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ABSTRACT

This document consists of the first section of a book of readings on issues related to adult career development. Written for anyone who provides career services to adults, it presents ways for such service providers to help adults face and negotiate change. The three chapters in this first section focus on theories and concepts related to adult career development. "Adult Career Development Theories: Ways to Illuminate the Adult Experience" (Nancy Schlossberg) describes four adult development perspectives and their implications for practitioners in their work with adults. Cultural, developmental, transitional, and life-span perspectives are included. "Career Development: Theories and Issues" (Carole Minor) presents a discussion of adult career development organized around the assumptions that: career development is a continuous process over the life span; career development involves both career choice and career adjustment issues; both career choice and career adjustment involve content and process variables; and theories tend to focus on either the content or the process of career choice or adjustment. Included are discussions of developmental theories, career choice content theories, career choice content and process theory, choice and adjustment process theory, and career adjustment content theory. "Adult Learning: A Brief Overview" (Linda Morris) provides a brief overview of research in the areas of how the human mind functions, how learning is processed, and how adults learn. It discusses how these findings might be helpful to learners, educators of adults, and facilitators in the career development of others. (NB)

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SECTION I:

THEORIES AND CONCEPTS

A VARIETY OF IDEAS . . .

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CHAPTER 1

Adult Career Development Theories: Ways to Illuminate the Adult Experience

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Adult development theories provide a lens through which to view adults in relationship to their work. Adult development theories are presented not only to explain the role of work in adults' lives but to amplify the knowledge gained from the field of career development. This article describes four adult development perspectives and their implications for practitioners in their work with adults.

FOUR PERSPECTIVES ON ADULTHOOD

Adult development theorists view the adult experience from different perspectives. For example, one group explains adulthood within the cultural context. A second group focuses on the psychological developmental stages of the individual. A third group discusses the adult experience in terms of transitions. A fourth group examines continuity and change over the life span.

Cultural Perspective

Theorists who focus on the cultural context—social environment—believe that given a particular environment, individual life stories will be predictable and similar. For example, the life stories of bakery workers throughout France indicate similar family lives, health, and activities outside of work. Bertaux (1982) explained this similarity in terms of the production structure, not in terms of psychological tendencies. Bakery workers have long hours, at least 9 hours per shift 6 nights a week, and their work time begins around 3 a.m. and continues until noon. This work pattern affects their social life, sex life, and energy levels.

Another example of viewing adulthood within the cultural context is Rosenbaum's (1979) theory that midlife crises can be predicted from examining the impact of organizational structure rather than the aging process. His research indicates that promotion chances in organizations increase until age 35 to 40 and then decline. Specifically, promotion chances for those with baccalaureate degrees reach a peak (over 60%) at age 35 and then decline abruptly during the next 5 to 10 years (less than 20%). Midlife crises become predictable from the extreme decline in promotion chances for those individuals. Because the popular press attributes midlife crises to the psychological effects of aging, Rosenbaum's views demonstrate how the cultural perspective deserves notice.

In addition, Kanter (1977) also attributed human problems to the organization's structure rather than to intrapsychic issues. She believes that the structure of the work systems and the resulting environment are largely responsible for the behaviors people engage in at work and outside. For example, she argues that to understand secretaries' behavior it is important to examine how organizations define and structure secretarial work and reward commitment to employers. Interviewing individual secretaries is not the way to gain this understanding.

Developmental Perspective

The most widely read group of theorists explain adult behavior in terms of age and sequential stages of development. For example, Levinson, Darrow, Klein, Levinson, and McKee (1978) divided adult behavior into six age-related sequential periods:

- leaving the family—late adolescence to about age 22;
- getting into the adult world—early to late 20s;
- settling down—early 30s to early 40s;
- becoming one's own person—age 35 to 39;
- making a midlife transition—early 40s; and
- restablilizing and beginning middle adulthood—middle and late 40s.

Levinson et al. (1978) emphasized similarity in the adult experience. They believe that young people have dreams about what they will become. Mentors help them implement their dreams. Then in midlife people begin to evaluate their lives in terms of their early dreams. It is important to note that Levinson's sample, although extensively interviewed, consisted of only 40 men.

Other theorists postulate that adults pass through developmentally sequenced stages that are not based on chronological age. Some people move through the stages swiftly, whereas others become arrested at one stage and never move forward. Important in this group is Erikson (1950), who described a predictable eight-stage progression in ego development. Each stage is characterized by a crucial issue that must be successfully resolved before the individual can move on to the next stage. The adult stages involve issues of: identity (Who am I?); intimacy (Can I be committed and close to others?); generativity (Can I nurture others?); and ego integrity (Am I satisfied with my life?).

Vaillant (1977) identified an additional developmental stage in Erikson's progression as career consolidation. This evolved from a longitudinal analysis of advantaged men who progressed through Erikson's basic stages. Vaillant found that those men who were able to achieve intimacy were able to deal effectively with their careers and then nurture younger men in their career quests. In other words, the career consolidation stage occurs between Erikson's intimacy and generativity stages. Vaillant found the same progression through Erikson's stages when he examined longitudinal data on inner city men.

Gould (1978) explained the stages of adult development as the progressive struggles for freedom from the internal constraints of childhood. He perceives people at all ages as being "stuck" and needing help with the underdeveloped aspects of self. Gould's theory on the struggle for freedom from childhood constrictions and belief that maturity arrives after age 50 are similar to Erikson's view that successful aging requires resolving crucial issues. Yet, Gould conceives of a continuous process of developing some aspect of self whereas Erikson believes the resolution of each crisis is the completion of a developmental stage.

Still other theorists view adult development as moving from the simple to the complex. For example, Kohlberg's (1970) moral development and Loevinger's (1976) ego development theories described adults as progressing from dependency on outside authority and others' judgments to a higher stage of responsibility for consequences of actions and a tolerance for ambiguity. For example, two couples are facing parenthood for the first time. One couple might deal with this experience by relying on their pediatrician's fiats, whereas the other couple might rely on their own judgment as to the best course of action. According to the developmental view, the second couple has reached a higher, more complex developmental stage.

Another developmental perspective stems from Jung's work as corroborated by Fiske (1980) and Gutmann (1977). This view compared men and women and discovered that as men aged they began to place more value on expressive and interpersonal goals, whereas women began to direct their interests outward and to become more concerned with contributing to society. In other words, men began to turn inward or become more introspective as they aged and women began to turn outward or become more involved in the external world. When comparing the developmental stages of men and women, the effect is of "crisscrossing trajectories" where successive stages reflect different developmental changes and scheduling.

Most of the research behind the theories mentioned in this section has focused primarily on men; yet the application of these theories has been considered useful for both men and women. Gilligan (1983) challenged this application. She believes that even when differences between men and women are pointed out, they are presented in terms of deficits. A woman lacks a penis, an occupation, or an education. She also contends that most developmental theorists have dealt with individual progression through various stages with a focus on achievement and work. There is little concern for love. Gilligan (1982) identified different issues as being central to the development of women. They are issues of attachment,

caring, and interdependence. Her work involved extensive interviews with women at decision points in their lives such as whether or not to have an abortion. She listened to the differences in voice tones or differences in the language used to discuss the choice point. Her findings seem to have important implications for women.

Gilligan's (1982) results indicate that a woman's moral development begins with a concern for survival, moves to a concern with responsibility (not hurting others), and finally becomes a concern for meriting equal care for self. Renegotiation of interdependence over time is a critical issue of adult development for women. Whether this renegotiation takes place between parents and children, teachers and students, therapists and clients, or researchers and subjects, it is a continuous process for women. Gilligan asserts that maturity is different for women than for men and that these differences must be built into current models of adult development. No longer can the view be of the "heroic individual" marching predictably up the sequential stages. Instead the view is of the individual renegotiating interdependence and caring. The metaphor changes from one of stairs to one of widening circles of attachment.

Transitional Perspective

Nearly all cultures celebrate rites of passage for birth, puberty, marriage, death, and other major life events. One way to look at the adult experience is through these events or transitions.

Cultural norms sometimes dictate age-appropriate behavior when there is little biological basis for that behavior (Neugarten, Moore, & Lowe, 1965). In fact, most of us hold rather rigid views about what constitutes appropriate behavior for people at different ages. For example, societal norms prescribe at what age people should take jobs, marry, have children, and retire. In fact, if an individual experiences an event at an age different from that prescribed by our culture, it may be considered "off-time" and the person may have more difficulty with the transition as a result. The extent to which these ideas prevail was investigated in studies by Neugarten and her associates. They found that at least 80% of their sample of "normal, middle-class Americans" believed that the best age for men to marry is between 20 and 27 and for women between 20 and 22, and that people should retire between ages 60 and 65. Such norms as these constitute our "social clock."

Today the prescriptions for age and predictability of age-appropriate behavior are lessening (Neugarten et al., 1965). Because people are living longer, the postparental period has lengthened considerably. At the same time many young people are attending college and going on to graduate or professional school and delaying their "economic maturity." Patterns for women have changed radically. More young women are now employed full-time. Many middle-aged women are returning to the labor force after their children leave home. In addition, child-rearing practices are changing. Fathers are beginning to share the responsibility for parenting with their working wives. Couples are also marrying later and more are deciding not to have children.

Lowenthal & Pierce (1975) discussed major life events or transitions in their longitudinal study, *Four Stages of Life*. They focused on four transitional groups of men and women in the San Francisco area: graduating high school seniors, newlyweds, middle-aged parents, and pre-retirement couples. At the start of the study each group was on the threshold of a major transition. The researchers found that the groups differed considerably in their general outlook on life, the stresses they faced, and in their attitudes toward those stresses. They concluded that it is less important to know that a person is 40 years old than it is to know that the person is 40 with adolescent children, recently divorced, and about to enter the work force. It is clear that the transition itself is more important than the age of the individual. For example, men facing retirement after an active social life encounter many of the same problems whether they retire at age 50, 60, or 70. Newlyweds of any age are engaged in similar tasks of bonding, discovery, and negotiation. In short, life events or transitions are more important than chronological age in understanding and evaluating behavior.

Lowenthal & Pierce (1975) also highlighted the different ways men and women handle transitions. Women generally have less positive self-images than men, feel less in control of their lives, and are less likely to plan for transitions. At the same time their affective lives are richer and more complex and they have a greater tolerance for ambiguity. Men's life styles become less complex as they grow older and shed roles and activities. Women, on the other hand, have a simplistic pattern as high school seniors and middle-aged women and a complex pattern as newlyweds and before retirement. This is due to the complexity of playing many roles and engaging in many activities in the later transitional stages. Also highly stressed men in the older groups tend to deny stress, whereas women tend to be preoccupied with stress in the older groups.

Schlossberg (1984) developed a model to look at transitions both from how they affect an individual's life and how the individual copes with them. Her model incorporates both anticipated and unanticipated transitions. Anticipated transitions are expected events that have a "likelihood of occurrence for the individual" (Brim & Ryff, 1980, p. 374) and can be rehearsed. Some examples include an expected promotion, scheduled retirement, or a planned career change. Unanticipated transitions are the "nonscheduled events" that are not predictable. These usually "involve crises, eruptive circumstances, and other unexpected occurrences that are not the consequence of life-cycle transitions" (Pearlin, 1982, p. 179). "Events of this type in the occupational arena are being fired, laid off, or demoted; having to give up work because of illness . . . being promoted, and leaving one job for a better one. Divorce, separation . . . premature death of spouse . . . illness or death of a child represent such events in the parental arena" (Pearlin, 1982, p. 180).

After considering transitions and their impact, the second part of Schlossberg's (1984) model focused on the process of assimilating transitions. During this process the individual moves from being enveloped by the transition to eventual integration. For example, the individual is no longer the graduate, but someone who has graduated. The third part of the model identifies the variables in three clusters that influence the

ease with which the transition is assimilated—first, the characteristics of the transition: timing, source, and duration; second, the characteristics of the individual: coping and ego strength; and third, the characteristics of the environment: the individual's support and options. This eclectic model is substantiated with data from three major studies to date: the impact of geographical moving on men and women (Schlossberg, 1981); the experience of men whose jobs were eliminated (Schlossberg & Leibowitz, 1980); and the identification of transitions by clerical workers (Schlossberg & Charner, 1982). The model incorporates both a sociological perspective of identifying anticipated transitions or rites of passage and a psychological perspective of examining the individual's response to anticipated and unanticipated transitions.

Life-Span Perspective: Continuity and Change

The adult experience incorporates both continuity and change. Theorists who examine adulthood from this perspective consider the continuous aspects of the adult experience; change over the life span; variations in how groups experience adulthood; and the socioeconomic, racial, and ethnic differences.

Brim and Kagan (1980, p. 13) described their life-span development approach as "an emergent intellectual movement, responsive to the possibility of change, currently trying to select its major premises, to gather new facts, and to conceptualize the developmental span without using chronological age categories." This is in distinct opposition to theories involving adult stages because "stages cast development as unidirectional, hierarchical, sequenced in time, cumulative, and irreversible—ideas not supported by commanding evidence."

In examining the life span, Neugarten (1982) emphasized the trend toward variability or individual fanning out. For example, 10-year-olds are more similar to each other than are 60-year-olds. The research on aging consistently shows that people grow old in very different ways. The striking variations among groups and the idiosyncratic sequences of life events make individuals between 60 and 80 years old highly unique. Today with changing life patterns, the life course is fluid. It is marked by many role transitions, proliferating timetables for role entries and exits, and dissimilar age-related roles.

The Grant Study (Vaillant, 1977) covered 35 years for over 200 men. Most of the sample had high ability levels and were from high socioeconomic backgrounds. When the study began the men were college sophomores. This study also corroborates the individuality and variability in the adult experience. The purpose of the study was to predict what sophomores would do with their lives. When all the data were in, it became clear that people's futures are shaped by the quality of their sustained relationships with others, not by childhood traumas, and that the course of life has surprising outcomes.

Conclusions

Each theorist provides valuable insight, but as Pearlín (1982) stated, "There is not one process of aging, but many; there is not one life course

followed, but multiple courses . . . There is not one sequence of stages, but many. The variety is as rich as the historic conditions people have faced and the current circumstances they experience" (p. 63). Then too, similar events have different effects on different people because of variations in coping responses. "All in all, it seems untenable to speak of either ages or life stages as though they are made up of undifferentiated people following a uniform life course" (p. 71).

Pearlin (1982) cautioned not to glorify one stage and dramatize another. The fascination with the midlife crisis is a case in point. Crisis can occur at any period. In fact, young adults experience more strains than other age groups. Yet the media and some scholars continue to dramatize crisis in midlife, the inevitability of which is not corroborated by hard data.

Indeed, Pearlin's cautionary note regarding ages and stages should be our concern about any theoretical perspective. Overemphasizing any particular life event, period, or transition categorizes people as if they were all the same. Yet adults come in all shapes and sizes, with widely differing personalities, perceptions, and life experiences. Of course, the setting and historical period must be considered as well as the particular transitions an individual has experienced. However, never discount the variety of experience and the individual's uniqueness in interpreting and reacting to life.

The major reason why four perspectives and many theorists have been presented is to point out that the answers to adult development questions will differ according to the perspective employed. Theoretical perspective determines whether one explains adult career behavior through the historical or cultural period in which the adult lives, through the developmental unfolding of individual lives over time, or through the expected and unexpected transitions adults experience.

IMPLICATIONS FOR PRACTICE

The central issue for practitioners is translating theories into effective practice. To do that, strategies will be explicated for each perspective: cultural, developmental, transitional, and life-span (see Table 1).

Cultural Practices

Practices stemming from the cultural perspective involve changing or modifying the system. For example, Rosenbaum (1979) pointed out the dangers of counseling employees to adjust to work situations that might be harmful to self-esteem and sense of control. Energy would be better spent on reorganizing organizational career systems. Rosenbaum makes several specific policy recommendations based on his analysis of organizational promotional practices. For example, he suggests promoting older individuals as their family responsibilities lessen.

Kanter (1977) corroborated Rosenbaum's position by juxtaposing two types of reform. For example, offer secretaries assertiveness training so they can stand up for their rights. At the same time, change the reward system for secretaries so their promotions and salary increases are de-

Table 1
The Adult Experience: Perspectives, Concepts, and Practices

<i>Perspectives</i>	<i>Concepts</i>	<i>Practices</i>
Cultural:	<p><i>Bertaux</i></p> <ul style="list-style-type: none"> ● Life stories depend on work structure <p><i>Rosenbaum</i></p> <ul style="list-style-type: none"> ● Career mobility results from organizational structure ● Midlife crisis is a sociological phenomenon <p><i>Kanter</i></p> <ul style="list-style-type: none"> ● Individual progress is determined by opportunity structure 	<p>Change or modify system</p> <p>Examples:</p> <ul style="list-style-type: none"> ● Hire and promote older individuals ● Gear admissions and financial aid to older part-time individuals
Developmental: Age/Stage	<p><i>Levinson et al.</i></p> <ul style="list-style-type: none"> ● Invariant sequence of developmental methods ● Life structure ● Dream, mentor ● Polarities <p><i>Erikson</i></p> <ul style="list-style-type: none"> ● Unfolding of life and resolving of inner issues ● Hierarchical stages <p><i>Gould</i></p> <ul style="list-style-type: none"> ● Release from childhood assumptions ● Tinkering with inadequacies <p><i>Perry, Loevinger, Kohlberg</i></p> <ul style="list-style-type: none"> ● Hierarchical sequence ● Sequence in ego development and moral development 	<p>Design programs for people at different stages</p> <p>Examples:</p> <ul style="list-style-type: none"> ● Programs for returning students, preretirees <p>Design programs for people who process work differently</p> <p>Examples:</p> <ul style="list-style-type: none"> ● Differential teaching, advising, and counseling <p>Assess congruence of supervisor, supervisee along dimensions of personality, learning style, achievement</p> <p>Sensitize faculty, counselors, and others to age, social class bias</p>

(Table 1 continued)

Perspectives	Concepts	Practices
Transitions: Life Course/ Life Span/ Life Events	<i>Fiske, Gutman</i>	
	<ul style="list-style-type: none"> ● Men and women express the dormant part of themselves at midlife 	
	<i>Gilligan</i>	
	<ul style="list-style-type: none"> ● Critique of models based on men and applied to women 	
	<ul style="list-style-type: none"> ● Hierarchical models obscure other voices 	
	<ul style="list-style-type: none"> ● Widening circles of attachment ● Renegotiation of interdependence over time 	
	<i>Neugarten, Moore, & Lowe</i>	
	<ul style="list-style-type: none"> ● Socially created rather than biologically determined transitions 	Design programs for people in similar transitions
	<i>Lowenthal (Fiske), Chriboga, Thurnher</i>	<ul style="list-style-type: none"> ● Support from others who have successfully negotiated the same transition
	<ul style="list-style-type: none"> ● Life span 	<ul style="list-style-type: none"> ● Provide cognitive map
	<ul style="list-style-type: none"> ● Stage not age 	<ul style="list-style-type: none"> ● Offer programs at several times: before, during, after transition
	<ul style="list-style-type: none"> ● Coping with transitions: balance of resources to deficits 	
	<ul style="list-style-type: none"> ● Sex differences 	Teach individual coping skills
	<i>Schlossberg</i>	<ul style="list-style-type: none"> ● To change situation
	<ul style="list-style-type: none"> ● Types of transitions: anticipated, unanticipated, nonevents 	<ul style="list-style-type: none"> ● To modify meaning of situation
	<ul style="list-style-type: none"> ● Coping moderators: transition, environment, self 	<ul style="list-style-type: none"> ● To relax
	<ul style="list-style-type: none"> ● Transition process: over time, for better or worse 	
	<i>Pearlin</i>	
	<ul style="list-style-type: none"> ● Coping, not life events, is central issue 	
	<ul style="list-style-type: none"> ● Classification of life strains and coping responses 	

**Life Span:
Continuity
and Change**

Neugarten

- Capacity of individual to select, ignore, or modify socializing influence
- Fanning out and variations
- Fluid life span

Vallant

- Early trauma not predictive of later behavior

Pearlin

- Variability
- Differential distribution of strains by sex, age, different patterns of coping

Brim, Kagan

- Orientation (not yet theory) toward constancy and change
 - Discontinuities rather than sequencing are studied
 - Importance of variability based on cohort, sex, age, social class
-

Multiple programs for larger population

- Individual and group programs
- Media
- Other

pendent on their performance rather than on their loyalty to a particular boss. In other words, she advocates changing the system rather than the individual secretary. System modification can have an enormous effect on individual career development.

Developmental Practices

Kammen (1979) explained why the age and stage theories are so popular. "We want predictability and we desperately want definitions of 'normality'" (p. 64). The most popular developmental perspective in the press is that of regular stages with identifiable issues and tasks (Levinson, et al., 1978). This view would offer different programs for people by age. Administrators and employers would differentiate among groups in that way. For example, today, many write about the adult learner as an entity. Yet, the developmental perspective emphasizes that the adult employee or learner of 25 has very different concerns from the adult learner of 60.

Another developmental perspective claims that people process the world differently: some in either/or terms and others in complex ways. This implies that faculty, supervisors, and managers should engage in differential training depending on stage complexity. In other words, two employees who are regularly late are not the same and would respond differently to different types of supervision. One employee may need clear rules and clear consequences. The other may need more autonomy in setting hours and controlling work destiny.

Knefelkamp and Slepitzka (1976) took Perry's cognitive developmental scheme (Perry, 1970) as a springboard for their work. Perry's model outlines in sequence the ways in which students intellectually process the world. Knefelkamp and Slepitzka adapted the Perry model to career development. They developed ways to train career counselors to work differently with people at different levels of maturity. They challenged the assumption that all people seeking career advice about obtaining a first job, a promotion, a pay raise, or retirement plans are similar. They found that some need concrete suggestions whereas others need help in creatively exploring numerous possibilities.

The proliferation of measurement tools to assess workers' characteristics attests to the interest in differential treatment of workers. Some instruments differentiate learning styles of employees and students (Kolb, 1981). Others measure achievement style (Lipman-Blumen & Leavitt, 1977). Still others measure ways people approach the world (i.e., Myers, 1962). These measures are increasingly used in business and industry to help managers understand the importance of individual differences and the concept of team building. Thus, developmental differences are receiving some attention in practice today.

Transition Practices

All through life people are involved in transitions, many of them relating to work. Even when the transition seems personal (i.e., illness of a spouse), it may have work implications. There seems to be a ripple effect of transitions from one arena of life to others. Weiss (1976) classified transitions in three categories: crisis, transition, or deficit.

The first category, crisis, Weiss (1976) described as a sudden, severely upsetting situation of short duration that requires mobilization of energies and resources. An example of a crisis would be the sudden onset of a major illness or an accident. People in crisis are frequently emotionally numbed; their feelings are suspended. For individuals experiencing a crisis, support seems to be the only effective help. The helper, professional or nonprofessional, must communicate empathy, understanding, and a readiness to help the individual through the crisis. Such support is also helpful to those in transition states and deficit situations, but these individuals can benefit as well from other kinds of help.

When the crisis passes, the situation either returns to normal or results in change. The individual with the illness either returns to health, is permanently invalidated, or dies. In the invalid case, the individual enters a transition state. This period is marked by relational and personal changes. It includes coping with upset, grief, and other disruptive emotions and finding new sources of support. It is also a time of confusion and uncertainty as the person attempts to rearrange his or her life. People in early transition are particularly likely to benefit from counseling because the decisions made at this point can affect the rest of their life course.

The end of a transition state is usually marked by a new life organization and personal identity. The new situation is either satisfactory or unsatisfactory. If it is unsatisfactory, the individual enters a deficit situation. For example, a widow may find that she has continuous difficulty in raising dependent children by herself. In contrast to a short-lived crisis, a deficit situation tends to be long-lasting. People in deficit situations may have stability even though their situation is unsatisfactory. Short-term help is of little value to them. They need a continuing, problem-focused support system. For instance, the widow may require continued help with her problems as she tries to raise children on her own.

People in transition must find new ways of managing their lives. Thus, cognitive information or materials to help them understand the new situation may be of help. For instance, the new widow may need help in managing finances or in locating child-care services. In addition, people in transition may be grappling with emotions that they do not understand. Thus, they may also benefit from cognitive materials that help them understand their emotions. Support groups may also be beneficial. The bereaved may find that the old social network gradually disappears and that social isolation sets in. Meeting with others in the same situation may have practical as well as psychological value. In this group setting, mutual problems and possible solutions can be shared.

In the work setting, people experience crisis such as being fired, transition such as moving into management or retiring, and deficit such as being demoted or plateaued. Organizations have now begun to develop programs for people in these transitions. They realize that supporting employees will be mutually beneficial to the individuals and the organization.

Pearlin's (1982) research demonstrated that men and women cope with transitions by either changing the situation, modifying its meaning, or relaxing in the face of stress. This information offers direct program possibilities. Counselors can design workshops to help people learn the

three major coping strategies. Rather than focusing on one strategy (i.e., mediation, stress management, or relaxation), multistrategy workshops can be developed. Pearlin states that no single magic coping strategy exists. Effective copers use multiple strategies depending on the nature of the transition.

Life-Span Practices

Life-span orientation suggests that individuals deal with certain issues differently throughout life. For example, these issues might be relating to people, concern with self, or decision making. Both elementary school children and people in retirement homes make decisions. The content and quality of the decision making might vary. Life-span perspective shows the benefits of discovering life skills and developing programs to train people in these skills.

A life-span scholar of a different orientation might suggest that the variety of individual problems makes categorization impossible. Therefore, multiple and multistrategy programs are needed. For example, adults "plateaued" in a work setting may feel distraught at remaining there for the rest of their lives. Those individuals could obtain help from a variety of programs such as individual counseling, a group support system, an internship involving trying something new within the organization, or a computer-based career guidance program. In other words, what works for one person might not work for everyone. Furthermore, what works for an individual at one time in his or her life might not be the most helpful strategy over time.

Conclusion

The utility of an eclectic perspective can be seen through an example of elderly parent care. Practitioners could work with an individual family or groups of families about appropriate arrangements. On the other hand, they could focus on changing funding for residential homes for ill older people or on reforming nursing homes and their image. If the transition were a heart attack, they could work with the spouses of heart attack victims, or they could design preventive programs, such as exercise and jogging programs, for the work setting to help ward off heart attacks.

In some programs helpers deal directly with the individual (i.e., the retiree, the abused, the new parent, the newly disabled). In other programs helpers deal with a significant other (i.e., the spouse of the newly disabled, the adult children of the aging person, the abuser). In addition, some programs deal with the system in which the individuals and significant others operate (i.e., an organization's retirement plan, a state's policy on housing for the elderly).

In short, the most optimal plan is one in which all aspects of an issue can be addressed simultaneously. In that way practitioners can help the individual in transition as well as help cause change in the system to enable persons to achieve their potential. Yet often, depending on resources, the decision must be made to work with the individual, the group, or the system. One particular goal must be identified.

The practitioner's orientation will influence both the analysis of and intervention plan for any issue. An example would be Rosenbaum's (1979) employees at the midcareer transition. If the helper sees the promotion issue as the individual's responsibility, the suggested intervention might be therapy or retraining. If the promotion issue is viewed as a function of the group, suggested interventions might be job redesign or skill training. Finally, if the promotion issue is seen as resulting from the organizational climate, the suggested intervention might be a new promotional system for older workers. In reality, all three sets of interventions may be needed.

Thus, evidently, at least four different perspectives exist to explain the adult experience. Each perspective holds implications for practice. There is something to be learned from all four views. It is important to look at all perspectives and generate a variety of practices to help people better understand their careers.

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CHAPTER 2

Career Development: Theories and Issues

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For almost a century theories that explain career behavior and prescribe interventions have been formulated, discussed, and researched. These theories have developed chronologically from a prescriptive model of matching individuals with jobs (Parsons, 1909) through stage models of career choice and career development (Ginzberg, Ginsburg, Axelrad, & Herma, 1951; Super, 1953) to more specific explanations of factors involved in career choices and adjustment (Holland, 1973; Krumboltz, 1979; Roe, 1956). This discussion is organized around the following assumptions (see Figure 1):

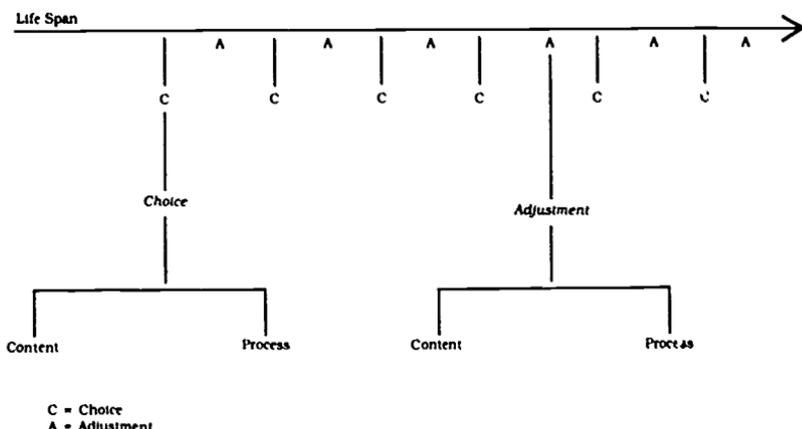
1. Career development is a continuous process over the life span.
2. Career development involves both career choice and career adjustment issues.
3. Both career choice and career adjustment involve content and process variables.
4. Theories tend to focus on either the content or the process of career choice or adjustment.

DEVELOPMENTAL FRAMEWORK

Developmental career theories provide a useful framework from which to view all other theoretical work. Historically, prior to the early 1950s, there was little career theory per se. In the first decade of this century, Frank Parsons (1909), developed a process of vocational guidance—an intervention model—which underlies most practice to this day. E.G. Williamson (1939) amplified and improved Parsons' intervention model, stating its assumptions. Other forces, including the increasing sophistication of the methods of differential psychology, improved the practice of what was known as vocational guidance. Basically, however, until the early 1950s both the general public and professional practitioners viewed occupational choice as a once-in-a-lifetime event. At some particular point individuals chose to enter occupations and generally continued in them for their entire productive lifetimes.

In the early 1950s two career theories represented a different view.

Figure 1
The Process of Career Development Over the Life Span



Ginzberg

Ginzberg, Ginsburg, Axelrad, and Herma in 1951 described a career theory contending that:

1. Decision making is a process that occurs from prepuberty to the late teens or early 20s.
2. Many decisions are irreversible.
3. The resolution of the choice process is a compromise.

In 1972 Ginzberg revised his model to focus on the continuation of the career choice process throughout the life span. He revised his ideas as follows:

1. Occupational choice is a process that remains open as long as we make decisions about work and career.
2. Early decisions have a shaping influence on career but so do continuing changes of work and life.
3. People make decisions with the aim of optimizing satisfaction by finding the best possible fit between their needs and desires and the opportunities and constraints in the world of work (p. 173).

His recent writings (Ginzberg, 1984) support this reformulation with the addition of one point: "Occupational choice is a lifelong process of decision making for those who seek major satisfactions from their work. This leads them to reassess repeatedly how they can improve the fit between their changing career goals and the realities of the World of Work" (p. 180).

These changes that Ginzberg has made in his ideas over the past 35 years exemplify the changing view of occupation and career in our society. This view probably has resulted from the increase in both our knowledge of the adult work experience and the actual changes in our society in terms of stability of occupations and career patterns. For example, the

Idea of person/environment fit is important in each of Ginzberg's statements. However, it progresses from the idea that the resolution of the choice process is a compromise between what one would like and what is available (static choice) to choice being a lifelong process (for those who seek major satisfaction from work) between their own changing goals and the new realities of the work place (dynamic choice).

Super

Super (1953) presented a theory that was much more explicit and extensive. It was based in part on the early work of Charlotte Buehler (1933) in Vienna. Super's original propositions with more recent updates and modifications appear below.

1. People differ in their abilities, interests, and personalities.
2. They are each qualified, by virtue of these characteristics, for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough to allow both some variety of occupations for each individual and some variety in each occupation.
4. Vocational preferences and competencies, the situations in which people live and work, and hence their self-concepts are generally fairly stable from late adolescence until late maturity, making choice and adjustment a continuous process.
5. This process of change may be summed up in a maxicycle, or series of life stages, characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage and (b) the trial and stable phases of the establishment stage. A recycling process takes place in the transition from one stage to the next involving minicycles of new growth, reexploration, and reestablishment: Recycling is also attempted each time an unstable or multiple-trial career is destabilized.
6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socioeconomic level, mental ability, personality characteristics, and by the opportunities to which he or she is exposed.
7. Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of self-concepts.
8. The process of career development is essentially that of developing and implementing self-concepts: it is a synthesizing and compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine makeup, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.

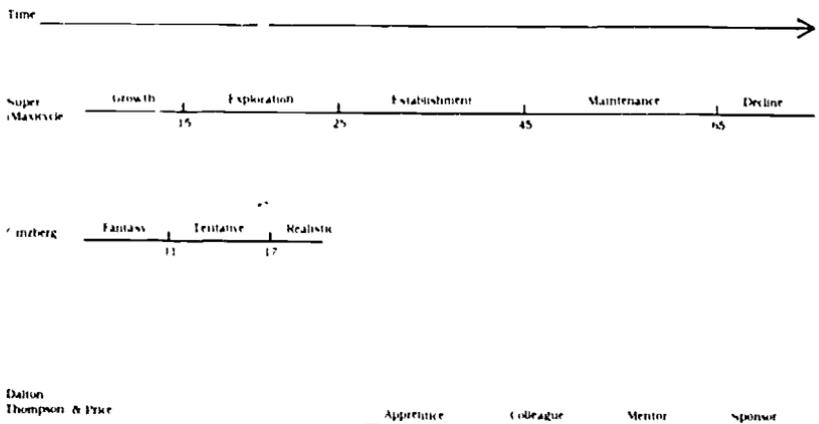
9. The process of synthesis of or compromise between individual and social factors, between self-concept and reality, is one of role playing whether the role is played in fantasy, in the counseling interview, or in real life activities such as classes, clubs, part-time work, and entry jobs.
10. Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for abilities, interests, personality traits, and values; they depend upon the establishment in a type of work, a work situation, and a way of life in which he or she can play the kind of role that growth and exploratory experiences have led him or her to consider congenial and appropriate.
11. The degree of satisfaction people attain from work is proportionate to the degree to which they have been able to implement self-concepts.
12. Work and occupation provide a focus for personality organization for most men and many women, although for some persons this focus is peripheral, incidental, or even nonexistent, and other foci such as leisure activities and homemaking are central. (Super, 1984, pp. 194-196)

More recently Super (1976) has discussed the roles people play at different times in their lives and the theaters in which these roles are played.

A significant contribution of Super and Ginzberg and their colleagues was the idea that career development and even career choices were the result of a process rather than being a point-in-time event. They also presented the idea that career choices and career development could be described by means of stages. These developmental stages are considered to be hierarchical, sequential, and qualitatively different.

The reader will note similarities in Super's and Ginzberg's stages and in their more recent formulations, particularly Super's proposition 10 and Ginzberg's proposition 3 (revised).

Figure 2
Developmental Stage Models



Dalton
Thompson & Price

Dalton, Thompson, and Price

Gene Dalton, Paul Thompson, and Raymond Price (1977) developed a model that describes the career stages of professionals in organizations. Although limited in the population it describes, the model does make a significant contribution to the understanding of successful careers in organizations. Basically, four stages illustrating the progression of the successful professional career in organizations are described.

Stage I. In stage I the individual is newly hired in the organization. The central activities of this stage are learning about the work of the organization, doing the routine work under the close supervision of someone more experienced, helping, following directions, and so forth. The others in the organization view this individual as a learner or "apprentice." The major psychological issue to be dealt with in this stage is dependence—following orders and being successful at routine work. The major task of this stage is accepting the routine work and doing it well, while demonstrating the ability and initiative to progress to the stage of independent contributor.

Stage II. The primary activity in this stage is being responsible for projects from conception to completion—doing all the work oneself. In this stage one is viewed as a colleague, an independent contributor. The major psychological issue to be dealt with is independence. The task of this stage is to develop an area of expertise and become skilled and respected in it. Some individuals tend to want to move through this stage too quickly, without fully laying the groundwork for the next stage by developing a high level of expertise in the work of the organization.

Stage III. This stage involves taking responsibility for the work of others. It may be in the form of line management, informal group leadership or mentoring, or the offering of expertise in ideas and suggestions. An individual in this stage is involved in training, supervising, and interacting with other parts of the organization or with other organizations. He or she is seen by others as an expert, a leader in the field, and sometimes a mentor to individuals in stage I. Many individuals remain productive in this stage for the remainder of their careers.

Stage IV. The final stage is one that few reach. Tasks of this stage involve policymaking and shaping the direction of the organization. The close mentoring relationships are no longer possible as this person moves to delegate responsibility for the day-to-day work of the organization. This person "sponsors" individuals by creating experiences in which they can learn what is necessary to move up in the organization. The two major psychological issues of this stage are giving up the control of the day-to-day operations—delegating that responsibility—and exercising power. One of the major responsibilities of individuals in this stage is to exercise power for the benefit of the organization and the individuals in it.

Thus Dalton and associates take up where Ginzberg and others left off in describing what happens to an individual after an initial occupational choice is made. They amplify the tasks and experience of Super's establishment and maintenance stages. Although they do not discuss this directly, the assumption is that individuals changing occupations—the

midlife career changers—would have to begin again in stage I, although they may progress through the stages much more rapidly than before.

Similarly, the latest work of Super (1984) suggests that although indeed he still believes there is a "maxicycle" over the life span, there can also be a number of "minicycles" during which the individual recycles through the stages.

This cyclical approach seems to be the most applicable to present-day career stages. The work of all the stage theorists may be viewed as presenting a maxicycle over the life span but also describing the minicycles of career change as it occurs in our society today. Figure 2 can be seen as describing this maxicycle. It should not be considered restrictive, but as possibly including several minicycles.

A significant limitation of all developmental career theories as well as of almost all other career theories is that the supporting research has been done exclusively on men. Super (1957), Zytowski (1969), and others have done research on career patterns of women as differentiated from those of men. The differences they found, however, have not been attended to in theory building. Gilligan (1982) found that stages of moral development of women were different from those of men. It is reasonable to assume that career stages, as well as patterns, may also be different for women. It is inappropriate to use models developed on men to categorize the development of women. Inevitably, under those models women may be found lacking, when actually they are only different.

John Crites (1981) added to the developmental view of career the idea that career choice can be viewed in terms of process and content. That idea provides the last level of organization for the model of understanding career theory (Figure 1).

In summary, this section has discussed the assumptions, propositions, and evolution of the developmental view. The following sections will provide some details as to how that developmental process operates. They will address what theory and research tell us of career choice and adjustment in terms of content and process.

CAREER CHOICE CONTENT THEORY

Career choice content theories predict career choices from individual characteristics. For example, Ann Roe (1984) postulated that the type of parental environment in which an individual is reared predicts occupational choice. John Holland (1985) predicted occupation from personality type using a six-category typology. Some sociologists have predicted occupational choice from demographic variables such as age, sex, and socioeconomic status. Trait-factor interventions are based in part on career choice content theories.

Holland

John Holland (1973, 1985) has developed the most heavily researched and widely used career choice content theory. The ideas that led to the development of the theory grew out of his experience as a military interviewer during World War II. After interviewing hundreds of young inductees who needed to be assigned a military occupational specialty (a

job), he began to see patterns in what these individuals were saying about themselves, their interests, and their skills. These patterns were the beginnings of his personality typology.

Basically, Holland's ideas can be expressed as follows:

1. The personality types of individuals can be categorized into six types: realistic, investigative, artistic, social, enterprising, and conventional.

The *Realistic* type likes realistic jobs such as automobile mechanic, aircraft controller, surveyor, farmer, electrician. Has mechanical abilities but may lack social skills. Is described as conforming, materialistic, modest, frank, natural, shy, honest, persistent, stable, humble, practical, and thrifty.

The *Investigative* type likes investigative jobs such as biologist, chemist, physicist, anthropologist, geologist, medical technologist. Has mathematical and scientific ability but often lacks leadership ability. Is described as analytical, independent, modest, cautious, intellectual, precise, critical, introverted, rational, curious, methodical, and reserved.

The *Artistic* type likes artistic jobs such as composer, musician, stage director, writer, interior decorator, actor/actress. Has artistic abilities: writing, musical, or artistic, but often lacks clerical skills. Is described as complicated, idealistic, independent, disorderly, imaginative, intuitive, emotional, impractical, nonconforming, expressive, impulsive, and original.

The *Social* type likes social jobs such as teacher, religious worker, counselor, clinical psychologist, psychiatric case worker, speech therapist. Has social skills and talents, but often lacks mechanical and scientific ability. Is described as convincing, helpful, responsible, cooperative, idealistic, sociable, friendly, insightful, tactful, generous, kind, and understanding.

The *Enterprising* type likes enterprising jobs such as salesperson, manager, business executive, television producer, sports promoter, buyer. Has leadership and speaking abilities but often lacks scientific ability. Is described as adventurous, energetic, self-confident, ambitious, impulsive, sociable, attention-getting, optimistic, popular, domineering, and pleasure-seeking.

The *Conventional* type likes conventional jobs such as bookkeeper/stenographer, financial analyst, banker, cost estimator, tax expert. Has clerical and arithmetic ability, but often lacks artistic abilities. Is described as conforming, inhibited, practical, conscientious, obedient, self-controlled (calm), careful, orderly, unimaginative, conservative, persistent, and efficient. (Holland, 1979, p. 3)

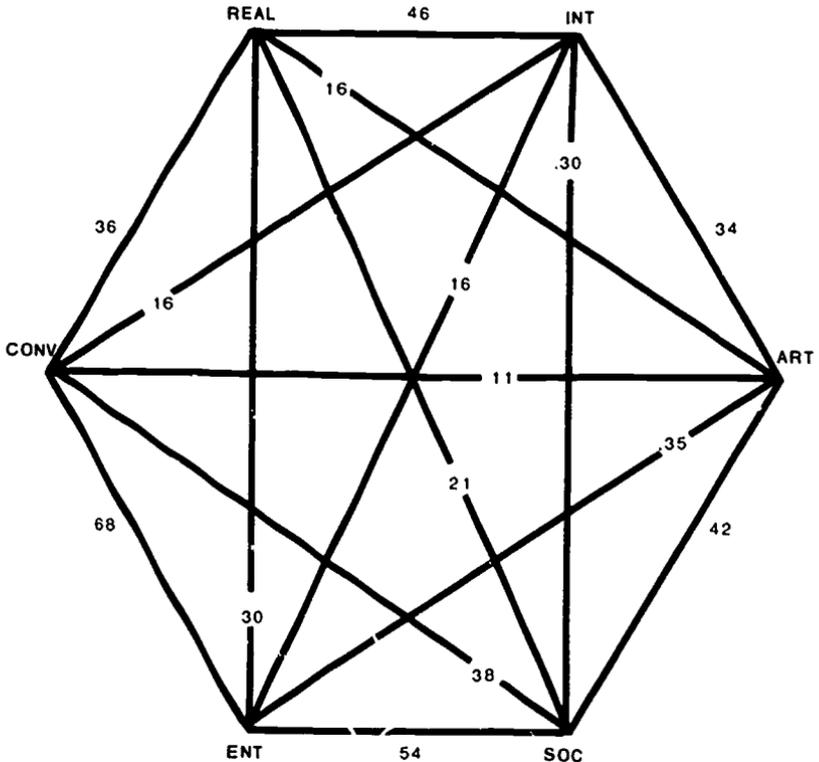
2. Environments can be categorized according to these same personality types. The personality types of the individuals working in an environment determine the personality type of the environment.
3. People search for environments in which they can use their skills and abilities, express their attitudes and values, and take on agreeable problems and roles.

4. An individual's behavior is determined by the interaction of his or her personality with the characteristics of the environment.
5. The degree of congruence between a person and environment and the degree of consistency within a person or environment can be described using a hexagonal model (see Figure 3).
6. The degree of differentiation of the code (RIASEC) of an individual or environment modifies predictions made from an individual profile or a coded occupation (Adapted from Holland, 1979, p. 3-4).

Several elaborations need to be made on these points. First, the instrument that Holland developed to measure his personality types is called

Figure 3

A Hexagonal Model for Defining the Psychological Resemblances Among Types and Environments and Their Interactions. From An Empirical Occupational Classification Derived From a Theory of Personality and Intended for Practice and Research (p. 4). ACT Research Report No. 29, 1969, Iowa City: The American College Testing Program. Copyright 1969 by ACT. Reprinted by permission.



the Self-Directed Search (SDS) (Holland, 1979). Upon completion of this instrument, an individual has devised a three-letter code composed of the first letters of his or her three most important personality types. This is called the individual's "Holland code."

Holland has assessed individuals who have entered or plan to enter many occupations and has defined the occupational environment by the predominant three-letter code in that environment. In this way an individual may look into an *Occupations Finder* and find listed occupations that are related to his or her Holland code. This correspondence is a most useful tool for career counselors. It has now been extended to relating Holland codes to each occupation listed in the *Dictionary of Occupational Titles* (Gottfredson, Holland, & Ogawa, 1982).

Holland states that people search for environments in which they can express their personalities. He does not state that individuals will be more successful or satisfied in congruent environments, although that is the assumption from which most counselors operate when using Holland's theory.

Three important concepts Holland uses are congruence, consistency, and differentiation. Using the hexagonal model (Figure 3), congruence is defined as a close correspondence between the individual's personality type and the type of the occupational environment. The degree of congruence is determined by the closeness of the individual and occupational types on the hexagon. For example, a social person in a social environment represents a high level of congruence; a social person in an enterprising or artistic environment represents a lower level of congruence; a social person in a conventional or investigative environment even less; and a social person in a realistic environment represents the lowest level of congruence.

Consistency is also defined by distance apart on the hexagon: the closer the codes, the more consistency. For example, SEA is composed of types adjacent on the hexagon and has a high degree of consistency. ACR is composed of types that are opposite or nonadjacent and are in the most inconsistent category. Individuals with inconsistent codes tend to have difficulty in finding occupations in which to express all facets of their personalities.

Differentiation refers to the magnitude of the difference between the raw scores the individual received on each of the types. Holland indicates that no real differences exist unless there is a difference of eight between any two scores. Some individuals have one or two high scores with all the rest equivalent; some have all high scores or all low scores. Individuals with low scores and indifferentiated profiles tend to be young and inexperienced with work.

One of the reasons for the widespread use of Holland's theory is that he has developed two instruments, the Vocational Preference Inventory and The Self-Directed Search, to measure personality types and to relate them to specific occupations. The Self-Directed Search, in particular, has been attractive to practitioners as well as easy to use in research. Other instruments, including the highly respected Strong Campbell Interest Inventory, have used Holland's typology as an organizing tool. Others

have reworded his ideas and used them as the basis for assessment instruments in both paper-and-pencil and interactive computer-assisted formats.

Another reason, it is hoped, for the widespread use of Holland's typology is that the overwhelming body of research it has stimulated generally supports the theory (Holland, Magoon, & Spokane, 1981). In general, individuals do seek environments similar to their personality types, and there is some evidence that adults changing occupations do seek more congruent environments.

Roe

Anne Roe developed a theory that predicts occupational choice from the type of childhood relationships with parents. Her goal was to explain the origin of interests and needs. Her ideas were based on Maslow's (1954) concept of basic needs arranged in a hierarchy of prepotency. That hierarchy arranged in order from most to least potent is: (a) the physiological needs, (b) the safety needs, (c) the need for belongingness and love, (d) the need for importance, respect, self-esteem, and independence, (e) the need for information, (f) the need for understanding, (g) the need for beauty, and (h) the need for self-actualization.

Roe stated that: "In our society there is no single situation that is potentially so capable of giving some satisfaction at all levels of basic needs as the occupation" (1984, p. 32).

In order to study occupations, Roe first developed a classification scheme based on the primary activities of occupations. She developed a continuum based on the nature and intensity of interpersonal relationships required in the occupation. The resulting eight occupational groups are: (1) service, (2) business contact, (3) organization (managerial), (4) technology, (5) outdoor, (6) science, (7) general culture (preservation and transmission of the culture), and (8) arts and entertainment. She also classified the levels of responsibility of occupations. The levels are: (a) professional and managerial (independent responsibility), (b) professional and managerial (lower levels), (c) semiprofessional and small business, (d) skilled, (e) semiskilled, and (f) unskilled.

Roe hypothesized three categories of parental behavior toward children: (1) emotional concentration on the child (overprotective or overbearing), (2) avoidance (emotional rejection or neglect), and (3) acceptance (casual or loving). These types of childhood environments were then related in a predictive way to occupations categorized as either oriented toward persons or not toward persons. Later she expanded her dimension of classification of occupations to a two-dimensional system (Roe & Klos, 1972). One axis is orientation to Interpersonal Relationships-Orientation to Natural Phenomena, and the other is Orientation to Purposeful Communication-Orientation to Resourceful Utilization. Her picture of occupational classification is symbolized as a truncated cone with the eight occupational groups spaced around the circle with wider divisions at the highest levels and narrowing spacing as the levels progress downward.

Although Roe's propositions are intuitively sensible and her classification system useful, there is little empirical support for her propositions.

Roe herself stated, "It seems clear that there is no direct link between parent-child relations and occupational choice" (1984, p. 44).

Roe's contribution may be seen in part as an expansion of the earlier developmental work (Ginzberg et al. 1951, Super, 1957) in describing the process of career choice. She described the limitations of heredity and the influence of interaction with the environment, and tried to specify the character of that interaction. Even though that research does not support her ideas on how that interaction takes place—how the parental environment influences career choices—it does not mean that the interaction does not take place. In fact, recent research indicates that parental expectations do influence both educational and occupational choices. (Conklin & Dailey, 1981; Lavine, 1982).

More recent and more applicable propositions (Holland, 1973) are similar to Roe's classification of occupations and levels. Thus, although her specific propositions have, in general, not been supported, her general ideas have stimulated research and thinking that have advanced the formulation of career theory.

Psychodynamic Theory

Bordin (1984) presented a psychodynamic model of career choice as a synthesis of previous applications of psychodynamic theory to career choice. The basis of this model is that "... the participation of personality in work and career is rooted in the role of play in human life" (p. 96).

Bordin's propositions are:

1. This sense of wholeness, this experience of joy is shared by all persons, preferably in all aspects of life, including work.
2. The degree of fusion of work and play is a function of an individual's developmental history regarding compulsion and effort.
3. A person's life can be seen as a string of career decisions reflecting the individual groping for an ideal fit between self and work.
4. The most useful system of mapping occupations for individuals, intrinsic motives will be one that captures life-styles or character styles and stimulates or is receptive to developmental conceptions.
5. The roots of the personal aspects of career development are to be found throughout the early development of the individual, sometimes in the earliest years.
6. Each individual seeks to build a personal identity that incorporates aspects of father and mother, yet retains elements unique to oneself.
7. One source of perplexity and paralysis at career decision points will be found in doubts and dissatisfactions with current resolutions of self. (p. 97-110)

The predictive aspects of this theory include the emphasis on needs and satisfactions that are developed at an early age. These are shaped by early experiences, identifications with mother and father, and sex role socialization (all of these being overlapping factors). Knowledge of these needs and satisfactions predicts how they will be acted out in the work place. For example, individuals whose needs are satisfied by the role of nurturer will go into nurturing occupations.

This theory also incorporates the idea of development, but it is primarily predictive. Its usefulness is in developing the notion that the part of our lives called work can satisfy some (but not all) of our psychological needs. It also does a good job of describing career choices in the context of a larger theory of personality and development.

As far as practical applications go, there are no instruments that effectively make these predictions for an individual. In usual practice based on psychodynamic theory, those relationships are specified directly by the individual therapist and depend on the skill and knowledge of that particular person.

Sociological Theory

Sociological research into occupational choice uses basically demographic variables to predict types of occupations entered. Its emphasis is on factors that are beyond the control of the individual, such as parent's (father's) occupation and education and labor market conditions. The categories of occupations studied are defined by occupational status.

There are several major foci of the sociological study of individuals and occupations. One is the area of status attainment. This line of research relates father's education and occupation to son's educational and occupational attainment. Blau and Duncan (1967) developed a model that indicates that father's education and occupation predicts son's education and that all three of those predict the son's occupational status. Other research by Sewell, Haller, and Portes (1969); Sewell, Haller, and Ohlendorf (1970); and Clarridge, Sheehy and Hauser (1977) followed a population of Wisconsin residents from youth to middle age. They found that both family status and mental ability predicted occupational achievement through influence on significant others, career plans, and educational level.

Status attainment research has been done on differences among the majority group (white men), women, and minority groups. Differences in income are larger between men and women than between whites and other races (Bridges, 1982; Corcoran & Duncan, 1979; Hartman, 1976; Mincer & Polacheck, 1974; Treiman & Hartman, 1981). Being of a racial minority or a woman then would predict lower educational level and occupational status than for a comparable white man.

Another area of sociological research in occupations has to do with the social and economic system. Blau, Gystad, Jessor, Parnes, and Wilcock (1956) developed a model that incorporates social structure (values, stratification, demography, technology, and type of economy), physical conditions, historical change, socioeconomic organizations, and immediate job requirements and characteristics as predictors of occupational entry. They described parallel determinants of biological attributes and personal qualifications and information about particular occupations that also influence occupational entry. Others have studied occupational aspirations and entry as a function of local labor market conditions, availability of information, and role models related to specific occupations and cultural restraints that narrow the consideration of potential occupations (Asbury, 1968; LoCascio, 1967; Schmeiding & Jensen, 1968).

Accident theory, or the effects of chance on vocational choices, has been discussed by Bandura (1982), Caplow (1954), Miller and Form (1951) and others. Basically, this is the idea of "being in the right place at the right time," of meeting an individual who has an important influence on one's career, of being born at a certain demographic time when there are few or many jobs or into a family with certain socioeconomic values and geographical location. Although "chance," thus described, certainly plays a part in everyone's life, other theories incorporate these and other variables related to occupational choice (Krumboltz, 1979). Thus chance cannot be looked at as an explanation of career behavior on its own.

Although there is not just one sociological theory of career choice or development, sociological research predicts occupational choice primarily in terms of status, using such variables as father's education and occupation, educational level, race, sex, and influence of significant others. Accident theory also falls into this category.

CAREER CHOICE CONTENT AND PROCESS THEORY

Krumboltz

John Krumboltz (1979) developed a theory of career decision making that is an application of social learning theory. This theory incorporates both the content and process aspects of career choice. It also explains some concepts discussed more generally in other theories. Two examples are accident theory from the sociological perspective and the development of the personality types from Holland's typology. This theory attempts to specify all of the "accidents"—they are described as genetic endowments and special abilities, environmental conditions and events, and learning experiences. John Holland (1983) said that this theory "... fills in the cracks in my typology." It explains how interest and personality patterns develop, an issue not addressed by Holland.

Krumboltz (1979) specified influences on career decision making, outcomes of interactions among influences, a set of theoretical propositions, and a description of the process of career planning and development.

Influences on career decision making. Four influences on career decision making are described. First are genetic endowments, such as race, sex, physical appearance and characteristics, and special abilities, including intelligence, musical and artistic abilities, and muscular coordination.

Environmental conditions and events also influence career decision making. They include such factors as job and training opportunities available; labor laws and union rules; amount of rewards for various occupations; catastrophic events such as earthquakes and floods; natural resources; technological developments; social organization and government policy; and family, educational, and community influences.

Learning experiences are the third category of influences. Krumboltz divides them into instrumental and associative learning experiences. Instrumental, or direct, learning experiences occur when an individual acts on the environment to produce consequences (operant conditioning

model). That is, one or more of the events or conditions previously described interacts with a particular problem or stimulus presented to an individual. The individual responds and receives consequences (feedback, praise, reward, punishment, etc.) from the environment. The skills necessary for career planning and educational and job performance are learned through these direct experiences.

Associative learning experiences are basically the development of attitudes, feelings, and positive or negative occupational stereotypes through observation of the behavior or responses of others. This is done via a classical conditioning model—a previously neutral stimulus is paired with a positive or negative response and the neutral stimulus (e.g., occupational title) stimulates that positive or negative response.

The fourth influence on career decision making is task approach skills. These skills are developed as a result of the previous three influences. They are a set of skills and attitudes that influence career planning behavior as well as occupational performance. They include specific occupational and other skills, values, and work habits.

Outcomes of interactions among influences. As a result of interactions among the preceding four factors, three outcomes can be described. The first is the development of self-observation generalizations. These are a set of generalizations (such as, "I am good at telling funny stories") individuals make about themselves as a result of past learning experiences. They may not remember the actual experiences, but do remember and generalize the feedback they received in those types of experiences. Self-observation generalizations may or may not be accurate. They can be collected and organized by means of interest inventories.

The second outcome is the development of task approach skills. They are developed as a result of learning experiences. One of the more significant of these is the person's view of whether or not individuals can influence their own environments. If individuals have a number of experiences in which they attempt unsuccessfully to influence their environments, they develop the idea that "fate," not their own actions, is controlling their lives.

The final outcome of these interactions is action. This theory focuses primarily on entry behavior, that is, entering into an occupation or a training program for an occupation.

Theoretical propositions. Krumboltz's propositions state that:

1. An individual is more likely to enter an occupation if he or she (a) has been positively reinforced for activities related to that occupation, (b) has seen a valued model be positively reinforced for activities related to that occupation, (c) has been positively reinforced by a valued person who advocates that he or she engage in that occupation, or (d) has been exposed to positive words or images relating to that occupation.
2. A person is less likely to engage in an occupation or its related training and activities if he or she (a) has been punished or not reinforced for engaging in related activities, (b) has observed a valued model being punished or not reinforced for those activities, or

(c) has been reinforced by a valued model who expresses negative words or images related to the occupation.

3. An individual is more likely to learn appropriate career decision making skills if he or she (a) has been reinforced for those activities, (b) has observed a model be reinforced for those activities, and (c) has access to people and other resources with the necessary information.
4. An individual is less likely to learn the skills necessary for career decision making if he or she (a) has been punished or not reinforced for such behaviors, (b) has observed a model be punished or not reinforced for those behaviors, or (c) has little or no access to people or other resources with the necessary information.
5. An individual is more likely to enter an occupation if that individual (a) has recently expressed a preference for that occupation, (b) has been exposed to learning and employment opportunities in that field, and (c) has learned skills that match the requirements of the occupation.
6. An individual is less likely to enter an occupation if the individual (a) finds the cost of preparation to be greater than the eventual return or (b) is denied access to the minimum resources necessary for entering the occupation.

Krumboltz views the career planning and development process as an interdependent sequence of learning experiences that follows the above-stated rules. Although he describes this as a lifelong process of each experience building on the last, he stops short of describing "development" as a process that could be composed of discrete, hierarchical, sequential stages.

This theory provides an explanation of the mechanism of all the career choice content and process theories. The addition of some of the developmental concepts and some propositions regarding work adjustment could make it a more comprehensive career theory.

CHOICE AND ADJUSTMENT PROCESS THEORY

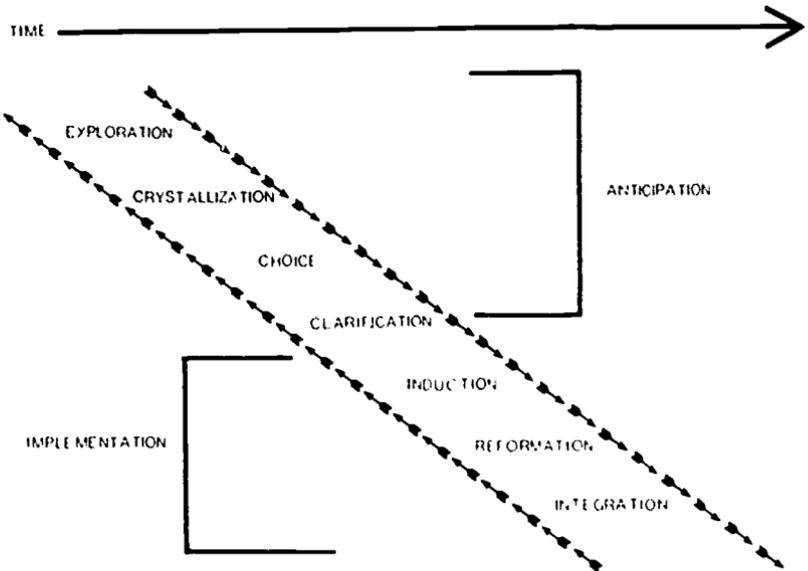
Tiedeman

The work of David Tiedeman and his associates over the years describes the processes of both career choice and adjustment. Originally, Tiedeman and O'Hara (1963) described a model that was directional (though not irreversible), developmental (based on the ideas of Erik Erikson), and somewhat similar to that of Super (1953) in that it specified a series of stages individuals progress through over the life span. They formulated a model that described an individual's progress of career choice and implementation. (See Figure 4.)

The first phase, anticipation, consists of four stages prior to entry into an occupation. Exploration is a period of somewhat random behavior in which the individual interacts with the environment and receives feedback. It is a period of collecting observations about that interaction (dif-

Figure 4

A Career Decision Making Model Adapted from Tiedeman and O'Hara's Paradigm of the Processes of Differentiation and Integration in Problem Solving. From Career Development: Choice and Adjustment (p. 40) by D.V. Tiedeman and R.P. O'Hara, 1963, New York: College Entrance Examination Board. Copyright 1963 by CEEB. Adapted by permission.



ferentiation) and incorporating that information into the ego identity (integration). Crystallization begins as these observations begin to form patterns (e.g. "I like to work with my hands" or "I am good at influencing other people"). Choice is the process of using those observations to make a tentative choice and to begin to act upon it. Clarification is the period of preparation for entry into the occupation, during which the choice is reconsidered and specializations are considered.

The second phase is called implementation. First, there is induction. This is the first entry into a job in the field. It is a period when the individual is primarily conforming to the organization and learning how to be successful. The second stage is reformation. This happens after the individual gains credibility in the organization. The individual is then able to act on the organization to make changes deemed necessary. Finally, there develops a balance, integration, between the organization acting on the individual and the individual acting on the organization. This is a period of relative satisfaction that lasts until something happens to change the balance. At that time the individual may begin the cycle again or return to any of the other stages, as the two-way arrows in the model illustrate. Tiedeman and O'Hara also described the process by

which an individual progressed through the stages. The core of their formulation was that an individual developed an ego identity through the processes of differentiation and integration.

Differentiation is the process of differentiating oneself from the environment, that is, observing different outcomes of one's own behavior and that of others. This process goes on continuously as individuals interact with the environment and observe the consequences. This information is then integrated into the ego identity. That is, new information that results from interaction of the person and the environment is constantly being incorporated into and changing the ego identity.

More recently Tiedeman and Miller-Tiedeman (1984) defined a two-dimensional model that further amplifies the anticipation phase of the original model. This model is based on the idea that how an individual views decision making is a function of how far the individual has advanced in his or her career. An important way of measuring this advancement in the career process is the language individuals use to describe their careers.

They defined two perspectives from which individuals describe their careers—personal reality and common reality. Common reality is a notion similar to societal, parental, or other external expectations: "They" expect me (all men) to be able to support a family. Personal reality is what feels "right" or good to the individual, irrespective of outside expectations. It is similar to the notion of internal locus of control. Recognizing and acting on one's personal reality is the goal of interventions based on the Tiedeman's model.

Another idea important to the recent work of David and Anna Tiedeman is "life as career" (1983). That is, the notion that each individual's life is his or her career, that individuals make choices about how they will create or "construct" their careers (or spend their lives); and that the goal for the individual is to integrate all aspects of life by becoming empowered to act on his or her personal reality.

CAREER ADJUSTMENT CONTENT THEORY

Much work that is not usually noticed by counselors has been done in the area of work adjustment and job satisfaction. Work adjustment has been defined as success (or "satisfactoriness") and satisfaction on the job. Success is typically operationally defined by longevity on the job and by supervisory ratings. Satisfaction is typically measured by asking the individual whether he or she is satisfied on the job.

A key factor in work adjustment is the match between the expectations of the organization and the expectations of the employee. Davis, England, and Lofquist (1964) developed a number of propositions in their theory of work adjustment. Their basic points are:

1. Work adjustment is composed of satisfactoriness and satisfaction.
2. Satisfactoriness is determined by the relationship of the individual's abilities and the requirements of the work place, assuming the individual's needs are being met by the organization's reward system.

3. Satisfaction is determined by how well the reward system of the organization meets the individual's needs, assuming the individual's skills meet the organization's requirements.
4. Satisfaction and satisfactoriness have moderating effects on each other.
5. Tenure is a function of satisfactoriness and satisfaction.
6. The fit between the individual (needs and skills) and the environment (requirements and rewards) increases as a function of tenure.

More recently, the fit between organizational and individual expectations has been specified as important in the process of the individual joining the organization. This is sometimes called the "psychological contract" (Argyris, 1960; Levenson, 1962).

Berlew and Hall (1966) and later Kotter (1980) developed two sets of dimensions on which individuals and organizations have expectations. The first dimension is composed of areas in which individuals have expectations of receiving and organizations have expectations of giving. These areas are:

1. a sense of meaning or purpose in the job;
2. personal development opportunities;
3. the amount of interesting work that stimulates curiosity and induces excitement;
4. the challenge in the work;
5. the power and responsibility in the job;
6. recognition and approval for good work;
7. the status and prestige in the job;
8. the friendliness of the people, the congeniality of the work group;
9. salary;
10. the amount of structure in the environment (general practices, discipline, regimentation);
11. the amount of security in the job;
12. advancement opportunities; and
13. the amount and frequency of feedback and evaluation. (Morgan, 1980, p. 65)

Areas in which organizations have expectations of receiving and individuals of giving are:

1. performing nonsocial job-related tasks requiring some degree of technical knowledge and skill;
2. learning the various aspects of a position while on the job;
3. discovering new methods of performing tasks; solving novel problems;
4. presenting a point of view effectively and convincingly;
5. working productively with groups of people;
6. making well-organized, clear presentations both orally and in writing;
7. supervising and directing the work of others;
8. making responsible decisions well without assistance from others;
9. planning and organizing work efforts for oneself or others;
10. utilizing time and energy for the benefit of the company;

11. accepting company demands that conflict with personal prerogatives;
12. maintaining social relationships with other members of the company outside of work;
13. conforming to the folkways of the organization or work group on the job in areas not directly related to job performance;
14. pursuing further education on personal time;
15. maintaining a good public image of the company;
16. taking on company values and goals as one's own; and
17. seeing what should or must be done and initiating appropriate activity. (Morgan, 1980. p. 65)

The clearer both parties are about expectations in each of these areas the easier it is to make appropriate judgments about individuals joining organizations. Unclear expectations or a change from either the individual or the organization without a comparable change in the other can upset the balance and cause dissatisfaction and unsatisfactoriness. A check on the expectations on these dimensions can be of great assistance in problem identification when counseling dissatisfied workers.

INTEGRATION AND IMPLICATIONS

By combining elements of all these theories, a number of statements can be made that are useful to counselors who seek to develop interventions for adults.

1. Individuals regard their careers differently and emit different career-related behaviors at different times in their lives.
2. Choice of occupational field and specific jobs at specific times are influenced by and can be predicted from certain individual characteristics. These characteristics include intelligence and achievement; special skills and talents; ability to relate to people; individual needs, values, and goals, and personality type.
3. Choices of occupational field and specific jobs are also influenced by factors external to the individual. These factors include the reinforcement received from parental and career-related activities, community influence, family requirements and values, the economic and social condition of the society, opportunities for learning, availability of information, and historical events.
4. The process of making choices about occupational fields or specific jobs follows the general pattern of exploration, crystallization, choice, and clarification.
5. The process of making adjustments to those choices follows the general pattern of induction, reformation, and integration—or balance between the needs of the individual and the needs of the organization.
6. Adjustment to the consequences of occupational or specific job choices depends on factors in the work environment and on characteristics of the individual. The most powerful of these factors is the magnitude of the discrepancy between what the individual

- expects to find in terms of requirements and rewards and what the environment provides in those areas.
7. Satisfaction and success in an occupational field or in a specific job depends on the person/environment fit. That is, individuals must be able to express their values and interests and play roles and perform activities that they deem appropriate for themselves.
 8. Satisfaction in a specific job comes from receiving feedback on successful performance of tasks or activities the individual considers important.
 9. The individual's occupational career is very much a part of the individual's life career. The interactions of occupational and family life cycles, life style, leisure and other issues cannot be separated. They must be considered together in career planning.
 10. Individuals can be assisted in making choices and planning their careers by helping them understand their own characteristics as described in item 2 above, by helping them understand the work environment and other external forces described in item 3 above, by providing access to information and appropriate training, and by assisting in the consideration of the impact of occupational and job choices on other aspects of their lives.
 11. The goals of career counseling are:
 - to enable clients to have sufficient information about their own characteristics: about training, assistance, and other resources available; about occupations and their characteristics; and about how to use that information in decision making; and
 - to enable them to view themselves as having the ability to make their own choices and to act on their "personal reality."

CONCLUSION

This discussion has viewed career theories in light of their contribution to the current state of knowledge of career development and behavior. An attempt has been made to identify areas of overlap and areas in which each theory makes unique contributions. A model for organizing current knowledge was presented and explained. A summary of current knowledge and its implications was described.

It is hoped that this model will be useful in applying these theories to facilitate the career development of adults.

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CHAPTER 3

Adult Learning: A Brief Overview

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John Naisbitt, in his book *Megatrends* (1982), estimates that scientific and technological information doubles every 22 months. Consequently, lifelong learning has become a survival skill.

Research in three areas is beginning to help us better understand this survival skill: how the human mind functions, how learning is processed, and, specifically, how *adults* learn.

What follows is a brief overview of some research in each of these areas and some thoughts about how these findings can be helpful to learners, educators of adults, and facilitators in the career development of others.

THE HUMAN BRAIN; WHAT WE ARE DISCOVERING

Although we shudder about the amount and complexity of what we need to know, we can take comfort in the growing knowledge of how the human brain works. Over the past 2 decades we have learned more about the human brain than we had discovered throughout our entire human history.

Moreover, knowledge in this area is growing exponentially. For example, Ferguson (1980) reported that some 500,000 articles a year appear on some aspect of brain functioning. Convergent efforts widen our perspective and increase our knowledge. Scientists and scholars in such varied fields as chemistry, biology, physics, philosophy, and psychiatry focus on brain functions and beget whole new fields of study, neurophysiology and neuroimmunology among them. Advances in computer technology bolster these explorations, and the push to develop artificial intelligence illuminates the workings of human intelligence.

As a result of these scientific efforts, we have an expanded view of human capabilities and development. The knowledge of how the brain functions and how information is processed and stored is rapidly expanding.

Brain physiology. Our brains are composed of cells called neurons that interconnect with one another electrically to carry out the functions

of our bodies and minds. Bloom, Lazerson, and Hofstadter (1985) estimated that we have 50 billion neurons and that an individual neuron may transmit a message to as many as 1,000 or more neurons.

We are born with a full complement of these neurons and do not gain additional ones over our lifetime. We are discovering, however, that the nervous system is involved in a great deal of continuous growth. The brain of a newborn infant is about 25% of its adult size. The size of the neurons in the brain and the complexity of neural connections and networks develop as one grows and interacts.

Thus, physiologically we are far more dynamic and open to change and growth than we have ever believed. Moreover, because the brain is continually growing we have every reason to believe that changes in behavior and new learning are possible throughout life.

One way to describe how the brain works is to examine the various functioning parts, each part's role, and their interrelationships among each other. Two major functioning areas can be discussed, the left and right hemispheres of the neocortex and their distinctive functions, and the layered brain, composed of the reticular activating system, the limbic system, and the neocortex. We will look at each of these areas in turn.

Left brain—right brain. The concept of left-right neocortical separation surfaced briefly in the 19th century but was not studied seriously until 1967 with Roger Sperry's work with split-brain patients (Restak, 1979). Although we cannot yet have a definitive picture of all of the details of the specialization of left and right brains, we do have scientific evidence that the specialization exists (Restak, 1979, Bloom, Lazerson, Hofstadter, 1985). The research indicates that in most people the left hemisphere functions in an analytical, sequential, problem-solving mode, and the right in an intuitive, visual/spatial, patterning mode. In some left-handed people, this process is reversed.

Moreover, some people, either through preference or because of established biological pathways, try to use one hemisphere to perform tasks that are more appropriately carried out by the opposite hemisphere. For example, many researchers associate dyslexia with a right-brain dominance; the dyslexic person is using the right hemisphere to master a task that is more appropriate to the left hemisphere.

The triune brain. Paul MacLean (Restak, 1979) views the brain as three separate biological computers, all functioning at the same time, all perceiving the same data from separate realities. According to MacLean, the innermost part of the brain, the reticular activating system or reptilian complex, evolved first and performs functions similar to reptilian brains. This part of the brain is responsible for alertness, wakefulness, and survival-oriented behavior. It is the seat of self-preservation and is concerned with aggression, territoriality, and unthinking action.

The next brain layer, the limbic system or mammalian brain—is thought by MacLean to have evolved later. This brain layer is concerned with species survival: love, bonding, communality, and emotions.

To the neocortex, the most recently developed brain, MacLean attributes abstract thought, language, calculation, and creativity. The neo-

cortex separates us from the mammals and is the seat of brain activity that allows us to think abstractly and anticipate the future.

This view of a human brain both simplifies our understanding of how the brain functions and complicates analysis. For example, MacLean finds that all three systems are involved with the function of memory (Springer & Caldwell, 1982): Stimulus response memory resides in the reptilian complex, memories of feelings in the limbic system, and memories of thought in the neocortex.

Looked at together, the left-brain/right-brain view and MacLean's triune brain concept give a holistic view of the brain's structure. This conceptual framework is still an incomplete outline that future researchers will need to flesh out. Intriguing questions remain. For example, both Restak (1979) and Springer and Caldwell (1982) postulated that neural connections between the limbic system and the right hemisphere are stronger than those between the limbic system and the left hemisphere. Is this so? What does it mean? Springer (1982) suggested that one implication is that a person dealing with feelings (limbic system) could move to analytical thought (left brain) through concentrating on a picture (right brain).

An expanding view of human capability. Brain researchers now believe that our brain is more dynamic and fluid than was previously thought. Moreover we are also discovering that we can consciously control human activities that were once considered involuntary.

Equally exciting are developments in the field of biofeedback that show that we have far more ability to self-regulate the processes we once thought were beyond conscious control (Green & Green, 1977; Restak, 1979). Green and Green, for example, cited cases where patients learned to regulate their own blood pressure—to reduce it to avoid hypertension and to increase it to combat Raynaud's disease, whose victims suffer from chronically poor circulation. Restak described experiments at the Department of Neurology at Bellevue Hospital where 75% of the stroke patients involved in a biofeedback experiment were again able to control their paralyzed limbs. By using biofeedback teaching machines, the patients were able to observe a pattern that indicated how a functioning limb worked; by thinking about it (later) they were able to transfer that process to the nonfunctioning limb.

We can expect that future research will help us learn more about the way the mind controls behavior and about how we can direct our pattern of behavior.

Assessing learning styles. A number of instruments designed to indicate individuals' preferences in processing information have resulted from brain research. For example, these instruments measure whether a person prefers to process information simultaneously (right brain) or serially (left brain).

Hermann (1981) assessed the balance of preference for processing information between four quadrants. He used left-brain research and the concept of the triune brain in developing his concept of quadrants. A high score in the cerebral left quadrant indicates a preference for analytical, logical thinking; a high score in the limbic left quadrant repre-

self's preferences for organized and structured processing. The limbic right quadrant is the area involving emotions and hunches; the cerebral right, of patterned simultaneous thinking.

Taggart and Torrance (1984) used a different model, which looks at preferences for left- or right-brain activity, and for mixed unclear dominance or integrated dominance.

Bernice McCarthy's synthesis showed connections between different theorists (1980). Her model juxtaposes left-brain/right-brain theory on a view of learning styles previously developed by Kolb.

Each of these instruments, only a few of those that are available, provides us with a glimpse of how we prefer to process information. As such these instruments provide useful starting points for understanding ourselves as learners.

Implications of brain research on learning recovery. Brain/mind research is still in its infancy. We can expect new information over the next few years. Even now, however, we can arrive at the following conclusions, which we may consider in shaping our own assumptions of ourselves and of our clients and work mates:

- Physiologically and psychologically, we are developing, evolving creatures with tremendous potential for change throughout our lives.
- We can influence our behavior more than we had previously supposed.
- The different hemispheres of our brains do have different functions, and to the extent that we rely on using one hemisphere over the other, we will process situations differently. Learning style assessments can provide "snapshots" of those preferences.
- Conflicting goals, emotions, and perceptions are likely to have a physiological basis as well as a psychological one. Moreover, our knowledge of this can be used to understand experience and plot the future.

LEARNING AS A PROCESS

A corollary to the growing body of mind/brain research is an increasing investigation into the process of learning itself. This investigation blends the conceptual approach of such thinkers as Robert Smith (1982) with experimental research into how the mind works. Questions addressed have included the following: How does the mind process information? Store data? Retrieve it? What are the "best" strategies for organizing data and learning and remembering it?

Out of this inquiry has come valuable information about what any learner can do to maximize the results of a learning situation. Sherman (1984) organized these learner-controlled activities into three process stages that he calls preparation, information processing, and follow-up.

Preparation. The purpose of this initial phase is to prepare the mind to receive information. The learner asks (and answers) such questions as: How much do I know? Why should I know it? What must I learn? And how should I learn? This phase provides the learner with a focus.

The process helps the learner select learning objectives and study strategies and also provides benchmarks for assessing growth. Helpful skills include survey and goal-setting skills.

Information gathering. During this phase a learner acquires new information or abilities. The skills used here are: rereading, generating questions, restating, asking and answering questions, summarizing, note taking, and building concept networks and outlines. Additionally, learners benefit from their intention to make changes and from making the information gathered their own by writing it down and by acting on it. During the learning process, learners add to what they already know by filling out their existing conceptual framework.

Follow-up. The follow-up phase helps learners to pin down their learning, to assess whether or not change has occurred, as well as to determine what to do next. Learners can follow up by creating written summaries and overviews, discussing new knowledge with others, developing study guides for testing like situations, relating new learning to their experience, and applying what they've learned in a variety of ways.

This three-phase process helps learners not only learn, but sets the stage for the transfer of what they've learned to their work or their personal lives. In Arthur Young's programs, for example, participants are asked to establish their learning goals at the beginning of seminars (Morris, 1984). Seminars generally conclude with participants drawing up action plans for using or strengthening what they've learned.

Implications of the learning process in helping others to learn. Understanding the process of learning and recognizing the importance of the preparation and follow-up stages helps you design learning experiences or assist clients to identify their learning needs. Here are two situations where you may find these techniques useful:

- Use the three step process in programs you design—even in small 1- to 2-hour sessions. Giving participants time to identify their own goals and to plan follow-up activities will help them get the most out of the experience.
- Use the process to help clients understand how they learn new skills and new goals.

ADULTS AS LEARNERS: THE ANDROGOGICAL PERSPECTIVE

Adult learning theory as a separate body of inquiry from the process of learning in general has focused on the question How do *adults* learn? Two of the major modern contributors to the field have been Malcolm Knowles and Robert Smith. Malcolm Knowles (1984) pointed out that the earliest approaches to adult learning theory come to us from ancient times, when learning was considered the business of adults not of children, and the learning process was one of active inquiry. For example, the Chinese and Hebrews used what we now call the case method to study

parables and the ancient Greeks used the Socratic method of dialogue in exploring questions in their study groups.

Only later did the focus of learning turn to transmitting basic skills and knowledge to children. The concept of teacher and *teaching* evolved to meet the special needs inherent in teaching children. Teaching became what we now call *pedagogy* from the Greek words *paid* (child) and *agogos* (leader of). This model of learning places the responsibility for determining what should be learned and how it shall be learned on the teacher. The student assumes a far more passive role than is true for the adult learner. Pedagogy has been the basic approach to teaching, not only in elementary and secondary schools, but also in universities and other centers of adult education. Most of us are products of this educational design.

The term *androgogy* was coined in Europe during the 1950s to differentiate adult learning from pedagogy. *Androgogy* is derived from the Greek *anere* (adult) and *agogos* (lead). Malcolm Knowles (1980) introduced the concept to the United States, and it has since become a central philosophy of American adult education. The key tenets of androgogy include the following. Learners are self-directed, proceed from a base of previous experience, are interested primarily in solving problems, and have "teachable moments"—finite periods of time during which they are most ready to learn.

Self-directedness. As children we are more dependent on families and teachers for direction. However, as we grow and mature, we make more decisions for ourselves. As adult learners we are more likely to focus on what serves our needs, we decide what we do and do not want to learn. Moreover, we want to know why and how what we're learning is important.

Previous experience. As we grow older, we grow in experience. The myriad of experiences we've had serve as a framework into which we fit current learning and future growth. When we make the link between new information and what we already know, we learn anew. Moreover, our past successes or failures tint our attitudes positively or negatively toward learning itself or toward specific types of learning activities.

Problem solving. As adults actively engaged in the world around us, we have an orientation to learning that is life-centered, task-centered, or problem-centered. Merely acquiring new information takes a back seat to problem solving. It is no longer enough to learn about something. We want to know how we can apply it.

Moments of learning readiness. Adults, like children, go through phases of development. These phases are related to the roles adults play in life—as workers or parents, for example. As we pass through these phases, we focus our attention on the knowledge, skills, and attitudes that we need in order to carry out these roles.

These four tenets of adult learning theory lead to some conclusions about adult learning experiences that we can use to both design learning activities for adults and to assess programs we recommend to adults.

- Adult learning activities should place the *learner* rather than the teacher in the key role of decision maker, or at least provide for joint decision making.
- The techniques used should include such experimental activities as discussion, problem-solving cases, simulation, and field experiences.
- Programs should be focused on meeting real-life needs or organized around developing competencies, and should be sequenced according to the learner's readiness to learn.

These tenets of adult learning can also provide perspective on our strategies for counseling adults as they plan career changes. We might ask ourselves the following:

- Are we helping people identify the new or expanded competencies they need to carry out new or changing roles?
- Are our questions and processes designed to assist adults to direct their own learning?
- Are we helping adults define what it is they need to know?
- Do we help adults view career change as a learning process rather than an event?

CONCLUSION

Career planning is a learning process. Consequently some highlights of mind/brain research, of the process of learning, and of adult learning have been explored. It is hoped that these ideas will stimulate more in-depth investigation. For in today's world, how we learn, and learning to learn, have become lifelong survival skills.

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