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Gottfredson's Theory of Circumscription and Compromise

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Career choice is both an option and a responsibility in modern democratic societies such as ours. We have far more freedom in fashioning our work lives than has been typical in other times and places. This developmental task is not a clear or easy one, nor does it always end well. However, it most assuredly affects the broader welfare of individuals, families, and communities. Hence the continuing concern, both inside and outside of vocational psychology, over the degree to which individuals and groups have sufficient freedom and support in creating their occupational fates.

This theory is directed to that concern: what are the origins of individual and group differences in career development?

Background

The theory grew from my efforts to solve an apparent puzzle: why do people of both sexes and of different races and social classes tend to differ, even in childhood, in the kind and quality of jobs they wish for? That is, why do children seem to recreate the social inequalities among their elders long before they themselves experience any barriers to pursuing their dreams?

Origins

My efforts to solve this puzzle have been motivated by perhaps the core question in sociology, my profession by training: namely, what

are the roots of social inequality? My efforts also reflect more personal concerns aroused by, among other things, the civil rights movement during my youth, three years as a Peace Corps volunteer in multicultural Malaysia, and my odyssey from assuming that I would have a family instead of a career to struggling to have both.

By good fortune, I began my dissertation work in a research center run by John Holland. As I became acquainted with his theory of careers (Holland, 1992) and other work in vocational psychology, it became clear that sociology and psychology looked at career issues with very different aims, concepts, and research methods. The two views seemed to represent totally different worlds. However, each seemed necessary for answering the other's central questions and most troubling inconsistencies.

The most puzzling question in vocational psychology, for me, was this: if having interests that are congruent with those required by one's job is as central to successful career development as the field assumes, then why is congruence such a weak predictor of job satisfaction? Also, why do so many people seek occupations and enter college majors that do not match their assessed interests? Another obvious issue was that vocational psychology seemed to ignore the external barriers that might stunt people's goals and opportunities.

The sociological perspective seemed to offer clues for understanding these issues. It showed that people are concerned about the prestige level of the jobs they seek, and it stressed the external barriers they face in climbing the occupational hierarchy. Its major weakness, in my view, was to treat individuals as identical psychologically. In sociology, career development was but an obstacle course: all people pursued the most prestigious jobs possible and simply experienced different social barriers or social support in doing so. The psychological and sociological perspectives on careers each seemed strong where the other was weak, so I set out to meld the two in my research.

The theory of circumscription and compromise grew out of that research. It was an attempt in particular to explain how youngsters' career aspirations come to reflect the social inequalities among their elders.

Scope

The theory is thus concerned with both the content of career aspirations and their course of development. In other words, it combines the concerns of trait and factor theories such as John Holland's and those of developmental theories such as Donald Super's (both in this volume).

The theory shares the fundamental assumptions of most other theories in vocational psychology. In particular, career choice is a developmental process beginning in childhood; occupational aspirations reflect people's efforts to implement their self-concepts; and satisfaction with career choice depends on how well that choice fits the self-concept.

The theory also departs significantly from others in vocational psychology. It is distinctive in four major ways. Most importantly, it views career development as an attempt to implement primarily a social self and only secondarily a psychological self. That is, career choice is an attempt to place oneself in the broader social order. The theory therefore emphasizes the most public, social aspects of self (gender, social class, intelligence) rather than the more private, personal elements (values, personality, plans for family) that are the principal focus of other theories. The more private and personal attributes are indeed important, as other theories argue, but their influence is circumscribed by efforts to implement or protect desired social identities. Accordingly, the theory devotes more attention than other theories to factors that affect the desire or ability of individuals to establish different social identities through work.

Second, the theory focuses on how cognitions of self and occupations develop. Only with advancing cognitive growth are

youngsters able to perceive and understand the more abstract features of self, occupations, and social life that concern adults. The theory therefore examines cognitive development and its effect on career development beginning in the preschool years.

Third, the theory treats vocational choice largely as a process of eliminating options and narrowing one's choices. This process also begins in early childhood.

Finally, the theory tackles a long-neglected topic: how individuals compromise their goals, wisely or not, in coming to terms with reality as they try to implement their aspirations (Ginzberg, Ginsburg, Axelrad, & Herma, 1951).

These differences represent a significant shift in perspective on career development. An individual's vocational preferences are conceptualized and measured as a *range* of preferences, not as a single point. Also, naturally occurring occupational choice proceeds largely by eliminating the negative rather than selecting the most positive (see also Gati, 1986). As such, it is the pruning of choice to produce a small set of "good enough" options.

The theory focuses on explaining the kind and level of occupational aspirations that individuals develop and try to implement. Thus there is much that it ignores. It does not look at issues in adult career development, such as job satisfaction, adjustment, or career change. Also, while it has much to say about the social aspects of self-concept, it does not elaborate on the more personal ones that I acknowledge are important. The personal aspects clearly have a significant influence on the alternatives people most prefer but seem to have less influence on what people most avoid.

The theory helps to explain a social phenomenon that disturbs many people: children tend to recreate the social order of their elders, including gender and social class differences in employment, even before they themselves enter the labor market. It therefore raises questions about what career counselors can and should do about the phenomenon. I explore these questions at the end of the chapter.

Evolution

The present formulation of the theory is the same in most respects as the 1981 version (Gottfredson, 1981, 1983, 1985b). Its fundamental assumptions remain unchanged, as do most of its basic concepts. The present formulation differs primarily in providing a clearer definition and account of compromise, more discussion of cultural change and of race and gender differences, and more guidance on counseling applications.

Research has tested several aspects of the theory, as is discussed later. The confusion of research and results on the process of compromise pointed to the need to revise that particular component of the theory. My attempts to clarify and reconceptualize the compromise process were facilitated especially by the work of Gati, Hesketh, Leung, Pryor, and Taylor and their associates (for example, Gati, Shenhav, & Givon, 1993; Hesketh, Elmslie, & Kaldor, 1990; Leung & Harmon, 1990; and Pryor & Taylor, 1989).

The Theory

I outline below the key concepts and more important propositions of the theory. I can cite here only a small proportion of the literature in which the theory is grounded (see Gottfredson, 1981). As I noted in the original statement, however, there was much more empirical evidence for some aspects of the theory (the cognitive map) than others (circumscription), and almost none at the time for yet others (compromise).

Major Concepts

Self-concept refers to one's view of oneself—of who one is (Super, Starishevsky, Matlin, & Jordaan, 1963). It has many elements, including appearance, abilities, personality, gender, values, and place in society. Some elements are more central to one's sense of self than are others. People may not be able to articulate their self-concepts, nor may

their self-perceptions always be accurate, but they act on them and protect them. The self-concept is the object of cognition (the "me"), but it also reflects the person as actor (the "I").

People also hold *images of occupations* (often called occupational stereotypes, Holland, 1992), including the personalities of people in those occupations, the work they do, the lives they lead, the rewards and conditions of the work, and the appropriateness of that work for different types of people. Americans from all segments of society share basically the same images of occupations and their incumbents, for example, of personality type (O'Dowd & Beardslee, 1960) and prestige level (Reiss, 1961).

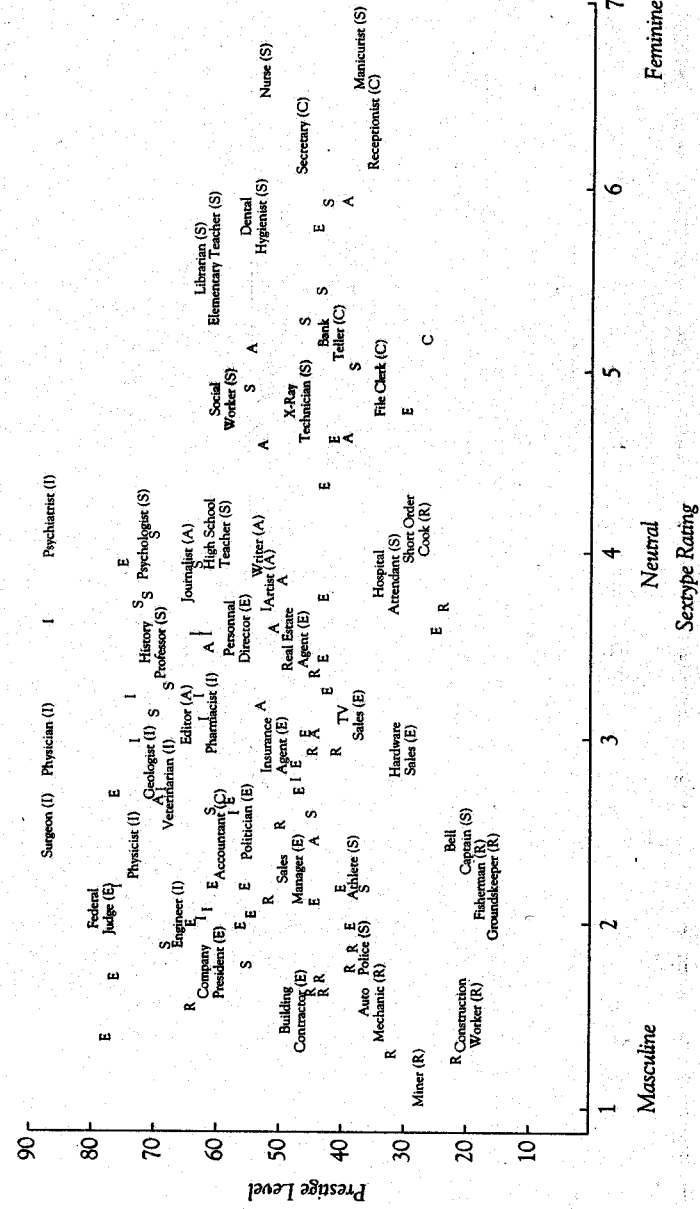
These common images are organized into a meaningful, shared *cognitive map of occupations*. Adolescents and adults distinguish occupations along a few major dimensions (for example, Reeb, 1974): specifically, masculinity/femininity, occupational prestige level (overall desirability), and field of work. These distinctions can be represented in a two-dimensional map (sexttype by prestige level), as shown in Figure 5.1. Occupational prestige level mirrors the intellectual complexity of work (Gottfredson, 1986a), so the prestige dimension is equally an ability dimension.

Jobs in different fields of work tend to cluster in different parts of this map, as can be seen most clearly in Figure 5.2 where occupations are classified by Holland field of work. This map of occupations constitutes most generally a map of the larger social world, of the "places" in society that different occupations offer.

Children have a ready facility to construct common social maps, illustrating "a remarkable skill for perceiving, remembering, accumulating, and organizing concrete social information" (Cairns & Cairns, 1988, p. 198). Their maps are primitive early in life, but with increasing cognitive maturity they come to perceive the same occupational map of the social order as adults do.

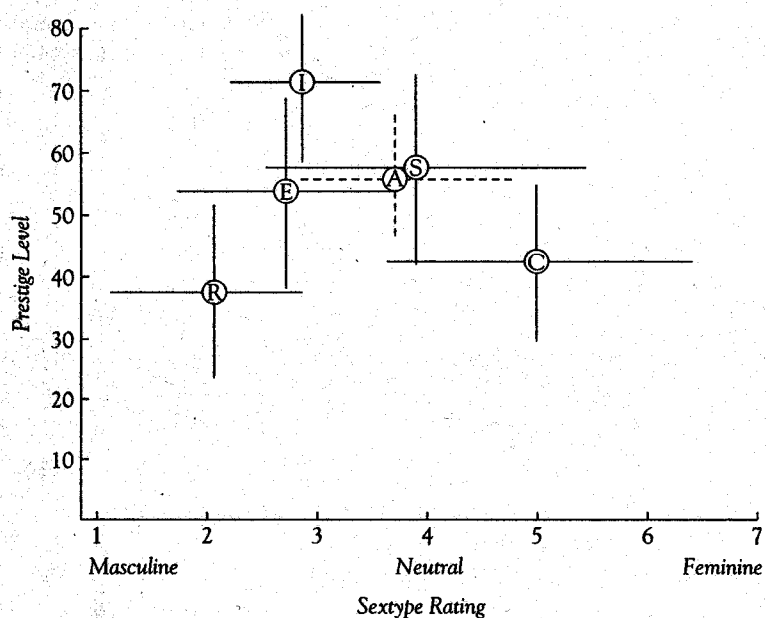
Individuals identify the occupations they most prefer by assessing the *compatibility* of different occupations with their images of themselves. Compatibility is what is usually meant by the terms

Figure 5.1. Map of Occupations According to Prestige and Sextype Ratings.



Occupations are denoted by a letter indicating their Holland field: R = Realistic, I = Investigative, A = Artistic, S = Social, E = Enterprising, C = Conventional.
 Figure 5.1 is from Gottfredson, L. S. (1981). Circumscription and compromise: A Developmental Theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28(6). Copyright © 1981 by the American Psychological Association. Reprinted with permission.

Figure 5.2. Prestige and Sextype Ratings of Occupations in the Different Holland Fields of Work.



Each field is designated by a cross centered at the mean for prestige and sextype and showing one standard deviation on either side of the mean. R = Realistic, I = Investigative, A = Artistic, S = Social, E = Enterprising, C = Conventional.

Figure 5.2 is from Gottfredson, L. S. (1981). Circumscription and compromise: A Developmental Theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28(6). Copyright © 1981 by the American Psychological Association. Reprinted with permission.

congruence and *person-environment fit*. The greater the perceived compatibility (suitability), the stronger the preference. Individuals may seek but rarely achieve compatibility with all elements of self. Occupations that conflict with core elements of the self-concept will be most strongly rejected. The theory postulates that public presentations of masculinity/femininity will be most carefully guarded, protecting social standing among one's fellows will be of considerable but lesser concern, and ensuring presentation of personality and interests via occupation will be of least concern.

One's most preferred occupations are not necessarily realistic or available. Many barriers may stand in the way of implementing them. Individuals therefore must also assess the *accessibility* of occupations when choosing which vocational alternatives actually to pursue.

What the field typically refers to as occupational *aspirations* are the joint product of assessments of compatibility and accessibility. Aspirations are called expectations or realistic aspirations when they are tempered by knowledge of obstacles and opportunities. They are called idealistic aspirations when they are not.

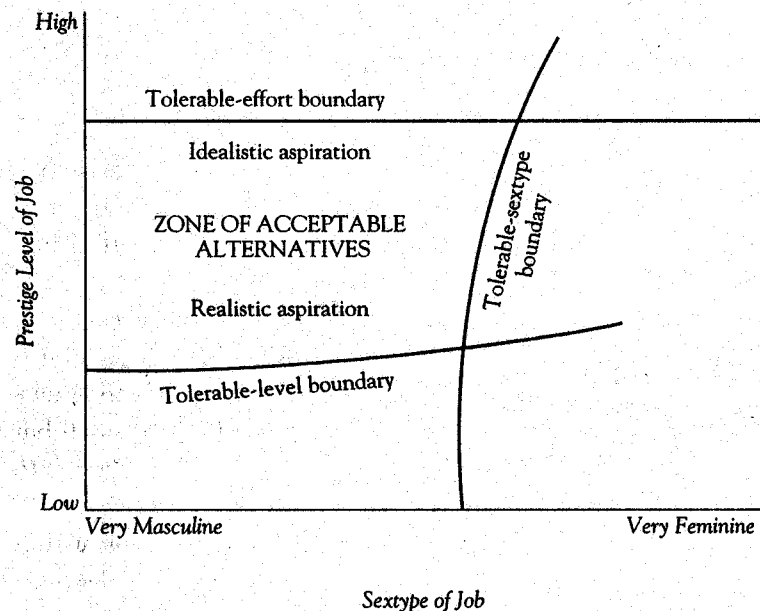
Social space refers to the range of alternatives in the cognitive map of occupations that the person considers acceptable, although the person may much prefer some of these alternatives to others. This zone of acceptable alternatives may be large or small but reflects the individual's view of where he or she fits—or wants to fit—into society (see Figure 5.3).

An occupational aspiration is simply the one alternative within this space that the individual happens to voice at a particular time, and it may change quickly as individuals adjust their perceptions of suitability and accessibility. In the theory, then, single aspirations are but shifting and fallible indicators of the center of a set or array of occupations that the individual is willing or eager to consider. The theory thus requires thinking in terms of (and measuring) territories rather than points of preference.

Circumscription is the process by which youngsters narrow that territory. It is the progressive elimination of unacceptable alternatives to create a social space (zone of acceptable alternatives). Choosing one particular occupation is but the end of a long process in which youngsters have greatly constrained that final choice.

Compromise is the process by which youngsters begin to relinquish their most preferred alternatives for less compatible but more accessible ones. Individuals often discover, when the time comes, that they will be unable to implement their most preferred choices. In a sense, they have to reverse the choice process and reconsider their less preferred alternatives, perhaps even ones they earlier ruled

Figure 5.3. Circumscription of Aspirations According to Perceptions of Job-Self Compatibility.



This example represents a hypothetical middle-class boy of average intelligence. Figure 5.3 is from Gottfredson, L. S. (1981). *Circumscription and compromise: A Developmental Theory of occupational aspirations*. *Journal of Counseling Psychology Monograph*, 28(6). Copyright © 1981 by the American Psychological Association. Reprinted with permission.

out as unacceptable. Compromise can occur either in anticipation of external barriers (anticipatory compromise) or after they are encountered (experiential compromise).

Circumscription Process

The circumscription of aspirations from early childhood through adolescence can be described by several principles, which play themselves out in four stages of development. However, it is first essential to describe how the entire process is conditioned on

cognitive development. It is widely recognized, of course, that cognition and human limits in information processing are essential to understanding career development (Lent & Hackett, 1994). However, age changes and individual differences in general cognitive ability (intelligence) remain underappreciated.

Forming occupational aspirations is a process of comparing one's self-image with images of occupations and judging degree of match between the two. This is a very demanding cognitive process, which requires perceiving and understanding properties of self, occupations, and the place of both in the social world. However, young children hold only primitive images of themselves and the world around them. They nonetheless begin to draw conclusions about which kinds of work are suitable—and distinctly unsuitable—for them. Simplistic or not, their conclusions can have lasting consequences because they lead youngsters to rule out from further consideration progressively more sectors of the occupational world. Young people circumscribe their options before they fully understand them.

Principles of Circumscription

The delineation of one's self-concept and associated social space (the zone of acceptable vocational alternatives) proceeds by five principles.

Circumscription Principle One: Increasing Capacity for Abstraction. With age, children become increasingly able to apprehend and organize complex, abstract information about themselves and their world. They progress from magical and intuitive thinking to recognizing highly concrete elements of the world (gender differences in clothing, occupations with uniforms, gross motor activity) and then to perceiving the highly abstract (personality traits, values). Children progress through this sequence at different rates because they differ in mental ability. By early adolescence, some youngsters will function mentally like college students and others more like children in the fourth grade or below.

Circumscription Principle Two: Interactive Development of Self and Aspirations. Self-concept and vocational preferences develop closely in tandem, each influencing the other. Occupational preferences reflect an effort to both implement and enhance the self-concept. Occupational preferences are so tightly linked with self-concept because individuals are very concerned about their place in social life, and occupations are a major signal and constraint in the presentation of self to society.

Circumscription Principle Three: Overlapping Differentiation and Incorporation. Children apprehend and integrate information about self and occupations in order of complexity. They begin to "catch on" to the more complex (for example, social class) distinctions among individuals while they are still incorporating the more concrete (sex roles) into their concepts of self. In turn, they may still be incorporating notions of social status into the self-concept when they start to perceive more abstract distinctions, such as in temperament and values.

Circumscription Principle Four: Progressive, Irreversible Elimination. As youngsters incorporate more abstract elements (first gender, then social class, and so on) into their images of self, their self-concepts become more complex and more clearly delineated. Simultaneously, they rule out as incompatible ("wrong" sex type, too low level, too difficult) an ever greater range of occupations, a narrowing of options that is in effect irreversible because the rejected options are seldom reconsidered spontaneously. People reconsider options they have previously ruled as unacceptable in sex type or prestige only when they are prompted to do so by some notable or consistent change in their social environments. For example, a teacher might encourage a child to consider an occupation the child has always presumed to be intellectually beyond grasp.

Circumscription Principle Five: Taken for Granted and Lost to Sight. The process of simultaneously delineating self and circumscribing vocational choices is so fundamental, gradual, and taken for granted that people typically cannot spontaneously "see" or

report on it despite its having a continuing and profound effect on their beliefs and behaviors. Some external stimulus (such as counseling or a change of social environment) generally seems required to illuminate the taken for granted.

Stages of Circumscription

The development of self-images and occupational aspirations can be usefully segmented into four stages. Each successive stage requires and reflects a higher level of general mental development and personal integration. Each stage leads to further narrowing of the potential social space as youngsters understand some new aspect of themselves and occupations. Age and grade delineations between the four stages are somewhat arbitrary because youngsters differ considerably in mental maturity at any given age.

The following conception of stages arises from studies on diverse issues, including mental development (for example, Kohlberg, 1966; Van den Daele, 1968), aspirations (for example, Sewell & Shah, 1968; Tiedeman & O'Hara, 1963; Vondracek & Kirchner, 1974), sex stereotyping (for example, Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Tibbetts, 1975), and youths' perceptions of social class (for example, Himmelweit, Halsey, & Oppenheim, 1952; Stendler, 1949), occupations (for example, Reeb, 1974; Reiss, 1961; Shinar, 1975), persons (for example, Livesley & Bromley, 1973), and self (O'Hara & Tiedeman, 1959; Rosenberg, 1979).

Stage One: Orientation to Size and Power (Ages Three to Five): Children in preschool and kindergarten progress from magical to intuitive thinking and begin to achieve object constancy (for example, that people cannot change their sex by changing their outward appearance). They begin to classify people in the simplest of ways—as big (and powerful) versus little. They also come to recognize occupations as adult roles and cease reporting they would like to be animals (bunnies), fantasy characters (princess), or inanimate objects (rocks) when they grow up.

Children at this stage do not have stable or coherent conceptions of sex roles or an abstract concept of male versus female. But they are laying the groundwork for such conceptions, because they now apprehend the concrete, observable differences in gender (both appearance and behavior), prefer to play with same-sex peers, orient to same-sex adults, and report same-sex preferences for adult activities, including employment. Their achievement is to have recognized that there is an adult world and that working at a job is part of it.

Stage Two: Orientation to Sex Roles (Ages Six to Eight). Children at this age have progressed to thinking in concrete terms and making simple distinctions. They are dichotomous thinkers and tend to rank everything simply as good versus bad. They have begun to understand the concept of sex roles but focus primarily on their most visible cues, such as overt activities and clothing. Being particularly rigid and moralistic, they often treat adherence to sex roles as a moral imperative. Vocational aspirations at this stage reflect a concern with doing what is appropriate for one's sex. Both sexes believe their own sex is superior. While the predominance of same-sex occupational preferences in Stage 1 may be primarily a by-product of children's orientation to same-sex adults and their knowledge that adult activities are sextyped, in Stage 2 it clearly reflects an active rejection of cross-sex behavior. Youngsters have now erected their *tolerable-sextype boundary* (see Figure 5.3).

Children evidence no concern over occupational prestige at this age and show but a "preawareness" of distinctions in social class. They will speak of social status but simply collapse the distinctions of rich versus poor, clean versus dirty, and own versus other into a single dichotomy between "good" and "bad." Girls report fewer but higher-status preferences than do boys, but this is an artifact of which same-sex occupations are most visible to young children because of equipment (truck driver), gross motor activity (athlete), uniforms (police officer, nurse), or personal contact (teacher).

In summary, children have now ruled part of the occupational world out of bounds for being the wrong sextype. They may have a

developing sense of other social distinctions, but their nature and relevance is not yet clear.

Stage Three: Orientation to Social Valuation (Ages Nine to Thirteen). At this stage, youngsters become very sensitive to social evaluation, whether by peers or the larger society. The issue is no longer just male versus female but also higher versus lower. By age nine (grade four), youngsters become harsher judges of low-status occupations and cease to mention them as preferences. They start to recognize the more concrete symbols of social class (clothing, rough behavior, possessions brought to school). By age thirteen (grade eight), most rank occupations in prestige the same way adults do, and they understand the tight link among income, education, and occupation. It has become clear to them that there is an occupational hierarchy that affects how people live their lives and are regarded by others.

They, like the important adults in their lives, have also formed perceptions of their own general level of ability (intelligence) relative to schoolmates and thus of their competitiveness for more difficult and more desirable occupations. On the other hand, they have also learned which occupations their own families and communities would reject as unacceptably low in social standing. In short, they have begun to sense a ceiling and a floor for their attainments.

As youngsters incorporate considerations of social class and ability into their self-concepts, they reject occupational alternatives that seem inconsistent with those new elements of self. In particular, they reject options that are of unacceptably low prestige in their social reference group, thus establishing a *tolerable-level boundary* below which they will not voluntarily venture again (see Figure 5.3). They also reject options that seem too difficult to obtain with reasonable effort or that pose too high a risk of failure. This creates a *tolerable-effort boundary* above which they are not apt to look again unless their self-conceptions of ability and competitiveness change.

Teachers, parents, and others encourage brighter youngsters to aim higher in education and occupation, which they actually do

relative to peers of the same socioeconomic status background (for example, Sewell & Shah, 1968). Similarly, youngsters from higher social class (wealthier, better educated) families are subject to higher occupational expectations, and they must achieve a higher minimum occupational status level in order to avoid being considered a failure in their social group. Thus, both high-social class background and high ability elevate aspirations, the former by raising the floor of what is acceptable and the latter by raising the ceiling of what is possible. By the same token, low social class and low ability dampen aspirations by respectively lowering what is acceptable and what is possible.

These zones of acceptable alternatives can vary by size, location, clarity, and stability across individuals and over time. For example, a low-ability child from a high-status family is likely to perceive far fewer acceptable alternatives compared to a high-ability child from a lower-status family. The ceiling and floor on aspirations will be much closer together for the former than the latter.

Not all acceptable alternatives are equally preferred. Rather, there are gradients of preference, from high to low, across the zone of acceptable alternatives. For example, a young woman might prefer a sex-neutral job of moderate prestige, but she will find other possibilities somewhat attractive. Attractiveness might fall off gradually for jobs that are successively lower in prestige, more intellectually demanding, or more gender stereotyped.

By the early teen years, youngsters largely take their broad social identities for granted. Although they may be confused or undecided about which particular occupations they prefer, they have developed firm conceptions of their place in the social order and narrowed their vocational options accordingly. They typically intensify their exploration of alternatives but only within a restricted range.

Stage Four: Orientation to the Internal, Unique Self (Ages Fourteen and Above). Taking their desired place in society more or less for granted, adolescents now become concerned about who they are as individuals. They have also become better able to apprehend and

integrate highly abstract, complex information. Orienting to more internally defined goals and internally based concepts of self (for example, personality), they begin to forge a more personal sense of self. A concern for external similarities of self with others gives way to a growing concern for their own unique capabilities. However, more abstract characteristics are less directly observable, so adolescents struggle, often confused and insecure, to ascertain just what their interests, abilities, personality traits, and values really are.

Occupational exploration is confined to the zone of acceptable alternatives (social space) circumscribed at earlier stages. It now focuses on fields of work that seem most congruent with the more internal, unique sense of self that the individual wishes to implement and project. Youngsters also begin to contemplate occupational preferences within a broader life plan—for example, as “good providers” (economic or nurturant) for their future families.

While the first three stages are devoted to rejecting unacceptable alternatives, this stage is devoted to identifying which acceptable choices are most preferred and most accessible. Gradients of preference shift as youngsters take account of personality, values, special aptitudes, experiences, and family needs. For example, a young woman may determine that she is more attracted to the artistic than the social service or entrepreneurial occupations in her sex-neutral midlevel zone of acceptable alternatives.

Preference gradients also shift as young people consider probable barriers and opportunities in implementing different choices. The young woman, for instance, might begin to rethink her interest in artistic work as she learns how much competition there is for so few artistic jobs. Stage 4 thus initiates the process of compromise.

Compromise of Aspirations

Where circumscription is the process by which individuals reject alternatives they deem unacceptable, compromise is the process by which they abandon their most preferred alternatives. Compromise is adjusting aspirations to accommodate an external reality.

Anticipatory compromise takes place when people begin to moderate their hopes (assessments of compatibility) with their perceptions of reality (assessments of accessibility). As they do, the aspirations they voice will shift away from their ideal and toward the expected. Experiential compromise takes place when individuals meet a barrier in implementing their most preferred choices.

The barriers and opportunities in implementing different aspirations include, for example, the local availability of particular kinds of education and employment, hiring practices (including discrimination), and family obligations. This external reality, often referred to as the "structure of opportunity" (Lent & Hackett, 1994), restricts virtually everyone to some degree; few have unrestricted choices.

One particular constraint should be singled out because it has not garnered much notice in discussions of barriers to career development and because it is of particular importance in this theory. The economy produces more of some kinds of jobs than others (Gottfredson, 1978). Work in some fields is rare. For example, many more people aspire to Holland's (1992) Artistic category than is available in the economy (Gottfredson, Holland, & Gottfredson, 1975). Also, as Figure 5.2 shows, some combinations of field, prestige, and sextype of work are rare or nonexistent (high-prestige feminine Realistic work; moderate- to low-level Investigative work). Investigative work is available almost exclusively at high-prestige levels and little of it is sextyped. By contrast, Enterprising and Social jobs are mostly moderate in prestige, but they span the upper ranges as well as dipping somewhat into the lower levels. The former is somewhat masculine in orientation and the latter mostly feminine, but they both provide sex-neutral work. On the other hand, Realistic and Conventional work tend to be highly sextyped, and in addition the latter provides little high-level work. Only Realistic work provides much employment at the lower levels of prestige. Lower-level work generally consigns people to sextyped jobs because so little of it is sex-neutral. "Masculine" work spans the full range of prestige, but "feminine" work is mostly moderate in prestige.

Such correlations between the dimensions of sextype, prestige, and interest type mean that many people will not find work that is simultaneously compatible in sextype, prestige, and vocational interest type. They will be forced to compromise one or more dimensions of compatibility. Such individuals would include, for example, many people with Artistic interests, men with Conventional ("feminine") interests, women with Realistic ("masculine") interests, women with interests in high-prestige feminine work (there is none), and people with interests in sex-neutral low-level jobs (most low-level jobs are sextyped). In contrast, men with traditionally masculine (Realistic) interests can find work at all levels.

Perceptions of Accessibility

As described earlier, vocational aspirations are a function of people's assessments of what is accessible as well as of what is compatible. The relative accessibility of different jobs is hardly obvious. Indeed, it can vary greatly across time and place depending on many factors. Information on accessibility degrades quickly as time passes, and it may always be difficult to obtain for some occupations.

Notions of accessibility depend on both the information to which individuals are exposed and the information they themselves seek out. Monitoring and seeking out information demand time and effort. Three principles govern the accumulation and influence of information on accessibility.

Accessibility Principle One: Selective Attention. People normally attend only to information about the accessibility of occupations they deem suitable for themselves, the alternatives within their perceived social space. The more preferred the occupation, the more likely an individual is to attend to information about it.

Accessibility Principle Two: Spur from Need to Implement. People attend to information primarily when they need it: in this case, when they must begin to implement an occupational aspiration. The closer the time of implementation (say, the nearer graduation) or the more serious the commitment (choosing a job versus a

college major), the more realistic rather than idealistic aspirations will become.

Accessibility Principle Three: Ease and Proximity of Search. People actively seek information and guidance on where to get it primarily from sources that are convenient and trusted. Parents, friends, teachers, colleagues, and others in one's social network thus play a key role in shaping perceptions of accessibility.

Degrees of Compromise

Compromises can range from minor to wrenching. They are not especially difficult when they involve highly acceptable alternatives. Indeed, they are viewed more as choices than compromises and as involving the "balancing" or "trading off" of different values and interests in order to identify one's best overall option. Figure 5.4 illustrates this point (ignore the three curves for now). Degree of compromise (deviation from the ideal) can range from low to high for one or more of the three dimensions of compatibility. The greater the compromise, the higher the level of concern over it.

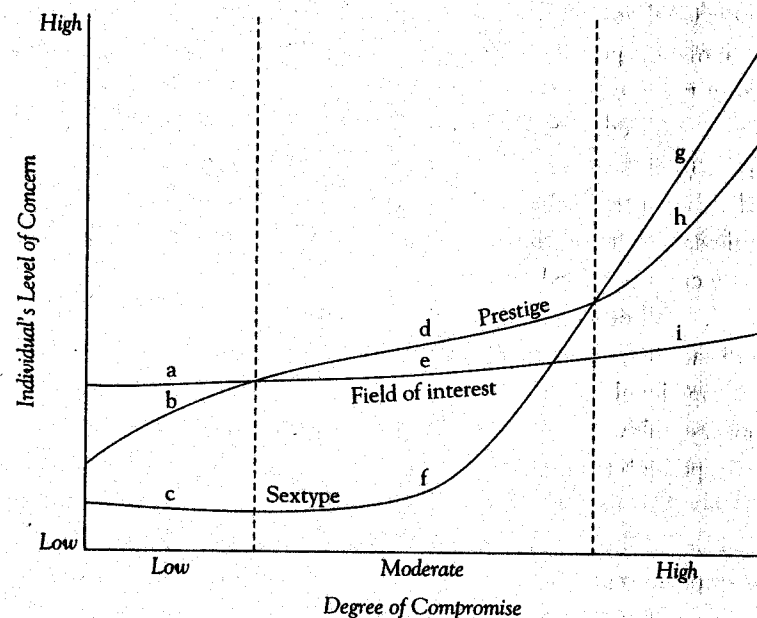
Compromises become more difficult and seem less voluntary as one depletes the more acceptable alternatives within one's social space. They can be very painful when the choice is among alternatives the individual deems unacceptable—that is, outside the person's social space. Although a choice among acceptable alternatives (a minor compromise) limits the degree to which the preferred self-concept can be implemented via career, the prospect of taking an unacceptable job (a major compromise) can deeply threaten the self-concept. As is discussed shortly, a major compromise along some dimensions of compatibility is more upsetting than along others.

Principles of Compromise

The theory proposes five principles by which compromise proceeds. The first one has been reformulated in light of research on the theory.

Compromise Principle One: Conditional Priorities. The relative importance of sextype, prestige, and interests depends upon the

Figure 5.4. Concern over Degrees of Compromise.



This graph shows sensitivity to different degrees of compromise in sextype, prestige, and field of interests.

severity of the compromise required. Severe threats to sextype (segment g in Figure 5.4) will be warded off before severe threats to either prestige (h) or interests (i) because a "wrong" sextype is usually the greater threat to the self-concept. As long as the threshold for minimally acceptable sextype is met (avoid g), compromises will sacrifice compatibility of sextype (c or f) to avoid losses in either prestige (b or d) or interests (a or e). Moderately severe compromise in prestige (d) will be avoided before moderate compromise of interests (e). If that threshold for prestige is met (avoid d), then trade-offs will favor greater compatibility in interests (a) rather than in either prestige (b) or sextype (c). These successive thresholds lead to the following predictions about priorities in compromise. They reflect a reversal in priorities (salience) as severity of compromise increases and different thresholds of concern are crossed.

1. When individuals are trading off small discrepancies from their ideal field of interest (a), prestige (b), and sextype (c), they give highest priority to interests (avoiding a rather than b or c); the latter two are good enough to indulge the former.

2. When moderate trade-offs are required within the social space (d, e, or f), people will most avoid the compromise in prestige (d). By contrast, they will have little or no concern with sextype unless it verges on the unacceptable (g, which means for most people a cross-sextyped job).

3. When faced with major compromises (g, h, and i), people will sacrifice interests (i) before transgressing either their tolerable prestige level (h) or sextype (g) boundaries. Although avoiding an unacceptably low-level job (h) is of great concern, avoiding a cross-sextyped job (g) is of yet higher concern.

4. Vocational interests are always of moderate concern (a, e, and i), but they are overshadowed by concerns for either prestige or sextype, except when both the latter are close to optimal (b and c).

Many combinations of compromise are possible, of course, and only sometimes is it clear what the priorities in compromise will be. For example, a traditional middle-class woman with Realistic interests might have a choice between carpentry and social work—that is, between a cross-sextyped job (g) of moderately unsatisfactory prestige (d) in her field of interest (a) and a slightly feminine job (f) of fairly desirable prestige level (b) in an incongruent field of work (i). The model in Figure 5.4 suggests that she will probably be more concerned with avoiding the wrong sextype (g) than the wrong field of work (i) and thus choose social work—a decision that would be reinforced by its more satisfactory prestige (b versus d).

The curves in Figure 5.4 for the three types of compatibility can be conceptualized as sensitivity curves depicting how sensitive individuals are to different degrees of compromise along a particular dimension of compatibility. The curves are not parallel but intersect. Prestige overtakes vocational interests as the major concern

when compromises are moderate in degree; sextype overtakes both when compromise is severe. The important implication of such intersection is that the most central elements of self-concept (for which the highest absolute levels of concern can be aroused) are not necessarily the most salient (of most relative concern) in any particular circumstance. Salience and centrality have often been conflated in research on compromise.

One last prediction on priorities in compromise concerns gender differences.

5. The sextype threshold is more relaxed for women than for men. Based on research (to be reviewed further on in this chapter), it appears that cross-sextyped work currently arouses less concern among women than among men. Stated in terms of Figure 5.4, the sensitivity curve for sextype is more often displaced to the right for women.

Compromise Principle Two: Opting for the "Good Enough." Individuals settle for a good choice, not the best possible (Simon, 1957). Individuals are generally satisfied by the former and typically unable or unwilling to go through the demanding process of gathering and balancing the often vague (their own values) and uncertain (accessibility) information necessary for identifying the optimal choice.

Compromise Principle Four: Staving Off the "Not Good Enough." If the individual is not satisfied with the available choices within the social space, he or she will if possible avoid becoming committed to any. Avoidance may take many forms, including searching for more alternatives, persevering with an untenable choice, reconsidering the tolerable-effort boundary, or simply delaying decisions or commitments (remaining "undecided") as long as possible (Taylor & Pryor, 1985).

Compromise Principle Five: Accommodating to Compromise. Individuals accommodate psychologically to even major compromises in field of work, less to compromises in prestige that threaten social standing, and least of all to shifts in sextype that undermine

implementation of an acceptable gender identity. Overall satisfaction with one's occupation will depend on the degree to which the compromise allows one to implement a desired social self-concept, either through the work itself or the lifestyle it allows self and family.

Group Differences

The theory is meant to explain the career development of individuals. In doing so, however, it places special emphasis on how an individual's group-based identities and circumstances influence where one prefers and then attempts to fit into the social order. There are four considerations in explaining why group membership might shape career aspirations.

1. *Public Versus Personal.* The theory postulates that occupational choice is a matter of establishing primarily a public, social identity and only secondarily a private, personal one. Moreover, it argues that the most concrete and visible social attributes have earliest and deepest importance for individuals. Gender and social class, like race and ethnicity, are highly concrete and visible.
2. *Reference Groups.* The theory is at heart a reference group theory (Merton & Rossi, 1966). Individuals set their expectations and standards in large part by the groups to which they orient and compare themselves. For many youngsters, these are simply the groups with whom they have had the most contact; for example, it might be middle-class Mexican-Americans. Indeed, one risks becoming estranged from one's family by orienting to groups, even high-achieving ones, that are alien to the family (Rodriguez, 1979). Why individuals choose some reference groups rather than others is beyond the scope of this theory. It simply assumes that most young people orient to their own gender and social class when contemplating careers.
3. *Group Differences in Career-Relevant Traits Versus Developmental Processes.* Group differences in particular career outcomes (say, in prestige or field of work) have been of considerable concern

in vocational psychology as elsewhere. Determining their source is seldom easy. They cannot be presumed to originate—or not originate—in group membership per se. It is helpful to think of two sources of group difference in the study of careers.

One is group disparities in career-relevant traits, be they education, vocational interests, family obligations, or the like. These are sometimes referred to as differences in "risk factors" in career development (Gottfredson, 1986b). There are many such differences among the genders, social classes, races, and ethnicities. For instance, family orientations and responsibilities are distributed differently among men than among women, just as they are distributed differently among some of the different ethnicities. Similarly, one source of isolation from the national culture, namely, not being proficient in English, differs across ethnic groups. There are fewer well-educated individuals in some ethnic groups than others. Also, meaningful gender and racial-ethnic differences exist in specific job-relevant abilities (for example, spatial-quantitative versus verbal) and in propensities to seek out or avoid different experiences (more women are attracted to nurturant and Social activities and more men to instrumental and Realistic ones). Regardless of their own ultimate source in nature and nurture, any such group differences in career-relevant attributes can lead to group differences in career outcomes.

The second source of group differences in career outcomes is differences in the developmental process due specifically to group membership. Even when possessing the same career-relevant traits, people may behave differently or be treated differently due to their gender, race, or social class. For example, parents might expect poorer performance from equally capable boys or girls depending on the task in question, or teachers might encourage some bright students but not others. When adverse, we refer to such differential treatment as discrimination, as when women and minorities were once routinely barred from many occupations regardless of their interests and qualifications. More benign, positive, or subtle forms

of differentiation fall under the rubric of socialization or cultural influence. Many such differences in treatment (encouragement, discipline, expectations) have been posited in the vocational literature. Evidence that circumscription and compromise processes differ somewhat for men and women is discussed later on in this chapter.

The theory is silent about the extent to which group differences in careers are due to each of the two sources of difference. However, differences in both distributions and development seem to be important—and hard to disentangle.

4. *Cultural Change.* I would also argue that group differences in both distributions and developmental processes change over time as the broader American culture changes. For example, in decades past, black children tended to include in their social space only occupations that were common among blacks. The youngest mentioned work like factory worker, houseboy, and laundress, and the older children cited mostly higher-level work in the black community, like teacher, postman, musician, and beautician (Gray, 1944). Similarly, girls once had considerably more constricted aspirations than they do today. The shift in aspirations among black children and girls can no doubt be traced in large part to shifts in broader cultural beliefs concerning the proper social place and behavior for different races and genders, which youngsters readily discern. Cultural change can create either more similarity or less in processes of development for children of different races, genders, and social classes. It seems probable that recent cultural change has created more similarity overall.

Empirical Evidence

Research has not yet tested many elements of the theory, including the interdependent development of images of self, occupations, and the social order, the role of cognitive growth in that development, and the impact of those cognitions on career aspirations and their compromise. As described below, research has concentrated pri-

marily on circumscription and certain aspects of the compromise process. Readers may also wish to consult relevant unpublished dissertations (Barry, 1990; Credle, 1989; Emrich, 1991; Kim, 1992; Shipp, 1991; Vaden-Kiernan, 1992).

Cognitive Map

In a study by Lapan and Jingeleski (1992), 112 American eighth graders rated two hundred occupations by prestige and sextype on 9-point Likert scales. When mean scores were plotted, they replicated the cognitive map the theory describes (Figures 5.1 and 5.2 here). Location of Holland interest themes within the map were "remarkably similar" for boys and girls.

Social Space

A major challenge in testing the theory has been the absence of a method for measuring social space. Investigators have taken two different approaches so far.

Leung and colleagues (Leung, 1993; Leung, Conoley, & Scheel, 1994; Leung & Harmon, 1990) estimated the size (but not location) of youngsters' zones of acceptable alternatives. They had college students recall their occupational aspirations at earlier ages and calculated the ranges of sextype and prestige level of the occupations recalled at different ages. Leung and colleagues then multiplied together the two ranges (sextype and prestige) to provide a measure of size (area) of social space. Their method, however, actually provides a measure of what might be considered the central core of social space, not the full zone of acceptable alternatives, because it is based on only the alternatives individuals most prefer, not all the options they find acceptable.

Hesketh and colleagues (Hesketh, Pryor, & Gleitzman, 1989; Hesketh, Durant, & Pryor, 1990) used "fuzzy logic" theory, a new tool in the study of social attitudes, to measure the location and span of individuals' social space. They measured how far individuals were willing to deviate from their preferred sextype, prestige, and

degree of congruence with vocational interests. This procedure produced reliable estimates that, when graphically portrayed for counselees as a social space, elicited from them highly informative explanations of why they considered some occupations acceptable but others not. The fuzzy logic procedure seems consistent with the theory's conceptualization of social space because it measures the entire range of acceptable alternatives.

Lapan and Jingeleski (1992) did not measure social space directly but used factor analysis to demonstrate that youngsters do in fact spontaneously assess compatibility with regard to different zones of alternatives within the broader occupational world. They had 112 eighth graders rate thirty-two occupations representing the major sectors of the cognitive map in Figure 5.1. Occupations were presented in pairs, and youngsters indicated which of the two in each pair they had more interest in, more aptitude for, and were more likely to get. Factor analyses produced six factors from these multiple assessments of compatibility: Conventional (midlevel female), Investigative, Realistic (midlevel male), Enterprising, Social (high-level female), and Adventure (risk-taking male). These factors are consistent with the theory's propositions on social space. They indicate that adolescents' assessments of job-self compatibility reflect attraction to and rejection of identifiable segments of the occupational world. Moreover, that segmentation of preferences largely mirrors the clustering of occupations by interest type shown in Figure 5.2.

Sex differences in the Lapan and Jingeleski study (clearly displayed in Figure 1 in their article) were also consistent with predictions about gender differences within the cognitive map. Students' self-rated aptitudes (efficacy), interests, and expectations were all lowest for cross-sextyped clusters (Conventional and Social for boys, Realistic and Adventure for girls). Gender differences in self-ratings were most pronounced for the less prestigious sextyped clusters (Conventional and Realistic). By contrast, there were few sex differences in self-ratings for the more sex-neutral Enterprising and Investigative fields of work.

Hannah and Kahn (1989) reported the same pattern of results for efficacy: both sexes reported higher self-efficacy for same-sex occupations, especially lower-level ones.

Circumscription

New studies (for example, Lapan & Jingeleski, 1992; Sastre & Mullet, 1992) generally confirm earlier ones (described in Gottfredson, 1981) in showing that gender, social class, and intelligence are related to field or level of occupational aspirations. The few exceptions (for example, Henderson, Hesketh, & Tuffin, 1988, on social class) may reflect sampling error, restriction of range in the samples, cross-national differences, and the like.

Hannah and Kahn (1989), in their study of 334 Canadian students in twelfth grade, showed that students from higher social classes held higher aspirations than did lower-class youngsters. The higher-social class students were also more confident in their ability to perform jobs at all levels. The degree to which their higher aspirations and confidence can be attributed to social class is unclear, however, because higher-social class youngsters tend to be more able (Sewell & Shah, 1968). Ability levels were not assessed in the study. In any case, the study is consistent with the theory's claim that higher-social class youngsters establish higher-level zones of acceptable alternatives.

Several studies deal with the conception of stages in circumscription. Henderson, Hesketh, and Tuffin (1988) concluded that their study of 396 New Zealand students from ages five to fourteen contradicts the theory's predictions about the importance of gender in Stage 2. They found that children's aspirations were sextyped both before and after age six (that is, in both Stages 1 and 2). However, the theory does not claim that aspirations are not sextyped in Stage 1. They clearly are, although they do become more sextyped in Stage 2, as Teglasi (1981) has found. Rather, the theory's claim is that only in Stage 2 do youngsters understand gender roles; wish to incorporate gender role as an element of the self-concept, and actively reject opposite-sex occupations because they conflict with

that role. Testing this proposition would require data on perceptions of self and sex roles, not just on youngsters' aspirations.

Henderson, Hesketh, and Tuffin's (1988) findings regarding Stage 3 were consistent with the theory. Social class did not have a big effect on aspirations until after age eight (that is, until Stage 3), as predicted by the theory. However, most of the social class effects could be accounted for by differences in ability. This is inconsistent not only with the theory but also with much research before (for example, Sewell & Shah, 1968) and after (for example, Shipp, 1991) the theory was formulated. Perhaps the theory does not generalize to New Zealand or else the New Zealand sample was atypical in some way.

Leung and colleagues calculated size of social space at different stages of development based on high school and college students' retrospective reports of their aspirations at those earlier ages. The aim was to determine whether the zone of acceptable alternatives stabilizes by adolescence (in Stage 3) as predicted by the theory and whether the sexes differ, about which the theory made no predictions. Results were largely the same in three studies: 246 American college students (Leung & Harmon, 1990), 194 gifted high school juniors (Leung, Conoley, & Scheel, 1994), and 149 immigrant and native-born Asian-American college students (Leung, 1993). Average social space, by their measure, increased in size from age eight through age seventeen (Stage 4) because ranges of alternatives considered increased for both sextype and prestige. Women reported larger social spaces than men from age nine on, primarily because they considered a broader range of sextypes.

Leung and colleagues concluded that their results disconfirmed the theory's prediction that the boundaries of social space are set by age thirteen (Stage 3). That conclusion seems premature because, as noted above, their method captures only the core, not the whole, of the zone of acceptable alternatives. They did not determine whether youngsters were actually reconsidering options they had previously rejected as unacceptable (too low level, too masculine,

or too difficult), which is what the theory predicts. Nonetheless, the results raise the possibility that some substantial proportion of youngsters widen their range of exploration during high school. For example, the rising mean prestige of aspirations may result from brighter students (all three samples were no doubt above average in ability) being encouraged by teachers and their own increased self-knowledge to raise their tolerable effort boundaries.

Consistent with Leung and Harmon (1990), other studies have also reported that women make more cross-gender occupational choices than do men. Men overwhelmingly avoid cross-sex work, but many women select it. These results hold for students in college (Betz, Heesacker, & Shuttleworth, 1990), high school (Hannah & Kahn, 1989), and elementary school (Henderson, Hesketh, & Tuffin, 1988; Teglassi, 1981). Hannah and Kahn (1989) showed, in addition, that high-social class women were twice as likely to choose male- as female-dominated jobs, but the reverse was true for low-social class women. Given the absence of high-level "feminine" work in the occupational world (see Figure 5.1), women with high aspirations may be forced in effect to turn to less feminine work.

Compromise

Inferences about compromise can be drawn only when there is some reason to believe that compromise has taken place. As yet, we have little knowledge about the timing and magnitude of compromise during career development. Changes in aspirations by themselves are not evidence of compromise. Aspirations (like actual employment) can shift over time simply because individuals have reassessed their compatibility with different occupations. Nor can individual differences in aspirations (or employment) by themselves reveal anything about the compromise process. As described earlier, aspirations are a joint function of perceptions of compatibility and accessibility, and the weight given to accessibility may be nil early in life and rise only when the need to implement a choice looms on the horizon. Research on compromise must distinguish the two

components of aspirations unless there is independent evidence of compromise.

Unfortunately, some of the research attempting to test the theory's propositions about compromise has studied some unclear combination of compatibility and accessibility. This includes the research that predicts preferences, aspirations, or actual employment at one particular point in time (for example, Hesketh, Durant, & Pryor, 1990). Compromise is not another name for vocational choice or vocational preference. Making compromises is often a matter of deciding what repels least, not what attracts most. It is a decision of what to relinquish in the face of constraints, not of what might be gained in their absence.

Anticipatory Compromise

One way to study anticipatory compromise is to compare individuals' expectations with their preferences, because the former have presumably been more leavened by concerns about accessibility. Davey and Stoppard (1993), for example, found that about a third of their sample of Canadian college women expected to enter occupations that were more traditional in sextype than the ones they preferred. The women's primary explanation for the expected compromise was the cost of education for the preferred occupation. These data revealed a compromise that the theory suggests is quite common: women who wish to pursue prestigious work (which happens to require higher levels of ability and education) have to pursue work that is either sex-neutral or male dominated because there is no high-level female-dominated work.

Taylor and Pryor (1985) examined patterns of occupational aspirations among 287 young adults, mostly foreign born, who were studying in Australian technical colleges for the equivalent of a college entrance examination. Students were asked to state their preferred course of study if admitted to university, which the investigators then coded for sextype, prestige, and interest category. Only 35 percent of the first choices were consistent with the students' assessed interest type, but rates of congruence were high (over

50 percent) for people with certain interests (Realistic, Investigative, and Social) but very low (about 10 percent) for others (Artistic and Conventional).

The patterns of congruence and incongruence across interest categories showed a clear avoidance of cross-sex work and an attraction to prestigious work. Although many people (65 percent) seemed ready to compromise their interests, they least often included individuals with interests in sextyped (Realistic, Social) or high-level (Investigative) categories of work. Over 60 percent of people with sextyped interests (Realistic men and Social women) chose sextyped courses of study and thus were congruent. (The exception to this pattern was Conventional women, who, like incongruents from all interest categories, tended to choose sex-neutral, high-level Investigative work.) Conversely, the 65 percent of students who chose incongruent courses (71 percent of the men and 58 percent of the women) tended to choose either the sex-neutral, high-level category (Investigative) or same-sex work (Realistic for males and Social for females, even when the two sexes had the same assessed interests). As in other studies, women made somewhat less sextyped choices than men, but they still tended to avoid very "masculine" courses of study.

Investigative work was the most favored choice among people with incongruent choices, regardless of their assessed interests. Such work tends to be prestigious, suggesting that many students forego their interests in order to pursue higher prestige. Men, however, were more likely than women to do so. In this study, then, women were more likely than men to compromise both sextype and prestige for interests, although interests seemed to be of relatively low priority overall for both sexes.

Experiential Compromise

Hesketh and McLachlan (1991) investigated career compromise among recent graduates employed in the Australian banking industry. Out of one hundred, thirty reported that their job represented a compromise of their original goals. Hesketh and McLachlan

looked at the sorts of dissatisfaction that predicted sense of compromise, thus revealing in effect the sorts of compromises people had been most willing to make. (The authors interpret these data in the opposite way—that is, as reflecting the compromises individuals had been least willing to make.) Both groups were quite satisfied with sextype, indicating that if it had been a priority in vocational choice, it had been met. Of the twenty-one items used to predict sense of compromise, those concerned with interests predicted the best: dissatisfaction with self-development and the opportunity to fulfill interests (specifically, Social and Enterprising). Dissatisfaction with prestige predicted sense of compromise less well, suggesting that more individuals had successfully avoided compromising goals for prestige.

Hesketh and McLachan (1991) also measured actual, as distinct from self-reported, compromise. They focused in particular on compromise in interests by determining whether assessed interests were congruent with the job held. Of the thirty “compromisers,” twenty-one had interests that were not congruent with their jobs. Of the seventy “noncompromisers,” fully half were in jobs incongruent with their interests. Sense of compromise or lack of it clearly did not rest on congruence with interests. Qualitative data from interviews revealed that many of the thirty-five noncompromisers with incongruent interests had adjusted in various ways to that incongruence—for example, by pursuing their interests avocationally. Hesketh and McLachlan concluded from their study that, contrary to the theory, people place highest priority on interests. Their data may demonstrate the opposite.

Simulated Compromise

All forced-choice procedures constitute simulations of the compromise process. Some studies have asked people to choose between attributes of work (say, high prestige versus congruent interests) or occupational titles chosen to connote particular combinations of attributes (say, secretary versus construction worker). Whether the

results have seemed consistent with the theory's account of compromise has depended on whether major versus minor compromises were involved.

Hesketh, Elmslie, and Kaldor (1990) found results quite contrary, in their view, to the theory's prediction concerning the relative importance of sextype, prestige, and congruence with interests. In two separate studies, one with seventy-three career-dissatisfied adults and another with ninety eleventh-grade students, they used what they called their “fuzzy graphic” rating scale to obtain from participants their preferred and tolerated levels of prestige (two scales), sextype (two scales), and their two most liked Holland interest themes. Participants then rated the relative importance of the six preferred levels. The results were the same as those from a second procedure also used to elicit the relative importance of the three dimensions of work: interests were rated more important than prestige, which was rated more important than sextype. This was true of both the high- and low-social class students, although the latter evinced somewhat more concern for sextype than did the higher-social class students.

The Hesketh, Elmslie, and Kaldor (1990) study actually seems to simulate low-degree compromise, which is represented by segments a, b, and c in Figure 5.4. In low-level compromise, most people do in fact indulge their interests because the thresholds for acceptable sextype and prestige have been met. The social-class difference in concern for sextype is consistent with the paucity of sex-neutral work at the lower levels, which is also consistent with the theory.

Leung and Plake (1990) used their Occupational Choice Dilemma Inventory with 246 college students to examine trade-offs between prestige and sextype when different degrees of compromise between the two are required. Students were presented pairs of occupational titles in which one title represented some sacrifice in sextype to gain prestige and the other title represented the opposite compromise. There were three degrees of sacrifice in sextype: a drop

from consistent to neutral, neutral to inconsistent, and consistent to inconsistent (in terms of Figure 5.4, c to f, f to g, and c to g). There were also three degrees of sacrifice in prestige: a drop from high to medium, medium to low, and high to low (b to d, d to h, and b to h). Crossing the three degrees of sacrifice for both prestige and sextype yields nine different dilemmas. The two titles in each dilemma always came from the same Holland category, and men and women were administered a different set of nine pairs.

There was no manipulation check to determine whether occupations meant to represent the attributes in question were actually perceived as such. Leung and Plake also cautioned that the compromises studied were artificial and might not reflect naturally occurring decisions. Caveats aside, these results are only partly consistent with the theory's propositions on compromise, even as reformulated. As Leung and Plake pointed out, men tended to prefer a male job of lower prestige to a female job of higher prestige. However, the stronger trend in the data is that men generally preferred to avoid the negative rather than pursue the positive, regardless of whether it involved prestige or sextype. They chose moderate compromise on both dimensions rather than trading off a big loss in one for a big gain in the other. When forced to trade off a severe compromise in one for a moderate compromise in the other, they opted somewhat more often to protect prestige than sextype. When forced to trade off a severe compromise in one for full satisfaction in the other, the men split evenly. These results are consistent with the notion that there are thresholds of concern for both prestige and sextype. However, they seemed to be of roughly equal concern to the men. A study of 149 Asian-American college students (Leung, 1993), most of them immigrants, found much the same pattern of results, although the Asian-American men were more willing to trade sextype for prestige.

Both studies revealed sex differences. Leung and Plake (1990) found that, unlike the men in their study, women more often opted for cross-sex work rather than same-sex work if the former gained

them higher prestige. The result is puzzling, however, because many fewer (47 percent) opted for cross-sex work in order to gain higher prestige when the alternative was *neutral* (not same-sex) work. They did not differ from men (47 versus 51 percent) in their responses to this particular choice dilemma. The same puzzling pattern occurred with Asian-American women (Leung, 1993), suggesting that the job titles used with the women may have been peculiar in some way.

The Taylor and Pryor (1985) study, discussed earlier under "Anticipatory Compromise," also had a component that simulated compromise. It asked students to state a compromise choice if they ended up not gaining admission to the university. Among the 54 percent of study participants who were willing to state a compromise choice, there was a shift in choices toward less prestigious, administrative/commercial work, regardless of their assessed interests. The overall rate of congruence in the sample decreased somewhat (from 35 to 26 percent) but rose dramatically for students with Conventional interests, from 7 percent to 57 percent, certainly suggesting that interests had not been their highest priority.

This study by Taylor and Pryor shows differences in compromise behavior for individuals in different Holland categories of work. However, it does not suggest that the differences have anything to do with interests per se. Rather, the differences in compromise may be due to the differences in sextype and prestige that are correlated with interest category of work (as seen in Figure 5.2). The Taylor and Pryor study thus puts the following study into different perspective.

Holt (1989) asked thirty-six college students to complete a forced-choice questionnaire in which they had to trade off prestige (high versus low) with vocational interests (Realistic versus Social). About half the students were majoring in engineering (a Realistic course of study) and half in social work (Social). Students in both majors more often chose the higher status job than the one consistent with their interests (presumed from their major). This is consistent with the theory.

Participants were also asked to rank twenty occupational titles in order of preference. As in the forced-choice task, the titles consisted of Realistic and Social occupational titles at two levels of prestige. The engineering students ranked both Social and Realistic high-status jobs as equally preferable but ranked low-prestige Social jobs below low-prestige Realistic jobs. In other words, interests were an issue only when prestige was low.

By contrast, the social work students ranked Social jobs highest, regardless of prestige, followed by high-status and then low-status Realistic jobs. Holt's conclusion was that status was more important to Realistic people (the engineering students) and interests more important to Social people (the social work students). This interpretation is clouded not only because it contradicts the results of the author's own forced-choice task but also because there were more women in the sample of social work majors (two-thirds) than engineering majors (one-half). The differences he attributes to interest type may be the result of the gender differences in priorities discussed previously.

In a different forced-choice procedure, Pryor and Taylor (1986) presented three vignettes to 256 Australian students and adults facing career decisions. Each vignette described a hypothetical person who had been prevented from achieving his or her preferred choice. Participants were asked to select one of three alternative courses of action for the person, each alternative representing a compromise in either prestige, sextype, or interests. The results suggested a greater willingness by students to sacrifice prestige than interests or sextype and somewhat less willingness to change sextype than interests. The authors note that this interpretation is undermined by the possibility that the respondents did not perceive the degrees of compromise as intended in their three vignettes. Another ambiguity is that respondents were asked to act like hypothetical characters who were sometimes of the opposite sex or perhaps even lacked the ability for their first choice. Both internal and external validity seem doubtful.

Practical Applications

The theory directs attention to underappreciated problems and possibilities in career development.

Individual Career Counseling

Career counseling has traditionally focused on Stage 4 of development, in which young people struggle to define and implement an internal, unique self. As such, it has focused on helping counselees to determine their specific abilities, interests, and values and to make better decisions on the basis of that information.

Circumscription and compromise theory points to the need for counselees and counselors alike to recognize that this effort in implementing the personal self may have been constricted by prior efforts to define the more social self. Individuals may have made unnecessary compromises. They may not have seen their full range of possibilities or possessed sufficient information to implement their options. The theory thereby highlights the need for career counselors to encourage both exploration and realism: to help people see not only what is possible but also what is required to achieve it. Exploration should probe the boundaries of unacceptability set earlier in life to see if they are appropriate. The pursuit of realism should be an effort to foresee and forestall impediments to choice, not to foreclose options in their anticipation.

Problems to Diagnose

The major problem in circumscription is the unnecessary restriction of alternatives. The problem in compromise is the failure to come to grips with reality, either by ignoring it or failing to deal with it effectively. These problems may not be immediately obvious from the counselee's initial complaints, which can include indecision, anxiety, depression, and academic failure. The following five developmental criteria provide a systematic way of looking for such problems. The failure to meet a criterion signals one or more problems. Their nature

and source can be determined through questions of the following sort (as described in Gottfredson, 1986b). In large part, the sequence of five criteria is simply a way of organizing and augmenting the usual tools and processes of career counseling, including assessment of interests and abilities.

1. *The counselee is able to name one or more occupational alternatives.* If not, does the apparent indecision reflect an inability to choose among highly desirable alternatives or is it an unwillingness to choose among unacceptable ones? Does it result from lack of self-knowledge to judge compatibility, internal or external conflicts in goals, or perceptions that nothing suitable is actually accessible?

2. *The counselee's interests and abilities are adequate for the occupation(s) chosen.* If not, and if the individual is pursuing an option that portends probable failure or dissatisfaction, is this the result of misperceptions of self, compatibility, or accessibility, of external pressures (say, from parents), or perhaps of laudable ambition?

3. *The counselee is satisfied with the alternatives he or she has identified.* The choice may be entirely realistic but the counselee still be unhappy with it. If dissatisfied, does the individual consider the choice an unacceptable compromise of interests, sextype, prestige, family concerns, or what? What internal or external constraints might account for the compromise?

4. *The counselee has not unnecessarily restricted his or her alternatives.* Any narrowing of alternatives could reflect a conscious trade-off based on clear values. But if not deliberate and appropriate, was there a failure to consider suitable and accessible alternatives? Was that failure due to lack of knowledge of own abilities, unexamined stereotypes, lack of exposure to more compatible alternatives, or the like?

5. *The counselee is aware of opportunities and realistic about obstacles for implementing the chosen occupation.* The individual may be reducing the odds of getting and succeeding at the desired alternative by failing to seize opportunities or cope with obstacles. If so, is

the problem wishful thinking, lack of information, lack of planning, or what?

Information to Seek

The theory highlights the fact that circumscription and compromise are often taken for granted and their roots lost to sight. Preventing or possibly reversing such constriction requires exposing it and making its bases explicit in the counseling process. This can be as simple as asking why certain options seem to be out of the question or why some compromises are more acceptable or accessible than others. It also involves eliciting information concerning acceptable and preferred selves, both social (social standing, sex role) and psychological (personality). Tolerable level and effort boundaries, perceptions of barriers and opportunity, and the reference groups and family circumstances that influence counsees are all points of inquiry suggested by the theory.

Information to Provide

Challenging circumscription requires encouraging counsees to reexamine the full range of occupations in the economy. Challenging compromise and suboptimal choices requires encouraging counsees to obtain and examine more information about the accessibility of alternatives than they are normally able or inclined to do on their own. The counselor must therefore introduce counsees to considerable information about compatibility and accessibility but in a manageable form and sequence.

Exploration beyond the social space should come first. A one-page map of the occupational world can be the starting point for reconsidering and systematically exploring beyond the boundaries of one's social space (Gottfredson, 1985a). One such map (the Occupational Aptitude Patterns Map), which is based on empirical data about the aptitude requirements of occupations, arrays occupational clusters according to their similarity in field and general level of ability required (Gottfredson, 1986a). Outlining the full panoply of work

provides a structured method for probing why boundaries have been set as they have and whether they really are appropriate for the individual in question. Exploring perceptions of sextype and prestige is meant to reveal, not affirm, the impact of stereotypes on vocational choice. If the circumscription discerned in the process turns out to be inappropriate, then exploration can be refocused accordingly.

General information about the different occupational clusters on the map can be used to help focus intensive exploration on a few most compatible clusters. More specific information on compatibility and general information on accessibility can be used to narrow exploration to a yet smaller set of alternatives within those clusters. The narrower the set becomes, the more detailed the information about compatibility and accessibility can be. New information may concern the characteristics of occupations (such as the local availability of pertinent training) or of the counselees themselves. In addition to testing interests and aptitudes, it may be useful to encourage new experiences, such as volunteer work involving preferred occupations.

The process of exploration concludes with an emphasis on constructive realism. The counselee specifies the availability, requirements, and pros and cons of a small subset of "best bets" from which the individual identifies one best bet and several "backup" alternatives. Very importantly, the process includes developing strategies for enhancing the individual's competitiveness in obtaining the preferred option and succeeding at it. Individuals may be constrained by external realities, but they typically have more leeway than they realize or use. Constructive realism enhances opportunity.

Career Education Programs

Career education programs generally address development in Stages 2 through 4. Their common goal is to provide information about jobs and self. The theory suggests several guides in designing career education programs in the schools.

1. Programs should be sensitive to the mental capabilities of the age group. Younger students will not be able to handle abstractions about self and occupations that the older ones will.

2. Programs should introduce students to the full breadth of options but in a manageable way, as was discussed earlier.

3. Programs should display for youngsters their circumscription of alternatives so that its rationale can be explored.

4. Programs should be sensitive to the dimensions of self and occupations along which circumscription and compromise take place (sextype, social class, ability, and vocational interests) so that their role, positive or not, can be explored where appropriate.

Elementary School

The early grades should focus on exploring the full range of options and deepening knowledge of occupations, both to prevent undue circumscription of social space and to provide a sounder basis for later assessments of job-self compatibility.

Middle School

The middle grades should introduce the notion of deliberating about job-self compatibility. It is premature to expect such assessments, however, because many youngsters still have only dim perceptions of their more abstract qualities. Rather, youngsters should learn that they will continue to discover and develop their capabilities and interests in the coming years. The middle grades are a good time, however, to alert youngsters to the ways in which they have already begun to circumscribe their choices.

High School

The early high school years should focus on continuing to discover and develop one's interests and abilities, assessing their compatibility with different occupations, and thinking about priorities in making compromises. Issues of accessibility are introduced later and

become a focus of concern in the senior year as students plan for employment, training, or further education.

Examples

Lapan, Loehr-Lapan, and Tupper (1993) have developed a workbook based on the theory to help middle school students understand the ways in which they may have unnecessarily constricted their options. Students are encouraged to examine their perceptions of sex roles, self, and society so that they might explore more widely than they were otherwise apt to do. Hesketh and colleagues (Hesketh, Pryor, & Gleitzman, 1989) have also developed computerized guidance procedures that measure and display for adolescents and adults their social space, procedures that also reflect the theory's concern with making the bases of choice explicit so that they can be reconsidered.

Responsibilities

Counselors are often encouraged to be change agents. These calls are often prompted by concern over group disparities of the sort this theory is meant to explain. The theory has revealed complexities in accounting for such differences. To some extent, the differences result from voluntary choice, and to some extent they do not. For reasons not fully understood, people are complicit in reproducing the social order of their elders, which may or may not be to their own advantage. Whatever the source of people's self-concepts, and no matter whether they could have been otherwise, some aspects of self-concept come to form the enduring core of one's being. Others may be superficial and changed with relative ease and little psychological consequence but some not.

Counselors must therefore be cautious in assuming the role of change agent if that means attempting to change counselees' values or sense of self. Such attempts are inappropriate in the counseling setting unless directed at meeting the counselee's own particular needs, which are understood to come first. Promoting suc-

cessful career development will sometimes mean facilitating less traditional choices, sometimes more traditional ones. In all cases, however, it involves promoting strategic exploration and realism in choice. In all cases, counselees must be encouraged to clarify their own priorities because they will have to live with the consequences of their choices. Exploration and constructive realism can do much to free individuals from unnecessary circumscription and compromise.

The Case of Joan

Joan, whose case study appears at the end of Chapter One, seems to have had the misfortune of being born constitutionally prone to depression. She speaks of "barely surviving the present," being "trapped inside [her] own fear," "exaggerat[ing] the difficulty" of "even the slightest barrier," being "terrified" and "very anxious" over success and failure, feeling "a sense of despair and failure," a "wall of anxiety," and prolonged periods of "severe depression and anxiety" for which she received therapy and antidepressant medication for several years.

Joan seems to cope with her chronic anxiety by withdrawing from whatever provokes it. She rates solitude the highest of all values in the Life Values Inventory. Solitude is necessary, she says, to preserve the "boundaries of self." She also has sought refuge with boyfriends and family who, in urging her to take certain directions in her life, presumably relieved her of the anxiety of having to make her own decisions. Joan has at once chafed at and sought her parents' rigid control, itself apparently their way of managing their own anxieties. She mentions no one in her life currently, suggesting that she may have no close personal ties or support system.

While she constantly stresses the importance of independence, it seems to be the independence found in the freedom to escape from pressure, not the freedom to act—that is, to be free of challenges but not to be free to take them on. She simply "holds on" or "hopes" for a better job but does not take steps to find or create one.

When feeling pushed by a counselor to take action, she quits counseling. When she becomes dissatisfied with her job, she disengages herself. She even opts to be fired rather than quit a job. As she says, she is "paralyzed" and "very, very stuck." Indeed, despite her forty-six years, she is stuck at the Exploration stage of adult career development, as her Individual Analysis of Career Concerns confirms.

Joan's vocational problems seem to arise partly from and in turn aggravate her depression. While her self-knowledge is deficient, her fears prevent her from acting effectively on the knowledge she does have. Joan knows she has compromised her career aspirations. As she says, she has "paid a huge price in ignoring [her] real interests."

She has compromised both interest type and prestige level and in the process stalled any career development. Her assessed interests are in Holland's Artistic category, but she has taken primarily Conventional jobs. In Holland's hexagonal model of interests (Holland, 1992), Conventional work is the worst possible fit for an Artistic personality.

With regard to level of work, she complains that her jobs have been too easy for her, boring, and not "real" jobs. They are nothing she can "sink her teeth into intellectually or aesthetically." She got good grades as an undergraduate and apparently performed her jobs well when she liked the work. In short, Joan has taken jobs below her level of skill. Perhaps out of anxiety, she seems to have ruled as inaccessible—as above her tolerable-effort boundary—jobs that would signal the kind of "success" that she desires.

External validation is in fact important to her. In the Career Beliefs Inventory, she scores moderately high on "approval is important" and "desire to excel others." She also speaks to the counselor of wanting to "contribute and be validated," make a "contribution [that] is unique," and "provide a valued service."

Joan has frustrated her hopes for success and satisfaction through work by seeking a safe haven in Conventional jobs. Safety and ease—a "ticket to security"—is her recurrent theme, one reinforced by her family. Conventional work is probably safe in her mind

because it is traditional, plentiful, nondemanding, and readily available to capable women such as Joan. As her dream reveals, it is also the cage in which her fears have confined her. The self she has inadvertently implemented in employment is not one she can admire. Having just been fired yet again, she is "ashamed."

The irony—and perhaps the hope—is that she has actually done quite well in pursuing her interests avocationally. In activities off the job (freelance work, calligraphy), where career implementation is not an issue, Joan seems able to exercise her job-related capabilities and interests free of crippling anxiety. However, these accomplishments do not substitute for the "meaningful and enjoyable" work on which she would rest her sense of self.

1. *What additional assessment information is needed about Joan before proceeding with career counseling?*

Two hypotheses should be tested with formal assessments: that Joan is clinically depressed and that she has above average intelligence (and is thus capable of more challenging work). Information on Joan's more specific capabilities, both self-reported and actual, might also help. The former would reveal Joan's sense of self-efficacy at different tasks and the latter would demonstrate, I suspect, that she can do more than she grants. The Self-Directed Search could also be administered to verify that Joan's basic interests really are low for all themes except Artistic.

It is also essential to probe Joan's own understanding of her preferences, her capabilities, the factors blocking their implementation, her key goals and concerns at this stage of life and career, the constraints and opportunities she faces, and her social and financial constraints and sources of support. In terms of the theory, how does she assess compatibility and accessibility? How and why has she circumscribed and compromised her options? To what extent are her perceptions of self, jobs, their relation, and accessibility faulty, and to what extent might anxiety be responsible for any such distortion? For Joan, compatibility and accessibility must be examined with reference to her age, not just her stage of career development, because

the two are out of synchronicity. While not unusual for women, late establishment of a career is of particular concern for unmarried women. Has she in fact thought about retirement issues?

These questions can be explored with Joan by working through the five criteria outlined earlier (adapted for Joan's being out of phase in career development). With regard to Criterion Two (job-self compatibility), for example, why does she express interest in occupations like banker and paralegal? They are Conventional jobs, but the Basic Interest Scales of the Strong Interest Inventory (and her own commentary) indicate that she dislikes Conventional work. What is drawing her to it? Is it the security? Unexamined assumptions about herself or the work? Similarly, why does she express interest in Social occupations when she seems to have no basic interest in that work either? With regard to Criterion Four (no unnecessary restriction of choices), why has she ruled out of consideration virtually all work except Conventional? The discussion would involve occupations (say, in the Strong Interest Inventory) drawn from different sectors of the cognitive map of occupations.

This information-gathering process is not apart from, but is integral to, the counseling process because it is designed to promote self-understanding as well as lay the groundwork for exploration and implementation of alternatives.

2. *What is Joan's current status?*

Joan is at a critical juncture. She is still young enough to develop a career that will provide some satisfaction and security, but she can no longer afford to drift.

3. *What are the immediate and long-term concerns in career counseling with Joan?*

The short-term concern is to keep her from terminating counseling. The long-term concern is that her status continue to improve, not worsen.

4. *What strategies would career counseling with Joan involve?*

First, manage the depression. The cycle of anxiety, withdrawal, failure, and despair must be interrupted or Joan may not persist or

progress in counseling. Some of the new antidepressants might provide Joan some emotional relief, reduce her propensity to withdraw, and free some energy. Counseling can also stress the positive (such as her capabilities and unappreciated opportunities) and her resources in overcoming perceived obstacles (including the services mentioned below). She needs hope.

Second, gain more insight into Joan. Work with her to illuminate her hopes and fears for life and career. The search for insight begins with the discussion of the five criteria and continues indefinitely. Her experience and self-knowledge have been stunted, so selected experiences can be arranged as exploration and implementation proceed.

Third, facilitate exploration and constructive realism. Joan must develop a clear-eyed view of the options she does and does not have. She should probe the advantages and disadvantages of her alternatives. For example, is her best bet to look for a position that meets her needs for both satisfaction and security? Rather, might she want to consider taking a job, perhaps part time, while she builds up her freelance business?

Fourth, help Joan search out resources that can assist her in exploration and implementation. There are many relevant support groups and services. Consider, for example, groups formed for emotional support (some women's groups), job hunting, résumé writing, financial planning, and running a small business or consulting service. She would see that she is not alone, that there are many places to turn for specific kinds of information and assistance, that her task can be broken down into manageable pieces, and that she can in fact make headway through her own efforts. The immediate aim is to structure small successes as well as learning. The long-term aim is for Joan to develop the skills, confidence, and network of resources that will help her eventually to progress on her own.

Fifth, help Joan develop an implementation plan, including "best bets" and "backups." Which options are feasible as well as attractive? She has neither the taste nor the time for lengthy formal

training. She does, however, enjoy hands-on experiential learning. What can she do to enhance her competitiveness for the options she finds attractive or to redirect her efforts if some paths are closed off? The planning process needs to enhance her almost nonexistent resilience. Joan, more than others, needs contingency plans.

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