



Life designing: A paradigm for career construction in the 21st century

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ABSTRACT

At the beginning of the 21st century, a new social arrangement of work poses a series of questions and challenges to scholars who aim to help people develop their working lives. Given the globalization of career counseling, we decided to address these issues and then to formulate potentially innovative responses in an international forum. We used this approach to avoid the difficulties of creating models and methods in one country and then trying to export them to other countries where they would be adapted for use. This article presents the initial outcome of this collaboration, a counseling model and methods. The life-designing model for career intervention endorses five presuppositions about people and their work lives: contextual possibilities, dynamic processes, non-linear progression, multiple perspectives, and personal patterns. Thinking from these five presuppositions, we have crafted a contextualized model based on the epistemology of social constructionism, particularly recognizing that an individual's knowledge and identity are the product of social interaction and that meaning is co-constructed through discourse. The life-design framework for counseling implements the theories of self-constructing [Guichard, J. (2005). Life-long self-construction. *International Journal for Educational and Vocational Guidance*, 5, 111–124] and career construction [Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: putting theory and research to work* (pp. 42–70). Hoboken, NJ: Wiley] that describe vocational behavior and its development. Thus, the framework is structured to be life-long, holistic, contextual, and preventive.

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As part of the internationalization of career counseling, scholars around the globe have been examining the transnational validity of their theories and techniques. This examination has occurred in the context of globalization of economies and rapid advances in information technology. In discussing 20th century models and methods for career intervention, it became clear that new approaches are needed to meet the needs of 21st century clients who live in knowledge societies. Furthermore, it seemed as if it would be beneficial to formulate these potentially innovative approaches in an international forum

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3. A life designing process

Individuals in the knowledge societies at the beginning of the 21st century must realize that career problems are only a piece of much broader concerns about how to live a life in a postmodern world shaped by a global economy and supported by information technology. For instance, the issue of how to balance work–family activities and interactions is becoming salient in people’s reflections about their competencies and aspirations. Managing interactions between different life domains has become a paramount concern for the many peripheral workers whose employment is contingent, free-lance, temporary, external, part-time, and casual.

A major consequence of the interconnectedness between the different life domains is that we can no longer speak confidently of “career development” nor of “vocational guidance.” Rather, we should envision “life trajectories” in which individuals progressively design and build their own lives, including their work careers. Not only adolescents will encounter the big question: *What am I going to make of my life?* This question is at issue for everyone as they negotiate a series of major transitions in their lives occasioned by changes in health, employment, and intimate relationships.

Answering this life-design question arouses ethical considerations concerning the principles that provide life bearings and identifying what makes a life really worthwhile (Taylor, 1989). As Parker (2007) observed:

Behind any autobiographical act is a self for whom certain things matter and are given priorities over others. Some of these things are not only objects of desire or interest, but command the writer’s admiration or respect. These are the key “goods” the writer lives by, shaping her acts of ethical deliberation and choice. Such goods may include ideals of self-realization, social justice, equality of respect, or care for certain others. . . Such goods also inevitably shape the stories she tells when she projects her future or construes her past or present. In short, these goods are at the heart of life narrative, necessary constituent of it (p. 1).

Such ethical considerations in designing and building one’s own life are not new. At the beginning of the last century, these considerations were probably present in the reflections of young people pondering their occupational choices. Yet in our current society, ethical considerations are of a much higher psychological priority. First, individuals nowadays are forced to reflect on what matters most to them, because as Giddens (1991, pp. 33–34) noted: “the individual feels bereft and alone in a world in which she or he lacks the psychological supports and the sense of security provided by more traditional settings.” This loss of bearings necessitates reflection on one’s life orientation. Second, people are increasingly aware of the new risks associated with our current way of life (Giddens, 1991). Given these two phenomena, it seems crucial that career specialists try to construct contextualized models. Individuals engaged in the personal project of life building can use these models to understand and cope with their unique contexts.

4. Refocusing the goals of career intervention

The new relationship between the worker and the work world creates the need to develop and apply new systems of personal promotion. Specifically, vocational interventions should assist individuals to reflect about their “key goods” (Parker, 2007) as being relative to the context in which they live. The objective of such reflection is to resolve problems that may arise as individuals build their lives, by matching their needs to those of the contexts, in particular the context of work activities.

Our approach to formulating such vocational interventions presupposes that the issue of interaction between personal agency and social structure must be transformed into scientific questions. These new questions must be grounded in already elaborated knowledge. The fundamental vocational/social issue of the early 20th century involved how individuals should find occupations or professions that fit them and that they were capable of learning (Parsons, 1909). The leading question that has directed — and still directs — scientific investigations in the career domain is *How to match individuals and occupations?* At mid-century, new issues arose in conjunction with the rise of hierarchical, bureaucratic organizations. The second issue then became how individuals could capitalize on their diverse experiences to progress occupationally and develop their careers. Super (1957) transformed this issue into the following question about peoples’ development: *What are the factors, stages, and processes of lifelong career development?* Current societal issues about designing one’s life lead to a research question that is different from yet builds upon the questions about matching and development (Guichard, 2005): *What are the factors and processes of a person’s self-construction?* While it remains important to understand how people choose occupations and how careers develop over time we should formulate a better understanding of how individuals construct their lives through their work. We should seek an answer to the question: *How may individuals best design their own lives in the human society in which they live?* Initially, this research question emphasizes the need to concentrate on activities in different life domains than just work. By engaging in activities in diverse roles, individuals identify those activities that resonate with their core self. Through activity, along with verbal discourse about these experiences, people construct themselves.

In building a research agenda, it is useful to distinguish between core, peripheral, and marginalized employees. Core employees work for an organization on a more permanent basis. Core employees must learn how to make the best investment of their current competencies to adapt and to develop new competencies in order to survive in a boundaryless labor market. For this type of employee, we need research on the factors and processes that encourage and guide the development

to avoid the difficulties of creating models and methods in one country and then trying to export them to other countries where they would be adapted for use. To begin this process, we formed the Life Design International Research Group with representatives from Belgium, France, Italy, Portugal, Switzerland, The Netherlands, and the United States. The Vrije Universiteit Brussel (Belgium) supported and hosted this group that has met regularly for three years to devise new approaches to career intervention. In the beginning, much discussion was required to achieve common understandings and to formulate mutual goals. Initially, we needed to negotiate a common set of concepts and definitions and then enunciate a joint epistemic position. To concretize this process, we set as a first goal jointly writing the present position paper to structure and support our common work.

1. Introduction

Proliferation of occupations and the diversification of paid jobs that arose at the beginning of the 20th century became one of the most characteristic consequences of industrialization. This new social arrangement of work brought about the need to help people find and negotiate paid employment. The pioneering practices of vocational guidance, considered as a “micro-tool for the Industrial State” (Arthur, Inkson, & Pringle, 1999, p. 163), promoted the notion of hierarchical dependence and stable relationships. As a consequence, loyal and dedicated workers could aspire to a job for the rest of their lives, and the organization would respond by offering job security. During the 20th century, social norms and expectations circumscribed occupational careers in that the social order provided predetermined paths from which the individuals were to make fitting choices.

At the beginning of the 21st century, a new social arrangement of work poses a series of questions and challenges to scholars who aim to help people develop their working lives. This new social contract between employers and employees seems to be propelled both by the globalization processes now underway in different parts of the world and by rapidly improving information technologies. Today, occupational prospects seem far less definable and predictable, with job transitions more frequent and difficult. These changes require workers to develop skills and competences that differ substantially from the knowledge and abilities required by 20th century occupations. Insecure workers in the information age must become lifelong learners who can use sophisticated technologies, embrace flexibility rather than stability, maintain employability, and create their own opportunities. These new conceptions of work life recognize that career belongs to the person not the organization (Duarte, 2004). Taken together, the concomitants of the new social arrangement of work have created a crisis for those who would hold to modern theories of occupational choice and career development.

2. Crisis in career development models and methods

The core concepts of 20th century career theories and vocational guidance techniques must be reformulated to fit the postmodern economy. Current approaches are insufficient. First, they are rooted in assumptions of stability of personal characteristics and secure jobs in bounded organizations. Second, they conceptualize careers as a fixed sequence of stages. Concepts such as vocational identity, career planning, career development, and career stages each are used to predict people's adjustment to work environments assuming a relatively high stability of the environments and peoples' behavior. However, even within the positivist paradigm, individual factors such as people's vocational interests seem to be less fixed than has been assumed in theories of vocational personalities such as Holland's (1973). The few studies that have examined possible stabilities in vocational interests were conducted in a context of relatively stable environments (Rottinghaus, Coon, Gaffey, & Zytowski, 2007). It is of no surprise then to find significant relationships between individual characteristics as measured in adolescence and later vocational behaviors in a stable societal context that promotes linear careers. In addition, rather than conceptualizing careers as a meta-narrative of stages, 21st century theories should approach careers as individual scripts. Career stages as defined in extant theories (Super, 1957) are mainly shaped by societal needs. A slack and stable labor market will embrace the idea of career stages whereas these stages are no longer functional in a tight and changing labor market.

Current career development theories and techniques face a crisis in that their fundamental assumption of predictability based on stability and stages is debatable and, more importantly, may no longer be functional. Indeed, human behavior is not only a function of the person but also of the environment. No matter how stable individual characteristics might be, the environment is rapidly changing. Therefore, theoretical models are needed that emphasize human flexibility, adaptability, and life-long learning. Moreover, future methods of career counseling should take a dynamic approach that encourages individuals' imaginative thinking and the exploration of possible selves (Oyserman, Bybee, & Terry, 2006).

The contemporary science of applied psychology and the profession of career counseling in particular are challenged to produce an empirically-tested and systematically-improved model of careers that fits into the new global society and supports relevant interventions. Such models and methods must place individuals in the continuous process of integration into their contexts. At the same time, we must not lose sight of those valuable contributions of 20th century theories and techniques that remain relevant in this new era. As we go forward, we should manage the great inheritance of the last decades of the 20th century, while increasing its richness.

of competencies. In comparison, peripheral workers must learn how to cope with the multiple transitions that they will face during the course of their work lives. Their working lives will unfold as sequences of career mini-cycles (Super, Savickas, & Super, 1996) each involving explorative and developmental activities that may or may not build on earlier work experiences. Consequently, career decision making by peripheral workers will be frequent, focused on the shorter term, and dictated by their employability. Marginalized workers may encounter additional barriers to and constraints on their employment, sometimes even leading them to concentrate on just day labor.

Such postmodern conceptualizations of careers and vocational decision making require regular reflection on the self and the environment, receptivity to feedback, and the imagination of possible selves. People's careers are constructed as individuals make choices that express their self-concepts. The self-concept also is constructed through the specific experiences that people have had in environments they have experienced. Narrative approaches to career counseling rely on these experiences as a meaningful resource for further life designing and building. People's self-concepts may be altered by new experiences and even by observing the behaviors of others. Their interests are never completely fixed and the self is continuously reconstituted.

5. Five presuppositions of life-design counseling

Developing a life-design intervention model and methods requires a fundamental shift in paradigm. To formulate vocational interventions that meet the goals just articulated, we need a paradigm that emphasizes the permanent co-evolution of individuals, the economy, and society. The new paradigm for counseling must produce specific knowledge and skills to analyze and cope with ecological contexts, complex dynamics, non-linear causalities, multiple subjective realities and dynamical modeling. Accordingly, we identified these five shifts in thinking as necessary and hopefully sufficient conditions to develop a new paradigm for life designing and building in the 21st century.

5.1. From traits and states to context

Inspired by natural sciences, 20th century psychologists sought universal laws governing human behavior. Consequently research focused on stable personality traits and ability factors to characterize a person as well as an occupation. Then they used person and occupation profiles to diagnose the best 'person-environment-fit' and prescribe it to their clients (Holland, 1973). Client's core, transferable, or specific professional skills and social competencies have been introduced to refine diagnosis and decisions about vocational guidance and employability (Watts & Sultana, 2004). The fundamental paradox shared by all these approaches is that counselors aim to find the best fit between a client's life projects and environmental conditions by using tools and methods that eliminate precisely such contextual information.

Counselors often use so-called objective measures and normative profiles. However, these methods are insufficient to describe clients as living entities who interact with and adapt to their manifold contexts. Professional identities should be seen as changing patterns derived from client stories rather than as static, abstract, and oversimplified profiles of client test scores. The individual client and his or her ecosystem form a complex dynamical entity, resulting from mutually adaptive self-organization over time. Professional identity is shaped by self-organization of the multiple experiences of daily life. Thus, our first presupposition about necessary shifts in career models and counseling methods is to admit that counseling occurs far from controlled conditions.

5.2. From prescription to process

A recent longitudinal study by the U.S. Bureau of Labor Statistics (2002) reported that on average young people up to the age of 36 changed their jobs 9.6 times since age 16. If people change their jobs almost every two years on average, the unique choice of a single occupation for life becomes more of a myth than reality. While it may be true that many people in the 20th century were hired for the long-term on the bases of mutual loyalty and security, today's employment is more and more based on mutually recognized 'win-win' situations, short-term goals, and restricted mutual obligations. The actual paradox is that counselors continue to prescribe careers whereas clients continually change jobs. Instead of a single occupational choice, the tasks of career construction and identity formation have become a continuing responsibility for most of our clients.

Furthermore, counselors have to face the fact that information about traditional career paths becomes more and more questionable and hazardous. Vocational counselor will be able to keep informed about all the job-specific requirements on the actual labor market and thus offer the 'best fit' to clients. During the era of internet, clients more frequently complain about information-overload, rather than about lack of information. Today, clients seek help in coping with rapidly changing requirements for their own employability, enhancing their social competencies, facing psychological traps such as their 'bounded rationality' in their decision making (Kahnemann, 2003), and managing complex constraints within their personal, professional, social, and family eco-systems.

Our second presupposition about necessary shifts in career models and counseling methods is therefore to focus upon strategies for survival and the dynamics of coping, rather than adding information or content. Counselors must discuss with clients "how to do" not "what to do."

The ideal vantage point of an independent counselor is a meta-perspective, including specific competencies for systemic analysis of complex, interactive, and dynamic processes and their multiple consequences, for identification of the relevant control parameters, for synthetic and simple communication of these driving mechanisms to clients and significant others, to help develop efficient strategies for problem solving, action planning and overall life designing.

5.3. *From linear causality to non-linear dynamics*

Traditional scientific reasoning is linear and deductive. It may be very useful and efficient to apply a general law (i.e., all human beings die) to a single case (i.e., X is a human being) and deduce a foreseeable consequence (i.e., therefore X will die). By similar reasoning many traditional vocational counselors believed in a general law, basing their practice on the assumption that aptitudes and interests of an individual enabled counselors to predict future career development. If this were true, we actually should be able to present a bulk of evidence showing the predictive validity of precise differential psychological assessments for most of the observed career patterns. Unfortunately, this is not the case, and available evidence at best shows moderate predictive power for some different dimensions of vocational counseling (Brown & Krane, 2000).

The paradox here is that counselors continue to believe in simple and linear causal explanations, while their daily experience does not validate these explanations. The assumption that aptitudes and interests are sufficient to succeed in a given job or training, and the belief that such requirements remain stable and predictable seem to be no longer true. While it is true that some aptitudes such as general intelligence and people's basic values remain relatively stable, the point here is that as people design and live their lives they should not view their aptitudes and interests as fixed. Furthermore, in interactive situations, such as vocational counseling, one agent cannot rely on the other agent to behave rationally. Even during a simple interaction of problem solving, premises and definitions change continually and often in non-linear ways. Multiple, changing, and complex decisional chains, complicated by mutually dependent and thus non-linear causalities, become the rule. Simple linear causalities are the exception.

Thus, our third presupposition about necessary shifts in career models and counseling methods is to broaden the perspective from simple advice for vocational decision making to an expertise in co-construction and accompaniment of more holistic life design. The simple traditional sequence of differential diagnosis, indication, and prescription, inherited from medical practice has to be replaced. Counselors should adopt iterative strategies for problem solving and acquiring polyvalent expertise by using many different tools and methods (i.e., 'happenstance'; Krumboltz, 2003). To help in the complex task of designing a life, a single contact will rarely be sufficient; serious counseling takes time. Together with the client and significant others the control parameters of potential dynamics in their complex eco-system have to be identified, working hypotheses have to be formulated, then tested and evaluated, and this process must be repeated in an iterative way to formulate sustainable and satisfying solutions.

5.4. *From scientific facts to narrative realities*

During a major part of the 20th century, individual careers were shaped by prevailing societal norms: first education, then work, and finally family. Social integration and recognition were mainly based upon these systems of reference. Today, at least in Western societies, we witness a growing diversity of individual realities, far from the traditional pathways. People at all ages return to school, obtain training, lose their jobs and get divorced, without necessarily losing social recognition. Co-existence of multiple identities and subjective realities therefore seems to be a natural consequence of such societal evolutions.

Again, traditional training for vocational counseling heavily relies on scientific methods developed at universities under controlled conditions and according to strict psychometric criteria. Such standardized tests and their statistically-derived norms today may provide a false security and lead to self-fulfilling prophecies that make the task of verifying their true validity under real-life conditions difficult to perform. Furthermore, these instruments force counselors to translate subjective realities and truths of their clients into terms that some clients will not understand. The fundamental paradox here is that counselors try to understand clients by using a language (norms and technical terms) that does not belong to their clients' vocabulary. Recent work by Savickas (2005) shows that understanding clients' own construction of their multiple subjective realities through analysis of their narratives offers the advantage of keeping close to their own language and not only understanding their actual situation but also its roots. Instead of abstract and invariant societal or statistical norms, client's own significant references for designing their personal life emerge.

Accordingly, our fourth presupposition about necessary shifts in career models and counseling methods is to focus on client's ongoing construction and re-construction of subjective and multiple realities. Rather than relying on group norms and abstract terms, they should engage in activities and meaning-making that enable them to build some new view of themselves. The advantage is evident; if there exist multiple ways to interpret one's own diverse life experiences, different life perspectives and designs become possible. Counselors will facilitate empowerment and flexible adaptation to or re-construction of one's own eco-system and thereby open new perspectives of co-evolution.

5.5. *From describing to modeling*

Finally we should also address the issues of evaluating the outcomes and assuring the quality of counseling procedures. Traditional studies compare two groups of randomly assigned subjects, the first receiving a specific treatment and the

second serving as a control group. If the first group shows statistically significant better results on previously defined outcome variables, the specific treatment is declared to be successful. Once again, this kind of experimental design is rarely appropriate for studies of career counseling. Clients' professional projects are by definition individual and thus different. Therefore efficient career counseling has to be adapted individually and any reduction to a standardized treatment diminishes its substance. Similar difficulties arise if one tries to define counseling outcomes with a single dependent variable, even using innovative variables such as satisfaction with the decision, adapting to new situations, accepting one's situation, and coming to a conclusion. Any dependence upon simple descriptive statistics will result in limited success because counseling addresses multiple subjective realities, having individual roots for different clients, with manifold and non-linear causes due to changing premises and definitions of problems during treatment.

Nevertheless, evaluation of the effects of counseling still needs to be done, despite the complexity of the task. Several other scientific disciplines, including mathematics, meteorology, biology, genetics, and economics have been exploring different approaches in which complex patterns of interacting variables are systematically modeled and simulations performed in order to forecast the probable behaviors of complex systems (Thomas & D'Ari, 1990). These modeling procedures, including fuzzy sets and chaos patterns, show increasingly effective predictive validities.

So, our fifth presupposition about necessary shifts in career models and counseling methods is to focus on modeling fractal patterns, striving to forecast emerging stable configurations of variables, rather than any single outcome variable in evaluation of counseling (Dauwalder, 2003). One of the most important criticisms, addressed to career counseling – its lack of empirically proven efficiency – might thereby hopefully be settled at last.

6. A basic framework for life-designing interventions

Interventions based on a life-designing and building model need to endorse all five of the preceding presuppositions about people and their work lives: contextual possibilities, dynamic processes, non-linear progression, multiple realities, and personal patterns. Thinking from these five presuppositions, we have crafted a contextualized model based on the epistemology of social constructionism, particularly recognizing that (a) an individual's knowledge and identity are the product of social and cognitive processes taking place in context of interactions between people and groups as well as negotiation between them (Gasper, 1999), and (b) the meaning an individual gives to reality is co-constructed in a social, historical and cultural context through the discourse with which we form our relationships (Young & Collin, 2004). The life-design counseling framework implements the theories of self-constructing (Guichard, 2005) and career construction (Savickas, 2005) that describe vocational behavior and its development. Thus the framework is structured to be life-long, holistic, contextual, and preventive.

6.1. Life-long

Life in knowledge societies moves fluidly along trajectories that can no longer be predicted. Each life has become even more of an individual process, still influenced by environmental factors yet constructed to a large extent by individuals. However, self-construction is conditional upon the availability of adequate skills and knowledge. It is exactly at this point that lifelong career guidance support starts to play a role. A support system for life designing and building must do more than just help people acquire skills to deal with current changes and developmental issues. It should also help them to determine for themselves which skills and knowledge they value in their lifelong development and then help them to determine "how" (the needed method), "who" (the person or specialist that can give the support), "where" (the environment in which it should take place), and "when" (the best moment for the intervention) these skills and knowledge may be acquired.

6.2. Holistic

Along with lifelong development comes the issue of a holistic approach to designing a life. This means that, although the vocational aspects related to the work and student roles are at the center of attention, other important life roles such as family member, citizen, and hobbyist should be taken into account (Super, 1990). People involved in designing their lives should be encouraged to consider simultaneously all salient life-roles as they engage in career construction. Thus, life-design counseling includes career construction yet goes beyond it in attending to self-construction through all life roles, because for some people work may not be the salient role.

6.3. Contextual

From social constructionist perspective of life designing, the importance of the environment should be stressed. Even more, the environments from the past and the present, the interaction of the person with these environments, and the way the environments were observed and interpreted by the individual need to be incorporated. The person should be encouraged to explore the life theaters in which the different roles may be performed and use the results of this exploration in the self-construction process. From this viewpoint life-designing intervention should be inclusive. All roles and environments relevant to the person should become part of the intervention that constructs career stories and builds lives.

6.4. Preventive

Vocational guidance can no longer confine itself to intervening at transition times and making predictions or proposing suggestions on the basis of present stock taking. It should also include a markedly preventive role. It is necessary to act on settings, looking for early preventive alliances and collaborations. In the framework of life-design counseling this means taking an interest in people's future much earlier than when they have to face the difficulties of transitions, so that their actual choice opportunities can be increased with special attention devoted to at-risk situations. The effectiveness of vocational guidance could be measured by its ability to produce significant changes in the "conclusions" of the life stories of many individuals (Soresi, Nota, Ferrari, & Solberg, 2008) by fostering adaptability, narratability, activity, and intentionality.

7. Goals of life-designing intervention

Being life-long, holistic, contextual, and preventive, the life-design framework for counseling interventions aims to increase clients' adaptability, narratability, and activity. Adaptability addresses change while narratability addresses continuity. Together adaptability and narratability provide individuals with the flexibility and fidelity of selves that enables them to engage in meaningful activities and flourish in knowledge societies.

7.1. Adaptability

The life-designing model aims to help individuals articulate and enact a career story that supports adaptive and flexible responses to developmental tasks, vocational traumas, and occupational transitions. It helps them develop their capabilities to anticipate changes and their own future in changing contexts. It also helps them find ways to achieve their expectations through their involvement in different activities. Accordingly, life-designing intervention aims to increase career adaptability. For example it seeks to increase the five "Cs" of career construction theory: concern, control, curiosity, confidence, and commitment. Concern involves a tendency to consider life within a time perspective anchored in hope and optimism. Control rests on the conviction that it is an advantage for people to be able not only to use self-regulation strategies to adjust to the needs of different settings, but also to exert some sort of influence and control on the context. Curiosity about possible selves and social opportunities increases people's active exploration behaviors. Confidence includes the capacity to stand by one's own aspirations and objectives, even in the face of obstacles and barriers. Commitment to one's life projects rather than one's particular job means that career indecision must not necessarily be removed, as it can actually generate new possibilities and experimentations that allow individuals to be active even within uncertain situations.

7.2. Narratability

All types of career intervention use a dialogue between clients and counselors to assist clients to construct and narrate a story that portrays their career and life with coherence and continuity. The story should enable clients to better understand their own life themes, vocational personality, and adaptability resources (Savickas, 2005). Part of this process is the construction of subjective identity forms and their underlying cognitive frames (Guichard, 2004, 2005; Guichard & Dumora, 2008). The role of the counselor should be to help clients to formulate the identity in their own words and to map out their system of subjective identity forms. A subjective identity form is the way a given individual sees himself or herself and others in a particular context as well as relates to others and the objects in this context. According to the contexts in which an individual interacts and communicates, she or he designs herself or himself in distinct identity forms (e.g., student, athlete, hobbyist). Thus, an individual's identity seems to be constituted by the evolving system of subjective identity forms in which an individual constructs herself or himself (Guichard, 2005; Guichard & Dumora, 2008). Mapping out the system requires cognitive abilities, as for example, comparative and probabilistic reflections (Dumora, 1990, 2000). The mapping process is not linear but rather a meandering through a series of recurrent mini-cycles of the choice activities of sensitization, exploration of the self, exploration of the environment, exploration of the relationship between self and the environment, specification, and decision (Van Esbroeck, Tibos, & Zaman, 2005). Going through the activities of these mini-cycles, particularly exploration about self and about the relationship between self and environment, contribute to the construction of the self.

Life-designing interventions assist individuals to identify all of their subjective identity forms or life roles (and their relations) and then reflect on how some of these forms or roles may become central in their lives while the rest may be peripheral. At a given time in a person's life one or two life domains may be of major importance to her and provide her some major perspectives for self-constructing and life designing. These salient roles shape the person's overall sense of meaning and mattering, and these domains are often linked to some major expectations. As people perform a role in a context, they will recognize that they implement particular scripts, receive specific feedback, develop views about themselves and other people, and then form expectations about their futures in that kind of context. Thus life-design counseling includes career construction (Savickas, 2005) for the work role yet goes beyond it. It aims at to help people become fully aware of the ways in which they articulate their salient life roles and domains (including major past ones) in relation to some major future expectations in one or more roles. Then it encourages them to find ways to increase their chances of achieving their expectations, such as defining priorities, identifying supports, cultivating resources, and engaging in activities.

7.3. Activity

Actual activities in the different domains of life are critical in the process of designing and building one's own life. Each person constructs reality through verbal discourse yet what they do is a major component in the evolution of this discourse. By engaging in diverse activities, individuals come to learn which abilities and interests they prefer to exercise. Through activities, people build new dimensions of themselves, for example self-efficacy beliefs. They interact with other people from whom they receive feedback and with whom they build collective systems of representations. Building up of new views and representations through activity and interaction transforms self-concepts and may prompt re-interpretation of some life themes. Activities must be considered if we wish to produce significant changes in "conclusions" of the life stories of many people and in particular of those that seem already written or that might have been easily predictable and foreseeable. An example of such intervention is a workshop called the Discovery of Occupational Activities and Future Plans (Guichard & Dumora, 2008) that prompts young people to engage in activities that they perceive to relate to future expectations.

7.4. Intentionality

Action is central to our thinking because it involves behavior plus meaning (Malrieu, 2003). The meaning may arise from prospective intention or retrospective reflection (Vallacher & Wegner, 1987). Richardson (2009) has suggested that the intentional process is central to the broader task of constructing a life. Positivist research on careers concentrates on decision making and declaring a choice. The comparable process for the social constructionist perspective is articulating intentions and anticipations regarding possible selves and life in the future. Pertaining to the work role, Young, Valach, and Collin (1996) have noted that career may be viewed as an interpretive construct built by a working person. The career itself is built by engaging in activities and then reflecting on the outcomes. In this regard, Krieshok (2003) has suggested replacing the construct of *decidedness* with the construct of *engagement* in the work world despite uncertainty. Both Richardson and Krieshok suggest that clients and counselors should not concentrate on choice in a world where there is much uncertainty and fewer choices. Instead, they should concentrate on meaning making through intentional processes in the ongoing construction of lives. In knowledge societies, self and identity are constructs build by the person through continuing reflection and revision.

Career construction theory asserts that individuals build their careers by imposing meaning on vocational behavior (Savickas, 2005). From a constructionist viewpoint, career denotes a moving perspective that imposes personal meaning on past memories, present experiences, and future aspirations by patterning them into a life theme. It is the meaning contained in these biographical themes that will equip individuals to adapt to the social changes that are playing out in their work lives. This personal meaning replaces the holding environment once provided by organizations that contained the task of self-integration as it cared for, protected, and interpreted experiences to its employees. Today, it is the life story that holds the individual together and provides a biographical bridge with which to cross from one job to the next job. To help individuals design their lives and construct their careers in knowledge societies requires new approaches to intervention.

8. Intervention model

The intervention model for life designing relies on stories and activities rather than test scores and profile interpretations. Briefly sketched, the model has six general steps, although steps are really only constituted after the experience of each client. First, the client and counselor need to define the problem and identify what the client hopes to achieve by consulting the counselor. As they begin to formulate goals for counseling, they immediately establish a relationship characterized as a working alliance. In this relationship, the counselor encourages the client to describe through stories the history of problems to be addressed. As the client narrates the stories, the counselor prompts reflection on story themes and meanings. In this dialogue, they determine the main contexts for each problem. The focus is not narrowly on just one context; the dialogue must help clients become aware of main domains of their lives. Moreover, they must consider for counseling now what is salient among their core and peripheral roles.

After identifying the problem and its main context, the second step involves the client's exploration of his/her current system of subjective identity forms. Client and counselor investigate how the client sees self today and how the client organizes self and function in the salient role/domain. The counselor helps the client to reflect on and then shape the story by having the client articulate experiences and expectations, action and interactions, relationships to others, and future anticipations.

The third step in the process aims to open perspectives. Narrating the stories turns what had been implicit into something explicit, making it more objective and obvious. Objectifying the stories gives them added substance and reality and, in turn, allows the client to study the stories at a distance. This close reading of the stories allows the client to view them from new perspectives, thus enabling them to re-view their own stories. The counselor inquires of the client whether there were any options given up, daydreams destroyed, or choices circumscribed. It may be time to retell and once again experience these silenced stories. Through common discovery and re-authoring, stories can be reorganized, revised, and revitalized.

Following story revision, the fourth step in life-designing intervention is to place the problem in this new story. The key moment in the process occurs when the problem is put into the new perspective. This enables the client to think about self

from a perspective of some new or expected identity forms. Problem resolution and client change occurs as the client crystallizes new anticipations and articulates a possible self that before the intervention had only been vaguely sensed. This step seems complete when the client creates a synthesis of old and new by selecting and tentatively committing to some role and identity.

The fifth step is to specify some activities that try on and actualize that identity. The client needs to engage in some activities related to the possible self they are now narrating. To be concrete about what they will do and what it means requires that the client craft a plan. The plan of activities outlines how to get involved in some new experiences. It lists the activities that may move the client from the currently experienced to currently desired, a movement that Tiedeman (1964) called purposeful action. The plan should include how to deal with current or potential barriers as well as rehearsal for telling their new life story to important audiences. The telling should enlist the support of parents, partners, friends, and whoever else can serve as a good audience to make the story more clear and coherent. The counselor should check with the client that this plan of purposeful action directly addresses the problem they brought for consultation. It is useful to provide the client with a written summary of the plan along with an identity statement that crystallizes sustainable strengths and a success formula.

The sixth step consists of follow-up, both short-term and long-term. Quality assurance requires that the counselor study the outcomes of consultation and, as necessary, provide additional consultation.

9. Training practitioners for life-designing

Vocational guidance should be seen as a “discipline of change” and counselors as change agents rather than professionals that deal mainly with diagnoses, or with more or less accurate predictions. In planning training activities for counselors who wish to deliver life-designing and building interventions, the aim would be to realize the same type of interaction that, in our opinion, career counselors should have with their future clients. Emphasis would be placed on (a) future counselors' active participation during their training, (b) reduction of the gap so often existing between the world of research and that of training and application, (c) ensuring that graduates model what they will advocate, and (d) preparing counselors for collaborative projects.

9.1. Active participation

We are convinced that passive reception does not guarantee significant learning. Thus, most training time should be devoted to exercises, group work, and practice. It could be useful to set up some situations for service learning (Roschelle, Turpin, & Elias, 2000) where students are placed in real-world settings which can be arranged to address life-designing themes (Savin-Baden, 2000). Presenting well-structured, real-life, complex problems will strengthen the knowledge and skills learned in courses.

9.2. Research–practice gap

To close the gap existing between the world of research and that of training and application, the training should keep to the following plan: (a) presentation of the crucial points from current scientific literature about the life-designing model, methods, and materials; (b) demonstration of life-designing interventions so that students participate in observational learning; (c) carefully evaluated homework assignments that require students to apply the theory and rehearse its techniques; (d) systematic analysis of results of student practica, service learning, and internship outcomes; and (e) competency assessment as a graduation requirement.

9.3. Models

The training should aim to have the counselors themselves show clear identity and strong adaptability. At the first level, counselors should emerge from training as proactive, self-determined professionals with high levels of self-efficacy for performing their professional duties. These characteristics may be attained through rigorous training and supervision. At the second level, they themselves must ‘model’ narrating their stories and actualizing their identities through activities that have meaning and mattering. These characteristics should be monitored over time to check whether they indeed help counselors adjust to the changing reality in which they live, the same as their clients. One critical professional behavior that counselors should master and model is the willingness and ability to collaborate.

9.4. Collaboration

Because of the multifaceted nature of the problems presented by clients, life-designing interventions need a variety of collaborations, multidisciplinary views, involvement of different professionals and services. The interconnectedness between all the life-roles as mentioned above leads to the observation that vocational guidance as part of life designing and building cannot be separated from other types of guidance. All specialties of guidance and counseling should be considered together as parts of one large support project for individuals who are designing and building their lives. Emphasizing a holistic lifelong

model of the individual and how the different identity frames and forms are interwoven creates a platform on which all those who engage in the broad field of guidance could meet on an equal footing with their colleagues.

In addition to collaborating with guidance professions, life-design counselors must be concerned with disseminating their knowledge and services as part of a knowledge society. This might start in working with parents and teachers. With training and team work, teachers can validly analyze their students' situations. They could identify as early as possible students who are at-risk of making unrealistic or impulsive educational and vocational choices. Teachers could also benefit from collaborative interventions that address school maladjustment and withdrawal (Nota, Soresi, Solberg, & Ferrari, 2005). As regards parents, we should promote mass media debates and reports on the importance of life designing and parents' role in it as well as provide parents with useful publications on life designing as a family project (Young, Ball, Valach, Turkel, & Wong, 2003). Such interventions could be included in training programs that parents could attend either before or alongside the life designing interventions planned for their children. Such programs could facilitate the use of the same language and stimulate a similar way of conceiving career construction. In this connection, "The partners program" seems to have produced significant effects on how to support their children in the parents that have used it (Palmer & Cochran, 1988). With some updating and adjusting to include on-line materials, it could inspire national and local editions more attentive to cultural and social specificities that parents experience.

10. Formulating a research agenda for life designing interventions

The perspective developed herein might lead to two complementary lines of research: one which might be called top-down, which is theoretically driven, and another which might be called bottom-up, which is based on an analysis of practice. Concerning the top-down approach to research, several core constructs are certainly of interest in order to understand career construction as the management of possibilities. It may include an analysis of the interaction between individual characteristics such as adaptation, anticipation, representation, or reflexivity and contextual characteristics such as proximal and distal cultural background. It should be stressed, however, that the subjective perception of what adaptation actually means might vary substantially from one individual to another. Nevertheless, all concepts addressing this core notion of adaptability might be considered as promising future research directions. For example, the notion of employability that typically combines individual and contextual characteristics deserves more attention. This type of research might help to identify at-risk configurations and to develop new preventive interventions.

Concerning bottom-up research, studies should be conducted on intra-individual variability, short-term changes, moderator and mediator effects in order to capture the dynamic aspects of career construction (Holmbeck, 1997). Simultaneously, more attention should be devoted to long-term changes occurring after intervention (Bernaud, Gaudron, & Lemoine, 2006). Concerning intra-individual variability, case studies might also be a promising research strategy especially when they are explanatory rather than exploratory or descriptive (Yin, 2003). Indeed, one of the strengths of case study research is the ability to detect the existence of phenomena — especially non-linear or dynamic processes — that might be undetectable by comparing mean levels across groups. Moreover, such a research strategy allows taking into account a large variety of information obtained using interviews or observations, for example. Moreover, case study research might help to analyze the influence of contextual variables which are usually difficult to assess or to take into account in a purely empiric and quantitative way.

The contemporary world is characterized by an overall globalization and important migration streams (Duarte & Rossier, 2008). More research concerning cultural aspects is definitely needed in order to take into account the actual changes in our societies. One very difficult and challenging task is to empirically characterize the construct of culture. Nevertheless, this task is crucial when trying to determine the impact of cultural factors on the relative expression of culture-dependent processes. This type of analyses might indeed help to understand the influence of the cultural context on the processes underlying career construction. A combination of a cross-cultural approach and an ethnographic approach or participant observation might help to more precisely describe the influence of culture or cultural aspects on career guidance issues.

Most research directions or strategies presented above are theory driven. However, to develop new knowledge about the processes and dynamic aspects of individual trajectories, a bottom-up research strategy, analyzing practices in the field of career guidance, might be of prime importance. This approach might be useful in understanding how and under which conditions life-designing intervention might lead to a redefinition of, for example, vocational identity according to the social processes of a given culture. Roughly, this perspective implies an observation of concrete practices. Such an approach might help to understand the frames of reference of clients as seen and described through the frames of reference of counselors. Following this approach several types of analyses might be used such as narrative, discourse, or ethnographic analyses. This type of research is especially advisable for topics or aspects which have not been studied extensively.

Research should be conducted to identify and describe the processes underlying life-designing interventions, particularly related to the work role. However, processes are sometimes difficult to assess directly because they are effective only temporarily, unknown, or inaccessible. In this context, mixed-method studies might be one research strategy for gathering information from multiple sources. Such a strategy might simultaneously take into account several paradigms and result in a more comprehensive description of the results (Creswell & Plano Clark, 2007). This combination not only increases external validity by confirming that several research approaches lead to similar results, but also increases the diversity of information available and promotes a more comprehensive description and understanding of the phenomenon. Using a diversity of per-

spectives, techniques, and methods in this research may contribute to better describing and understanding the dynamic aspects and the contextually-dependent nature of life design and career construction.

11. Next steps

The International Research Group has set for itself several projects as next steps in developing the life-designing intervention model, methods, and materials. At the conceptual level, further work is planned to linguistically explicate and operationally define central constructs such as adaptability, narratability, biographicity, and identity forms. A French team led by Jean Guichard has begun this work by reviewing the literature on adaptability. They have already concluded that the term adaptability has been used variously to denote a personality trait, social competence, and behavior. Using this conclusion as a starting point, the Life Design International Research Group in 2008 held a symposium on career adaptability in Berlin. The symposium was the first step in forming a research collaboratory with colleagues from Australia, China, England, Germany, Iceland, Israel, Japan, South Africa, and South Korea. Together, the symposiasts formulated a first draft of a career adaptability model intended to have wide cross-cultural validity. The collaboratory members are currently refining the model and, in due course, will devise ways to use it in life-design counseling.

The construct of narrative is critical in life-designing interventions both as a process and an outcome. The intervention process involves having clients tell their stories and then reflect upon those narratives as a way of making meaning, forming new intentions, and planning exploratory activities. Clients also should be able to use this improved telling to enhance their own biographicity (Alheit & Dausien, 1999), that is using biographical agency to bridge transitions. To help clients revitalize their stories by revising them for greater coherence, continuity, and completeness, life-design counselors need narrative competence. This competence involves a set of skills with which to enter and understand client stories (Charon, 2004). When counselors use this competence, clients leave counseling better able to narrate their stories to audiences composed of peers, family members, and coworkers. So, we plan to study how to improve counselors' narrative competence and clients' biographicity as well as conduct outcome studies that evaluate the effects of narrative competence on biographical agency. In addition, the constructs of intention and purposeful action require the same attention to elaborate their meaning and devise operational definitions.

Developing counseling methods and materials for use with individuals and groups is high on the agenda of next steps. Practice leads theory so there already exist a small collection of techniques and tools specifically fit for life-design counseling. Included in these materials are traditional tools reconfigured for in a social constructionist approach, such as card sorts, genograms, early recollections, and sentence completions each used in a way that elicits and elaborates career narratives. We are in the process of producing a website to share these methods and materials as well as min-lectures on career construction theory and life-design counseling. We envision adding a collection of case studies that illustrate the approach. While the cases will each be unique and submitted by practitioners who use different strategies, the case presentations will be uniform in following the outline for life-design counseling presented herein.

Finally, we plan to collaborate with colleagues in human resources and industrial and organizational psychology who have an interest and expertise in career management. They have developed theories that complement and supplement career construction theory and life-design counseling. For example, Hall's (1996) conceptualization of the protean career concentrates on the constructs of identity and adaptability. Recently, Briscoe and Hall (2006) combined these constructs with Sullivan and Arthur's (2006) constructs of boundaryless mindset and mobility to produce eight career scripts. Those interested primarily in life designing must keep their ideas compatible with those interested primarily in career management. As noted earlier, life designing and career building compose an iterative process through out the life cycle. In parallel process, specialist in life designing must continually interact with specialists in career management to offer the best possible assistance to citizens as they design and enact their work and family roles.

References

- Alheit, P., & Dausien, B. (1999). Biographicity as a basic resource of lifelong learning. Paper presented at the second European conference on lifelong learning, Bremen, Germany.
- Arthur, M., Inkson, K., & Pringle, J. (1999). *The new careers: Individual action and economic change*. London: Sage.
- Bernaud, J.-L., Gaudron, J.-P., & Lemoine, C. (2006). Effects of career counseling on French adults: An experimental study. *Career Development Quarterly*, 54, 242–255.
- Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*, 69, 4–18.
- Brown, S. D., & Krane, N. E. (2000). Four (or five) sessions and a cloud of dust: Old assumptions and new observations about career counseling. In R. W. Lent & S. D. Brown (Eds.), *Handbook of counseling psychology* (pp. 740–766). New York: Wiley.
- Charon, R. (2004). Narrative and medicine. *New England Journal of Medicine*, 350, 862–863.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Dauwalder, J. P. (2003). Quality in educational and vocational guidance at the beginning of the 21st century: Some introductory statements. In R. Kunz, J. P. Dauwalder, & J. Renz (Eds.), *Quality development in vocational counselling and training* (pp. 22–25). Zürich, Switzerland: SVB.
- Duarte, M. E. (2004). O indivíduo e a organização: Perspectivas de desenvolvimento. [The individual and the organization: Perspectives of development]. *Psychologica (Extra-Série)*, 549–557.
- Duarte, M. E., & Rossier, J. (2008). Testing and assessment in an international context: Cross- and multi-cultural issues. In J. Athanassou & R. Van Esbroeck (Eds.), *International handbook of career guidance* (pp. 489–510). Dordrecht: Springer Science.
- Dumora, B. (1990). La dynamique vocationnelle chez l'adolescent de collège [Vocational dynamism in junior high-school students]. *L'Orientation Scolaire et Professionnelle*, 19, 111–127.

- Dumora, B. (2000). Les intentions d'orientation. *Aspects développementaux et psychosociaux [Future intentions: Developmental and psycho-social approaches]*. Paris, France: CNAM, INETOP HDR. Laboratoire de Psychologie de l'Orientation.
- Gasper, P. (1999). Social constructivism. In R. Audi (Ed.), *The Cambridge dictionary of philosophy* (2nd ed.). Cambridge, England: Cambridge University Press.
- Giddens, A. (1991). *Modernity and self-identity. Self and society in the late modern age*. Cambridge, UK: Polity Press.
- Guichard, J. (2004). Se faire soi [Self-construction]. *L'Orientation Scolaire et Professionnelle*, 33, 499–534.
- Guichard, J. (2005). Life-long self-construction. *International Journal for Educational and Vocational Guidance*, 5, 111–124.
- Guichard, J., & Dumora, B. (2008). A constructivist approach to ethically-grounded vocational development interventions for young people. In J. Athansou & R. Van Esbroeck (Eds.), *International Handbook of Career Guidance* (pp. 187–208). Dordrecht: Springer Science.
- Hall, D. T. (1996). *The career is dead—long live the career: A relational approach to careers*. Jossey-Bass: San Francisco.
- Holland, J. (1973). *Making vocational choices: A theory of careers*. New York: Prentice-Hall.
- Holmbeck, G. N. (1997). Toward terminological, conceptual and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65, 599–610.
- Kahnemann, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, 58, 697–720.
- Krieshok, T. S. (2003). Being decided at the expense of being adaptive. *School and work: Contexts and transitions*. Symposium presented at the 6th bi-annual conference of the Society for Vocational Psychology. Coimbra, Portugal.
- Krumboltz, J. (2003). Creating and capitalizing on happenstance in educational and vocational guidance. In R. Kunz, J. P. Dauwalder, & J. Renz (Eds.), *Quality development in vocational counselling and training* (pp. 30–32). Zürich, Switzerland: SVB.
- Malrieu, P. (2003). *La construction du sens dans les dires autobiographiques [The construction of meaning in autobiographical narratives]*. Toulouse: Erès.
- Nota, L., Soresi, S., Solberg, S. V. H., & Ferrari, L. (2005). Promoting vocational development: Methods of intervention and techniques used in Italian context. *International Journal for Educational and Vocational Guidance*, 3, 271–279.
- Oyserman, D., Bybee, D., & Terry, K. (2006). Possible selves and academic outcomes: How and when possible selves impel action. *Journal of Personality and Social Psychology*, 91, 188–204.
- Palmer, S., & Cochran, L. (1988). Parents as agents of career development. *Journal of Counseling Psychology*, 35, 71–76.
- Parker, D. (2007). *The self in moral space. Life narrative and the good*. Ithaca, NY: Cornell University Press.
- Parsons, F. (1909). *Choosing a vocation*. Boston, MA: Houghton-Mifflin.
- Richardson, M. S. (2009). Intentionality and identity processing: A social constructionist investigation using student journal. *Journal of Vocational Behavior*, 74, 63–74.
- Roschelle, A. R., Turpin, J., & Elias, R. (2000). Who learns from service learning? *American Behavioral Scientist*, 43, 839–847.
- Rottinghaus, P. J., Coon, K. L., Gaffey, A. R., & Zytowski, D. G. (2007). Thirty-year stability and predictive validity of vocational interests. *Journal of Career Assessment*, 15, 5–22.
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counselling: Putting theory and research to work* (pp. 42–70). Hoboken, NJ: Wiley.
- Savin-Baden, M. (2000). *Problem-based learning in higher education: Untold stories*. Philadelphia: SHRE & Open University Press.
- Soresi, S., Nota, L., Ferrari, L., & Solberg, S. (2008). Career guidance for persons with disabilities. In J. A. Athanasou & R. Van Esbroeck (Eds.), *International handbook of career guidance* (pp. 405–417). Dordrecht: Springer Science.
- Sullivan, S. E., & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*, 69, 19–29.
- Super, D. E. (1957). *The psychology of careers: An introduction to vocational development*. New York: HarperCollins.
- Super, D.E. 1990. A life-span, life-space approach to career development. In: Brown, D., Brooks, L., & Associates (Eds.), *Career choice and development* (2nd ed., pp. 197–261). San Francisco: Jossey-Bass.
- Super, D. E., Savickas, M. L., & Super, C. M. (1996). The life span, life-space approach to careers. In D. Brown & L. Brooks (Eds.), *Career choice and development: Applying contemporary theories to practice* (3rd ed., pp. 121–178). San Francisco: Jossey-Bass.
- Taylor, C. (1989). *Sources of the self: The making of the modern identity*. Cambridge, MA: Harvard University Press.
- Thomas, R., & D'Ari, R. (1990). *Biological feedback*. Boca Raton, FL: CRC Press.
- Tiedeman, D. V. (1964). *The cultivation of career in vocational development through guidance-in-education*. (Harvard Studies in Career Development, No. 29). Cambridge, MA: Center for Research in Careers, Harvard University Graduate School of Education.
- U.S. Bureau of Labor Statistics (2002). *News Bulletin 27-08-2002*. Available from <http://www.bls.gov/nls/nlsy79r19.pdf>.
- Vallacher, R. R., & Wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review*, 94, 3–15.
- Van Esbroeck, R., Tibos, K., & Zaman, M. (2005). A dynamic model of career choice development. *International Journal for Educational and Vocational Guidance*, 5, 5–18.
- Watts, A., & Sultana, R. (2004). Career guidance policies in 37 countries: Contrasts and common themes. *International Journal for Educational and Vocational Guidance*, 4, 105–122.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Young, R. A., Ball, J., Valach, L., Turkel, H., & Wong, Y. S. (2003). The family career development project in Chinese–Canadian Families. *Journal of Vocational Behavior*, 62, 287–304.
- Young, R. A., & Collin, A. (2004). Introduction: Constructivism and social constructionism in the career field. *Journal of Vocational Behavior*, 64, 373–388.
- Young, R., Valach, L., & Collin, A. (1996). A contextual explanation of career. In D. Brown & L. Brooks (Eds.), *Career choice theory and development* (3rd ed., pp. 477–512). San Francisco, CA: Jossey-Bass.