

A Model for Career Assessment

Mark L. Savickas

To Appear in:

Leitao, Ligia Mexia (Ed.), *Handbook on Psychological Assessment in Vocational Guidance*

A Model for Career Assessment

Mark L. Savickas

Vocational appraisal plays a central role in career counseling by providing practitioners with objective data about clients and their problems. A comprehensive career assessment concentrates on both the problem that a client brings to counseling and the person himself or herself. *Person appraisal* concentrates on traits and characteristics, such as abilities and interests, that can be used to describe an individual and compare that person to other people. *Problem appraisal* concentrates on career concerns such as making vocational decisions and coping with developmental tasks. To be most useful to clients, the appraisal data obtained must pertain directly to the career concerns that they bring to individual counseling, group guidance, or educational workshops. Other less pertinent appraisal data may still be interesting to a client, but the time and resources spent to collect peripheral information can be costly to counselors and their employers. Thus, it behooves career counselors to identify the types of appraisal data that they need to help a particular client or group of students as well as the psychometric inventories and tests that provide that data.

The present handbook seeks to help in this regard by describing the major types of psychological measures and how to use them in career assessment. But before starting this discourse, the present introductory chapter offers a conceptual model that counselors may use to organize their thinking about the different types of appraisal tools and how each serves the practice of career intervention. The schematic description provided by this model of career services, including both assessment and intervention, helps counselors to (a) explain how

different career theories concentrate on different types of clients, (b) distinguish between the major types of career interventions, (c) recognize the categories of appraisal data that support each intervention, and (d) select the instruments that provide the information they seek. Before introducing the model, the next section describes the origins of the model in a personality theory called structural analysis.

Precis of Structural Analysis

Wagner (1971) called his personality theory "structural analysis" because it concentrates on two structures of personality. The first structure to develop, called the *facade self*, consists of behavioral tendencies. The facade self maintains contact with reality and reacts to environmental stimuli. Later, following the acquisition of language, individuals become aware of their own behavior and formulate a self-concept that lies at the core of a second structure, which is called the *introspective self*. The introspective self evaluates and corrects the facade self; it provides depth and complexity to the personality by adding an inner life. The facade self initially responds only to environmental programming so an introspective self introduces the possibility of self-programming of behavior. The diagram in Figure 1 shows a portion of Wagner's (1971) schemata for the functioning of a normal personality. Drives funnel through the introspective self and facade self for release; the facade self and the introspective self interact and modify each other through self-cognition, and the facade self reacts to prompts from the environment.

Insert Figure 1 About Here

Wagner designed and developed structural analysis for the clinical practice personality assessment, so it has direct applicability to the practice of vocational assessment. For example, consider from the perspective of vocational psychology Wagner's (1971) succinct statement of structural analysis:

The growing child must develop an attitudinal and behavioral facade which organizes external reality so that the organism can react meaningfully to the welter of complex stimuli which are constantly impinging. Later, if all goes well, the individual takes cognizance of his (or her) own functioning, achieves a sense of identity and formulates a subjective set of ideals, goals, and self-appraisals. The (facade self) and the (introspective self) then interact to form a complex, unique personality. (p. 424).

This succinct statement shows that structural analysis offers an overarching framework for organizing career assessment and intervention. Wagner used structural analysis to create an overarching framework for popular projective techniques, each of which had been created to assess distinct levels of personality functioning. The authors of the projective techniques were interested in different aspects of personality, much like career theorists are interested in different aspects of vocational behavior. This coincidence makes it evident that by simply identifying similar constructs, we can translate structural analysis from the language of personality theory and psychopathology into the language of career theory and vocational behavior.

Translating Structural Analysis Into the Language of Career Theory

The facade self denotes “an attitudinal and behavioral facade which organizes external

reality so that the organism can react meaningfully to the welter of complex stimuli which are constantly impinging.” Accordingly, the facade self can be represented by Holland’s (1997) model of vocational personality types. Each RIASEC type represents what Holland called an *adjustive orientation*, constituted by a constellation of abilities, interests, and behavioral tendencies. Thus, Holland’s description of adjustive orientation coincides quite well with Wagner’s definition of the facade self. Moreover, like the facade self, RIASEC types emerge as adaptive repertoires early in life. Viewing traits as unitary adaptive mechanisms also places them in the facade self. Thus, stable person characteristics such as occupational abilities and vocational interests populate the facade self.

The introspective self develops later than the facade self, when “the individual takes cognizance of his (or her) own functioning, achieves a sense of identity and formulates a subjective set of ideals, goals, and self-appraisals.” The introspective self evaluates and guides the facade self; it uses self-selected goals to direct the adaptive repertoire of the facade self. The introspective self includes Hughes’ (1958) concept of *subjective career*.

In structural analysis, drives press on the facade and introspective selves. The drives in structural analysis coincide with Bordin’s (1984) formulation of career psychodynamics and Roe’s (1984) views on personality and occupations. Similar to structural analysis, vocational psychology has little to say about drives. Vocational psychologists, with the exception of a few like Bordin (1984), Crites (1981), Roe (1984), and Watkins and Savickas (1990), have done little to develop the depth view of why people make the career choices they do.

The process dimensions of structural analysis are best understood from the perspective of Krumboltz’s (1979) learning theory view of vocational behavior. In the schemata of structural

analysis displayed in Figure 1, arrows represent process. The arrows between the facade self and the environment represent the environment impinging on the individual (\leftarrow) and the individual's responses to the environment (\rightarrow), respectively. Krumboltz concentrates on this interpersonal interaction and contextual affordances. In contrast, Lent, Brown, and Hackett's (2002) social-cognitive theory of careers attends to the interaction arrows between the facade and introspective selves using constructs such as self-efficacy beliefs and outcome expectations. In addition to career beliefs, the arrows between the facade and introspective selves represent career adaptability variables such as decision-making attitudes and competencies. Accordingly, I refer to these intrapersonal variables as the ABCs of career construction.

Lofquist and Dawis (1991), in their theory of work adjustment, emphasize core constructs attuned to the occupational adjustment outcomes of success and satisfaction or failure and frustration. The outcomes are conceptualized using the constructs of satisfaction and satisfactoriness. Satisfaction arises from good fit between personal values and job rewards whereas satisfactoriness arises from a good fit between personal abilities and job requirements. Because of the focus on the work adjustment process and its outcomes, the theory of work adjustment has been used extensively in work adjustment and vocational rehabilitation counseling but not in counseling for career choice.

Each career theory has been placed in this career services model based on its main contribution to comprehending vocational behavior and career construction. Of course, the theories can be stretched to conceptualized other components in the model but this may not represent best practice. Having aligned each element of structural analysis with a corresponding career theory, we are now ready to integrate these elements into a model of career intervention.

Career Intervention

Figure 2 displays a schemata that applies Wagner's (1971) theory of structural analysis to the vocational realm. This facade self, or adaptive repertoire for our purposes herein, could be termed a *vocational self*. The term vocational was selected to coincide with Crites' (1969) use of "occupational" to denote environmental stimuli and "vocational" to denote behavioral responses. As infants develop, they are inducted into the culture through social expectations that we call developmental tasks, proffered initially by the family and later by societal institutions such as the church and the school. The vocational development tasks and their agents condition the individual to assume that the meaning of life is to cooperate with and contribute to the common good. Western societies provide three core roles through which individuals can cooperate and contribute: work, friendship, and love. Commitment to these roles is the focus of Super's (1990) research concerning role salience. The arrows between the vocational self and the environment represent, to accept Crites' (1969) persuasive argument regarding precise terminology, *occupational stimuli* (\leftarrow) and *vocational responses* (\rightarrow).

Insert Figure 2 About Here

With the self-reflection made available by language, an individual eventually constructs and subsequently develops an introspective self, or a *career self* for our purpose herein. The term career was selected following theorists such as Hughes (1958) and Miller-Tiedeman and Tiedeman (1985) who explain the subjective sense of career as a self-reflective structure. The career self adds self-awareness to the environmental awareness of the vocational self. Thought

and its product, the career self, permit individuals to make meaning and to use this meaning to direct their own behavior in a proactive manner, not just in reaction to environmental stimuli. The enlarged worldview of the career self allows the person to develop life themes, abiding values, and long-range goals that are dealt with in vocational psychology using constructs such as subjective career (Hughes, 1958) and self-concept (Super, 1963).

The career self is an organized subset of a person's cognitive universe, which enables the individual to identify and discriminate work roles as a focal experience. As such, this structure provides a perspective for making coherent choices regarding behavioral alternatives. While the purpose of vocational behavior is to respond to vocational tasks and situations, the purpose of career mentation is to enhance the adaptive fitness of vocational behavior. Career mentation functions to (a) provide awareness of vocational movement through time, (b) enhance self-control, (c) impose intention and direction on vocational behavior, and (d) evaluate outcomes relative to purpose.

When confronted by the environment with behavioral choices, people can use the career self to respond with thoughtful decision making. Behavior may occur at the provocation of the environment or be self-initiated. The arrows between the environment (work, friends, and love) and the vocational self denote occupational stimuli, developmental tasks, and vocational responses as well as connote reciprocal determinism. The interactions denoted by these arrows are judged by their level of congruence or correspondence. The arrows between the vocational and career selves denote career beliefs, attitudes, and competencies pertinent to career choice and development and connote recursive thinking. The interactions denoted by these arrows are judged by their level of maturity or adaptability. Both sets of arrows indicate the interactive

molding that transpires between parts of the schema.

In sum, the major elements of the model are the two structures which are the focus of person appraisal-- vocational self and career self-- and their interaction with each other and the world of work, which is the focus of problem appraisal.

A Model for Career Services

Now let us apply the model to career intervention. I have placed the distinct career services, along with the corresponding career theory that supports each service, in a separate section of the model as portrayed in Figure 3. The model reveals the coherence among the services. The services are defined as occupational placement, vocational guidance, career counseling, career education, work therapy, and position coaching. Each of these services draws upon a different career theory because each service addresses a relatively distinct problem.

Insert Figure 3 About Here

Placement. The placement service corresponds to the environment section of the model (i.e., roles of work, friendship, and love). Occupational placement assists individuals who have chosen an occupational field to secure a position in that occupation. It helps clients to negotiate the social opportunity structure by gathering information, writing resumes, networking, searching for jobs, and preparing for interviews. This service emphasizes social skills training. Counseling psychologists who provide placement services use social learning theory as articulated by Krumboltz and others to reduce job search anxiety, increase assertiveness, counter mistaken beliefs, coax exploratory behavior, increase social skills, and refine self-presentation

behavior. Placement works best with clients who are ready to implement a choice, that is, those who have committed themselves to an occupational field and seek a place in it for themselves. However, placement services do not work as well for clients who have no destination in mind. They need a guide to help them specify a choice.

Guidance. The guidance service corresponds to the vocational self. Vocational guidance helps individuals who are undecided to evaluate their behavioral repertoire and then translate it into vocational choices. It helps clients to perceive more options and make choices by applying Parson's (1909) venerable triad of clarifying interests and abilities, exploring congruent occupational fields and levels, and specifying suitable vocational alternatives. This service emphasizes guidance techniques.

Counseling psychologists who provide vocational guidance use trait-and-factor theory, as articulated first by Parsons (1909) and now by Holland (1997), to interpret interest inventories and ability tests, provide educational and vocational information, encourage exploration, and suggest matching choices. Guidance, because it essentially translates self-concepts into occupational titles, works best with individuals who possess clear and stable vocational identities. Those people who cannot confidently and coherently answer the questions of "Who am I?" and "What do I want?" are not ready to make matching choices. They need a counselor to help them crystallize a career self-concept and envision a subjective career.

Counseling. The counseling service corresponds to the career self. Career counseling facilitates self-reflection and cognitive restructuring in clients who need to mature and deepen their values and views. It helps clients to elaborate their self-concepts by introspection and by discussion of their subjective careers (Hughes, 1958). Counselors who provide the counseling

service use self-reflection models developed by ego psychologists, person-centered counselors, cognitive therapists, and others to conceptualize self and clarify choices through meaning-making activities like values clarification, identity formation exercises, and life script analysis. Counseling works best with clients who want to learn more about their subjective views of life, articulate their self-concepts, or crystallize occupational field and ability level preferences. However, counseling does not work as well for clients who need to implement this self-knowledge. They need education.

Education. The education service corresponds to the arrows between the vocational and career selves in Figure 2. Career education assists individuals who encounter difficulties in enacting their subjective career intentions (career self) through their objective vocational behavior (vocational self). It helps these clients to develop self-management attitudes such as foresight and autonomy as well as competencies such as planning and decision making. It corrects their mistaken beliefs and misconceptions as well as discusses decisional difficulties. It increases their readiness to cope with vocational development tasks. Counselors who provide career education services use deliberate psychological education and developmental counseling models to orient individuals to developmental tasks and foster coping attitudes and competencies that address these tasks. Career education works best with clients who want to learn to better manage their motivation and implement their self-concepts. However, education does not work as well for clients who experience motivational problems. They need therapy.

Therapy. The therapy service corresponds to the drives section of the model in Figure 2. Work-oriented therapy assists individuals who have trouble developing a clear and stable vocational identity to examine what they need to feel secure. It focuses on the drama of

recurring relationships to help clients examine personal motives, identify a central problem, and modify distorted motives. Counseling psychologists who provide brief therapy seek to integrate personal and career counseling models (Blustein, 1987; Subich, 1993) and use the working alliance (Bordin, 1979) to modify personality structure. Therapy works best with clients whose excessive indecisiveness, anxiety, and conflicts thwart their efforts to form a personally meaningful vocational identity. However, brief therapy does not work as well for clients who need extensive treatment to deal with fundamental psychopathology.

Coaching. The coaching service corresponds to the arrows between the vocational self and environmental roles. Position coaching assists individuals who encounter problems adjusting to occupational positions to learn better adaptive mechanisms. It uses mentoring, rehearsing, and training to help clients adapt to organizational culture, handle job responsibilities, and interact with co-workers. It also helps individuals resolve conflicts between work and family (Savickas, 1991). Counseling psychologists who provide career coaching use systems theory and organizational development theory to mentor individuals. Coaching works best with clients at the extremes of adjustment, such as individuals who need help entering the world of work through life skills training (Adkins, 1970) or progressing in their careers through mentoring (Carden, 1990). Needless to say, everyone can use a coach now and again.

This section presented a model for comprehending career theories. The model assembles the singular perspectives of career theorists into a model to describe the multiple perspectives of practitioners. In so doing, it enriches the practice of career intervention by revealing a coherence among distinct career services. Systematic application of the coherent career services model may advance contemporary efforts to devise better means for matching clients to interventions.

A Model for Career Assessment

Figure 3 presents a schematic representation of the model of career services offered by practitioners to foster vocational development and work adjustment. In this section, I describe the type of career assessment that corresponds to each career service in Figure 3. In the history of vocational psychology, there has always been a close tie between theory, practice, and assessment. Each theory concentrates on a particular type of career intervention and, over time, produces corresponding vocational assessment techniques. Originally, the assessment techniques operationally defined guidance services and, therefore, addressed first abilities and then interests. Later developments in theory led to assessment instruments for career education and counseling as well as work adjustment. Given its historical precedence, I will begin this section by discussing assessment tools and techniques that are used in vocational guidance.

Assessment for Vocational Guidance. Because it concentrates on self-evaluation, occupational information, and the matching of the two, vocational guidance focuses primarily on an individual's competence for and inclination toward the work role. The critical dimensions of this match are interests as they relate to occupational field and abilities as they relate to occupational level. Abilities denote what a person "can do" whereas interests denote what a person "likes to do." The assessment of abilities can take many different directions. Some counselors prefer to concentrate on general ability level and therefore use individual intelligence tests such as the *Wechsler Adult Intelligence Scale* (Matarazzo, 1972; Tulsy, Saklofske, Wilkins, Weiss, 2001) or group tests such as the *Wonderlic Personnel Test* (Bell, Matthews, Lassister, & Leverett, 2002) and the *Multidimensional Aptitude Battery* (Vernon, 2000). Other counselors prefer to concentrate on specific abilities that relate directly to a particular types of occupation

and therefore use instruments, or parts of instruments, such as the *Differential Aptitude Test* which measures aptitudes abilities such as numerical reasoning, verbal reasoning, abstract reasoning, mechanical reasoning, spatial reasoning, and clerical speed and accuracy. Still other counselors assess ability by using self-rating surveys such as the *Ability Explorer* (Harrington & Harrington, 2001) and *Estimating Your Career-Related Abilities* (Prediger, 2002). Despite differences in counselor preferences, all of these measures appraise which occupational levels an individual might be able to attain. In the present volume, assessment of intelligence is addressed by Professor Leandro de Almeida and assessment of aptitudes is addressed by Professor Helena Rebelo Pinto.

To address occupational field, counselors assess interests (Savickas & Spokane, 1999). There are two general approaches to measuring interests. The first focuses squarely on the vocational self by measuring basic interests in general activities such as mechanical, outdoor, scientific, literary, musical, artistic, persuasive, social service, clerical, and computational (Kuder, 1977). I call these vocational interests or preferences because they concentrate on the generic work roles. In contrast, the second approach to interest measurement focuses on the correspondence between the vocational self and specific occupational roles by measuring resemblance to workers employed in different occupations. I call these occupational interests. The first inventory to do this is the venerable *Vocational Interest Blank* (Strong, 1927) which yields scores that indicate how similar a client is to people already employed in particular occupations. Note that this type of score does not really indicate interests, it indexes similarity to occupational groups of types. Contemporary versions of these "occupational scores" are included in measures such as the *Strong Interest Inventory* (Harmon, Hansen, Borgen, &

Hammer, 1994). and the *Campbell Interest and Skills Inventory* (Campbell, Hyne, & Nilsen, 1992). Both of these inventories include scales that also measure vocational interests in basic activities so they provide measures of both the vocational self itself and the resemblance between that facade self and occupational groups in the world of work. Holland (1997) simplified this matching process by constructing the *Self-Directed Search* to measure resemblance to six vocational personality types, rather than to specific occupational groups. The *Personal Globe Inventory* (Tracey, 2002; <http://courses.ed.asu.edu/tracey/To%20download.txt>) adds the dimension of prestige to the assessment of Holland's (1997) RIASEC vocational personality types to construct a spherical model and measure of interests. In the present book, the assessment of interests is addressed by Professor Ligia Mexia Leitao and by Professor Jose Pacheco Miguel.

Assessment for Career Counseling. Career counseling serves to develop vocational self-concepts. It concentrates on clarifying values and interpreting the meaning of vocational experiences. This self-knowledge and sense of life purpose arise from conceptualizing one's vocational self and, in turn, eventually directs vocational behavior. Career counseling addresses life goals and the meaning of the life. Rather than assessing objective abilities and interests as we do for guidance, assessment for career counseling appraises subjective goals and values (Savickas, 1995). Of course, interests and values are related. For example, we can conceptualize career values as "general interests" of the career self that the vocational self eventually expresses as "specific interests." In this sense values represent what a person hopes to achieve and interests represent how that person plans to achieve it.

The assessment of work values has traditionally used inventories such as the *Work Values*

Inventory (Super, 1973), which focuses only on values satisfied only in the work role, or the *Values Inventory* (Super & Nevill, 1986), which focuses on values that can be gratified in many major life roles including work, family, community, education, and leisure. The *Values Inventory* appears more useful in life planning whereas the *Work Values Inventory*, with its narrow focus, is more useful when directing attention only to planning for the work role. In the present volume, the assessment of values is addressed by Professor Maria Eduara Duarte.

Instead of values inventories, the assessment of the career self has typically concentrated on projective techniques such as card sorts, genograms, repertory grids, and early recollections (Watkins & Savickas, 1990). Newer approaches include constructivist (Savickas, 1998, 2002) and narrative techniques (Savickas, 1998). These techniques are used to assess deeper motives that the individual may not yet be fully able to recognize and articulate, as required by objective techniques such as values inventories. In the present volume, assessment of career motivation is addressed by Professor Maria Paula Paixao.

Assessment for Work Therapy. While interests are near the surface of personality, and values are in a middle area, needs reside at the deepest level. Therefore, when doing work therapy, assessment usually focused on on the why of behavior. Therapy to improve work adjustment usually concentrates on personality development and interpersonal skills. Assessment of work personality tends to rely on either objective measures such as the *Personality Research Form* (Vernon, 2000) or on projective measures such as the *Thematic Apperception Test* (Teglasi, 2001) and the *Sentence Completion Blank* (Baggaley & Dole, 1977). Other personality tests that have become somewhat popular in assessment for work-oriented therapy are the *Sixteen Personality Factor Questionnaire* (16PF; Schuerger, 1995) and measures

of the five factor model of personality (Costa, McCrae, & Kay, 1995; Salgado, 1997). In the present volume, the assessment of personality and psychological needs is addressed by Professor Joaquim Alves Ferreira.

Assessment for Career Education. Career education serves to help clients better enact their subjective intentions (career self) through realistic and purposive behavior (vocational self). Assessment for career education has traditionally focused on problem appraisal by measuring career adaptability, that is, readiness to make realistic career choices and master vocational development tasks. This readiness can be assessed positively in terms of amount of information and exploration or assessed negatively in terms of decisional difficulties and degree of unrealism. Career education focuses on increasing adaptability so assessments generally must identify the attitudes, beliefs, and competencies that need to develop or change.

Counselors use two different approaches to assessing career adaptability with groups or with individuals (Savickas, 2000). The first approach is screening. Counselors may use the *Vocational Identity Scale* (Holland, Johnston, & Asama, 1993) or the *Career Decision Scale* (Osipow & Winer, 1996) to screen for level of adaptability. These short screening devices assess vocational identity and indicate whether a client is ready for guidance or needs career counseling first. Individuals who possess a clear and stable vocational identity are ready to make meaningful choices, and therefore are ready to benefit from vocational guidance. A confused and unstable vocational identity suggests a lack of readiness. This situation calls for a second approach, that is, a more comprehensive problem appraisal to determine what is delaying readiness. This can be done with measures of career development such as the *Career Development Inventory* (Savickas & Hartung, 1996) and the *Career Maturity Inventory* (Crites &

Savickas, 1996) or with measures of social cognition such as the *Career Decision-Making Self-Efficacy Scale* (Betz & Luzzo, 1996) and *Career Beliefs Inventory* (Krumboltz & Vosvick, 1996). The results of this assessment will indicate topics for career education, that is the attitudes, beliefs, and competencies that must be developed to cope with the difficulties being encountered. These instruments are also very helpful in pre- and post-testing to evaluate school programs in career education and college workshops in career planning. In the present volume, assessment of career indecision is addressed by Professor Jose Thomas da Silva and the assessment of career development is addressed by Professor Maria do Ceu Taveira.

Assessment for Position Coaching. Coaching is an increasingly popular service. Position coaching focuses on the interaction between the vocational self and work roles. It helps individuals cope with the developmental tasks that society structures to bridge the relation between individuals and work as well as helping people to solve problems they encounter in adjusting to their occupations. Developmental coaching encourages individuals to meet social expectations by engaging in adaptive behaviors such as exploring, decision making, and planning. Sometimes coaches engage in career education to help develop the attitudes beliefs, and competencies that incline the vocational self to act in certain ways. The distinction is that career education concentrates on attitudes and competencies that shape the dispositional response tendencies of the vocational self, whereas coaching is a developmental relationship that concentrates on behaviors. For example, a forward looking attitude toward planning is an attitude whereas planning is a behavior.

Assessment for developmental coaching concentrates on identifying the vocational development tasks that an individual is facing or about to face. Similar to assessment for career

education, assessment for coaching involves problem appraisal, not person appraisal. The problems are those encountered in trying to cope with the developmental tasks of stabilizing in an occupational position and then consolidating and maintaining that position. Several inventories are useful in assessment for coaching including the *Adult Career Concerns Inventory* (Cairo, Kritis, & Myers, 1996) which measures whether the individual is concerned with problems that involve exploration of, establishment in, maintenance of, or disengagement from an occupational position. Another tool is the *Career Mastery Inventory* (Crites, 1996) which assesses adjusting to work problems as well as stabilizing, consolidating, and advancing in one's occupation. A related approach concentrates on assessing the individual's work ethic, sometimes using the *Multidimensional Work Ethic Profile* (Miller, Woehr, & Hudspeth, 2002) which measures self-reliance, morality, leisure, hard work, centrality of work, wasted time, and delay of gratification. Some coaches use one of the numerous occupational stress measures such as the *Occupational Stress Inventory* (Spokane & Ferrara, 2001) which has three sets of scales to measure occupational stress, vocational strain, and career coping.

Assessment for Occupational Placement. Occupational placement helps clients to secure employment by gathering information, writing resumes, networking, searching for jobs, and preparing for job interviews. There are only a few assessments that directly deal with the problem appraisal relevant to the placement service. They measure anxiety about a job search and amount of exploratory behavior relevant to that search. Anxiety can be measured with *The Assertive Job-Hunting Survey* (Becker, 1980) or the *Inventory of Anxiety in Decision Making* (Mendonca & Less, 1976). Both instruments assess common types of personal reactions and feelings that clients may experience while in the process of finding a job. Exploratory behavior

can be measured with several different instruments. The *Career Exploration Survey* (Stumpf, Colarelli, & Hartman, 1983) measures career-search behaviors, reactions to exploration, and beliefs about exploration as these relate to information about occupations, jobs, and organizations. The *Vocational Exploratory Behavior Inventory* (Jones & Krumboltz, 1970) assesses what the client has done during the past week regarding the exploration of different majors, occupations, and vocations. In a research report on job search behavior, Saks and Ashforth (2000) described measures of job search confidence and effort, respectively called the *Job-Search Self Efficacy Scale* and the *Job-Search Intensity Scale*. These measures of anxiety and exploration are useful in assessing an individual's approach to finding a job and in designing a placement intervention to help that individual secure a position.

Conclusion

This chapter introduces the present handbook on vocation appraisal by providing a conceptual model that counselors may use to organize their thinking about the different types of appraisal tools and how each tool serves the practice of career intervention. The model for career services, including both assessment and intervention, helps counselors explain how different career theories concentrate on different types of clients, distinguish between the major types of career interventions, recognize the types of inventories and tests relevant to each intervention, and select the instruments that provide the information they seek. Furthermore, the model differentiates the person appraisal used in guidance, counseling, and therapy from the problem appraisal used in education, coaching, and placement. Given this conceptual overview, it is now time to read about the measures in depth as each chapter author explains a type of assessment by presenting characteristic measures along with their rationales, psychometric

characteristics, and common applications.

References

- Adkins, W. (1970). Life skills: Structured counseling for the disadvantaged. *Personnel & Guidance Journal*, 49, 108-116.
- Alkhadher, O., Clarke, D. D., & Anderson, N. (1998). Equivalence and predictive validity of paper-and-pencil and computerized adaptive formats of the Differential Aptitude Tests. *Journal of Occupational & Organizational Psychology*, 71, 205-217.
- Baggaley, A. R., & Dole, A. A. (1977). Life goals and academic interests as predictors of extracurricular activities of secondary school sophomores. *Contemporary Educational Psychology*, 2, 172-180.
- Becker, H. A. (1980). The Assertive Job-Hunting Survey. *Measurement and Evaluation in Guidance*, 13, 43-48.
- Bell, N. L., Matthews, T. D., Lassister, K. S., & Leverett, J. P. (2002). Validity of the Wonderlic Personnel Test as a measure of fluid or crystallized intelligence: Implications for career assessment. *North American Journal of Psychology*, 4, 113-120.
- Betz, N. E., & Luzzo, D. A. (1996). Career assessment and the Career Decision-Making Self-Efficacy Scale. *Journal of Career Assessment*, 4, 13-428.
- Blustein, D. L. (1987). Integrating career counseling and psychotherapy: A comprehensive treatment strategy. *Psychotherapy*, 24, 794-799.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research, and Practice*, 16, 252-260.
- Bordin, E. S. (1984). Psychodynamic models of career choice and satisfaction. In D. Brown &

- L. Brooks (Eds.), *Career choice and development: Applying contemporary theories to practice* (pp.194-136). San Francisco: Jossey-Bass.
- Cairo, P. C., Kritis, K. J., & Myers, R. M. (1996). Career assessment and the Adult Career Concerns Inventory. *Journal of Career Assessment*, 4, 189-204.
- Campbell, D. P. (1995). The Campbell Interest and Skill Survey (CISS): A product of ninety years of psychometric evolution. *Journal of Career Assessment*, 3, 391-410.
- Carden, A. (1990). Mentoring and adult career development. *The Counseling Psychologist*, 18, 275-299.
- Costa, P. T. Jr., McCrae, R. R., & Kay, G. G. (1995). Persons, places, and personality: Career assessment using the Revised NEO Personality Inventory. *Journal of Career Assessment*, 3, 123-139.
- Crites, J. O. (1969). *Vocational psychology*. New York: McGraw-Hill.
- Crites, J. O. (1981). *Career counseling: Models, methods, and materials*. New York: McGraw-Hill.
- Crites, J. O. (1996). Assessment and counseling for career mastery. In M. L. Savickas & W. B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 237-250). Palo Alto, CA: Davies-Black Publishing/Consulting Psychologists Press.
- Crites, J. O., & Savickas, M. L. (1996) Revision of the Career Maturity Inventory. *Journal of Career Assessment*, 4, 131-138
- Harmon, L. W., & Hansen, J. I. C., Borgen, F. H., & Hammer, A. L. (1994). *Strong Interest Inventory: Applications and technical guide*. Palo Alto, CA: Consulting Psychologists Press.

- Harrington, T. F. & Harrington, J. (2001). A new generation of self-report methodology and validity evidence for the Ability Explorer. *Journal of Career Assessment*, 9, 41-48.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Holland, J. L., Johnston, J. A., & Asama, N. F. (1993). The Vocational Identity Scale: A diagnostic and treatment tool. *Journal of Career Assessment*, 1, 1-12.
- Hughes, E. C. (1958). *Men and their work*. Glencoe, IL: The Free Press.
- Jones, B. G., & Krumboltz, J. D. (1970). Stimulating vocational exploration through film-mediated problems. *Journal of Counseling Psychology*, 17, 107-114.
- Krumboltz, J. D. (1979). A social learning theory of career decision making. In A. M. Mitchell, G. B. Jones, & J. D. Krumboltz (Eds.), *Social learning and career decision making* (pp. 19-49). Cranston, RI: Carroll.
- Krumboltz, J. D., & Vosvick, M. A. (1996). Career assessment and the Career Beliefs Inventory. *Journal of Career Assessment*, 4, 345-361.
- Kuder, F. (1977). *Activity interests and occupational choice*. Chicago: Science Research Associates.
- Lent, R. W., Brown, Steven D., & Hackett, G. (2002). Social cognitive career theory. In D. Brown & Associates *Career choice and development* (4th ed.; pp. 255-311). San Francisco: Jossey-Bass.
- Lofquist, L. H., & Dawis, R.V. (1991). *Essentials of person- environment correspondence counseling*. Minneapolis: University of Minnesota Press.
- Matarazzo, J. (1972) Wechsler's measurement and appraisal of adult intelligence (5th ed.). New

York: Oxford University Press.

Mendonca, J. D., & Less, T. F. (1976). Counseling for indecisiveness: Problem-solving and anxiety-management training. *Journal of Counseling Psychology*, 23, 339- 347.

Miller, M. J., Woehr, D. J., & Hudspeth, N. (2002). The meaning and measurement of work ethic: Construction and initial validation of a multidimensional inventory. *Journal of Vocational Behavior*, 60, 451-489.

Miller-Tiedeman, A., & Tiedeman, D. (1985). Educating to advance the human career during the 1980's and beyond. *Vocational Guidance Quarterly*, 34, 15-30.

Osipow, S. H., & Winer, J. L. (1996). The use of the Career Decision Scale in Career Assessment. *Journal of Career Assessment*, 4, 117-130.

Parsons, F. (1909). Choosing a vocation. New York: Agathon Press.

Prediger, D. J. (2002). Abilities, interests, and values: Their assessment and their integration via the World-of-Work Map. *Journal of Career Assessment*, 10, 209-232.

Roe, A. (1984). Personality development and career choice. In. D. Brown & L. Brooks (Eds.), *Career choice and development: Applying contemporary theories to practice* (pp. 31-53). San Francisco: Jossey-Bass.

Saks, A. M. & Ashford, B. E. (2000). Change in job search behaviors and employment outcomes. *Journal of Vocational Behavior*, 56, 277-278.

Salgado, J. F. (1997). The five factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, 82, 30-43.

Savickas, M. L. (1991). The meaning of work and love: Career issues and interventions. *Career Development Quarterly*, 39, 315-324.

- Savickas, M. L. (1995). Examining the personal meaning of inventoried interests during career counseling. *Journal of Career Assessment*, 3, 188-201.
- Savickas, M. L. (1997). Constructivist career counseling: Models and methods. In R. Neimeyer & G. Neimeyer (Eds.), *Advances in personal construct psychology, Volume 4* (pp. 149-182). Greenwich, CT: JAI Press.
- Savickas, M. L. (1998). Career style assessment and counseling. In T. Sweeney (Ed.). *Adlerian counseling: A practitioner's approach* (4th ed.; pp. 329-360). Philadelphia, PA Accelerated Development Press.
- Savickas, M. L. (2000). Assessing career decision making. In C. E. Watkins, Jr. & V. L. Campbell (Eds.), *Testing and assessment in counseling practice* (2nd ed.; pp. 429-477). Mahwah, NJ: Lawrence Erlbaum Associates.
- Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown and Associates, *Career Choice and Development* (4th ed.) (Pp. 149-205). San Francisco: Jossey Bass.
- Savickas, M. L., & Hartung, P. J. (1996). The Career Development Inventory in review: Psychometric and research findings. *Journal of Career Assessment*, 4, 171-188.
- Savickas, M. L., & Spokane, A. R. (1999). *Vocational interests: Their meaning, measurement, and counseling use*. Palo Alto, CA: Davies-Black Publishing/Consulting Psychologists Press.
- Schuerger, J. M. (1995). Career assessment and the Sixteen Personality Factor Questionnaire. *Journal of Career Assessment*, 3, 157-175.
- Stumpf, S. A., Colarelli, S. M., & Hartman, K. (1983). Development of the Career Exploration

- Survey (CEU). *Journal of Vocational Behavior*, 22, 191-226.
- Spokane, A. R., & Ferrara, D. (2001). Samuel H. Osipow's contributions to occupational mental health and the assessment of stress: The Occupational Stress Inventory. *Contemporary models in vocational psychology: A volume in honor of Samuel H. Osipow* (pp. 79-96). Mahwah, NJ: Lawrence Erlbaum Associates.
- Strong, E. K., Jr. (1927). *Vocational Interest Blank*. Stanford, CA: Stanford University Press.
- Subich, L. M. (1993). How personal is career counseling [Special issue]. *Career Development Quarterly*, 42 (2).
- Super, D. E. (1963). Self-concepts in vocational development. In Super, D. E., Starishevsky, R., Matlin, N., & Joordan, J. P. *Career development: Self-concept theory* (pp. 17-32). New York: College Entrance Examination Board.
- Super, D. E. (1973). The Work Values Inventory. In D. G. Zytowski (Ed.), *Contemporary approaches to interest measurement*. Minneapolis: University of Minnesota Press.
- Super, D. E. (1990). A life-span, life-space to career development. In D. Brown, L. Brooks, & Associates, *Career choice and development* (2nd ed.; pp.197-261). San Francisco: Jossey-Bass.
- Super, D. E., & Nevill, D. D. (1986). *The Values Inventory*. Palo Alto, CA: Consulting Psychologist Press.
- Tulsky, D. S., Saklofske, D. H., Wilkins, C., Weiss, L. G. (2001). Development of a General Ability Index for the Wechsler Adult Intelligence Scale--Third Edition. *Psychological Assessment*, 13, 566-571.
- Teglasi, H. (2001). *Essentials of TAT and other storytelling techniques assessment*. New York:

Wiley.

Tracey, T. J. G. (2002). The Personal Globe Inventory: Measurement of the spherical model of interests and competence beliefs. *Journal of Vocational Behavior*, 60, 113-172.

Vernon, P. A. (2000). Recent studies of intelligence and personality using Jackson's Multidimensional Aptitude Battery and Personality Research Form. In R. D. Goffin & Helmes, E. (Eds.), *Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy* (pp. 195-212). New York: Kluwer Academic/Plenum.

Watkins, E., & Savickas, M. L. (1990). Psychodynamic career counseling. In W. B. Walsh, & S. H. Osipow (Eds.), *Career counseling: Contemporary topics in vocational psychology* (pp. 79-116). Hillsdale, NJ: Lawrence Erlbaum Associates.

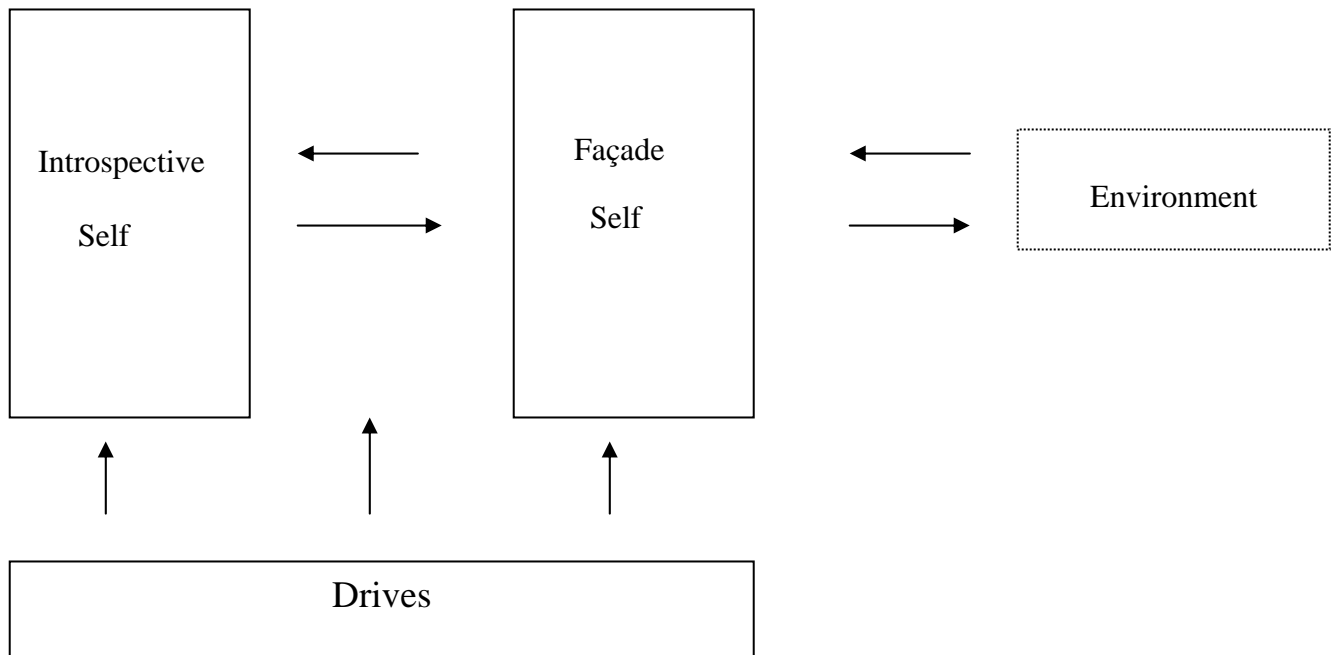


Figure 1 Schemata for Wagner's (1971) Theory of Structural Analysis. Adapted from "Structural Analysis: A Theory of Personality Based on Projective Techniques" by E. Wagner, 1971, *Journal of Personality Assessment*, 35, p. 426. Copyright by Lawrence Erlbaum Associates, Inc. Reprinted by permission.

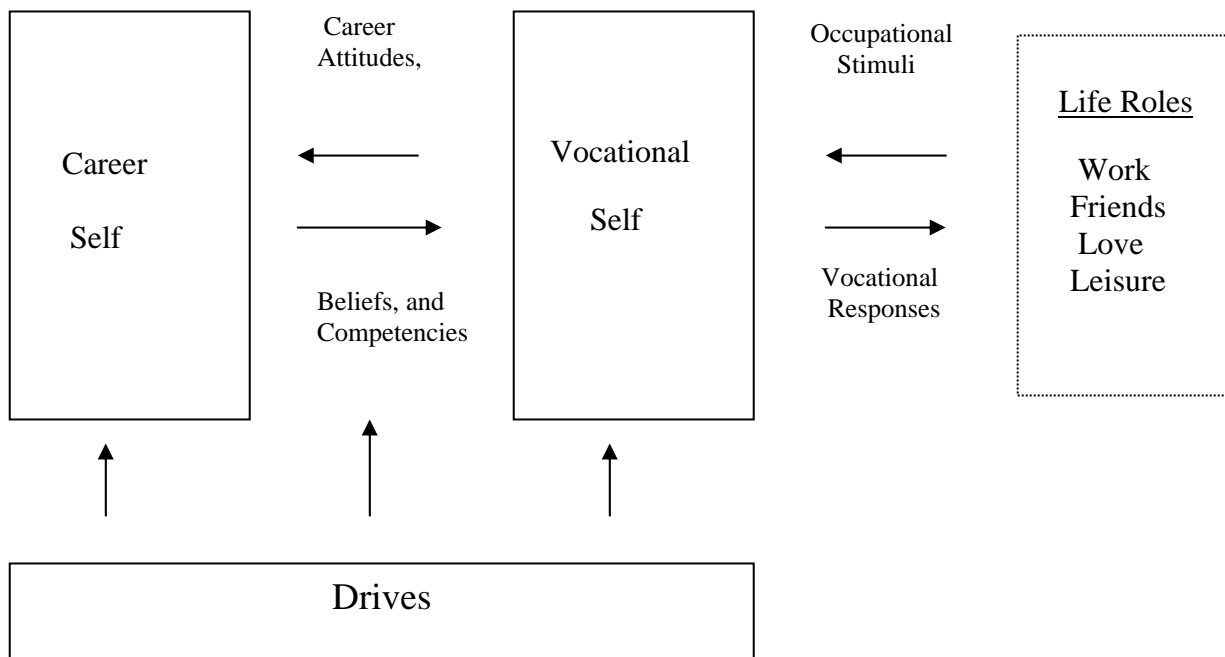


Figure 2 A Model for Comprehending Career Theories

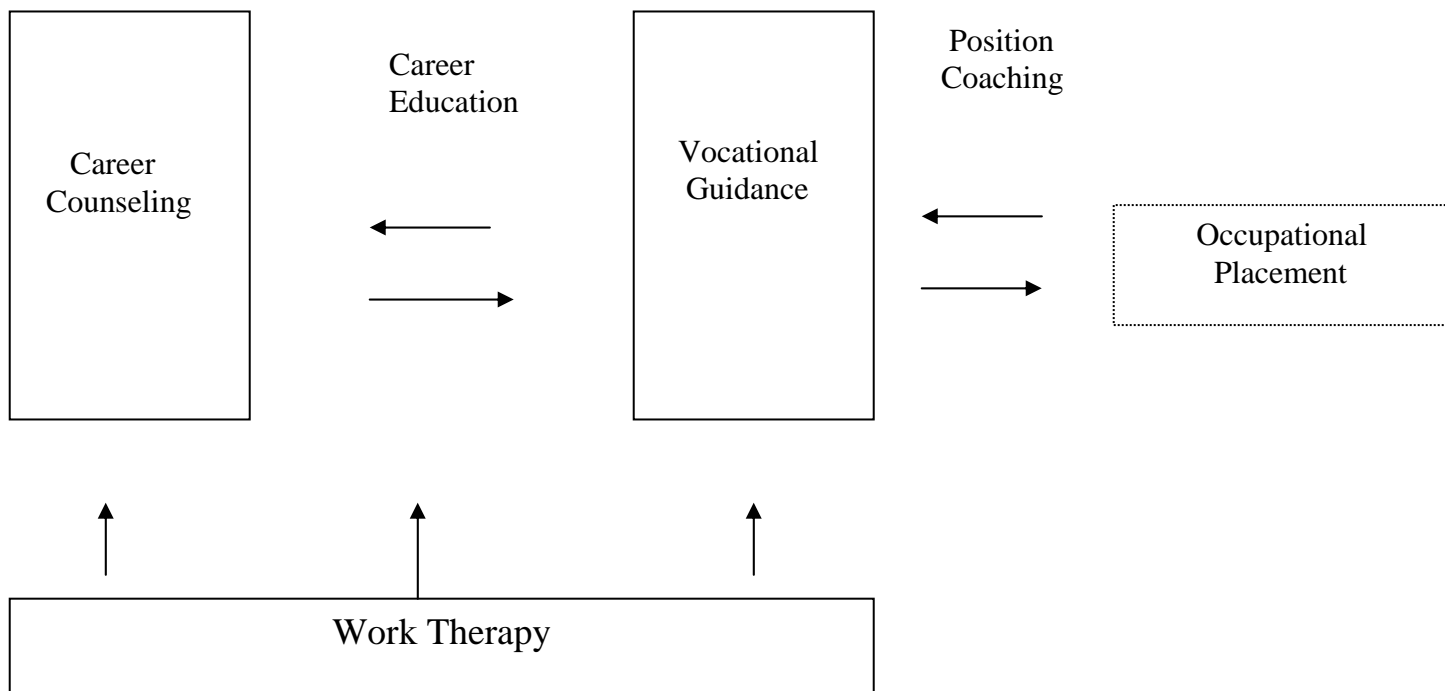


Figure 3 A Model for Career Services