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# Chapter 18

# NEW DIRECTIONS IN CAREER ASSESSMENT

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This chapter discusses current developments in career assessment. In particular, the chapter describes new assessment models and measures that can be useful to career counselors. The chapter consists of three sections. The first section, "Assessment of Career Themes," describes the emergence of narrative psychology as an important model for career assessment. It also explains how the model may increase interest in relatively obscure measures of career development. The second section of the chapter, "Assessment of Career Decision Making," deals with measures that assess the decision-making process among adolescents and young adults who are making career choices. The third and final section, "Assessment of Career Adaptability," addresses measures of the vocational development process in working adults.

## Assessment of Career Themes

Most vocational psychologists and career counselors base their work on the philosophy known as logical positivism (Brown and Brooks, 1990). Because positivism focuses attention on objective reality, it has produced career development theories and interventions that emphasize verifiable action. Thus in doing vocational appraisals, career counselors use assessment models and measures that deal with clients' manifest behavior and quantifiable traits. After measuring clients' interests and abilities, counselors use these objective observations of clients to identify "realistic" occupational alternatives. This practice may occasionally prompt some counselors to unintentionally treat clients as objects. For example, a counselor can objectify clients by counting their interests and abilities as traits that clients possess rather than learning how clients use their interests and abilities to suit their purposes and express their life pattern.

Although logical positivism still shapes how counselors view career assessment, some counselors have recognized the usefulness of taking a second perspective on career assessment. Rather than replacing positivism, they add the view offered by phenomenology. Accordingly, these counselors complement their objective perspective on clients' careers with a subjective

perspective. In assessing subjective experience, counselors apprehend clients' conceptions of their personal experience. The phenomenological perspective leads counselors to help clients understand their own experience. When operating from the phenomenological perspective, counselors elicit clients' conceptions of themselves and their world. Then counselors act as interpreters to help clients understand themselves and the meaning that they give to their lives. When counselors take the phenomenological perspective on assessment, they do more than use the trait theory of individual differences to identify occupations that match clients' interest and ability profiles. They go beyond the view of trait theory and seek to comprehend the meaning of clients' interests and abilities as a part of a life pattern. From this perspective, counselors view interests and abilities as solutions to problems in growing up, not just as quantifiable characteristics. The phenomenological perspective enriches career assessments because counselors can count the interests and abilities that a client *possesses* as well as understand how that client *intends* to use these interests and abilities in fashioning a career.

**Why Add the Subjective Perspective?**

Three reasons motivate counselors to add the subjective perspective to their objective observations of a client. First, they have learned from research that the phenomenological perspective can increase the predictive accuracy of career assessments. A substantial body of literature about interest assessment indicates that expressed interests either equal or exceed the predictive accuracy of inventoried interests. Moreover, predictive efficiency increases when counselors use objectively inventoried interests in tandem with subjectively expressed vocational aspirations (Holland, Gottfredson, & Baker, 1990). Thus, a comprehensive assessment of a client's interests might combine an examination of the client's occupational daydreams (Touchton & Magoon, 1977) with an objective inventory of the client's interests.

Some counselors have adopted the subjective perspective on career assessment for a second reason. They believe that assessing a client's subjective experience helps counselors to increase their own job satisfaction. Many career counselors have reported their dissatisfaction in providing traditional interventions. They complain that the objective application of the matching model emphasizes the delivery of authoritative guidance and concentrates exclusively on the client's role as worker. These counselors sometimes feel bored as they provide services such as workshops, interest inventory interpretations, occupational information, and computer-assisted guidance. Adding the subjective perspective to their career assessments allows these counselors to reduce the artificial distinction between career and personal counseling. It also emphasizes the counseling relationship rather than the delivery of a service (Slaney & MacKinnon-Slaney, 1990). By

attending to a client's subjective experience, these counselors enlarge the arena of career counseling beyond the work role. A counselor who understands a client's life themes and tensions can assist the client in preparing to play multiple roles at work, in the home, and throughout the community. In addition, counselors may use life-theme insights to become therapeutically involved in the lives of their clients (Slaney & MacKinnon-Slaney, 1990).

A third reason has also motivated counselors to add the subjective perspective to their career assessments. Advances in other specialties within psychology have prompted career counselors to think about models and methods for assessing how clients subjectively experience their careers. Counselors have enriched their perspective on career assessment by learning about "life narrative psychology" as it has been articulated by developmental psychologists (Mandler, 1984; Whitbourne & Dannefer, 1986), social psychologists, (Gergen and Gergen, 1986; Scheibe, 1986), cognitive scientists (Lehnert, 1981) and personality theorists (McAdams & Ochberg, 1988). In considering this literature, counselors quickly concluded that they can use client narratives to access the subjective experience of self and career. Stories that people tell about their education, work history, and vocational aspirations reveal recurring situations, characters, and plots. Counselors can analyze these story elements to uncover the characteristic themes and tensions that shape clients' lives. In assessing career stories, counselors can also make connections that enable clients to recognize the meaning of their behavior. For example, by connecting scenes from the past with potential scenarios for the future, counselors can help clients to answer questions such as: Who am I? Where did I come from? Where am I going? Who is my enemy? What must I struggle against? Therapeutic dialogue between counselor and client occurs when together they reinterpret the text of the client's career to make better sense and to allow choice or change. Because people change their ways by changing their stories, the narrative psychology approach to career counseling can legitimately be called career therapy (Blustein, 1987).

### Assessment Models

Counselors who seek to recognize life themes must act as biographers who interpret lives in progress rather than as actuaries who count interests and abilities. To learn biographical methods, counselors may consult a growing literature on the phenomenology of careers. Classic articles about life-theme models for career assessment emerged from Super's (1954) work on career pattern theory and Csikzentmihalyi and Beattie's (1979) work on the origin of life themes. More recent life-theme models have been offered by Carlsen (1988), Cochran (1990), MacGregor and Cochran (1988), Miller-Tiedeman (1988), Savickas (1988, 1989), Watkins and Savickas (1990), Young (1988), and Young and Collin (1988). These writers emphasize the importance of under-

standing the meaning that clients invest in their careers. They each suggest that the essence of assessing a client's subjective experience consists of analyzing life stories to identify themes.

Typically, the clinical assessment methods associated with life-theme models are more like structured interviews than objective psychometric inventories. Kvale (1983) described three phases of an assessment interview and three levels of assessment interpretations. During the first phase of an assessment interview, clients describe their experiences and feelings in response to the counselor's open questions about their lives. The counselor listens to narratives and asks clients to elaborate important or ambiguous aspects of a story. During this initial phase, the counselor does not offer any interpretations of the narratives. In the second phase of an assessment interview, the counselor prompts clients to recognize new relationships among the activities and feelings described in their narratives. Making connections creates new meaning for the client. The assessment interview concludes with a third phase during which the counselor condenses and interprets the meanings in clients' narratives and asks clients to correct mistaken interpretations. After concluding the assessment interview, the counselor analyzes interview notes or transcripts to identify a client's life themes and to formulate three types of interpretations dealing with private meaning, public meaning, and therapeutic meaning. First-level interpretations consist of conclusions about what their experiences mean to clients. Second-level interpretations extend that personal meaning by using commonsense to read between the lines and explicitly connect loosely attached ideas. Third-level interpretations use a personality theory to go beyond the client's self-understandings and commonsense meanings.

### Assessment Measures

Counselors who want to assess a client's subjective experience use many different methods to elicit life narratives. The four most popular methods are autobiographies, early recollections, structured interviews, and card sorts. These methods are not new; clinical psychologists have used them for years. However, the application of these methods to career assessment is relatively new. The increasing use of these methods by career counselors coincides with their new-found interest in comprehending subjective careers.

**Autobiographical Methods.** As counselors search to recognize life themes, the client's life history is the central unit to be assessed. Thus, it is little wonder that many counselors use autobiographies to access clients' subjective experience of career. While listening to client narratives about episodes in their lives, counselors can identify themes or particular patterns of interaction with the environment and then uncover recurring plots. Counselors who wish to learn more about autobiographies as an assessment

tool may consult Daily's (1971) *Assessment of Lives.* This book provides clear directions on how to conduct a career assessment starting with the simple injunction, "Tell me about your life." Annis (1967) offers a second source of specific questions and interpretive procedures in his review of how counselors use autobiographical techniques. He includes several sets of stimulus questions used by career counselors.

The newest development in autobiographic methods integrates the objective and subjective perspectives on career assessment. The "self-confrontation method" combines an autobiographic interview with objective inventory methods to yield a well-structured survey of a life in progress (Hermans, Fiddelaers, deGroot, & Nauta, 1990). The method consists of three parts. The assessment starts with an interview to identify "valuations." A valuation is a unit of meaning such as a pivotal memory, difficult problem, significant person, personal ideal, or influential experience. The counselor elicits valuations by questioning clients about their past, present, and future (e.g., "Was there something in your past that has been of major importance or significance for your life and which still plays an important part today?"; "Is there in your present life something that is of major importance for, or exerts a great influence, on your existence?"; "Do you foresee something that will be of great importance for, or of major influence on, your future life?"). During the second part of the assessment, the counselor has the client rate each valuation from 0 to 5 on a standard set of 16 affective words (e.g., joy, trust, disappointment). These procedures result in a matrix in the form of a valuations column and an affect row. From this matrix, counselors compute indices for positive affect, negative affect, general experience, affect expressing self-enhancement, and affect referring to contact with other people. During the third part of the assessment, the counselor discusses the results with the client to deepen self-exploration and create meaning by making new connections at both manifest and latent levels. The counselor and client use the resulting self-knowledge to generate new ideas and plan a life direction.

**Early Recollections.** Several career counselors have constructed structured interviews that seek biographical data particularly relevant in assisting clients to make a career choice. McKelvie (1979) and McKelvie and Friedland (1978, 1981) devised "career goal counseling" to implement Alfred Adler's ideas about career choice. Adler (1964) believed that "choice of the occupation is foreshadowed by some dominant interest of the psychic prototype." McKelvie and Friedland based career goal counseling on the Adlerian concept of life style. Counselors who use this approach begin with an assessment technique that elicits clients' early recollections about their lives. Counselors analyze the early recollections to uncover the individual's life story and its ruling motive. In particular, counselors identify the goals that

guide clients' vocational behavior, the obstacles or mistaken ideas that hinder movement toward career goals, and the behaviors that heighten obstacles. Counselors then use this assessment information to help clients recognize and clarify goals, identify obstacles that thwart goal attainment, and develop new strategies to hurdle obstacles and move toward goals.

**Structured Interviews.** Another approach to identifying life themes is to ask clients a short list of questions about their vocational and educational experiences. Three structured interviews for career assessment have been devised to integrate the objective and subjective perspectives on clients' vocational lives. Savickas' (1989) career-style interview uses eight questions to elicit a client's subjective perspective on career choice. The interview manual describes how to combine this assessment of subjective experience with the results of objective interest inventories such as the Vocational Preference Inventory or the Self-Directed Search. Kurtz (1974) integrated the objective and subjective perspectives for career assessment by combining Strong Interest Inventory results with a structured interview based on the Transactional Analysis model. Clawson, Kotter, Faux, and McArthur (1985) provide a workbook modeled after the "Self-Assessment and Career Development" course in the MBA program at the Harvard Business School. By answering the questions and performing the exercises that constitute the workbook, individuals learn to understand and manage their careers using both the objective and the subjective perspectives. All three of these structured interviews assess the interests and abilities that a client possesses and how the client uses them to establish a suitable and viable occupational choice.

**Card Sorts.** Another technique that may combine objective and subjective perspectives is card sorts. Sorting tasks have been shown to reveal clients' individuality (Tyler, 1961). Vocational card-sort techniques use a deck of cards in which each card states a vocational or educational stimulus such as occupational titles from the Strong Interest Inventory and Holland's RIASEC typology, basic interest groups from the Strong Interest Inventory, descriptions of Holland's RIASEC types, leisure activities, and community organizations. Recently constructed card sorts have used work tasks categorized by data, people, things, and ideas (Career Systems, 1985) as well as occupational titles grouped by gender type and prestige level (Brooks, 1988). In using a card sort, counselors ask clients to sort the cards into groups of "like," "dislike," and "no opinion." Counselors may choose to designate different categories for the groups and to use more than three groups. As clients engage in the sorting task, counselors ask clients to think aloud. Counselors then use probing questions to explore pivotal choices by asking clients to further articulate their reasoning or describe episodes from their lives that explain their choices. Analyzing a client's decision-making process and reasons for choices allows the counselor to discern the client's

personality pattern and life themes. With these assessment data, counselors can identify what clients affirm and deny as they navigate their life course and design their careers. Detailed instructions on how to use vocational card sorts can be found in Gysbers and Moore (1986) or Slaney and MacKinnon-Slaney (1990).

## Assessment of Career Decision Making

As noted above, the assessment of career content now pays more attention to subjective experience. This movement has not produced novel assessment measures or methods. Rather, counselors' interest in assessing clients' subjective experience of vocational development content has increased the popularity of methods that have long been available. In contrast, counselors' increasing interest in the vocational development process has produced many new measures for assessing how clients advance their careers. This section deals with new ways of assessing the decision-making process of high school and college students. The next section deals with assessing career adaptability in adults.

Career counselors have always recognized that clients who seek help with decision making may benefit from different interventions. The originator of the matching model for career counseling suggested that counselors use developmental assessments to guide differential treatment of clients. In describing the goals of an initial counseling interview, Frank Parsons advised counselors to classify clients into two types.

> First, those who have well-developed aptitudes and interests and a practical basis for a reasonable conclusion in respect to the choice of a vocation. Second, boys and girls with so little experience that there is no basis yet for a wise decision (Parsons, 1909/1967).

In the following decades, counselors tried to heed Parson's advice to assess client readiness to make career choices. They devised many diagnostic schemes in unsuccessful attempts to identify types of clients who would benefit from different career interventions (Crites, 1969).

During the 1970s, counselors turned their attention to using client differences in decidedness to predict outcomes of career treatments (Fretz & Leong, 1982). Before that time, researchers had used just two categories—*decided* and *undecided*—to classify a client's decisional status. By the mid 1970s, many researchers and practitioners had learned to view decisional status as a continuum rather than a dichotomy. The prototypal work performed by Osipow and his colleagues helped to popularize the process view of decidedness. Osipow, Carney, Winer, Yanico, and Koschier (1976) constructed the Career Decision Scale (CDS) to measure indecision. The

CDS allowed counselors to quickly assess high school and college students' degree of indecision. Osipow, Carney, and Barak (1976) then used the CDS to identify four dimensions within the problem of indecision. Subsequently, numerous researchers have tried to identify stable dimensions of career indecision and have suggested corresponding CDS subscales for use in differential diagnosis. Vondracek, Hostetler, Schulenberg, and Shimizu (1990) recently reported on the status of this line of inquiry.

**Indecision Measures: The Second Generation**

The first generation of instruments to assess career indecision included the Career Decision Scale, Vocational Decision Scale (Jones & Chenery, 1980) and the Vocational Decision-Making Difficulties Scale (Holland, Gottfredson, & Nafziger, 1973). These three instruments engendered extensive research on the differential diagnosis of indecision. Recently, several researchers have contributed to this research stream by constructing a second generation of career indecision measures. These measures are more complex because they operationally define career indecision as a multidimensional construct. Each of the four measures described below provides a way to differentiate clients by career choice status and potentially answers the attribute-intervention question, "Who gets which intervention?"

**Commitment to Career Choices Scale.** The Commitment to Career Choices Scale (Blustein, Ellis, & Devenis, 1989) measures two dimensions of the commitment process. The "Vocational Exploration and Commitment" subscale uses 19 items to measure commitment to career choices. The items deal with perceived self-knowledge, occupational knowledge, awareness of obstacles, need to explore, and confidence about and commitment to a specific occupational preference. The "Tendency to Foreclose" subscale uses 9 items to measure how one commits to career choices. The items deal with willingness to consider more than one occupation at a time, the belief that more than one occupation can suit an individual, and tolerance for ambiguity in making career commitments. Individuals who foreclose their career choices make early commitments to career choices without thorough exploration or provisional commitment. The theoretical constructs measured by these two subscales are carefully discussed and documented in the monograph that introduced the measure (Blustein, Ellis, & Devenis, 1989). The theory behind the Commitment to Career Choices Scale and its impressive psychometric characteristics both recommend the scale for future research on differential diagnosis and treatment of career indecision.

**Fear of Commitment Scale.** Many researchers who have considered the dimensions of indecision have suggested that indecisiveness differs qualitatively from undecidedness (Crites, 1969; Jones, 1989; Tyler, 1961). Undecided students encounter difficulty in making a career choice but do not

experience impaired decision making in other life domains. By contrast, indecisive students seem to have pervasive difficulty in making decisions in most life domains. This difficulty stems from personality problems such as low self-esteem, high anxiety, dependency on other people, external locus of control, and behavioral inhibition. To date, counselors who wish to screen career clients for indecisiveness face two unattractive choices. On the one hand, counselors can assume that extreme scores on indecision measures (e.g., Career Decision Scale) indicate indecisiveness. Defining indecisiveness as extreme indecision confuses multifaceted career undecidedness with generalized indecisiveness. This quantitative definition misses the qualitative distinction between career indecision and pervasive indecisiveness. On the other hand, some counselors have used a profile of scores from career indecision, anxiety, and self-esteem inventories to screen for indecisiveness. Unfortunately, these assessment batteries typically are too time consuming and expensive for routine use in screening career clients.

An innovative measure constructed by Serling and Betz (1990) attempts to advance our understanding and treatment of indecisiveness by constructing a measure to distinguish career indecision from pervasive indecisiveness. They constructed the Fear of Commitment Scale (FOC) to measure the relatively stable disposition to respond to choices in many important life domains with impaired decision making. The impaired decision making stems from anticipation of negative outcomes such as (a) performing poorly, (b) losing options, (c) making wrong choice, (d) displeasing significant others, (e) being disliked, (f) fearing success, and (g) acknowledging imperfections. Because of its theoretical coherence and sound psychometric characteristics, the FOC scale has the potential to significantly advance our understanding of indecisiveness and to provide a practical way to differentiate undecidedness from indecisiveness.

**Career Factors Inventory.** The Career Factors Inventory (Chartrand, Robbins, Morrill, & Boggs, 1990) provides a multidimensional measure of career indecision. Its authors reasoned that "informational and personal-emotional factors interact to either facilitate or to inhibit the career decision-making process." Thus, they constructed two informational and two personal-emotional scales. The two information scales measure "Need for Career Information" (6 items) such as facts about occupations and "Need for Self-Knowledge" (4 items) about personal qualities such as capabilities and interests. High scores on these two scales indicate a need for either more vocational exploration and experience or more self-definition and discovery. The two personal-emotional scales measure "Career Choice Anxiety" (6 items) attached to the vocational decision-making process and "Generalized Indecisiveness" (5 items) even when the conditions necessary for making a choice are present. High scores on these two scales indicate a need for anxiety reduction or

decisional training. Counselors formulate differential career interventions based on profiles of the four scale scores. For example, counselors might treat a student with high informational and low personal-emotional scores with cognitive intervention and treat a student showing the opposite pattern with supportive counseling.

**Career Decision Profile.** The Career Decision Profile (CDP; Jones, 1989) assesses a client's degree of decidedness, degree of comfort with decisional status, and reasons for being decided or undecided. The CDP "Decidedness" scale consists of two questions that deal with occupational field and occupational choice. "Comfort" is measured by two items about being at ease with or worried about one's career choice. Four 3-item scales measure the reasons dimension. The "Self-Clarity" scale deals with self-knowledge about interests, ability, and personality. The "Knowledge About Occupations and Training" scale deals with information about occupations of interest and their educational requirements. The "Decisiveness" scale deals with ability to decide without unnecessary delay, difficulty, or reliance upon other people. The "Career Choice Importance" scale deals with the client's feelings about the importance of work and making a career choice. The scores on the "Decidedness" and "Comfort" scales can be used to identify a client's decisional status as decided/comfortable, decided/uncomfortable, undecided/comfortable, or undecided/uncomfortable. Counselors can then examine the client's scores on the reasons scales to learn the antecedents of the client's decisional status. Describing the client's decisional status and the reasons for that status prepares the counselor to prescribe unique interventions that facilitate the client's vocational decision making and career choice.

## Assessment of Career Adaptability

In conducting a career assessment with high school or college students, counselors typically concentrate on decision-making problems because students usually want help with making career choices. Because counselors assume that the problem is the need to make a choice, they use measures that assess how clients cope with that problem. Note that the measures described earlier in this chapter each dealt with diagnosing problems in decision making.

In conducting a career assessment with adults, counselors cannot concentrate on just decision-making problems because adults also seek help with problems of career adaptation. Adults in the work force face a heterogeneous set of problems in adapting to changes in work or working conditions. Therefore, in performing career assessments with adults, counselors must first find the source of the client's career problem. Accordingly, they need

measures that identify the problem *and* measures that appraise coping responses to that problem.

The homogeneity in career choice problems faced by high school and college students made the development of decision-making measures easier. By assuming that the problem was career choice, test constructors could concentrate on measuring decision-making difficulties and resources. By contrast, the heterogeneity in career problems faced by adults has hindered development of career adaptability measures (Super & Knasel, 1981; Savickas, Passen, & Jarjoura, 1988). In constructing adaptability measures, researchers chose to first deal with identifying career problems. Thus, the first measure of career adaptability, the Adult Career Concerns Inventory, dealt only with identifying career problems. Subsequent measures, such as the Career Mastery Inventory and the Occupational Stress Inventory, attempt to both identify career problems and appraise coping repertoires. Each of these three innovative inventories of career adaptability provides unique career assessment information because each one uses a different model to comprehend adult vocational development.

**Adult Career Concerns Inventory.** The Adult Career Concerns Inventory (ACCI; Super, Thompson, & Lindeman, 1988) indicates the type of career development problem that concerns an individual. However, it does not reveal whether the concern is prompted by requirements or opportunities for developmental task coping, adaptive problem solving, or occupational change. For example, a client's ACCI profile may indicate a concern with vocational exploration. This concern could be prompted by the need to declare a college major, specify a career choice, orient oneself to a new career stage, explain one's job failure and dissatisfaction, or recycle to a different occupational field.

The ACCI measures concerns associated with four stages in Super's model of vocational development: exploration, establishment, maintenance, and decline. Each career stage is represented by three 5-item subscales that measure a unique concern. The three exploration stage concerns are *crystallizing* preferences for an occupational field and level that matches one's interests and abilities; *specifying* a particular occupational choice within that field and level; and tentatively *implementing* that choice by securing an entry-level position in that occupation. The three establishment stage concerns are *stabilizing* oneself in an occupational position, *consolidating* one's hold on that position, and *advancing* to the next position in that occupation's career path. The three maintenance stage concerns are *holding on* to the position that one has attained, *updating* the knowledge and skills used in that position, and *innovating* new ways of doing the work involved in that position. The three disengagement stage concerns are *decelerating* one's career by reducing the work load, *retirement planning,* and *retirement living.*

Clients respond to the five items in each subscale on a 5-point Likert scale that ranges from no concern to great concern. Higher scores indicate greater concern. By plotting a client's subscale scores on the profile sheet, the counselor can assess how involved the client is with each of the 12 types of concerns. In considering the profile as a whole, counselors can discern the maturational and adaptive tasks that preoccupy the client. For example, if a 40-year old client expresses great concern with specifying and advancing, then the counselor may surmise that the client needs to explore the next steps on the career path in his or her current organization or consider seeking a higher level position in a different organization.

The ACCI can be used for more than just individual career counseling. It also provides an excellent means for surveying employees' career development status and needs. Specialists in organizational development have used ACCI surveys to plan in-service workshops and to diagnose productivity and morale problems. The ACCI can also be used as a lesson plan to teach career theory to graduate students or to orient students and employees to the maturational tasks that they should anticipate and the coping attitudes and behaviors they should cultivate.

**Career Mastery Inventory.** The Career Mastery Inventory (CMI; Crites, 1990) consists of two parts. Part 1 measures degree of coping with the maturational tasks of adult vocational development. Part 2 measures work adjustment mechanisms that adults use to solve problems at work. Counselors can use the first part to identify the client's career problems and the second part to appraise how the client copes with those problems.

Part 1 of the CMI consists of six scales which measure coping with six vocational development tasks of the career establishment stage: (1) Organizational Adaptability, (2) Position Performance, (3) Work Habits and Attitudes, (4) Coworker Relationships, (5) Advancement, and (6) Career Choice and Plans. Each scale contains 15 items. Clients respond to the items on a 7-point Likert scale. Higher scale scores indicate greater task mastery. A profile of the six scale scores portrays a client's progress along the continuum of vocational development tasks that define the three phases of the establishment stage.

As described in the foregoing section on the ACCI, Super's model of career development defines three major phases for the years from occupational entry to midcareer (i.e., establishment stage). Each phase is characterized by concerns about stabilizing, consolidating, and advancing one's occupational position. The CMI scales for "Position Performance" and for "Organizational Adaptability" indicate how well clients have coped with the stabilizing phase of early establishment. Poor performance or conflict with organizational values prevents stabilization and generally forces an individ-

ual to find a more fitting position within the same occupation or to enter a new occupation.

Once individuals stabilize in their positions, they should attend to consolidating their job by forming cooperative relationships with coworkers and sustaining positive work habits and attitudes over the long haul. The CMI scales for "Coworker Relationships" and for "Work Habits and Attitudes" measure the degree to which an individual has become a dependable producer with a positive attitude. Failure to deal effectively with interpersonal problems on the job is the most frequent reason for leaving a position during the consolidation phase of the establishment years. Mastery of the twin tasks leading to consolidation prepares people to enter the advancement phase of the establishment stage.

The CMI scales for "Advancement" and for "Career Choice and Plans" measure the degree to which an individual has mastered the tasks of career advancement. The "Advancement" scale looks to the intermediate future and indicates the degree to which individuals know about the career paths in their organizations and know how to move to the next position. The "Career Choice and Plans" scale looks to the long-range future and indicates the degree to which individuals know how they want to spend the rest of their working lives. Often, people who are actively coping with the career planning task are viewed as having a "midcareer crisis." However, not all workers suffer a crisis as they face this task. Many workers, after a period of reflection, move smoothly into the maintenance stage (i.e., the years from midcareer to retirement) and deal with the tasks of holding, updating, and innovating their positions. Workers who spend significant time dealing with the task of career planning at midlife may be in a renewal stage (Murphy and Burck, 1976; Williams & Savickas, 1990). During a period of renewal, people thoroughly reassess their careers and lives. They dream about alternative futures, examine their direction in life, reorganize their priorities, and consider changing occupations. The reassessment may result in (a) reaffirmation of the present occupational position through updating and innovating, (b) reordering priorities to devote more time to family and leisure while holding on to the present position, or (c) redirecting oneself into a different occupational field and recycling through the tasks of stabilizing, consolidating, and advancing in a new occupational position.

Part 2 of the CMI deals with problem solving and complements Part 1 (problem identification). The second part of the CMI contains 20 multiple-choice questions that deal with strategies for resolving problems at work. Each question consists of a stem that describes a typical problem which may arise at work. After reading the stem, clients select a behavioral response from three alternatives. The three options purport to represent (1) Integrative, (2) Adjustive, and (3) Nonadjustive mechanisms for dealing with problems.

Because an integrative response is accurate and socially reasonable, it produces a change in the objective situation or solves the problem. Crites defines an integrative response as one that removes thwarting conditions and reduces tension or anxiety.

An adjustive response deals with problems by changing the subjective situation to safeguard self-esteem. These responses reduce anxiety or tension but they do not remove the thwarting conditions. Adjustive responses accomplish subjective relief by some conscious negation or unconscious distortion of the objective situation. Adjustive responses include coping mechanisms (Menaghan & Merves, 1984) such as restricted expectations (e.g., work is not supposed to be fun), optimistic comparisons (e.g., I am luckier than most people), and selective attention (e.g., for every bad part there is a good part). Some problems create more anxiety than an individual can handle with conscious coping mechanisms. In these situations, individuals may resort to using unconscious defense mechanisms such as displacement, regression, projection, and reaction formation. Adjustive responses succeed when they buy the time that allows the objective situation to change or the individual to develop an integrative response. Adjustive responses fail to help individuals when they become repetitive and perpetual. The continual shoring up of defenses against anxiety and tension produces a false equilibrium sustained by behavioral rigidity and compartmentalization of life.

Nonadjustive responses are alternatives to integrative problem solving or adjustive coping and defense. According to Crites, nonadjustive responses neither remove thwarting conditions nor reduce tension and anxiety. Nonadjustive responses exacerbate the problematic situation and increase tension and anxiety. Eventually, most individuals withdraw from the problem into mental illness, malingering, quitting, running away, psychophysical illness, or substance abuse.

In scoring the work adjustment section of the CMI, integrative responses earn 3 points, adjustive responses earn 2 points, and nonadjustive responses earn 1 point. The total score may range from 20 to 60. Presumably people with higher scores (more integrative) experience greater job success and satisfaction because they solve work problems as they arise. Individuals with lower scores are more likely to fail at work and feel dissatisfied. In terms of counseling, higher scores indicate a need for encouragement and reinforcement of current adjustment mechanisms. Middle scores indicate the need to learn how to formulate integrative responses and how to tolerate more stress without resorting to adjustive mechanisms. Counselors can help clients learn to problem solve and relax through training workshops, support groups, and individual counseling. Low scores suggest a need for

confrontation by supportive colleagues or a need to change environments (e.g., new job, hospitalization, vacation).

The current version of the CMI resulted from 15 years of research on its predecessor, the Career Adjustment and Development Inventory (CADI; Crites, 1975, 1982). The work adjustment section of the CADI differs in format from its corresponding section on the CMI. As described above, the CMI measures adjustive strategies using 20 multiple-choice items. The CADI measures adjustive strategies using the same item stems but not in a multiple choice format. Instead, they serve as sentence completion stems. The multiple choice alternatives used in the CMI are based on responses clients had written to the CADI incomplete sentences.

Obviously, the CMI multiple-choice format works better for research, screening, and surveys. Yet, the CADI sentence-completion format seems to be particularly useful for career counseling with individuals and for career development training with small groups or large classes. Using the sentence-completion format with individuals allows the counselor to see idiosyncratic responses that reveal the subjective world of the client. These responses provide the counselor with access to a client's life themes. When working with groups or classes, counselors can use the sentence-completion form as a lesson plan. After the participants respond individually to the stems, they can work together to construct "ideal" responses to the 20 problems. The process of constructing ideal responses and thinking about them expands the problem-solving repertoire of each participant.

Taken together, the two parts of the CMI give a comprehensive picture of a client's work problems (Part 1) and problem-solving repertoire (Part 2). Because the two parts of the CMI address distinct issues, each part uses a different conceptual model. Part 1 of the CMI operationally defines developmental tasks in the tradition of developmental psychologists such as Havighurst (1953) and Super (1957). Part 2 of the CMI applies the traditional conception of problem solving articulated by clinicians who specialized in the psychology of adjustment (Shaffer and Shoben, 1956). A different perspective on the source of career problems has emerged from social psychology leading to a third measure of career adaptability that uses the psychology of social roles to comprehend adult vocational development.

**Occupational Stress Inventory.** Osipow and Spokane (1987) constructed the Occupational Stress Inventory (OSI) to measure adaptation to work role stressors that may disrupt person-position fit or exacerbate an existing misfit. The OSI applies to all occupations because it measures generic pressures inherent in occupations as work roles, not the specific pressures pertaining to a particular occupation such as nursing or engineering. The OSI implements a conceptual model of stress that links perceived job stress to experienced psychological strain. According to the model, both the

activating stress and the consequent strain can be alleviated by coping behaviors that reestablish homeostasis. Therefore, the OSI also measures coping resources for countering the effects of occupational stress and strain. The OSI operationalizes its stimulus-organism-response (S–O–R) model with three sets of scales that measure occupational stress, psychological strain, and coping resources.

The Occupational Roles Questionnaire (ORQ) measures six types of occupational stress with six 10-item scales. Because stress is primarily viewed from the social-role perspective, five of the scales measure role stress (Overload, Insufficiency, Ambiguity, Boundary, Responsibility). The sixth scale in the ORQ measures stress that arises from toxins or extreme conditions in the physical environment where work occurs. Each ORQ scale contains ten items that assess the frequency, intensity, and duration of a particular type of stress.

The Personal Strain Questionnaire (PSQ) measures psychological strain with four 10-item scales. The "Vocational Strain" scale deals with problems in work output and quality as well as boredom and absenteeism. The "Psychological Strain" scale assesses intrapersonal problems such as depression, anxiety, irritability, and sleep disturbance. The "Interpersonal Strain" scale addresses interpersonal problems such as argumentativeness and withdrawal. The "Physical Strain" scale measures motivational changes and physical complaints such as lethargy and tension.

The Personal Resources Questionnaire measures coping resources with four 10-item scales. The "Recreation" scale measures the extent to which clients use rest, relaxation, and recreation to repair the damage done by occupational stress and psychological strain. The "Self-Care" scale indicates the extent to which clients engage in good health habits with regard to nutrition, sleep, and exercise. The "Social Support" scale measures the extent to which clients feel succor from at least one sympathetic person. The "Rational/ Cognitive Coping" scale indicates the extent to which clients use their intellectual resources to deal with problems at work.

In addition to its use in career counseling to improve occupational adaptation, the OSI can be used to assess organizational culture. Such assessments may guide redesign of a work context or job tasks. Sometimes the identified stressors cannot be changed. In these situations, counselors may orient workers to the occupational stress peculiar to that job or work unit and describe ways that workers can reduce their vulnerability to psychological strain.

## CONCLUSION

In approaching the 21st century, counselors seem to be moving career assessment in three new directions. First, counselors are showing more interest in assessing how clients' subjectively experience their careers. An increasing number of counselors elicit life-story narratives by using autobiographies, early recollections, structured interviews, and card sorts. Analyzing narratives enables counselors to identify the life themes and tensions that pattern a client's career. Second, counselors have intensified their efforts to diagnose decisional problems. These efforts have produced a new generation of career indecision measures and provided ways to study important constructs such as pervasive indecisiveness and foreclosure in career decision making. Third, counselors have begun to overcome obstacles that have thwarted the measurement of adult vocational development. Separating the identification of career problems from the appraisal of problem-solving mechanisms has enabled counselors to construct innovative measures of career adaptability. These novel measures deal with adult career concerns, vocational development tasks, and adaptive problems as well as the adaptive mechanisms and coping resources that may resolve these issues. Counselors' increasing interest in subjective experience, types of indecision, and career adaptability should innovate the practice of career assessment as we approach the 21st century.

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