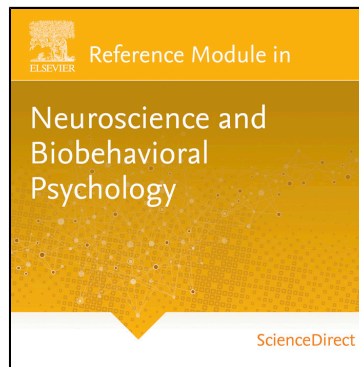


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Vocational Psychology, Overview[☆]

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When asked what characterizes mental health, Freud reputedly answered, “love and work.” Although most psychologists prefer to focus on relationships, work also provides a fruitful focus for the study of personality and human development. This assertion is borne out in vocational psychology, the discipline in applied psychology that concentrates on how individuals experience their work, occupations, and careers. The basic unit of study in vocational psychology is “vocational behavior,” that is, the responses an individual makes in choosing and adapting to an occupation. In addition to studying vocational responses to occupational stimuli, vocational psychologists also study the development of vocational behavior over the lifespan, from the growth of occupational aspirations during childhood to the disengagement from the world of work during old age. The overview of vocational psychology presented herein explains the structure and function of the discipline, particularly emphasizing its concern with person-environment fit and career development and introducing its major constructs.

Person-Environment Fit Model

The study of vocational behavior emerged as a scientific discipline at the beginning of the 20th century as industrialized countries across the globe saw increasing numbers of workers leave their farms to seek employment in the large factories that dominated modern cities. These companies assumed a bureaucratic form and a hierarchical organization. This organizational structure of ranked positions changed workers from self-employed individuals who performed a craft for their community to employees who performed a job consisting of some circumscribed tasks required to bring a product to market. These factory jobs required only a small set of skills and interests, so employers sought to fill these jobs with employees who clearly displayed the required characteristics.

Upon arrival in the metropolis, with their immediate family in tow, individuals from the countryside and from different countries faced the challenge of finding employment. Unaccustomed to life in the city, with its factories and specialized occupations, many of these newcomers needed help in relating their talents to available occupations. Providing this vocational guidance became the mission of philanthropic organizations that helped newcomers to the city choose a job and adapt to urban life. Guidance workers in institutions such as the YMCA and settlement houses used a three-step model to match people to occupations. First stated by Parsons (*vide*, [Brown and Lent, 2013](#)) the person-environment (P-E) model consists of helping individuals increase

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self-knowledge and gather occupational information, and then rationally match the two to select a fitting occupation. Advocates of the model for P-E fit have ample evidence to support the assertion that a good match of a worker's abilities and interests to a job's requirements and rewards leads to important outcomes. The organization gets a satisfactory worker, one who is productive and reliable, and the successful worker earns economic rewards and feels job satisfaction.

The primary outcomes of fitting workers to work, that is, occupational success and job satisfaction, may result in an important secondary outcome—career stability. After leaving school, individuals usually progress through a sequence of trial positions in a process of zeroing in on a more-or-less permanent job. This sequence of trial jobs can entail horizontal movement to lateral positions in the hierarchy or vertical mobility up the organizational ladder. Ideally, each new job should improve correspondence between the individual's resources and the occupation's requirements, leading to more effective functioning. Once a good match has been made, individuals usually remain in that congruent position, enjoying a relatively stable work life. The length of this period of stable employment is the major variable in comprehending the wide range of work histories that individuals report. At one end of the continuum, some individuals find a fitting position, remain in it for 30 years, and then retire from it. At the other extreme, some individuals never stabilize for more than a year or two, having as many as 25 jobs during their career. A more typical work history finds workers remaining in a position for some significant period, say 5–7 years, before moving to and re-stabilizing in another position, repeating this process four to eight times during their work lives. Various career patterns are thus characterized by the sequence and duration of work positions occupied by an individual. Using variations in tenure, researchers have identified a set of common career patterns that accommodate the work histories of most individuals. The career patterns experienced by large groups of workers have been examined to identify how occupations relate to each other and to describe the vocational personality types that populate particular occupations. These observations became systematized as researchers studied individual differences in vocational personalities and similarities in work environments.

Vocational Personalities and Work Environments

Development of the psycho-technology for implementing the P-E paradigm was spurred by World War I, as the methods devised for matching soldiers to military positions were later adapted to civilian occupations. Two lines of research dominated that era, and remain dominant today. The first line concentrates on success and the second on satisfaction. Efforts to predict success led both to the development of tests that measure individual differences in abilities, aptitudes, and skills and to the assessment of the ability patterns that characterize workers in various occupations. Efforts to predict satisfaction led both to the development of inventories that measure individual differences in vocational interests and work values and to the assessment of the interests reported by satisfied workers employed in various occupations. Vocational guidance counselors match individuals to fitting occupations by comparing the abilities and interests that characterize different occupations to the profiles individuals produce on ability tests and interest inventories. Of course, personnel officers use this same approach in employee selection. So, the P-E model and its associated techniques can be used to benefit the employee, the employer, and the community.

While industrial-organizational (I/O) and vocational psychologists both appreciate the roles that abilities and interests play in shaping careers, they differ in the relative emphasis they place on these critical variables. Industrial psychology, with its focus on an organization's productivity and employee success, emphasizes ability tests and occupational ability patterns. In contrast, because it concentrates on the perspective of the individual worker and job satisfaction, vocational psychology emphasizes research on work motivation. Although some attention has been, and continues to be, paid to motivational variables such as personal needs and work values, the majority of vocational psychology's research on motivation has concentrated on vocational interests.

Vocational Interests

Interest denotes a state of consciousness characterized by a readiness to respond to particular environmental stimuli, such as objects, activities, and people. When activated, interests prompt selective attention that narrows the perceptual field to concentrate on the stimulus. This attention is accompanied by a pleasant feeling and an evaluation of liking that steers goal-directed behavior and maintains persistent effort to fulfill some personal need or value. As a personality trait, vocational interests denote a homogeneous group of specific interests that form a consistent, persistent, and stable dispositional response tendency which increases one's readiness to attend to and act upon a particular group of environmental stimuli. This orientation shows habit (or absolute) strength in how much stimulation is required to activate it. Habit strength can be assessed by behavioral analyses and interest autobiographies that reveal the ease and frequency with which an interest is initiated, as well as the duration for which it extends and the length of time for which it persists. A disposition shows relative strength in activity preferences, that is, competition with other interests for behavioral expression. Relative strength of interests can be measured with interest inventories.

In addition to being viewed as a personality trait, vocational interests may also be conceptualized as a psychosocial construct, psychosocial meaning the interrelation of individual and society in human development, especially connoting the influence of social factors on an individual's thoughts and actions. From this perspective, vocational interests denote a complex, adaptive effort to use one's environment to meet needs for survival and self-realization. Vocational interests expedite P-E interactions by uniting subject, object, and behavior into a vital relationship, a relation manifested in actions that satisfy needs, fulfill values, foster self-development, enhance social integration, and substantiate identity.

The dominant figure in the study of vocational interests during the 20th century was E.K. Strong, Jr., who in the 1920s devised a method for measuring an individual's vocational interests and a scoring system for determining empirically how well those interests resemble the interests of workers employed in a number of different occupations. Strong's inventory, with continuing updates,

remains one of the more popular tools used in vocational psychology research and in career counseling practice. The current version of Strong's inventory incorporates two additional types of interest scales that augment his empirically keyed occupational scales (with heterogeneous items) for measuring degree of resemblance to different occupational groups. The first set of scales was added to Strong's inventory in the 1960s; they were basic interest scales composed of homogeneous items that measure expressed vocational interests. Scores on these rationally constructed scales are interpreted as a direct indication of an individual's vocational interests, in contrast to Strong's empirically constructed scales of heterogeneous items which indicate occupational interests by indexing resemblance to workers in different occupations. In the 1970s, a second type of scale was added to Strong's inventory, one that measured resemblance to the six prototypes in Holland's theory of vocational personality types.

Vocational Personality Types

Based on factor-analytic studies of interests and research with Strong's inventory, Holland logically deduced six types of vocational personalities and devised a heuristic theory to describe vocational behavior and organize work histories (*vide*, Brown and Lent, 2013). The six prototypes in Holland's theory are each characterized by a distinct syndrome of interests, competencies, and activities.

1. *Realistic* (R) types report outdoor and mechanical interests, prefer to work with animals and machines, enjoy the role of doer, display physical competencies, like leisure pursuits involving physical skill and challenges, and admire role models such as athletes and adventurers. They might be heard often saying, "just do it."
2. *Investigative* (I) types report scientific interests, prefer to work with ideas, enjoy the role of thinker, display intellectual competencies, like leisure pursuits involving reading and researching, and admire role models such as scientists, inventors, and detectives. They can often be heard saying, "let's explore it."
3. *Artistic* (A) types report artistic, literary, and musical interests, prefer to work with feelings, enjoy the role of creator, display aesthetic competencies, like leisure pursuits involving self-expression and appreciation of concerts, theaters, and museums, and admire role models such as artists, composers, writers, and performers. Often, they can be heard saying, "let's create it."
4. *Social* (S) types report social interests, prefer to work with people, enjoy the role of helper, display communication competencies, like leisure pursuits involving conversation and social gatherings, and admire role models such as teachers and social workers. They can often be heard saying, "let's talk about it."
5. *Enterprising* (E) types report sales and managerial interests, prefer to work with opinions, enjoy the role of leader, display persuasive competencies, like leisure pursuits involving travel and politics, and admire role models such as public officials, military officers, and corporation presidents. Often they could be heard saying, "make it happen" or "make it so."
6. *Conventional* (C) types report clerical and business interests, prefer to work with data and records, enjoy the role of member, display organizing competencies, like leisure pursuits involving collecting and organizing, and admire role models such as teams, organizers, and historians. They can often be heard saying, "keep it going."

Holland subsequently elaborated six types of environments, or ecological nichés, that correspond to each of the six vocational personality types. Along with his colleagues, Holland then used his typology of environments to construct an occupational classification system as well as to classify other behavioral settings such as college majors, universities, leisure activities, and hobbies. Researchers type a behavioral setting by identifying the modal vocational personality types that populate it. Alternatively, one can type an environment by observing its contents and activities. For example, an automobile parts store with mechanical parts lining its neat shelves is a realistic and conventional environment, whereas an elementary school with children discussing their feelings is a social and artistic environment. Holland's hexagonal scheme for portraying the world of work has been compelling in vocational research and pragmatic in career counseling practice.

Consistency and Congruence

The six types of vocational personalities and work environments constitute the primary elements in Holland's theory. In due course, he elaborated four secondary constructs, starting with consistency. Holland determined the relative frequency of type patterns and used this information to order the six types around a hexagon, starting with R in at the upper left node, and followed clockwise by I, A, S, E, and C. Using the RIASEC ordering, researchers and practitioners can determine the degree of internal consistency for a vocational personality or work environment. Consistent types appear next to each other. For example, the most frequent secondary type for an individual with a primary type of artistic is investigative, which precedes A in the RIASEC ordering, or social, which follows I in the RIASEC ordering. Inconsistent types such as artistic and conventional are opposite each other; and, intermediate types such as artistic and enterprising are separated by one other type. The theoretical elegance and practical utility of Holland's research on the structure of interests has been augmented by other researchers who have elaborated the hexagon first by embedding it into an interest circle and then converting the circle into an interest globe.

In addition to the construct of consistency, which deals with the intrapersonal organization of interests, Holland also elaborated his theory by conceptualizing how people behave in environments. In using the same construct language to type both people and environments, Holland made it clear to even casual observers that adaptive fitness is optimal when people work in congruent environments. Simply stated, the construct of congruence proposes the idea that corresponding matches of person to environment produce success, satisfaction, stability, and mental health. This idea enabled Holland to show, for example, that an individual who is ISA, say a psychologist, would be congruent in an ISA work environment, say working as a professor, but incongruent in a REC environment, say working as a roofer.

To further characterize each type of person and occupation, and more importantly the match between them, Holland assesses degree of differentiation or intensity of interests. Marked differentiation indicates a specialist with narrow interests, whereas limited differentiation indicates a generalist with broad interests. A final construct, vocational identity, refers to how clear a picture an individual has of his or her own type and how many distinct behavior situations occur in a work environment. Other things being equal, Holland proposes that it is easier to predict work adjustment for an individual who works in an organization with few distinct behavioral situations and who displays a clear identity with consistent and markedly differentiated interests. While still the dominant paradigm in vocational psychology, the individual differences view of occupations was augmented in the 1950s by a second grand model, namely, the individual development view of careers.

Social-Cognitive Model

Holland's theory of interests is a context-free, structural model that concentrates on the content of activities and interests. Social Cognitive Career Theory (SCCT), which is aimed at understanding the development of career interest, choice, and performance, postulates a mutually influencing relationship between people and the environment (*vide*, Brown and Lent, 2013). The theory offers a comprehensive frame-work that includes three interlocking models to explain (1) the development of academic and vocational interest, (2) how individuals make educational and career choices, and (3) educational and career performance and stability.

Each of the three segments highlights three core variables that influence a person's career. Self-efficacy, outcome expectations, and personal goals shape and reshape an individual's interests, choices, and performance. Self-efficacy, that is, beliefs in one's capacity to organize and execute required actions, is formed through learning from personal performance accomplishments, observing others, social persuasion, and physiological and affective states and reactions. Self-efficacy supports a career choice by sustaining confidence in one's ability to learn and perform the required actions. Outcome expectations refer to an individual's beliefs about the consequences of those actions. Goals refer to an individual's intentions to perform the actions. SCCT also focuses on the effects of environmental, or contextual, variables that can deter (barriers) or facilitate (supports) the individual's choices. SCCT's attention to context has made the theory particularly relevant to studying career issues related to race, sex, ethnicity, and social justice. Accordingly, SCCT has already and continues to generate a large volume of research that test its propositions and applications.

Career Development Model

Career is the development of vocational behavior over time or, according to the *Oxford English Dictionary*, "a person's course or progress through life." The career model, which concentrates on the development of vocational behavior, shares an interest with the P-E model in being concerned with how individuals fit into occupations at a particular point in their lives, yet prefers to emphasize how individuals fit work into their lives from childhood to retirement. Instead of the occupational stimulus-vocational response (S-R) paradigm for studying vocational behavior, career studies use a response-response (R-R) paradigm. Vocational behavior, or response, remains the basic unit of study, but instead of studying differences in vocational behavior between individuals, the career perspective concentrates on changes in vocational behavior by the same individual across time, often investigating the antecedents of career patterns. Thus, the career perspective takes a longitudinal view, in contrast to the cross-sectional view taken by the occupational perspective. Vocational development is inferred and career is denoted by the systematic changes that can be observed in vocational behavior across two or more points in time. Because P-E fit can be studied at a single point in time, vocational behavior and its outcomes may be directly observable. In contrast, careers synthesize past memories, present reflections, and future anticipations into a narrative with a unified plot. As one's own story, a career is not directly observable. Accordingly, career denotes contemplation about the course of one's vocational behavior, not vocational behavior itself. This deliberation can focus on actual events such as one's occupations (objective occupational career) or on biographical themes (subjective vocational career) that give meaning to one's work life.

The objective view of careers, whether by external observers or the person him- or herself, looks at the evolution of P-E fit across the life course. It is a précis of the actual events in one's work history, including all of the preparatory, participatory, and retirement positions an individual has occupied. This public definition of career can be objectively documented as facts and analyzed for patterns defined by the sequence and duration of positions occupied by an individual. The subjective view of careers as private meaning stands in contrast to the public pattern of occupations in a work history. Subjective career, while also a reflexive project, refers to how individuals understand their occupational roles and interpret their work experiences. A subjective career concentrates on the expression of a self-concept in work roles; it tells one's "own story," usually by focusing on a sense of purpose that coherently explains the continuity and change in one's self across time. It is this personal meaning that individuals use to orient themselves to their society's occupational structure, impose meaning on their vocational behavior, and plan their future work life. Whether one takes the public or the private view of career, most researchers who use the term career study the development of vocational behavior, or career development.

Career Development Model

Careers involve the psychosocial integration of self-concepts and social roles. They are constructed by recursive transactions between individuals and their environments. Individuals, as self-organizing systems with their own goals, must find ways to fulfill their

needs through playing social roles predetermined by the community in which they live. Communities usually script these social roles according to gender, race, ethnicity, and social class. Members of the community then socialize children by inducting them into these roles and communicating expectations for role performance. These social expectations are called developmental tasks, and failure to master the tasks can result in delayed or deviant patterns of adaptation. When the social expectations pertain to the work role, they are called vocational development tasks. Success in adapting to each task of vocational development results in more effective functioning as a student, worker, or retiree and lays the groundwork for mastering the next task along the developmental continuum. Skipping a task in the normal sequence usually results in difficulties in coping with later tasks. Super charted the linear progression of vocational development tasks and demarcated career stages that correspond to life stages of childhood, adolescence, early adulthood, adulthood, and late adulthood (*vide*, Brown and Lent, 2013). The name of each career stage communicates its central activity: growth, exploration, establishment, maintenance, and disengagement.

Growth Stage

The stage of career growth, usually ages 4 to 13, involves developing a vocational self-concept as well as the coping readiness and resources that will be needed to translate that self-concept into an occupational role. The vocational self-concept and the translation attitudes and abilities constitute two interrelated yet distinct aspects of vocational development—its content and process. Career choice content centers on the vocational self-concept, that is, the totality of attributes that compose an individual's picture of self in the work role. Because vocational self-concepts develop primarily in social situations, an important determinant of their content is the social world that children inhabit. The social order, with its unequal arrangement of gender, race, and class, shapes children's occupational aspirations. Vocational self-concepts, and the careers they engender, are deeply grounded in an individual's internal representation of his or her location among unequal social positions. Using their "status identity," children circumscribe the range of occupational alternatives that they consider and later, when making choices, compromise their own interests to accommodate their perceptions of an occupation's status and sex type.

The process of circumscription and compromise in perceiving roles and aspiring to goals begins as children look to their parents as guides and identify with their preferences. This process of self-formation continues as children use imaginative play and school experiences to construct a bridge to take them from the family to the community. In what may be considered a very important career choice, children select role models who portray solutions to problems in growing up that they themselves face. As children imitate the desirable qualities of their role models, they rehearse relevant coping attitudes and actions, form values and interests, and develop abilities and skills as they engage in these activities. Playing selective roles, with increasing attention to the results, enables a reality testing that strengthens or modifies vocational self-concepts.

While career choice content involves the subject matter of vocational self-concepts, career choice process deals with the attitudes and actions that construct a career. The construction process is initiated by the tasks of vocational development that individuals encounter during the growth stage of a career. Family, friends, and teachers expect students in middle school and junior high to develop a sense of concern about their vocational future, learn that they can control this future through self-determination and negotiation, become curious enough to explore possible selves and future scenarios, and develop confidence that they can implement plans and deal with problems that occur in actualizing choices. Attitudes of concern, control, curiosity, and confidence chart four developmental lines that, during adolescence, will coalesce to form a teenager's career choice readiness and resources.

Exploration Stage

The career stage of exploration, usually ages 14 to 24, involves seeking information about self and about the work world in preparation for making choices that match the two. Three vocational development tasks characterize the years of career exploration: crystallizing vocational preferences, specifying an occupational choice, and actualizing that choice by obtaining a job in the specified occupation.

Crystallization Task

The first vocational development task of the exploration stage is to crystallize a vocational self-concept and translate that picture into preferences for a group of occupations, usually in similar occupational fields and at the same ability level. Crystallizing vocational preferences requires exploration-in-breadth to learn information about the self, occupations, and the fit between the two. As information and self-knowledge accumulate, individuals conceptualize new distinctions about their work-role self-attributes. Vocational exploration is fostered by educational experiences and can be accelerated by considering the results of vocational testing that draws an objective portrait of one's vocational interests, occupational abilities, and work values. A schema for understanding the world of work, such as the RIASEC hexagon, can be used to organize an individual's occupational information into a coherent framework that makes the information meaningful and relates it to vocational self-concepts.

Specification Task

Specifying an occupational choice from among crystallized vocational preferences is the second task of career exploration stage. Specification emerges from exploration in depth that sifts through attractive preferences and possible selves. This search involves more than matching vocational self-concepts to occupational outlets; it involves the psychosocial process of identity construction, because in declaring an occupational choice, individuals identify themselves before some audience. Stating an occupational choice constitutes a very public presentation of the self; it displays who we are and announces what we want to become. Public declaration

of an occupational choice specifies meanings that both an actor and observers attribute to the self as a worker. It involves telling a story about the self, one with a plot that makes a life whole by unifying and assigning meaning to various elements of the self.

A key step in crystallizing preferences and specifying choices involves developing the attitudes, beliefs, and competencies (the ABCs of career construction) that bear upon career decision making. Savickas (*vide*, Brown and Lent, 2013) identified and organized adaptability resources in a model with four dimensions: concern, control, curiosity, and confidence. The dimensions are charted by four developmental lines that originated in the growth stage and continue to develop during the exploration stage and beyond. Ideally, adolescents show career concern by orienting themselves to vocational development tasks and actively participating in coping with current tasks and preparing for anticipated tasks. This forward-looking attitude fosters the development of planning behaviors. Concern prompts the issue of control, as teenagers develop more self-regulation as shown by increasing self-discipline and becoming conscientious, deliberate, organized and decisive in performing vocational development tasks and making occupational transitions. These attitudes and attributes foster the development of realistic decision making. Individuals who feel some sense of control over their future become curious about the educational and vocational choices they might make. There are many styles and strategies for career decision making, but the most adaptive ones seek information about possible selves and alternative choices. Curiosity about how to match oneself to occupational positions fosters increasing self-knowledge and occupational information. The final dimension involves confidence that one can perform the behaviors needed to make career choices and to solve the problems that arise in implementing them. From this view, the career choice process evolves over time and is facilitated by strategic and decisive attitudes toward making choices, focused by accurate conceptions of the decision-making process, moved by confidence about executing choice behaviors, and supported by exploration that inform choice behaviors. Of course, the development of career adaptability shows individual differences. For each individual, career choice resources develop at different rates, with possible fixations and regressions. Delays within or disequilibria between the four developmental lines produce problems in coping with the tasks of crystallization and specification. Moderate disharmony among the developmental lines produces variant patterns of indecision and unrealism, whereas strong disharmony produces deviant patterns of indecisiveness and indifference. Accordingly, the four developmental lines sketch a framework of career adaptability that can be used to assess career choice readiness and diagnose vocational decision-making difficulties, beginning in adolescence and continuing throughout adulthood.

Lack of resources for educational and vocational decision making leads to predictable career choice problems. These decisional difficulties have been studied since the 1930s. Originally, researchers investigated the construct of vocational indecision by assessing differences in personality between decided and undecided individuals. At first, it appeared that indecision was related to personality maladjustment; however, over time it became clear that delays in deciding might be developmentally appropriate and even adaptive. During the 1970s, researchers began to view “undecided versus decided” as a continuum rather than as two distinct statuses. Attention then turned to identifying and treating problems that delay or distort progressive movement along the continuum from undecided to decided.

Research has identified dozens of career choice problems and, through reflection and research, grouped these problems into homogeneous categories. Several alternative categorizations are available, yet each one depicts some combination of five types of career choice problems: informational, decisional, relational, motivational, and environmental. The most frequently experienced problems in making a career choice involve a lack of information about work-related self-attributes; about occupational requirements, routines and rewards; or about how to engage in the career choice process. The second most common group of career choice problems involves deficits in decision-making skill, including knowing and practicing the principles of decision making. Even when sufficient information is present, deficits in decisional competence may limit the ability to process information and make the decisions that produce a suitable occupational choice. The third group of career choice problems involves deficits in relational support, meaning that significant others such as parents or partners disapprove of a choice that attracts the individual or insist on a choice that repels the individual. The fourth category of career choice problems involves motivational problems that delay engagement in the choice process. These difficulties include dysfunctional career beliefs, anxiety about making choices, and adjustment disorders. Whereas the fourth group of problems generally occurs before engaging in the choice process, the fifth group occurs after a choice has been made. Some individuals make choices that are difficult to convert into actuality because of internal or environmental barriers. The external barriers may involve inability to gain entry to or pay for training or apprenticeship programs as well as ageism, racism, and sexism. Internal barriers include lack of confidence and conflicting commitments.

It should be obvious that these career choice problems do not usually appear alone; typically, they occur in combinations and often form patterns. Therefore, researchers operationally define degree of indecision as the number of difficulties encountered, often distinguishing between undecided individuals who experience a few problems and indecisive individuals who experience many problems. Undecided individuals are generally considered to be experiencing a variant pattern of career development, with their inability to choose being viewed as developmentally appropriate and treated by information, decisional training, and social support. Indecisive individuals are generally considered to show a deviant pattern of vocational development in which chronic anxiety and lack of problem-solving skills characterize all their social interactions, not just those dealing with the work role. Indecisive individuals generally require counseling that concentrates on issues that cause their anxiety. Whether an individual finally chooses an occupation or lets time and circumstances dictate that choice, there comes a day when the individual must apply for a job.

Actualization Task

The third and final task of the exploration stage, actualizing an occupational choice, requires that individuals turn their verbal choice of an occupation into an actual fact. Actualizing a choice usually involves trying jobs in that occupation. Trial connotes employment

in jobs that could become permanent, that is, adult employment as opposed to youth employment. The initial job allows individuals to try on the occupation for fit and then, through a process of elimination, subsequent trial jobs help the individual to zero in on a suitable job. The period of actualizing choices, which typically lasts about 4–7 years, is referred to as the school-to-work transition. During the years in which individuals seek to stabilize in a more-or-less permanent position, the critical vocational coping behaviors consist of actions that move them to increasingly more congruent jobs. Any action aimed at vocational movement counts, including job search activities such as reading job advertisements and applying for positions.

The six main types of vocational movement vary in quality, with three being adaptive (skilling, experimenting, and stabilizing) and three being maladaptive (drifting, floundering, and stagnating). Drifting involves random movement to a position for which the individual is no better suited than the position being left or for which the individual lacks aptitude, interest, or preparation. Drifting implies being carried along by others or wandering aimlessly from position to position. Floundering means stumbling performance in a position or plunging ahead from one unsuitable position to another. Stagnating involves staying longer than appropriate or remaining in a blind alley job; it involves deterioration because it hurts future occupational possibilities.

The more adaptive coping behaviors start with skilling, that is, preparing to enter a regular adult occupation through further schooling, training, and apprenticeship. Experimenting involves moving from one related job to another in a process that eventually zeros in on a suitable and viable position. Stabilizing results in eventually settling into and making a place for oneself in a more-or-less permanent position. Compared to experimenting, stabilizing shows a lack of doubt. By age 25, about 80% of people have stabilized in a position. Over the long-term career, the quality of vocational coping behavior during the school-to-work transition is more important than sticking with the first job. Adaptive individuals may change jobs many times, moving through progressively more congruent positions, until they stabilize in a suitable position. In contrast, less mature individuals may flounder, drift, and stagnate rather than take the risks involved in advanced trial and in-depth exploration.

Establishment

The years of career establishment, usually ages 25 to 44, involve making one's job secure. Establishment involves three developmental tasks that coincide with the early, middle, and late periods of young adulthood: stabilizing, consolidating, and advancing. These vocational development tasks are discussed first in terms of their direct outcomes, then are reviewed in terms of their indirect outcomes, namely, job satisfaction and organizational commitment.

Stabilizing Task

The major developmental task of the early period in the establishment stage requires that the individual stabilize in an occupational position, primarily by doing two things. First, the individual must adapt to the organizational culture that surrounds the job. Adaptation to the organization deals with participating in the work environment, not with performing job tasks. Organizational adaptation involves transactions between the worker and the job environment, with the person engaged in efforts to learn about the company of workers and the company engaged in efforts to socialize the newcomer. There can be some reciprocity in the newcomer changing the company, but this is infrequent, and minimal when it does it occur. Adaptive efforts can begin before the employee is hired. Organizational adaptation is smoother when one's expectations are met, so providing a job candidate with a "realistic job preview" is a useful practice that reduces surprises and confusion in newcomers.

As they begin their employment, newcomers must learn how things are done in the company. This includes learning about the people, politics, values, language, and history of the organization in general and of their work group in particular. It is important that novices learn how their job fits into the big picture, that is, why their jobs are important and what they contribute to the organization's goals. Organizational adaptation is furthered by learning about and complying with the company's formal policies and procedures as well as its informal practices and unofficial rules. Observing others do the job is important in "learning the ropes" and figuring out unstated rules. In addition to observational learning, prior work experience is helpful, as is taking advantage of orientation programs, buddy systems, and mentoring.

Position performance is the second task of the early period in establishment. In addition to adapting to the organizational culture, individuals must demonstrate competence at work. They must clearly understand their job tasks, take these responsibilities seriously, and exhibit efficient and effective work performance. This is accomplished by concentrating on the task at hand and doing it right the first time. One must also be flexible in learning new ways of doing the tasks. In addition to adhering to production standards and quotas, new employees must follow safety procedures that reduce accidents in different occupations. During idle time, workers in the early years of establishment must learn how to keep busy. If workers cannot perform the job tasks adequately, or cannot adapt to the company's culture, then instead of stabilizing they may leave voluntarily or be terminated. If they are comfortable doing the job, and doing it in that organization, then they can turn their attention to increasing their job security.

Consolidating Task

The tasks of the middle period of the establishment stage involve consolidating one's position for the long run. In contrast to position performance, which involves what a person does on the job, consolidation involves how one goes about doing that job. How one works has two components, one interpersonal and the other personal. The interpersonal component involves the vocational development task of forming congenial relationships with coworkers and supervisors. Coping behaviors that facilitate cooperation at work include communicating appropriately, supporting colleagues, encouraging coworkers, demonstrating goodwill to supervisors, tolerating individual differences, and dealing with diversity. Skill at organizational politics helps with this, as does finding safe ways to blow off steam. Of course, personality plays a significant role in coworker relationships, and lately attention has focused on

how agreeableness and extroversion, two factors in the five-factor personality model (FFPM), may predict the enthusiasm and friendliness with which one engages coworkers. Inability to get along with coworkers is the most frequent reason for leaving or losing one's job during the middle years of establishment.

While the interpersonal component of how one works involves relationships on the job, the personal component of how one works involves work habits and attitudes. It is relatively easy to be industrious and dependable during a probationary period, or even during the first few years in a new position. A task of the middle years of establishment is to maintain positive attitudes and disciplined habits. Over time, some workers become complacent or lackadaisical in approaching their job tasks; they may even experience boredom. Of course, this posture diminishes their productivity and their value to the organization. Conversely, workers who meet the task usually increase their productivity as they expand their job knowledge and master the "tricks of the trade." Conscientiousness, as its very name indicates, is the personality factor in the FFPM that predicts success in maintaining adaptive work habits and realistic attitudes.

Advancing Task

After consolidating their positions, some workers, but not all, think about advancing to another position in their organization. To earn promotions, they must envision the career paths mapped by their organization and perform the behaviors needed to get ahead, which include showing initiative, taking on more responsibility, engaging in on-the-job training, and enrolling in continuing education. Workers who wish to advance, rather than maintain what they have established, yet see no way forward in their current organization may consider advancing their career by moving to a new organization that offers better opportunities. An even greater transition, or turn in the career path, involves advancement by preparing for and entering a new occupation. Changing occupations is best done by recycling through the tasks of exploration and establishment. The direct outcomes of mastering the vocational development tasks of stabilization, consolidation, and advancement are organizational adaptation, position performance, coworker relationships, work habits and attitudes, and promotions. The indirect outcomes are job satisfaction and organization commitment.

Job Satisfaction

Job satisfaction is the most frequently studied variable in organizational research because employers want to know how to avoid labor turnover and reward their best workers. In contrast to the organization's perspective on the relation of job satisfaction to productivity, vocational psychology views job satisfaction from the perspective of the worker, defining job satisfaction as the attitude or the general feeling that a worker has toward her or his job. The cognitive component of this attitude is an evaluative belief about how much one likes or dislikes a job. General job satisfaction can be explained by satisfaction with parts of a job that the worker likes or dislikes. When general satisfaction is high, little attention is paid to satisfaction with job facets. However, when job satisfaction in general is lower, examining the facets may explain the low morale by identifying the disliked job components. There are many facets, and many ways of conceptualizing and measuring them.

Vocational psychologists conceptualize job satisfaction as an indirect outcome of coping with the vocational development tasks of the establishment stage, so they link the facets of job satisfaction to the direct outcomes of coping with those tasks. When examining job dissatisfaction, they look first at the facet of P-E fit as played out in organizational adaptation and position performance. This includes variables such as satisfaction with the organization, including its policies, compensation and other benefits, as well as satisfaction with job duties, including the job's routines and requirements, work load, and empowerment. Next, they consider satisfaction with coworkers, communication patterns, supervisors, and then the employee's conscientiousness and work ethic. Finally, they consider satisfaction with opportunities for advancement. Satisfaction with advancement opportunities can produce career satisfaction, even when job satisfaction is low, if the worker views that job as a temporary rung on a meaningful career ladder. For example, a university instructor may be quite dissatisfied with her position and pay, yet be satisfied with her career progress, knowing that with her next promotion she will be an assistant professor, a goal she has held for 10 years.

In addition to person-position fit and adaptation to the developmental tasks of establishment, job satisfaction relates to two more variables. The first variable is psychological, meaning that it resides inside the person rather than in the person-position interaction. This psychological variable is negative affect. People who generally experience negative affect score lower on job satisfaction, as they do on measures of satisfaction with other life roles. The second variable, one from sociology, is life structure or the arrangement of an individual's social roles. For example, part-time work interacts differently than full-time employment with an individual's other social roles. Job dissatisfaction can be caused by, or be coincidental to, role conflicts and role overload.

Relationships between family and work have been frequently studied, with a particular concentration on the interaction between the work role and the family roles of spouse, parents, and child. Some workers can be dissatisfied with their work because the job does not permit flexible scheduling or the company is not family friendly. And, of course, there is spillover between domains, with a divorce at home deteriorating work performance or a demotion at work causing arguments at home. Relationships between leisure and work have also drawn significant study. For example, type A personalities may experience high job satisfaction yet low life satisfaction if time and behavior at work reduce their engagement in other core roles such as recreation and friendship. Conversely, job dissatisfaction can be ameliorated by leisure, say by enjoying on a fishing line that which cannot be enjoyed on an assembly line.

The effects of job satisfaction are addressed by two relatively distinct research literatures. One deals with leaving dissatisfying jobs, while the other deals with being forced to stay in unsatisfying positions. Workers who must remain in unsatisfying positions may experience job stress that reduces their general emotional well-being. When people are chronically dissatisfied with a job they must perform 40 h a week, they may eventually suffer from job burnout, a condition associated with a wide range of physical and

psychological symptoms—headache, upset stomach, anxiety, and depression. Job dissatisfaction has even been linked to life expectancy, with those who hate their work predicted to have a shorter life expectancy.

Of course, an alternative to suffering the emotional and physical consequences of chronic job dissatisfaction is job withdrawal, including absenteeism and quitting. Although job dissatisfaction is widely believed to relate to absence, the empirical support is weak because there are many other reasons for being absent, including illness, personal business, and family responsibilities. In fact, having primary responsibility for the care of a child predicts absence better than does job dissatisfaction. Compared to absenteeism, there is stronger evidence of a causal link between job dissatisfaction and turnover. Dissatisfaction may lead to an intention to leave, followed by engagement in job search activities that include writing a resume, enrolling with job-finding agencies, and interviewing for positions. If another job is found, then the dissatisfied employee can leave. However, without a job offer in hand, employees are unlikely to quit. Also, it must be noted that in deciding whether to resign a position, individuals think about more than just how they feel about their jobs. They also think about the interpersonal relationships that they may have established at work.

Organizational Commitment

When work relationships are characterized by social support and fair treatment, individuals may feel an attachment to the organization and prefer not to leave their colleagues. This attachment between a worker and others in the work environment is called commitment. Typically researchers concentrate on organizational commitment in general, yet commitment can be connected to other foci such as coworkers, supervisors, the job, and the occupation. In addition to multiple foci, commitment itself is multidimensional, typically characterized by three dimensions. The affective dimension of commitment denotes emotional attachment and identification with the organization, job, or coworkers. These bonds make one want to remain in the organization. The continuance dimension of commitment denotes the need to stay because no other job is available or, more often, because quitting would cost too much or require too many sacrifices. The normative dimension of commitment denotes a perceived obligation to stay because leaving would be wrong or let down too many people. Affective and normative commitment correlate positively to attendance, productivity, organizational citizenship behaviors, and pleasant affective experiences at work. Continuance commitment is typically unrelated, or even negatively correlated, to positive work behaviors. Of course, the affective, continuance, and normative dimensions of commitment can interact. For example, low affective commitment with high continuance commitment can cause problems such as making an individual feel locked into a situation with which they do not identify.

The normative dimension of commitment brings to mind the “psychological contract” between the employee and the organization. This construct refers to beliefs about reciprocal obligations held by people in an exchange relationship, or simply stated, issues of loyalty and payback. A psychological contract involves an employee’s perception of explicit and implicit promises regarding the exchange of the worker’s effort, abilities, and loyalty for the organization’s pay, promotions, and security. Individual workers prefer clear, unambiguous promises because clarity makes it easier to evaluate promises made and promises kept. Fulfilled contracts increase job satisfaction and commitment, whereas breached contracts lead to dissatisfaction and withdrawal behaviors. Breaches in the psychological contract require justification; these appraisals of workplace justice concentrate on fairness and inclusiveness in the process and outcome of reward allocation.

Maintenance

At some point in a career, whether it be successful or not, the worker seriously evaluates issues of satisfaction and commitment. During this period of renewal, individuals engage in self-questioning. They ask themselves, sometimes prompted by a partner, the midlife question: “Do I want to do this for the next 25 years?” Essentially, they engage in a process of re-evaluating their identity as they ask themselves, and sometimes their family and friends, if they should hold on or let go. If they decide to change organizations or occupations, then they recycle through the tasks of exploration and establishment by crystallizing and specifying a different choice and then actualizing and stabilizing a new position. What we have been considering as a maxi-cycle of career stages can, in terms of a position change, be considered a mini-cycle of job transition. Having stabilized and maybe even advanced in a position, an individual may experience new growth that raises identity questions and leads to advanced exploration and then establishment in new position. Career patterns are defined by the repetition, frequency, and duration of these mini-cycles.

In the large, bureaucratic organizations of the 20th century, individuals might go through the maxi-cycle and maintain themselves in the stabilized position for 30 years before retiring. At the other extreme are individuals who frequently traverse the transition mini-cycle as they repeatedly grow, explore, stabilize, and then move to positions of new growth. Between these two extremes of a job for life and a job for now lie most of today’s workers, who every 5 or 10 years find their career destabilized by illness and injury, layoffs and downsizing, or social change and personal upheaval. Developing a career today can be more about management of one’s skills and opportunities than maintaining oneself in an established position.

When people do maintain themselves in a job, they enter the maintenance stage of a career, generally defined as ages 45 to 64, or from midlife to retirement. Maintenance addresses the requirement to remain in place, take care of what one has produced, and continue to produce. Society expects mature adults to hold steady in the positions they occupy, actively strive to preserve their status, remain interested in their work, and stay committed to their organizations. To remain in place, one must cope with novel, non-maturational problems that arise from environmental change or inner experience and preserve one’s self-concept through modifying and adjusting one’s views and beliefs. In contrast to the prior career stages, the maintenance stage is not characterized by tasks that progress in a predictable order related to age-related social expectations; the focus is on preservation, not progress.

Consequently, research on this career stage has concentrated on the styles with which individuals retain their positions and preserve their identities.

Three basic styles of maintenance have been identified: upholding, updating, and innovating. The first style, upholding, involves continuing to do what one has done before, maintaining the same standards, and keeping things going in good condition. Workers who uphold their positions can hold their head up in pride about what they continue to do. They take care of what they have accomplished and continue to be industrious. In contrast to this active upholding, there is passive holding on, in which one is more careless at work and shifts attention to waiting for retirement or looking for an early exit from the workforce. Rather than being careful in what they do, workers who hold on care more about how they are doing than what they are doing. They are careful how they behave when supervisors are watching. Instead of holding up their heads with pride, they hold up the organization by not doing their tasks as they should be done and in extracting rewards they do not deserve. The second positive style of maintenance, after upholding, is doing tasks better by updating. Workers using this style of maintenance adapt efficiently and respond to changing technology and tasks by keeping up with new developments. They stay fresh by updating their skills and knowledge, and in the process they reaffirm their self-concepts. While updating means doing tasks better, the third positive style of maintenance is to do tasks differently. Innovating involves actively seeking new ways of doing routine tasks and discovering new challenges. Of course, as they break new ground, some innovators may eventually decide to recycle to new positions and re-establish themselves. Each style, whether it be upholding, updating, or innovating, involves different trade-offs, yet workers using each style can maintain job success, satisfaction, and stability as well as provide security for their families.

Disengagement Stage

At some point in a career, energy wanes and retirement looks good. It is time to decelerate by turning tasks over to others and planning for retirement. The task of actually disengaging from the work role goes better if the worker can decelerate first. Similar to other major transitions, small steps smooth the process. Deceleration can be accomplished by phase-outs, in which the individual works fewer and fewer hours over a period of time, occasionally lasting as long as several years. Another form of deceleration is called "bridge employment," in which an individual retires from a permanent position and then, before complete retirement, works at a part-time job, becomes self-employed, or works full-time at a temporary job. Bridge employment is becoming increasingly common as four out of five retirements are now early retirements and older workers remain in excellent health well into their 70s, a trend that is compounding age discrimination in employment.

Deceleration, whether with one's permanent employer or through bridge employment, enables individuals to avoid the swift social isolation, reduced income, and bereavement that can accompany retirement from the work role. Nevertheless, at some point, the worker who lives long enough finally must retire and adjust to retirement living. Often, retirees engage in hobbies they once enjoyed during late childhood, bringing the career cycle full circle. If they live near grandchildren, they can once again play the games they enjoyed as children, thereby helping the next generation of workers begin to grow their careers and prepare to sustain our world. For, as Freud intimated, the world we know would perish without work.

The Career Construction Model

The oil crisis of 1973 marked the decline of the career developmental model with its linear progress up the organizational ladder. Chances of working a 30-year career with a single employer have collapsed with the flattening of hierarchical organizations and the dejobbing of employment. Repeated career transitions have replaced institutionalized trajectories as people now change positions about every 5 years. Rather than jobs, people work short-term assignments characterized as temporary contingent, contract, adjunct, consulting, and part-time. No longer grounded in a single organization, once stable careers have become boundaryless and protean as individuals must repeatedly fit themselves to new situations (Hall et al., 2013). The move from institutionalized life course patterns to individualized biographies has made workers responsible for managing their own de-standardized and de-institutionalized career trajectories in post-modern societies characterized by uncertainty and risk.

Social Actors, Motivated Agents, and Narrative Authors

This 21st century individualization of work life as a biography of choice required innovation in career theory and interventions. Accordingly, a new paradigm emerged for comprehending careers. Career construction theory explains the interpretive and interpersonal processes through which individuals construct themselves as social actors, impose direction on their vocational behavior as motivated agents, and make meaning of their careers as narrative authors (*vide*, Brown and Lent, 2013). Career construction theory characterizes careers using McAdam's (2013) layers of self including the personality of the social actor, adaptability of the motivated agent, and identity of the narrative author.

The child rehearses dispositional personality traits and develops a reputation as a social actor. Later, the adolescent becomes a motivated agent who forms long-term goals and develops adaptability resources. Eventually, the young adult becomes a narrative author who shapes an identity story with increasing clarity, coherence, credibility, and continuity. Accordingly, career construction theory comprehends adult careers through the multiple perspectives of personality, adaptability, and identity. Personality has been re-conceptualized as reputation while career adaptability and identity have been conceptualized by Hall and his associate as meta-competencies.

Career Identity

Career is the story a person tells about their working life. This story of identity is a carrier of meaning that provides purpose and intention with which to direct future action. As individuals learn more about themselves as social actors and motivated agents they become ready to pattern their constellation of goals and purposive projects into a coherent and credible story. Then the individual uses this self-sustaining narrative to evaluate career opportunities and negotiate social constraints. When an individual's narrative identity requires a change in job, occupation, or organization, then the person activates adaptability resources.

Career Adaptability

Career adaptability means the psychosocial resources to cope with changing work and working conditions. It involves the ability to adapt to changing tasks, engage in continued self-learning, and regulate one's career direction. Career adaptability also is needed to respond to the changing demands from employers who are increasingly seeking an adaptable workforce. A prominent conceptualization of career adaptability characterizes it as psychosocial strengths or capacities for solving unfamiliar, complex, and ill-defined problems presented by developmental vocational tasks, occupational transitions, and work traumas. Taken together, identity and adaptability tell the person when and how to change in a fast-moving world of work.

Career Services

The three major paradigms of vocational psychology each provide a theoretical rationale for distinct types of career counseling interventions. The person-environment model supports the practices of vocational guidance and academic advising that *match* individuals to college majors and jobs in which they resemble the incumbents. The career development model supports the practices of career education and coaching that *teach* individuals the skills need to make choices and develop their careers. The career construction model supports the practice of life designing dialogues that *construct* the career narratives that individuals author to impose meaning on their work and manage their careers.

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