, 1994) and related theoretical formulations consisting of Developmental Systems Theory (D. H. Ford & Lerner, 1992) and Motivational
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Systems Theory (M. E. Ford, 1992) as the basic theoretical foundations for our theory of vocational behavior and development. Perhaps most importantly, the LSF includes not only a conceptual, but also an extensive propositional model, which explicates the processes underlying vocational behavior and development. It is our hope that we will succeed in addressing some of the shortcomings of previous attempts to construct comprehensive theories in the field, including those of Patton and McMahon’s (2009) STF, Pryor and Bright’s (2011) Chaos Theory of Careers, and Vondracek et al.’s (1986) developmental-contextual model.