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The Career Transition Cycle: Antecedents and Consequences of Career Events

Reginald A. Bruce



**The Career Transition Cycle:
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13. ABSTRACT (Maximum 200 words) This research addressed the meaning of the career transition cycle for the individual and the associated adjustment that occurs. Specifically, the influences that role perceptions and characteristics of career events have on adjustment difficulty, eagerness, and strain experienced by individuals going through career events were investigated. Questionnaire data from 1,301 Navy aviators who either recently had gone through one of six types of career events (e.g., initial socialization, obtaining full membership, resignation, upward progression, lateral career moves, and retirement) or were about to go through such career events were analyzed. Louis' theoretical typology for the career events was supported.				
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FOREWORD

This effort was conducted within program element 0602233N (Mission Support Technology), project RM33M20 (Manpower and Personnel Technology), task RM33M20.06 (Career and Occupational Design). The purpose of the work unit is to develop prototypic models of unrestricted line (URL) officer career decisions that can be used to assess the impact of present and proposed URL career policy and practices upon those decisions and the officers' career activities.

This report was completed under the sponsorship of the Chief of Naval Technology (ONT-222). The research investigated the influences that role perceptions and characteristics of career events have on the adjustment process of individuals going through such events. Since a career is composed of a series of career events, it becomes a continual journey through the career transition cycle. This work was briefed to OP-130E2, OP-591, and NMPC-432 in April 1988 and is published in this form for archival purposes.

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SUMMARY

This research addressed the meaning of the career transition cycle for the individual and the associated adjustment that occurs. Specifically, the influences that role perceptions and characteristics of career events have on adjustment difficulty, eagerness, and strain experienced by individuals going through career events were investigated.

Questionnaire data from 1,301 naval aviators who either were about to go or had gone through one of six types of career events (e.g., initial socialization, acceptance as full members, resignation, upward progression, lateral career moves, and retirement) recently were analyzed. Using terms representing a combination of the magnitude/desirability of 20 career events common in naval aviators' careers, factor analyses supported Louis' theoretical typology of five career events (1980) and added a sixth category, earning membership in the organization, that accommodated another step in naval aviators' careers.

Next, a hypothetical model of career transition outcomes was tested and then refined. In the refined model, characteristics of the career event and present role perceptions accounted for significant amounts of variance in the transition outcomes (i.e., 29 percent of adjustment difficulty, 21 percent of strain, and 63 percent of eagerness toward the career event). Eagerness toward the event was influenced most by the degree to which the event was desirable, strain by the amount of assistance provided by the supervisor, and difficulty in adjustment by the ratio of personal gain to loss and the amount of change the transition required.

Finally, omnibus tests for moderation revealed that career transition phase (i.e., pre-event or post-event) and career transition type moderated relationships determining career transition outcomes. For example, role adjustment (i.e., how closely role requirements were met), was influenced more by supervisory support and less by role ambiguity in the post-event phase than in the pre-event one. However, supervisory support was significantly less influential on role adjustment during initial socialization and retirement transitions than during the other four events.

This research demonstrated that the cyclic perspective of career transitions is useful for examining difficulties in role adjustment and for predicting personal reactions to career events. The importance of superiors providing support to individuals who are adjusting to new roles was underscored. Also highlighted was the independence of two categories of personal reactions to career events: one's cognitive outlook toward the event and the level of strain one feels. Those individuals who adjusted more expeditiously to their new roles experienced less strain, and the individuals who perceived more control over their career events were more eager for the career events to occur.

Further research is needed to learn more about what traits of the individual, characteristics of the career events, and environmental factors mitigate or magnify the disruptive effects of career events.

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CHAPTER I

INTRODUCTION

Why Study Transitions?

The issue here is of the utmost pregnancy for it decides a man's entire career. When he debates, *Shall I commit this crime? choose that profession? accept that office, or marry this fortune?* --his choice really lies between one of several equally possible future Characters. What he shall become is fixed by the conduct of this moment. Schopenhaur, who enforces his determinism by the argument that with a given fixed character only one reaction is possible under given circumstances, forgets that, in these critical ethical moments, what consciously seems to be in question is the complexion of the character itself. The problem with the man is less what act he shall now choose to do, than what being he shall now resolve to become. (James, 1952, pp. 186-187)

Historically, career research stands in contrast with William James' conception of the individual. The goal of most previous research in the area of career theory has been to develop better ways to identify attributes of the individual and requirements of specific organizational vocations. Two assumptions underlie this line of research: (a) individual attributes (e.g., background, interests, and abilities) are rather fixed, and (b) it is possible to match these attributes to specific vocations and career paths. While James' perspective places too much emphasis on "choice" as the determining factor, it nonetheless suggests that careers emerge and develop out of the interaction between the individual and the particular features of the context within which the person is developing. What is needed is an open-systems perspective on careers that accounts for the interaction of the person and his or her social, political, economic, physical, and cultural milieu. This study proposes that careers and people develop and change through the interaction of a multitude of individual and environmental forces.

William James paints the picture of the individual as ever-changing and in flux with his or her environment -- at the hub of often opposing forces. This is illustrated by his own career. He embarked on a career as a painter at the age of eighteen, despite his father's strong disapproval. Six months later he inexplicably abandoned his artistic aspirations and turned instead to science -- the vocation chosen for him by his father. It has been intimated that the health problems plaguing James throughout most of his adult life were a direct result of the inner tension resulting from the abandonment of his vocational choice (Feinstein, 1983, 1984).

At the heart of this perspective is the idea that one must consider, at the very least, the immediate social environment within which an individual's career is embedded. An important notion associated with the study of individual behavior in organizations is the idea that people constantly seek to interpret, re-interpret, understand, and organize the world of their experience and that this enactment process inevitably alters their surrounding environment (e.g., Schutz, 1967; McHugh, 1968; Weick, 1979). People continually try to achieve a balance between their environment and their cognitions -- between their perceived environment and their preferred environment. Furthermore, they seek to maintain this equilibrium. With this as our frame for understanding the individual, we turn now to the premise posed by this study: We can better understand the dynamics of this person-environment interaction by studying points of discontinuity and change.

Much of what is known and investigated under the rubric of career theory is rather narrowly focused on specific career decisions. The manner in which such decisions are made and the impact of such decision processes require additional research. This study will address these dynamic processes through the phenomenon of *career transition*, its meaning for the individual, and the resultant adaptation that may occur. By "its meaning for the individual," I refer to the impact of the constellation of changes that is felt by the individual. The career transition epitomizes the dynamic interactional

process that occurs throughout a career. In fact, it shall be demonstrated that transitions are not unique career occurrences. In many ways, careers are best understood as ongoing change processes.

Acquiring the first real job, getting that "hoped for" promotion, voluntarily resigning, or facing upcoming retirement -- each of these events represents significant transformational states of one's job and career. As stated above, previous research has addressed particular career events (e.g., job entry, promotion, mid-career change, turnover, and retirement). This line of research has led to the development of models that predict the occurrence of such events. Career transitions surrounding these events have remained relatively unexplored.

In addition, research using specific career events as dependent variables has been only partly successful in developing predictive models of career behavior. For example, many turnover studies (using alternative models of behavior) account for no more than 15 to 25 percent of the variance in turnover (Steel and Ovalle, 1984). Attempts to describe how, and in what ways, the relevant factors and processes effecting leaving behavior might differ for different individuals with different backgrounds and in different contexts are absent from such research. Nonetheless, the hunt for a universal causal ordering of variables continues in such career research efforts.

Research is needed to look not only at the antecedents of various career events, but also at how these events are anticipated, interpreted, experienced, and managed. Additionally, research is needed to examine the components of successful and unsuccessful career transitions. What would be the potential benefit of such research? The more we understand the nature of career transitions, the better we can assist both individuals and organizations to better manage career transitions and to adapt more quickly and effectively to career changes.

This study presents a general framework of career transitions as a process of adaptation and adjustment within a context of multiple individual factors and situational

forces. The models that subsequently emerge integrate and expand upon previous research from the areas of role theory, career theory, job stress and strain, occupational socialization, life-span development, and organizational development. The purpose is to specify the determinants of career transition outcomes.

Defining the Domain

Before proceeding, the terms career, career event, and career transition must be defined. An examination of the transition experience will follow. It will be demonstrated that career transition is in that rather small class of variables that Mohr (1982) labels as "durables," that is, theoretical elements that have constant meaning across actors and are "relevant and significant to the human condition in all places and at all times" (p. 16).

What is a career? The ancient Greeks used the term to refer to the running of a race (Van Maanen, 1977b). This idea lingers on with our contemporary conceptualization of career as somehow indistinguishable from the conscious and deliberate efforts of individuals to acquire the skills, experiences, and personal contacts needed to move up within their chosen field or organization. Defining "career" as an upward progression within a hierarchy, however, is misleading. Many people clearly have careers, albeit the amount of upward progression available to them may be very limited.

Following are some of the ways in which career has been defined:

. . . the sequence of occupations, jobs, and positions engaged in or occupied throughout the lifetime of a person (Super & Bohn, 1970, p. 113);

. . . an accumulation of role-related experiences over time (Louis, 1980a, p. 330);

. . . a lifelong progression of jobs and occupations (Katz, 1981, p. 4);

. . . the sequence and combination of work and nonwork roles held by an individual over time (Mihal, Sorce, & Comte, 1984, p. 95);

. . . an individual's self-concept and its implementation in life style as one lives life and makes a living (Pietrofesa & Splete, 1975, p. 4);

. . . the individually perceived sequence of attitudes and behaviors associated with work-related experiences and activities over the span of the person's life (Hall, 1976, p. 4);

. . . the self-mediated progress through time of transactions between person and environment (Kolb & Plovnick, 1977, p. 85); and

. . . a set of stages or a path through time which reflects two things: (a) the individual's needs, motives, and aspirations in relation to work, and (b) society's expectations of what kinds of activities will result in monetary and status rewards for the career occupant. (Schein, 1977, p. 52)

It can be seen that career definitions fall into two major classes: (a) career as circumscribed by the roles assumed (e.g., Super & Bohn, 1970) or (b) career as defined through the cognitions of the individual under question (e.g., Hall, 1976). In a very real sense both perspectives are probably correct. This discrepancy helps explain why individuals often attach quite different meanings to what outwardly is the same career event. As Van Maanen, Schein, and Bailyn (1980) noted:

It is important to distinguish between those issues that have to do with a career as defined externally by societies and organizations, and those that have to do with a career as it is perceived and lived internally. This "internal" career evolves from the particular combination of forces, out of the many possible, that impinge on a person at a given point in time . . . Because of the uniqueness of these forces, it is obvious that people will experience the same external career events (such as a raise, a promotion, or a geographical move) in very different ways. (pp. 6-7)

The converse may also hold true -- people experience different career events in similar manners (Louis, 1980a). Suffice it to say that *a career is a connection of associated work roles that have meaning for the individual and that span some period of time*. A career is an accumulation of experiences (i.e., career events) that is given meaning within an individual's life and organizational roles. Furthermore, a career is more a passage through time than through the various rungs of an organizational ladder.

Career events are changes in the work role demands of the individual. Such changes may be brought on by external factors (e.g., geographic relocation) or by internal changes (e.g., modification of personal values). Career events frequently occur at a

single point in time. One of the more telling features of a career is when a schism occurs in the career passage at points of career events. Such a disturbance results in a career transition.

Literally, transition means to pass from one stage to another. The above career definitions, however, demonstrate that it may be futile to attempt to reach agreement on the exact stages that an individual may have passed through. Typically, a career transition is assumed to be a change of employers, yet much more than this is encompassed by the term.

Van Maanen (1977a) described career transitions as "breakpoints" in which "established relationships are severed and new ones forged" (p. 16). Others have viewed career transitions as: including all instances of "status passages" (Glaser & Strauss, 1971), any kind of job change that entails task content and/or task context changes (Brett, 1984), breaks from normal role behavior (Brett, 1984), intracompany and intercompany movement (Kasl, 1978), and other changes in employment status (e.g., unemployment, job entry, relocation, promotion, demotion, retirement, reemployment). Louis (1980a) suggested that career transitions also include changing attitudes toward a role already held (i.e., altering a subjective state).

As defined above, though, nearly anything an individual does in his or her career could be considered a transition. It is imperative that we distinguish between the actual career event (which occurs at a single point in time) and the process that unfolds (over time) before and after the event. This holds true particularly when one considers the dynamic nature of individuals. Who is to say that all forms of promotion are considered as transitions -- either by the employee or by the organization? Certain organizations routinely promote their employees after a certain period of time. Although salary may increase as a result of the promotion, status and job responsibilities may change only slightly, if at all. If everyone concerned has the expectation prior to the promotion that

such promotions will routinely occur, can we say that a career transition has occurred? Has there been a passage or break from normal routine? Perhaps, but not always.

To understand career transitions simply as changes in one's career, without considering the real or perceived consequences of the change, skirts the essence of what a career transition is. For the purposes of this study, *a career transition is defined as the period of adjustment prior to and following an identifiable career event.* A career transition covers that period of time during which an individual's career is out of equilibrium. It is a social-psychological process that surrounds a career event.

The Structure of Career Transitions

In the ongoing flux of life, man undergoes many changes. Arriving, departing, growing, achieving, failing -- every change involves a loss and a gain. The old environment must be given up, the new accepted. People come and go; one job is lost, another begun; territory and possessions are acquired or sold; new skills are learned, old abandoned; expectations are fulfilled or hopes dashed -- in all these situations the individual is faced with the need to give up one mode of life and accept another. (Parkes, 1972, pp. 13-14)

Although much has been written in recent years about mid-life crisis and mid-life career changes (e.g., Levinson, Darrow, Klein, Levinson, & McKee, 1978; Lynch, 1979; Perosa & Perosa, 1983; Robbins, 1978), retirement planning and decision making (e.g., Gratton & Haug, 1983; Parnes, 1981), and about initial career socialization (e.g., Feldman, 1976; Frese, 1982), relatively little attention has been given to the many other transitions, both large and small, that have become commonplace in contemporary careers. Additionally, there have been few systematic attempts to describe the human experience of career transition. As a result, there has been little progress toward integrating what has been written in these areas into a broadly applicable theory of career transitions.

Status Passages

Perhaps the first thorough investigation of the structure and properties of transitions was conducted by Glaser and Strauss (1971). Their work delved into "status passages," that is, changes in one's social position (e.g., graduating from college, changing jobs, or failing to be granted tenure as a university professor). They also sought to develop a *formal theory* of status passages (Glaser & Strauss, 1967). The text provides a rich and highly integrative discussion of movement through social structures that draws upon sociological, anthropological, and psychological examples.

According to Glaser and Strauss (1971), status passages can be classified on a number of dimensions. A passage may be: (a) scheduled or unscheduled, (b) inevitable or uninevitable, (c) desirable or undesirable, (d) reversible or irreversible, (e) repeatable or nonrepeatable, (f) voluntary or involuntary, (g) controlled by the person undergoing the passage -- or not, (h) of high importance to the person -- or not, and finally, (i) described as having taken a certain length of time. How people interpret and what they do in response to these passages varies depending on the dimensions of the particular passage.

The examples provided by Glaser and Strauss demonstrate that status passages are constant movements through time rather than simple changes of positions (as, for example, walking through doors takes an individual out of one room and into another). The central concept of transition as presented by Glaser and Strauss is that one moves from one status (i.e., one social position) to another status (i.e., a different social position) through a *transitional status*. A transitional status is that period of time between two statuses. Therefore, this theory of transitions may be thought of as:

Status → Transitional Status → Status

Furthermore, Glaser and Strauss' treatise on transitions indicates that people often undergo many passages concurrently. For example, many people graduate from college, start new jobs, and begin married life within a few short months. While these passages may be unrelated, they typically compete for time and energy -- often causing considerable personal strain.

Finally, while Glaser and Strauss do not provide empirical support for their findings, this was not their objective. What their work provided was a firm understanding of the complexity of transitions and an indication of the need for further investigation into the structure of transitions.

Transitions as Upheavals

Adams, Hayes, and Hopson (1976) present a comprehensive examination of the stresses generated by the rapid changes of modern living (e.g., death, marriage, birth, divorce, career change, geographical change, and work change). Briefly stated, they view a transitional event as an incident in which there is a personal awareness of a discontinuity in one's life and one from which new behavioral responses are required because the situation is new, or the required behaviors are novel, or both.

Their model (Figure 1.1), which is rather phenomenological in character, identifies seven phases through which most transitioners pass: (a) immobilization, or a sense of being overwhelmed, of being unable to make plans, and of being unable to understand; (b) minimization, or denial that the change even exists; (c) depression, as they become aware that they must make some changes in the way they are living; (d) accepting reality, as they "let go" of the past (pre-transition) situation; (e) testing new life styles and new ways of coping with the new situation; (f) searching for meaning to understand what all the activity, anger, stereotyping, and so on have meant; and finally, (g) internalizing these new found meanings and incorporating them into their behavior (Hopson & Adams, 1976). This general model of transitions closely parallels the

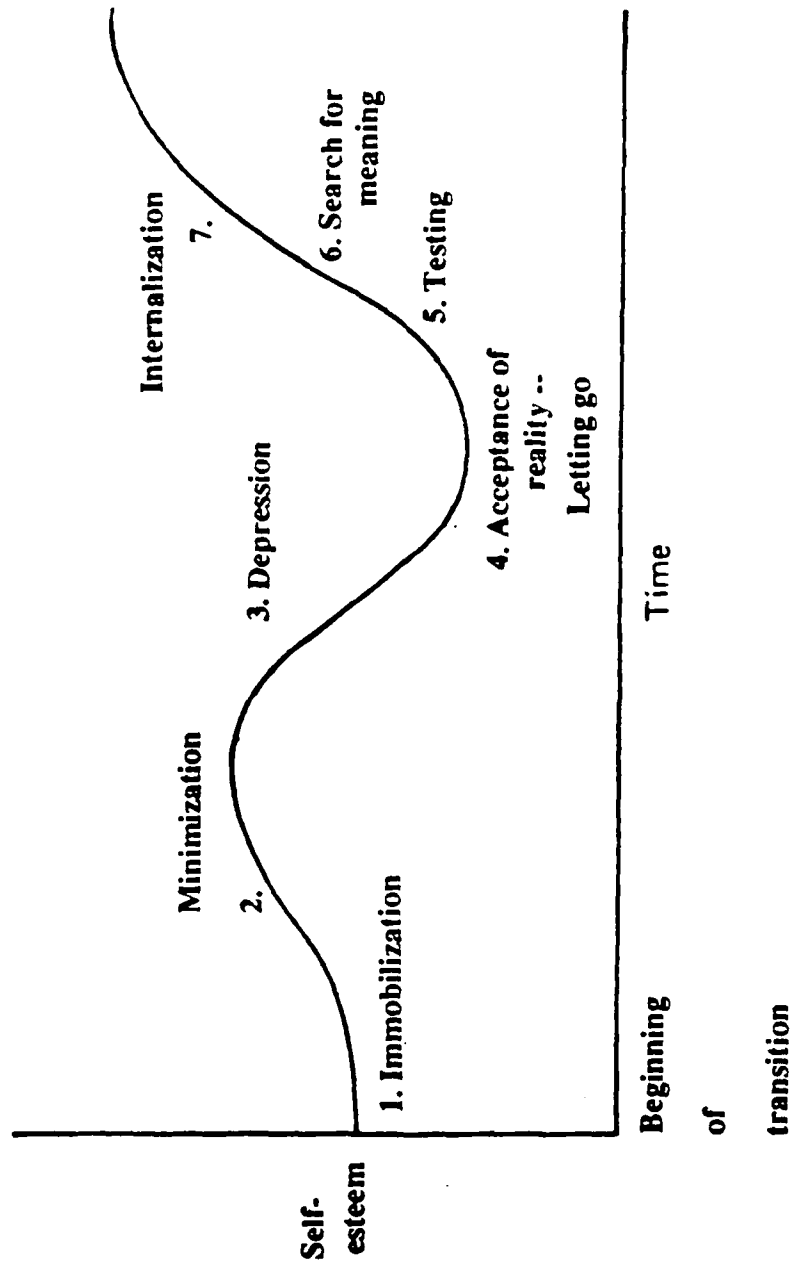


Figure 1.1. Emotional response during transition (Hopson & Adams, 1976).

reaction cycle people go through upon learning they are terminally ill (Kübler-Ross, 1969).

The principal feature of this model is the adjustment to distress brought about by a change in one's life. It must be noted, however, that this model was the result (at least initially) of content analyses of the reports of approximately 100 attendees of a workshop on coping effectively with transitions. Thus, a selection bias could help to explain the highly emotional complexion of the model. It would be prudent, as a result, to use caution when making generalizations from the specifics of this model.

Experiential Learning and Transitions

Pinder and Walter (Pinder, 1977; Pinder, 1981; Pinder & Walter, 1984) have examined closely one particular type of career transition -- the transfer. They proposed that the transfer experience provides an opportunity for much personal change and development. On the basis of experiential learning theory, they speculated that change and development occur as a result of cognitive, affective, and psychomotor/behavioral learning (Walter & Marks, 1981). Whether or not transfer experiences produce change is dependent on the intervening change mechanisms of experiential learning. Thus, it is critical, they argued, to gain an understanding of the processes by which experiences change or influence people.

Pinder and Walter (1984) delineated twelve change mechanisms -- ways in which individuals interact with transition experiences to facilitate learning (e.g., assimilation of the new social structure, restructuring the job or role, and social support). Depending on the effects of these change mechanisms, personal development may be fostered or obstructed.

Finally, Pinder and Walter (1984) offered a number of hypotheses regarding the potential impact of transfers on employee development. Those with a direct bearing on the present study were:

1. Career transitions accompanied by transfers entail higher levels of activation (i.e., anxiety) than do career transitions not accompanied by transfers.
2. Promotions accompanied by transfers entail fewer problems of credibility for the employee than promotions not accompanied by transfers.
3. Transfers requested by an employee result in greater developmental impact than transfers initiated by someone other than the transferee.
4. The net level of activation (i.e., anxiety) experienced by a transferee is inversely related to the types and amounts of support provided by the organization and by members of the person's new role set.
5. The developmental impact of a transfer will vary inversely with the degree of coercion the employee feels to accept the transfer.
6. In general, career transitions accompanied by transfers have greater developmental impact than career transitions not accompanied by transfers (pp. 213-215).

Although this experiential learning framework for understanding career transitions has received little empirical validation, it does appear to offer some increased understanding of whether one career event (i.e., transfer) will be successful or not (e.g., lead to personal development).

Developmental Passages

Levinson and his colleagues (Levinson, Darrow, Klein, Levinson, & McKee, 1978) formulated a theory of life change and development based on the notion of passages through major life periods. According to their theory, a transition is a boundary zone between two states of greater stability. These periods of stability are hypothesized to be qualitatively different in character from one another. On the basis of clinical interviews with 40 men, four sequential life periods were identified: (a) childhood and adolescence, (b) early adulthood, (c) middle adulthood, and (d) late adulthood. Each of these periods lasts from 20 to 25 years and is bridged to the subsequent period by a four to five year transition period.

During these transition periods, individuals question and reappraise, explore various possibilities for change in the self and in the world, and move toward commitment to the crucial choices that will form the basis for a new life structure in the ensuing period of stability. Furthermore, a transition is a time of termination. Much must be given up, rejected, or renounced for there to be stability in the new period. As such, this theory underscores the crisis aspect of transitions (much as does the Adams et al., 1976 framework).

A transition period begins at the onset of the new life period. A transition period ceases when the person "feels" adjusted to the life change -- when there is acceptance of the new state and readiness to get on with life. As Levinson et al. wrote:

A transitional period comes to an end not when a particular event occurs or when a sequence is completed in one aspect of life. It ends when the tasks of questioning and exploring have lost their urgency, when a man makes his crucial commitments and is ready to start on the tasks of building, living within and enhancing a new life structure (1978, p. 52).

This theory proposes the following sequence of events during life change:

Old Structure ➡ Transitional Period ➡ New Structure

This theory also suggests that change is not a departure from the normal course of events in life, but that it is an ongoing concern. At the same time, because of its sole focus on major life periods, this theory falls short in its attempt to emphasize the role of transitions in daily life.

Nonetheless, there are two facets of this developmental-passages framework that may be applied directly to the formulation of a theory of career transitions. First is the notion of stability interspersed with periods of change. In the previous section, we defined careers as "a connection of associated work roles." Just what is it that "connects" work roles? The answer can be found in Levinson's theory -- transitional periods. Work

roles are those comparatively stable periods of time in an individual's career. Bridging these stable periods are career transitions. Of course, change and development occur within established work roles as well as during transitions. This is an area not sufficiently accounted for by the theory of developmental passages.

Second, this theory of development alludes to some of the social-psychological processes that may occur during career transitions. The three components of the transitional period mentioned above -- (a) questioning and reappraising, (b) exploring avenues for concrete change, and (c) moving toward commitment to the new stable structure -- are manifest also during career change. These processes have both a cognitive facet as well as an emotional one. Individuals not only weigh alternatives and make decisions when they are faced with flux in their careers, but also must part with their former ways of comportment and originate new behavioral patterns. Moreover, this transpires (a) within a context of other persons, (b) with an accumulation of previous experiences and events, and (c) in an organizational system with certain rules and doctrine.

It is possible, therefore, to rephrase Levinson's theory to apply to career theory. Such a reconceptualization provides a cyclic perspective of career transitions. At the start of this cycle is *career stability*. This is the state of relative calm in the career when there are no major changes and when the individual is maximally productive in the work role. This is the period that can be considered the "old life structure." It is the status quo of a career. Changes occur throughout any career; the periods of stability will cease. Although Levinson's theory does not address day-to-day changes, it does address the occurrence of major shifts in the role. Such a shift, or *career event*, is a break from the normal course of the role (e.g., promotion, job change, retirement). As a result of this career event, a period of social-psychological adaptation occurs. During this period, the individual adjusts to changes brought about in the career and initiates changes (either in self or in the role) to better fit with the new state (i.e., the new career state brought about

by the career event). This period of adjustment can be considered a period of *transition adaptation*. After the individual has adjusted to the changes brought about as a result of the career event, *career stability* is once again attained. This becomes the state of the career until the next career event is reached and the cycle begins again. Thus, a Levinson view of career transitions would likely posit the following sequence:



Applying Levinson's framework to career transitions instead of to major life transitions appears viable until one realizes Levinson focused on but four major life periods. Portions of this framework need to be adapted in light of the fact that career changes are much more frequent and often less traumatic than the four life changes Levinson postulates. In even the most stable of careers, many more changes occur (e.g., job entries, promotions, geographic moves, lateral transfers, resignations, early retirement, retirement, etc.). Although we may be unprepared for the major life shifts Levinson discusses, most individuals have experienced many career variations and changes and are able to *anticipate* career events before they occur. In anticipating the career event, disruption that might result can be minimized. This anticipatory adjustment period may be a result of prior learning. As Pinder and Walter (1984) suggest, the more an individual has changed, the more that individual learns to change. Furthermore, as is shown in the next section, examining this period just prior to the career event is critical for understanding the dynamics of career transitions.

The Transition Cycle

In contrast to most other perspectives toward behavior in general and toward careers and life-span development specifically, Nicholson (1984, 1987) presented the central tenet that change, through the core mechanism of transition, is the norm for any

open system, while stable equilibrium is the exception. Change is a constant. Furthermore, while much may be lost as a result of change, there is a corresponding opportunity for considerable gains to be made. At the heart of this recently developed theory of transitions is the transition cycle (see Figure 1.2).

According to Nicholson (1987), achieving a state of readiness for an upcoming event or change is the core task of the *preparation* stage -- the period prior to the point of change. Despite these preparations, the *encounter* stage (those first few weeks after some event or change) brings with it new and unexpected experiences. The individual's central task during this period is to meet the challenges of sense-making and exploration. The *adjustment* stage is that period during which a consonant relationship between the individual and his or her new environment is achieved through accommodation and assimilation. Finally, the *stabilization* stage is that period during which a steady state is achieved after successful adjustment. The goals of this last stage are sustained performance and personal effectiveness. The stabilization phase continues until the next preparation period begins. Therefore, according to Nicholson there are four recurrent stages that all individuals traverse in cyclic fashion. The length of these stages varies from person to person and from transition to transition.

Nicholson (1987) hypothesizes that each of these periods has different pitfalls and remedies. During preparation, people may feel fearful, unready, or reluctant to change. To counter such disabling reactions, Nicholson recommends that to be forewarned is to be forearmed. Realistic job previews (Wanous, 1980) and systematic self-appraisals (Herriot, 1984) are two ways that have been shown to help overcome possible problems during this stage.

At the encounter stage, the shock of an extreme event can bring rejection and regret resulting in a plethora of defensive coping strategies. To minimize chances for negative experiences during this stage, individuals need a climate of support, freedom to experiment in their new role or setting, and a map of where this new role fits within the

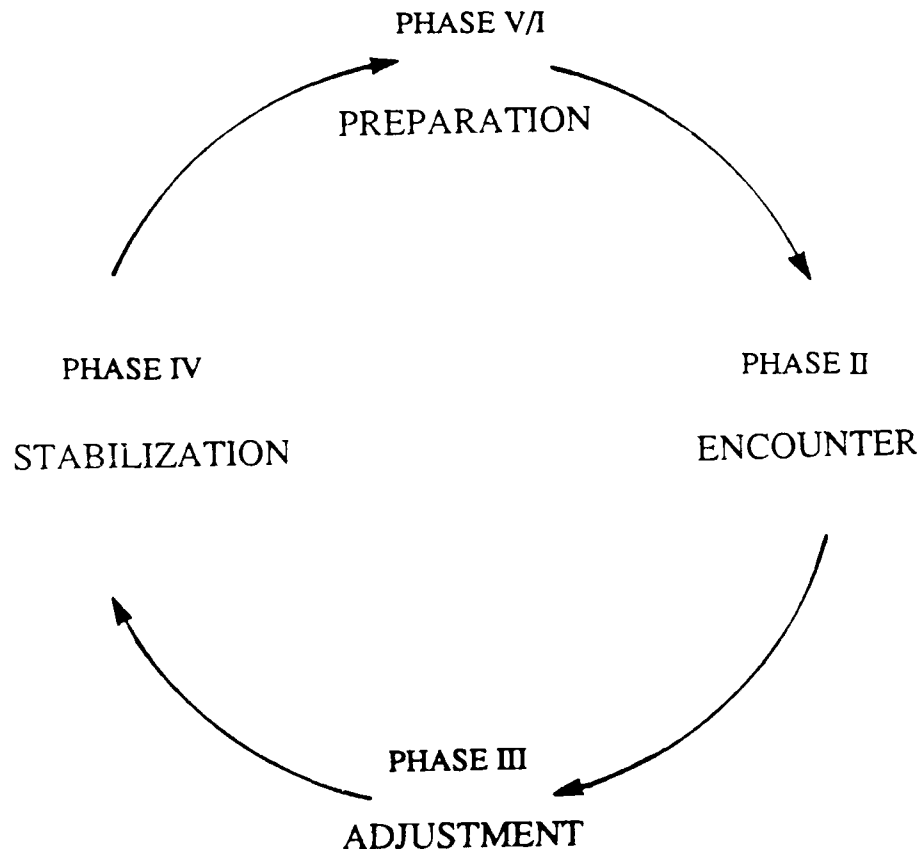


Figure 1.2. The transition cycle (Nicholson, 1987).

formal and informal structures of the organization. Nicholson adds that, unfortunately, such a map of an organization is rarely present.

In adjustment, early success in the new role is important. As a result, it is imperative that performance feedback be swift and reliable. It is critical to provide favorable feedback, if appropriate, and to correct performance problems as they occur (Peters and Waterman, 1982). Therefore, supervisory style and support are primary determinants of success at this stage. Furthermore, the presence of a mentor can do much to facilitate adjustment.

Once through adjustment, the goal is stabilization. In this stage, successful transitioners monitor changes in the environment and make continual adjustments to maintain high performance. In addition, on-going performance reviews and self-appraisal help to prepare the individual for the onset of the next transition. However, Nicholson states that if the individual never develops compatibility with his or her new environment, the individual never passes into stabilization. As a result, a "failure syndrome" may result. The individual who is frustrated in the present situation, is not motivated in the next preparation stage. Thus, he or she will not be ready to encounter the subsequent career event and a series of unsuccessful transitional stages may ensue.

The theory of transitions that Nicholson developed supports the proposition that the underlying dynamics of social processes are revealed principally at points of discontinuity and change. Furthermore, the effective handling of these transitions lies at the heart of sound human resources management. The transition cycle implies that role changes are: (a) continual, (b) interdependent, (c) disjunctive, (d) opportunities for personal development, and (e) potential organizational change mechanisms.

According to Nicholson, we are all in at least one transition cycle at all times. People begin new jobs, are promoted, change locations, retire, and so on. It is a rare individual in the United States who graduates from high school or college and takes a job at one company for life. While this is common in Japan (Rohlen, 1974), here the

inducements to move on often outweigh the reasons for staying. Coupled with job changes are the many other career events that evoke the transition cycle. Even in the case of plateaued careers where upward progression has all but ceased, other transitions occur. Learning to cope with a plateaued career or considering employment elsewhere are two common reactions. The unemployed also may undergo transition -- from unemployment to employment (Kaufman, 1982; Vinokur & Caplan, 1986). Consider that at any one point in time an individual may be undergoing several different transitions and you begin to sense the complexity of the transition cycle. Furthermore, when one transition concludes, the cycle does not cease. What is most evident from the transition cycle is this: The stability at the conclusion of one transition is simply the staging-point for the next transition.

The continual nature of transitions also highlights shortcomings in prior perspectives. While change is perpetual, it is not necessarily good or bad. Earlier views of transitions (e.g., Hobson & Adams, 1976; Levinson et al., 1978) magnified their disruptive and painful qualities. While many transitions undoubtedly engender unhealthy properties, Nicholson demonstrates that with so much change occurring, it is a marvel that so little chaos results. While transitions continue throughout our lives (from birth until death), most people are proficient in effectively coping with these change processes.

The second important implication from Nicholson's presentation of the transition cycle is the notion of interdependent transitions. What occurs during one stage in the transition has repercussions for what occurs during the next stage or in subsequent cycles. The "failure syndrome" mentioned earlier and its antithesis, the "success syndrome" (Schein, 1978), are extreme examples of the relationship among successive transition stages. Much has been written about the importance of making favorable first impressions for job entrants (e.g., Derr, 1986). Since initial impressions are formed during the encounter stage, unfavorable impressions might lead to problems during initial

adjustments to the job -- thus preventing proper stabilization from occurring. Such a scenario sets the stage for the onset of a "failure syndrome."

The four stages of the transition cycle are presumed to have their own distinctive characteristics and concerns. During stabilization, people focus on the task of performing on the job and developing relationships. During preparation their concern turns toward developing expectations about the upcoming change. At encounter, people must cope with the change event and the emotions it evokes. It is at this stage that sense-making occurs (Louis, 1980b). Van Maanen (1977a) describes this process as "discovering a theme." This refers to developing a notion of where one is going in his or her career. During the final stage, adjustment, transitioners must make changes, either in themselves (i.e., through assimilation) or in their new roles/situations (i.e., through accommodation). The disjunctive characteristic of transitions implies that processes that expedite one aspect of the cycle might hinder other phases of the cycle. For example, the strategy of gathering extensive data and information might help people going through preparation. On the other hand, such a strategy might impede individuals going through adjustment. There comes a time when one must stop searching and act.

During the adjustment stage, there may be a great deal of organizational change via the "role innovative" behaviors of new job incumbents (Schein, 1978). Nicholson (1984) suggests that such change occurs when the person undergoing transition exhibits proactive behaviors intended to better match his or her needs, abilities, or identity with the new role. This strategy of role development is a tacit form of organizational change and may trigger major shifts in organizational ideology and practice (Starbuck, Hedberg, & Greve, 1977). When the individual does not actively change the new role or setting, adjustment must occur by the individual altering his or her frame of reference, values, or behaviors. A career transition is a time of exploration and experimentation that often leads to the betterment of both the individual and the role (Brett, 1984; Nicholson 1984, 1987; Pinder & Walter, 1984).

Finally, Nicholson (1987) put forth nine dimensions of transitions: (a) speed (i.e., how long the cycle takes to occur), (b) amplitude (i.e., how radical is the change), (c) symmetry (i.e., how long does it take to adjust), (d) continuity (i.e., how similar is the new state to the old state), (e) discretion (i.e., how much control the individual has over the transition), (f) complexity (i.e., how many adjustments are required), (g) propulsion (i.e., how the transition started), (h) facilitation (i.e., how much assistance there is during the transition), and (i) significance (i.e., how important is the transition to the individual). He postulated that any one career transition could be characterized by a profile across these dimensions. In the following section it shall be shown that, while these factors are important, their importance rests more with their ability to moderate the unhealthful consequences of career transitions than in characterizing change *per se*.

Summary -- The Career Transition Cycle

Lewin (1951) described social change as a three-step procedure of unfreezing, moving, and refreezing. It has been shown that, at an individual level, career events also provide occasions for unfreezing. In response to the changes (occurring or anticipated) brought about by the new role or setting, people adapt (Biddle & Thomas, 1966). This adaptation process is a career transition.

Adaptation is the act or process of fitting. *Transition adaptation is the process that brings the objective realms (skills and abilities) and subjective realms (cognitions and attitudes) of the individual into synchronization with the new work role or job setting -- resulting once again in career equilibrium.* Thus, careers consist of periods of relative stability interspersed with periods of change surrounding career events. People respond to such change by acting to reduce the uncertainties brought into their lives.

Initial perspectives on the structure of career transitions suggested a repetitive, three-phase, linear process:



This view of career transitions implies that uncertainty occurs only after the career event has taken place. However, it was suggested that people often begin to anticipate career events before they actually occur. Furthermore, this anticipation brings with it uncertainty about the upcoming event and behavioral requirements for the individual undergoing transition.

The latest perspective (Nicholson, 1987) presents a four-phase cyclic paradigm of the structure of career transitions. Each of these four phases is essentially a period of adjustment to change. The preparation phase is that period of adjusting expectations and addressing one's reluctance to change. The encounter phase is a period of adjusting to the unexpected experiences brought about by the career event. The adjustment phase is that period of adaptation during which actions are taken by the transitioner (i.e., assimilating and accommodating) to eliminate disruption brought about by the change. Finally, the stabilization phase is that period during which the transitioner makes adjustments to maintain high performance.

These perspectives on the structure of career transitions have their respective merits and shortcomings. While the cyclic notion of transitions underscores the fact that career changes are unending, it never distinctly marks when the career event occurs nor does it provide for periods of stability (i.e., periods when the individual does not have to be adjusting). The linear perspectives on career transitions, on the other hand, mark the point at which the career event occurs (i.e., at the point where career stability ends), but do not acknowledge the anticipatory cognitions and experiences that result in adjustment prior to the actual career event.

An integrative perspective toward the structure of career transitions is imperative to provide a veridical framework through which to understand and to study career

transitions. Such a perspective should highlight the dynamic and cyclic nature of career transitions, albeit it should also underscore the reality that people strive for stability -- or at least the sense of stability.

What is the structure of the typical career transition? Based on what has been presented in earlier studies, we can propose that a career transition begins when the individual first recognizes that a career event will occur. This recognition initiates a period of *career event preparation* during which the individual deals with his or her reluctance to change, develops expectations for the upcoming career event and new career state, and undertakes actions to smooth over disruptions that might result from the career event. At some point the *career event* occurs. Although this occurrence could transpire over some period of time (e.g., taking two weeks to drive across the country to a new job location), most often it is possible to identify almost the exact moment at which the career event transpires. As a result of the career event, a period of *transition adaptation* ensues. During this period of adaptation, the individual copes with tribulations brought about by the career event, explores possibilities for personal change and environmental change (i.e., accommodation or assimilation), and modifies cognitions to increase consonance with the new career situation. At some point, the transitioner "feels" adjusted to the new career situation indicating a state of *career equilibrium* has been achieved. This state of equilibrium continues to be the status quo until the individual anticipates the occurrence of a new career event. This is the general structure of the career transition cycle (Figure 1.3):

Career event preparation sets the stage and prepares the individual for a career event. The career event leads to a period of transition adaptation that, if successful, results in career equilibrium. Career equilibrium exists until the next career event is anticipated and the cycle begins again.

As presented, the general career transition cycle does not suitably explain every career transition. There are two primary variations in the cycle. Sometimes a career event occurs without warning and the career event preparation stage is bypassed. Sudden plant closings, serious illness or accidents, dismissals, and layoffs are some of the more

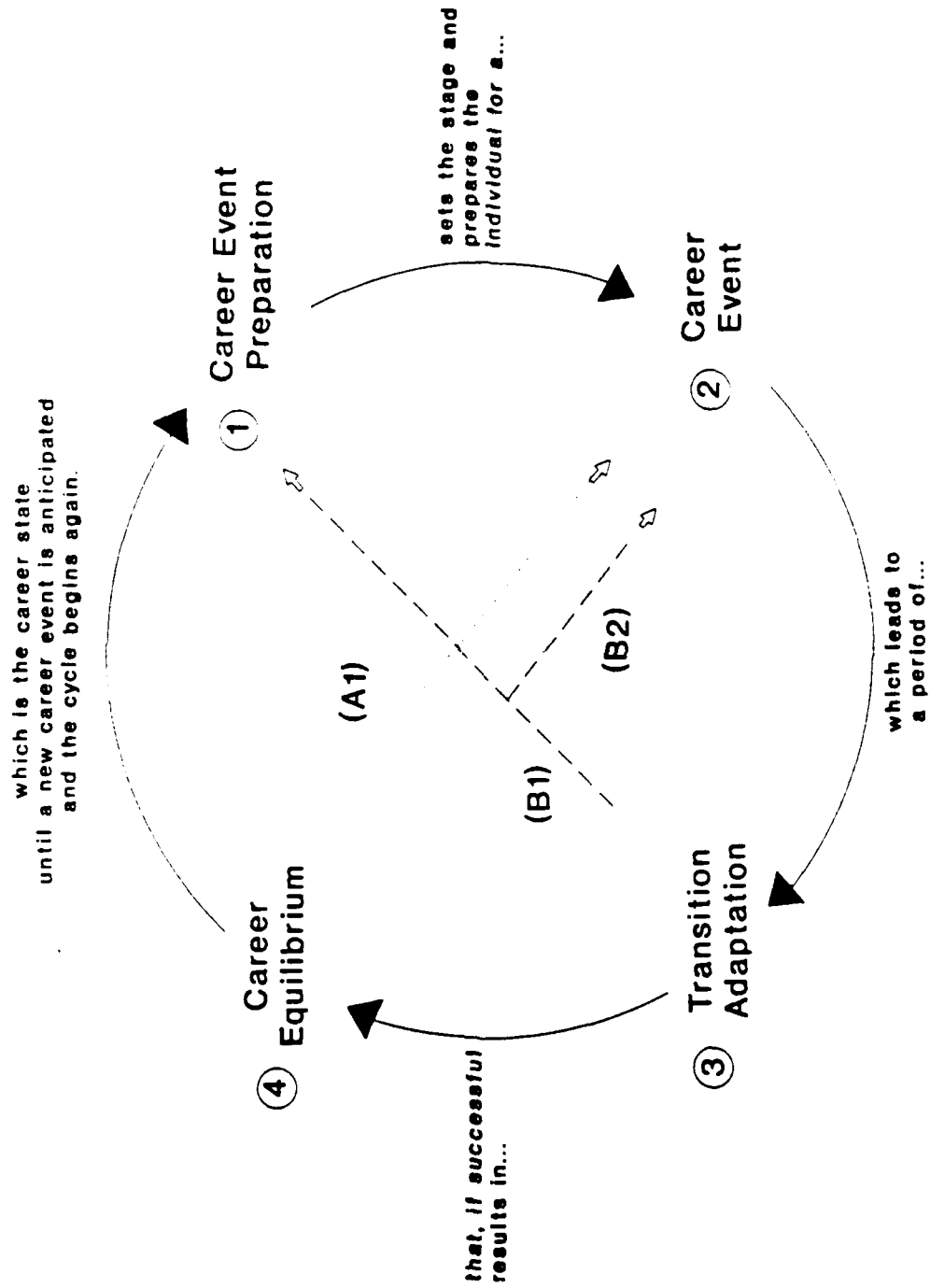


Figure 1.3. Portrayal of the career transition cycle.

visible examples. Furthermore, individual differences exist in the ability to scan one's environment for upcoming change. Some people are not adept at anticipating future career events. Regardless of whether lack of transition preparation is due to external or internal factors, the onset of the career event may be the first sign to the individual that a career transition is evolving (Path A1 in Figure 1.3). Moreover, as shall be demonstrated later, the predictability of a career event is related to subsequent levels of personal disruption resulting from the event. It may be that the absence of sufficient career event preparation is the reason for higher levels of disturbance.

The second major exception to the career transition cycle occurs when transition adaptation is not successful in re-establishing career equilibrium (see Paths B1 & B2 in Figure 1.3). Sometimes, in spite of all efforts, the individual is not able to satisfactorily meet the demands of the new job role. In fact, if the "Peter Principle" (Peter & Hull, 1969) is correct, this occurs to a fair proportion of the population -- people sometimes "get in over their heads." This may lead to a feeling that the quantity of work is too great or that the type of work is undoable. At other times, just the opposite occurs: People find themselves in positions in which their skills and talents are underutilized. In situations of both overload and underutilization, individuals may never quite feel settled in their careers (French, Caplan, & Harrison, 1982). In such cases, the individual either voluntarily begins preparation for a new career event (e.g., searches for a new job) or is forced into a new career event (e.g., demotion or dismissal). The career transition cycle framework indicates that people will continue to adjust until a period of relative calm in their careers is attained.

By now it should be apparent that it is difficult to distinguish clearly between the subjective happenings during a career transition and the objective incidents that demark a career transition. What is of foremost importance in understanding human behavior is not knowing what objectively occurs to people to influence their behavior, rather it is knowing how individuals perceive what happens and how they act on their perceptions.

As shown in the following section, career transitions have widely varied repercussions; the consequences may be purely objective (e.g., more money) or they may be highly subjective (e.g., increased anxiety).

The Experience of Career Transitions: Outcomes and Their Moderators

What is the impact of the usual career transition? Based on the research presented in the previous section, one can postulate that a career event may lead to new role demands that: (a) increase environmental uncertainty, (b) bring about an undoing of routine, and (c) make manifest the inadequacy of currently held schema and scripts (i.e., the sense that old habits will no longer work). Because of these new demands, people adjust. People adjust before the event (i.e., career event preparation) and after the career event (i.e., transition adaptation). From a psychological perspective, these adjustment processes influence how the transition is experienced by the individual. From a more tangible perspective, these adjustment processes also result in changes to the individual and his or her immediate surroundings.

It is important that the terms *stress* and *strain* be defined before proceeding further, since most previous transition research has included these measures. Stress is *any characteristic of the environment that exerts pressure on the individual*. The pressure may or may not be seen as a threat. Strain is *any change in the individual as a result of some stressor*. Career events may create new environmental demands (e.g., conflicting role expectations). These new environmental demands, in turn, may lead to confusion and anxiety in the individual. In this instance, the stressor is the conflicting role expectations; the strain is confusion and anxiety.

While there appear to be many potential consequences of career transitions, there has been very little research on the determinants of transition outcomes. Transition outcomes can range from highly positive outcomes (e.g., improved job performance,

greater organizational attachment, higher status, more desirable geographic locations, and greater autonomy) to extremely negative outcomes (e.g., inadequate role adjustment, disruption of family life, and degradation of one's self-identity). Most previous investigations have focused solely on the disruptive influence of career transitions and how this leads to greater levels of psychological strain (e.g., anxiety, depression, and irritation). Furthermore, what empirically-based research there is in the area has had only questionable success in developing a model of the consequences of career transitions.

For example, Latack (1984) presents what is undoubtedly one of the more rigorous efforts to date in theory-guided research on career transitions and on adaptation processes used during transitions. Latack sought to determine the degree to which various role variables and coping strategies predicted the level of stress of the transitioner (see Figure 1.4). She hypothesized that magnitude of the transition, intervening role variables (i.e., role ambiguity and role overload), and coping strategies employed by the transitioner combine to explain outcomes of the transition process. The postulated transition outcomes were job stress (measured using the state anxiety scale from Caplan, Cobb, French, Harrison, & Pinneau, 1975) and job performance. However, the data failed to support her hypothesized model. What her data did confirm though, was that we cannot assume that change, in and of itself, will lead to anxiety. While Latack was able to explain 37 percent of the variance of anxiety, this was largely because of its strong relationship with role ambiguity. Furthermore, this study found a moderate relationship ($r=.31, p<.01$) between the perceived magnitude of the career transition and the number of other life transitions occurring simultaneously. This indicates an overlap between work events and non-work life. Latack concluded her study by stating that "future studies might adopt a more exploratory, hypothesis-generating approach aimed at describing and classifying how individuals react to different types of transitions, and what individual and organizational factors contribute to and alleviate stress during the transition" (1984, p. 317).

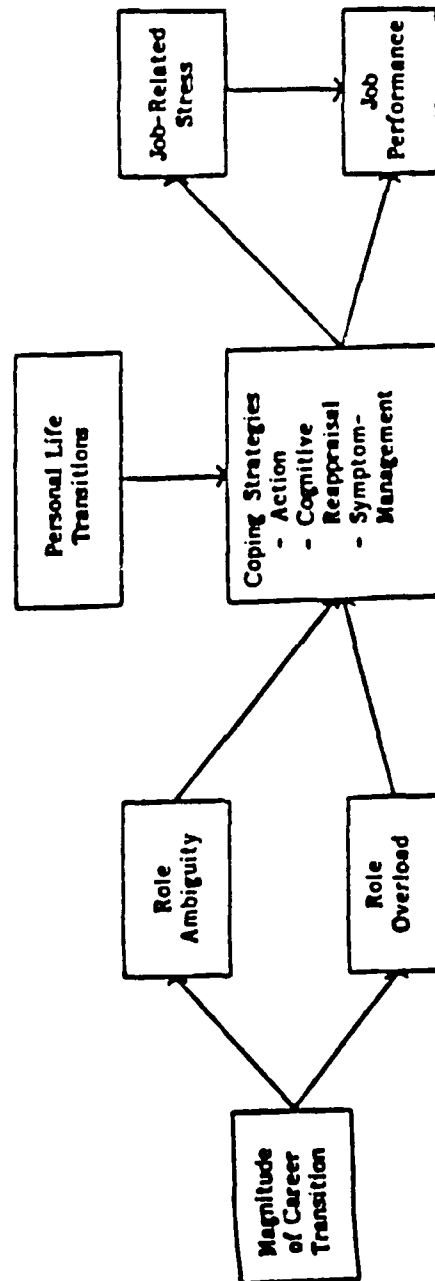


Figure 1.4. A model of career transitions as a stress-coping process (Latack, 1984).

In more recent research, Latack and her associates (Latack, Josephs, Roach, & Levine, 1987) addressed possible gender differences in the transition into carpentry. Although this study indicated that women were as successful as men in making this career change, the major contribution of this study was its attempt to identify antecedents to more favorable and organizationally-valued transition outcomes. This study supported the hypothesis that prior-event expectations, level of anxiety, co-worker acceptance, and acceptance by the organization determined levels of job satisfaction, performance, and commitment.

Nicholson (1987) suggested that more favorable consequences of career transitions would result if those individuals undergoing change were provided with a sketch of where their new role fits within the organization. Such a sketch would consist of much more than an organizational chart. It would also identify the other organizational members he or she would interact with and specify the nature of these interactions (e.g., peer, supervisor, subordinate). Provided with such a map, individuals would be more informed and, Nicholson suggested, more accepting of the career event. One could posit that the greater degree of structure in an organization, the greater understanding of career events by organizational members. Of course this would only hold if the structure is well communicated within the organization.

Many earlier studies have identified characteristics or dimensions of the specific career transition that effect subsequent transition outcomes (e.g., Brett, 1984; Glaser & Strauss, 1971; Nicholson, 1987). Perhaps the one dimension receiving the most attention has been the sheer *magnitude* of the event. That is, how much change is required by the individual as a result of the career event? Nicholson (1987) stated that, other things being equal, the greater the magnitude of the career event, the more disruptive is the career transition. Another dimension related to the magnitude of the event is whether or not *multiple transitions* are occurring for the individual (Cobb, 1974; Latack, 1984).

Hall (1980) developed a tentative model for classifying the magnitude of a career transition. Underlying this classification scheme was the assumption that there is a similarity across different career events and situations. Latack (1984) elaborated on Hall's classification scheme and developed a 12-point scale for measuring the objective magnitude of career transitions. Table 1.1 presents both classification models. In addition to assessing the objective magnitude of a transition, Latack (1984) also measured the perceived magnitude of a career transition using a 6-item scale. The perceived magnitude is the degree to which the individual felt that: "When I moved to this job, it felt like a big change." However, Latack found that magnitude of the event was not related to measures of stress (i.e., role ambiguity and role overload) or strain (i.e., anxiety).

The study by Latack (1984) highlights a major problem with the "objective measurement" of career event magnitude. Although she found a significant relationship between objective magnitude and perceived magnitude ($r=.66$, $p<.001$), perceived magnitude was more highly correlated with the other study variables. Building an index of objective magnitude based only on the number of changes (e.g., job, level, function) may not be sufficient. Coupled with the fact that different organizations interpret these changes differently, it is evident that an alternative manner of scaling transition magnitude is needed. For example, in one organization, changing functions (e.g., from line to staff functions) may be considered a necessary step for promotability. In another organization, the same change might be seen as a "kiss of death" (i.e., removing one from the front line, thereby reducing promotability). Therefore, it appears that career event magnitude might better be measured by taking into account the perceptions of organizational members. This could be done either at an individual level (e.g., perceived magnitude) or at an organizational level (i.e., consensual magnitude).

Two dimensions of life events, *controllability* and *predictability*, have been given a significant amount of attention as moderators of psychological stress (e.g., DeCharms,

A Tentative Model for Assessing the Magnitude of Career Shifts

Intensity of Change						
		Low	High			
	Position	Organization	Institution Type	Level	Occupation/Function	Occupational Field
High	New	New	New	New	New	New
	New	New	New		New	New
	New	New			New	New
	New				New	New
	New	New	New	New	New	
	New	New	New		New	
	New	New			New	
	New				New	
	New	New	New	New		
	New	New		New		
	New	New	New	New		
	New	New				
	New	New	New			
	New	New				
	New					
	Low					

Compounding Factors: family change, life stage change, spouse career change, geographical change, and other major life change. From Hall (1980).

Objective Magnitude of Career Transition Scale

Change in:								Scale Value	
				Increasing intensity →					
Job	+	level	+	function	+	occupation	+	occupational field	12
Job			+	function	+	occupation	+	occupational field	11
Job	+	level	+			occupation	+	occupational field	10
Job	+	level	+	function	+	occupation			9
Job			+			occupation	+	occupational field	8
Job			+	function	+	occupation			7
Job	+	level			+	occupation			6
Job	+	level	+	function					5
Job					+	occupation			4
Job			+	function					3
Job	+	level							2
Job									1
No change									0

From Latack (1984).

Table 1.1. Two classifications of objective career transition magnitude

1968; Mahoney & Arnkoff, 1974; Marshall & Cooper, 1981; McLean, 1979; Pearlin, 1982; Pearlin, Menaghan, Lieberman, & Mullan, 1981). Controllable events are those in which the individual has a determining influence on their occurrence and their outcomes. Predictable events are those that are seen as orderly and expected. Control over the transition can limit the undesirable consequences because the transitioner has some influence over the stressor (Frese, 1984). In a similar fashion, predictability provides the individual with advance notice of the upcoming career event which allows time to prepare for, or to blunt, the effect of stress brought on by the change.

According to Pearlin (1982), adverse consequences involving psychological stress depend also on the *quality* of the change. Likewise, Latack recommended that "we should examine desirability of change as a moderating factor. Future research could include not only the desirable/undesirable distinction, but also the characteristics that lead people to label change as desirable or undesirable" (1984, p. 316). For the most part, the quality of a career transition lies in a cognitive appraisal of the change by the transitioner. This conception is consistent with that of Lazarus (1966; Holroyd & Lazarus, 1982), who suggested that individuals use an evaluative process that imbues a situational encounter with meaning for the person. As Magnusson (1982) wrote: "the real world in which we experience, feel, think, and act is the world as we perceive it and to which we give meaning" (p. 332).

Career transitions may lead to very positive results (e.g., more money, higher status, increased job challenge) and to adverse consequences (e.g., disruptions in family life, job loss, decreased autonomy). During transitions, people appraise real and potential gains and losses. This helps determine future actions toward and perceptions of the change (e.g., Jick, 1985; Segovis, Bhagat, & Coelho, 1985).

In sum, a fair amount of research has indicated that when a major change occurs, the amount of strain can be reduced if the transitioner: (a) believes that he or she is not merely a pawn of fate, (b) has time to prepare for the career event, (c) has few concurrent

events occurring, (d) finds the change desirable, and (e) thinks that there is more to gain than to lose from the transition.

Louis (1980a, 1980b) investigated the process by which individuals interpret and adjust to changes during a career transition. According to her perspective, problems arise during transitions as a result of differences between an individual's anticipations and subsequent experiences. These differences are termed *surprises*. When surprises occur, sense-making can mitigate the impact (see Figure 1.5). "Through sense-making, transitioners revise the cognitive maps that they use to interpret and describe experiences in the new role or setting . . . what is new, different, and -- particularly -- what was unanticipated becomes integrated into the transitioner's cognitive map" (Louis, 1980a, p. 337). As a result of this cognitive-coping process there are two possible outcomes: (a) behaviors to change the situation (either through assimilation or accommodation), and (b) revisions to internally-held schema.

Additionally, the type of career event may influence the consequences of transition. While Leibowitz and Schlossberg (1982) suggested that different adjustment strategies need to occur depending on the specific transition, Louis (1980a) hypothesized that there is a common coping process by which individuals respond to transitions of any type. Louis postulated that there are five types of inter-role transitions: (a) entering/re-entering a labor pool, (b) assuming a different role/responsibility within the same organization, (c) moving from one organization to another, (d) changing professions or occupational specializations, and (e) leaving a labor pool. She suggested that while characteristics of these transitions differ widely, nonetheless they all evoke a similar sense-making process. However, neither Leibowitz and Schlossberg nor Louis provided empirical support for their respective positions. This study will empirically examine the appropriateness of Louis' typology as it pertains to the careers of Navy aviators.

Little consideration has been given to the effects of *time* on transition outcomes. Specifically, does time somehow moderate the disruption career transitions can cause?

Frese (1984) presented an "initial impact" hypothesis to partly answer this question. According to his hypothesis (Figure 1.6), there is an initial reaction to the stressors resulting from the career event which leads to high levels of job stress and strain. As time progresses, however, different coping processes (e.g., sense-making, assimilation, accommodation) enable the person to adjust to the situation, in turn causing the unhealthful levels of strain to decline. Although Frese only assessed the effects of time from the onset of the event, presumably time is also related to levels of strain prior to the occurrence of the event (i.e., during career event preparation). This being the case, the question arises: Is a career transition more stressful prior to the career event, after the career event, or as some function of length-of-time from the event? For some time prior to the event until some time after the event, the individual adjusts. Demands on the individual resulting from the career event (e.g., different role requirements or new surroundings) should change as the individual better adjusts (i.e., lessening the effects of demands) or as the individual encounters surprises during the transition (i.e., increasing the effects of demands).

Cobb (1974) studied the effects of stress resulting from job loss. Specifically, he compared employed men who lost their jobs as a consequence of plant closings to a group of employed men in the same community working in plants that did not close. Not only did this study provide self-reported measures of strain, it also investigated physiological changes resulting from stress (e.g., serum uric acid and cholesterol levels). The longitudinal design of this study was also noteworthy. Measures of strain were taken periodically from about six weeks before the plant closing until 24 months after the closing. In general, those undergoing transition experienced higher levels of strain beginning 6 weeks prior to the closing. By 24 months after job loss these differences had disappeared. Two factors appeared to mediate the unhealthful consequences of job loss: social support and number of life changes. The greater social support an individual had, the shorter was adjustment time. Furthermore, those who had numerous other changes

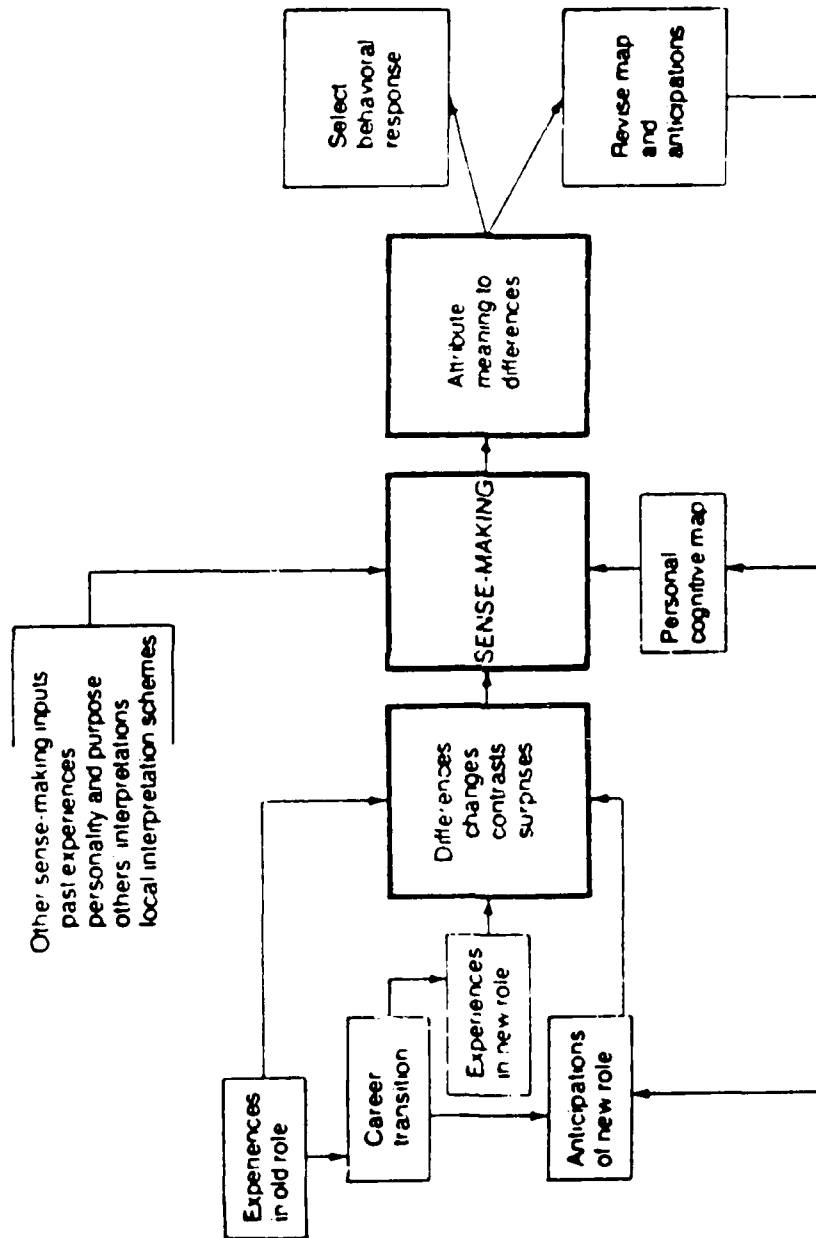


Figure 1.5. The sense-making process during career transitions (Louis, 1980a).

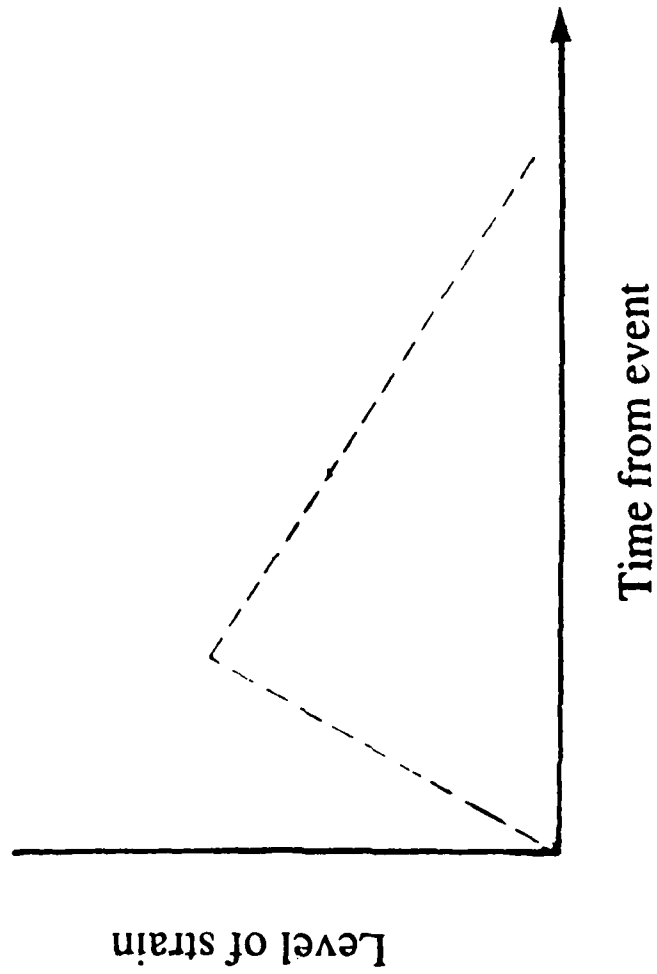


Figure 1.6. Initial impact hypothesis accounting for changes in strain over time (Frese, 1984).

occurring in their lives (four or more events) at the time of the job-loss transition, experienced greater strain than those undergoing few additional life changes. In fact, those undergoing few additional life changes experienced no greater levels of physiological strain than the group of men not undergoing a job-loss transition. Such a finding is strongly supportive of an additive view of life events and stress -- the greater number of events that are experienced simultaneously, the more stressful life is.

A second study (French, Doehrman, Davis-Sacks, & Vinokur, 1983) provided additional information about the relationship between time and stress during a career transition. This study investigated married enlisted men who were in the Navy for at least 20 years. Those undergoing role transition (in this case, joining the civilian work force) were compared with those not undergoing transition (those re-enlisting for another tour). This study found that those undergoing transition reported greater levels of job stress (i.e., job complexity, work load, and role ambiguity) and strain (i.e., marital dissatisfaction, anxiety, depression, and job dissatisfaction) than those not undergoing transition. However, it was found that those undergoing transition to the civilian world reported no more stress than the non-transitioners 6 months after the career event. Finally, this study found additional support for the hypothesis that social support (particularly from supervisor and spouse) significantly reduced levels of stress and strain associated with job change.

A number of other studies have also confirmed that social support is a potent element in the reduction of unhealthy stress reactions during transitions (see Cohen & Wills, 1985 for a recent review). By now it seems apparent that the process through which social support has a beneficial effect on well-being is twofold: (a) as a *main effect* and (b) as a *buffer*. As a main effect, a greater level of social support has been found to be related to a greater level of well-being (e.g., Caplan et al., 1975). As a buffer, social support moderates the effects of environmental stressors in determining levels of strain. High levels of social support tend to alleviate the impact that high levels of stress have on

individuals (e.g., Beehr, 1976). Further research is required to determine when social support has a main effect on strain and when it buffers stress.

In a recent paper (Vinokur & Caplan, 1986), the determinants of job-seeking behavior among unemployed veterans were investigated. As expected, social support was found to offset the negative effects of unsuccessful job search on mental health (i.e., anxiety, depression, and resentment). More importantly, this study demonstrated that the effect of social support was most profound among the more motivated job seekers. Therefore, social support may buffer the negative consequences of career transitions more for those for whom the specific transition is of high importance, than for those for whom the specific transition is of little importance.

Dohrenwend and Dohrenwend (1974) postulated that, in addition to social support, individual characteristics (e.g., personality type) mediate the stress from life events and strain. A recent study (Stout, Slocum, & Cron, 1986) indicated that the control orientation of job transitioners (i.e., internal versus external control) effected how smoothly the transition process went. Furthermore, this study found that internally-controlled transitioners experienced higher levels of job satisfaction, job involvement, job challenge, and organizational commitment.

In addition to an individual's general control orientation, how much control he or she actually exerts over a specific event also effects well-being. Schlenoff (1977) found that retiring military officers exhibited a great amount of self-control and conformity, and uncritically accepted mainstream cultural values and attitudes. This concern for control, orderliness, and structure, and an associated low tolerance for ambiguity, was related to high levels of anxiety in retiring officers who sought new careers.

It is not only the amount of control exhibited over a particular event that effects well-being. One must also take into account the amount of control desired by the transitioner and the congruence between desired and actual control. Conway, Abbey, and French (1983) found that perceived control and need for control, as well as any

discrepancy between the two, strongly effected anxiety, depression, and life quality. One could posit that the more congruent need for control and perceived control over a career event are, the higher would be levels of well-being. Thus, there may be individuals who exhibit very little control over their careers and, yet, are not negatively effected because they do not desire such influence. There may also be people who have a high need for control over their careers and who actually exert a great influence over their career events. In either instance, these individuals should experience reduced strain as a result of career transitions.

Somewhat related to control is an individual's ability to function in organizations of varying orderliness and structure. Gordon (1972) suggested that individuals can be characterized reliably along a dimension of *bureaucratic orientation*. This construct reflects the degree to which people: (a) accept authority, (b) prefer to have specific rules and guidelines to follow, and (c) prefer impersonalized work relationships. In essence, a bureaucratic orientation reflects individuals' need for structure. The need for career structure reflects an individual's desire for clearly specified career paths. Furthermore, Gordon found that people are motivated to seek environments where the amount of structure is more congruent with their preference for structure.

People's personality and cognitive styles likely mediate stress and strain during career transitions. For example, Harren and his associates (Harren, Kass, Tinsley, & Moreland, 1978; 1979; Moreland, Harren, Krinsky-Montague, & Tinsley, 1979) related cognitive styles of individuals to career attitudes and subsequent behaviors. These studies relied on three indicators of the cognitive style of individuals: (a) cognitive complexity, (b) conceptual level, and (c) decision-making style. It was found that decision-making style effected career attitudes and behaviors much more than the other measures of cognitive style. Decision-making style consists of three primary dimensions. These are rational, intuitive, and dependent. Rational decision making refers to a systematic, logical, and deliberate approach. Intuitive decision making refers to a

reliance on feelings, and impulse. Dependent decision making refers to the denial of responsibility for one's choices and compliance with the authority of others. Phillips, Pазienza, and Ferrin (1984) reported that individuals' control orientations were closely related to their decision-making styles.

Finally, Kobasa (1979) found that *hardiness* moderated the amount of change-induced stress that individuals experienced. Hardy people exhibit three general characteristics: (a) the belief that they can control the events of their experience, (b) the ability to be deeply committed to their daily activities, and (c) the anticipation of change as an exciting challenge. This study found that the amount of felt stress during a job transfer was related to the transitioners' hardiness. Specifically, individuals low in hardiness reacted to their transfers with more acquiescence, a greater sense of meaninglessness, and a conviction that the change was externally determined with no possibility for personal control. It seems plausible to conclude that more hardy individuals would experience career transitions more favorably.

Outcomes and Moderators of Career Transitions: A General Model

One aim of this study is to heighten our comprehension of the process through which transition outcomes occur. The basic theoretical schema guiding this investigation is presented in Figure 1.7. This model is a natural extension of the person-environment (P-E) fit model (French, Caplan, & Harrison, 1982; French & Kahn, 1962; French, Rogers, & Cobb, 1974; Harrison, 1978). In general, six domains of variables (i.e., person, perceived environment, preferred surroundings, person-environment congruence, dimensions of transition, and social support) interact to determine levels of transition outcomes.

The basic idea behind the P-E fit model is that overall adjustment of the individual to a given situation is the result of properties of the environment, characteristics of the person, and the congruence of the person and environment (Lewin,

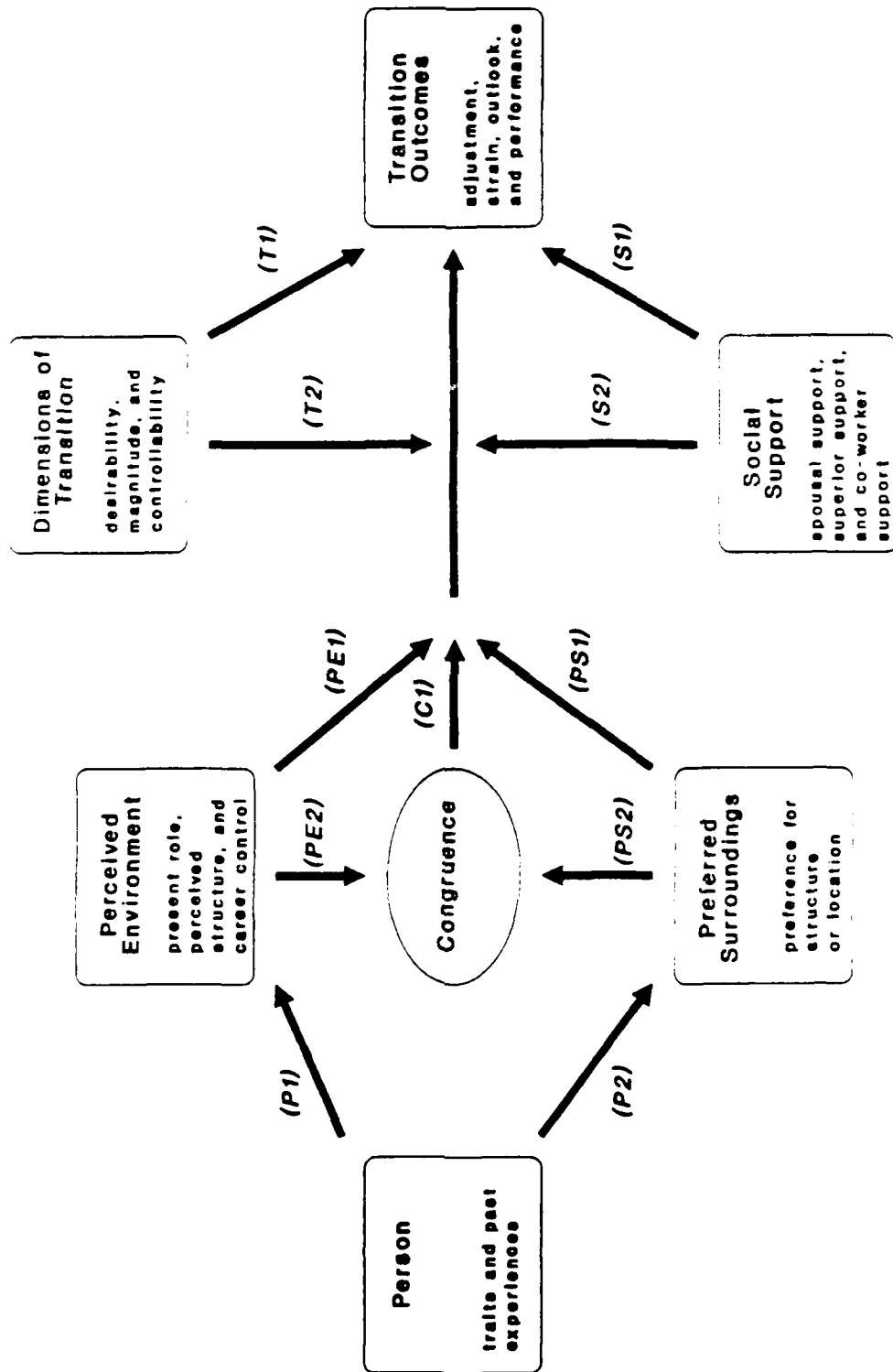


Figure 1.7. A model describing determinants of career transition outcomes.

1951). In the P-E fit model, both the environment and the person are understood as having an objective component as well as a subjective component. The *objective environment* is that which exists independent of an individual's perception of the environment. The *subjective environment* is the individual's perception of and beliefs about the environment. The *objective person* refers to the actual characteristics of the person, identifiable by unbiased, replicable observations. The *subjective person* represents the individual's perceptions about himself or herself -- the self-schema (Markus, 1977). Discrepancies between the objective and subjective environment indicate a loss of *contact with reality*, while discrepancies between the objective and subjective person indicate inaccurate *self-assessment*.

Two kinds of person-environment fit exist. Objective P-E fit reflects the congruence between the objective needs and abilities of the individual and the actual demands and supplies of the environment. Subjective P-E fit is the extent to which the individual's perception of the requirements of the environment match what that individual feels capable of providing. Any misfits between the person and the environment, whether objective or subjective, are potential stressors.

Whereas the P-E fit model accentuates the effects of a wide variety of stressful job environments on subjective stresses and strains, the model in Figure 1.7 focuses specifically on one situation: people going through career transitions as a result of a career event. As in the general P-E fit model, factors in the environment, characteristics of the individual, and the congruence between the two together determine the individual's adjustment to the career event. The person domain (shown in Figure 1.7) includes such traits as cognitive complexity, decision-making styles and control orientation. This domain also includes such past experiences as performance evaluations and perceptions of past career events. The perceived-environment domain includes such factors as role demands, available structure, control over the career event, and the extent of viable alternatives to the individual's present situation. The preferred-surroundings

domain consists of such factors as desired role expectations, preferred structure, and preferred level of control over one's career. The congruence domain includes person-environment fit factors (e.g., amount of discrepancy between available structure and desire for structure).

This model highlights two characteristics of the environment and person -- social support and dimensions of the transition. These characteristics are given special treatment because they have been shown in previous research not only to have a direct impact on transition outcomes, but also to mediate other stress-strain relations (e.g., Cohen & Wills, 1985; Kobasa, 1979; Pearlin, Menaghan, Lieberman, & Mullan, 1981). Social support is an environmental factor that reflects the amount of situation-specific and general emotional assistance provided by significant people in an individual's life. The dimensions of transition domain has components from the environment (e.g., objective career event magnitude), from the person (e.g., perceived career event magnitude), and from congruence between the two (e.g., discrepancy between objective and perceived career event magnitude). In addition, this domain includes other dimensions of the specific career event and transition the individual is undergoing (e.g., type of career event, presence of concurrent events or transitions, etc.).

Finally, the transition outcomes domain includes such variables as difficulty adjusting to the new role, job performance, strain, and job attitudes. It should be noted that outcomes vary among the different phases of the career transition cycle. For example, eagerness for the event to occur may be considered an outcome of successful career event preparation. In contrast, eagerness (or general outlook toward the event) is an exogenous variable (or predictor variable) for individuals going through post-event transition adaptation.

This model does not assume that all career transitions result in strain. As stated earlier, most people are proficient in effectively coping with change. Personal disruption need not result from all career transitions. Unhealthful levels of stress and strain need not

occur, and often do not occur, as a result of career transitions. Both Nicholson (1984) and Brett (1984) stated that role development (e.g., rejection of the role as traditionally practiced by prior role occupants) and personal development (e.g., changes in abilities, performance levels, job attitudes, and values) are often the by-products of transitions. Following Louis (1980a), it was suggested that the cognitions of individuals also undergo modifications as the result of surprises during transitions. Performance levels may also decline while the individual is in transition (Latack, 1984).

Finally, based on the model of the career transition cycle presented in Figure 1.3, different outcomes will result depending on the transition phase the individual is in. For example, successful career event preparation should result in an eagerness for the event to occur; successful transition adaptation should result in adjustment to the new role. Career transitions produce many different results. These results occur through the ongoing interplay between the individual and the environment in response to a specific career event with identifiable characteristics. Career events create changes that require adjustment. The theoretical model presented integrates previous research in order to guide further exploration of the manner through which transition outcomes emerge.

Conclusions and Directions for Future Research

This paper questions two assumptions frequently made in research on career transitions: (a) that all career transitions lead to increased levels of both job stress and strain, and (b) that different types of career events are experienced similarly. This study seeks to describe and classify how individuals react to different types of career events and to identify what individual, environmental, and transitional factors contribute to transition outcomes. The specific model to be evaluated in this study is presented in the following chapter after the measures are presented and defined.

Figure 1.7 presented a theoretical model describing how outcomes arise from transitions. It should be emphasized that relationships among the variables within each domain of the model (i.e., within the person, perceived-environment, preferred-surroundings, social-support, dimension-of-transition, and transition-outcomes domains) are expected but not portrayed within the general model. For example, within the perceived-environment domain, the amount of structure present in an organization's career system would likely effect levels of role strain (e.g., role ambiguity and role conflict). Within the dimensions-of-transition domain, how much control the individual exerts over the career event would likely effect his or her appraisal of future gains and losses from the transition. The arrows between major classes of variables portray hypothesized relationships to be addressed:

Hypothesis 1. Traits and past experiences of the individual strongly influence how the individual perceives his or her environment; these factors also establish certain expectations and preferences the individual has for his or her immediate surroundings (see arrows P1 and P2).

Hypothesis 2. Felt environmental demands during career transitions have direct consequences for the individual undergoing transition (see arrow PE1).

Hypothesis 3. The greater the subjective misfit between the desires of the individual (PS2) and the perceived demands from the environment during a career transition (PE2), the greater will be the levels of unfavorable transition outcomes (see arrow C1).

Hypothesis 4. Various favorable dimensions of transitions (e.g., desirability and controllability) will reduce strain and expedite transition adjustment (see arrow T1).

Hypothesis 5. The greater the social support, the less will be the strain and the easier will be adjustment (see arrow S1).

Hypothesis 6. To the extent that high social support and favorable dimensions of transition are present, subjective stresses in the environment will produce less strain and adjustment to the transition will be improved (i.e., social support and dimensions of transitions moderate the disruptive effects of PE1, C1, and PS1 on transition outcomes) (see arrows T2 and S2).

Figure 1.3 presented a framework through which the structure of career transitions can be understood. At the heart of this conceptualization is the notion that a career is dynamic and is best understood as a cyclic process of change, adaptation, and

stability. A career is a connection of associated work roles -- connected by periods of transitions. During these periods of transition, people are faced with the challenge of changing expectations and demands. Often these challenges conflict with one another and with old ways of comportment. As a result, an adjustment process transpires.

Guiding this understanding of career transitions is the assumption that careers and people develop and change through the interaction of a multitude of individual and environmental forces. Furthermore, this interaction of forces is dynamic. That is, the antecedents and consequences of career transitions also depend on the particular career event being undertaken. For example, early career socialization events often bring about increased commitment to the organization. On the other hand, retirement events bring about lessened commitment to one's career and, subsequently, increased commitment to non-work activities. It is likely that the adjustment process also changes depending on where people are in the career transition cycle and as a function of how clear the precipitating career event is.

If anything stands out as a result of this discussion of career transitions, it is that much more research is needed. We need to: (a) increase our understanding of the process through which people prepare for and adapt to change in their careers, and (b) identify and delineate the relevant dimensions of the transition cycle. In addition, we need to learn more about what individual characteristics, transition dimensions, and environmental factors mitigate or magnify the disruptive effects of career changes. At the outset of this chapter it was suggested that career transitions are critical because they help shape an individual's being. The utility of our increased comprehension of career transitions is quite important -- apart from obviously helping people adjust to changes in their careers. When organizations change and develop, the people in them must also change. The failure of people to expediently adjust to changing environmental demands and organizational constraints often hinders long-term organizational development. Therefore, by studying career transitions, we may reach a better understanding of the

dimensions of organizational transitions and further refine the collection of organizational change mechanisms we have at our disposal.

CHAPTER II

METHODS

This chapter describes the population and sample, data-gathering methods, sample characteristics, development of the measures, analytic techniques, analytic strategy, specific models to be assessed, and questions to be answered. The section on the sample describes the population chosen for study and the sampling strategy. The section on data-gathering methods describes administration of the questionnaire and collection of data from additional sources. The sample characteristics section describes the study participants. The measures section outlines criteria for construction of scales and briefly describes the measures used in the present study. The major questions posed by this research and the specific model that will be examined, and hypothesized relationships are then presented. The section on analytic techniques summarizes the statistical methods used. The final section presents a blueprint for conducting the analyses.

Sample

Population Description: A Synopsis of Navy Aviation

The goals of this research are to describe the psychological dynamics of career transition and adjustment and to develop a typology of career transitions. To facilitate this, the present effort focused on a population with a fairly clear, somewhat standardized

career progression. Aviators in the U.S. Navy pass through several common transitions. These explicit transitions provide an excellent opportunity to examine career transitions.

While there are marked differences between the U.S. Navy and most American corporations (e.g., the tools used to accomplish their various missions), studying careers within a military setting affords one a condensed view of career dynamics. The typical 40-year organizational career in corporate America is often compressed into a 20- to 26-year organizational career in the military. The impact of job entry, decisions of voluntary resignation, plateaued careers, and the like are as important to the Navy officer as they are to a corporate manager. At the same time, certain career dynamics are different in the two contrasting settings. For example, retirement from the Navy can occur after an individual has served 20 years. As far as having completed a "full organizational career," those who retire after 20 years have done so. At this point, the officer who retires receives half of his or her base pay and may look for new employment. Thus, this event also has some semblance to "early retirement" from industry. However, unlike those who choose an early retirement option in industry, Navy officers who retire at the 20-year point are often in their early forties and can easily embark on a second non-military career. Retirement from the Navy, therefore, resembles "retirement," "early retirement," and "resignation" in industry settings.

The Aviation Warfare Community comprises approximately one-half of the unrestricted line (URL) officers of the Navy. According to the *Yeoman 3 & 2* handbook:

An unrestricted line officer's primary professional concern is the operation of naval ships or aircraft, including combat operations. If not otherwise restricted in the performance of duty, the officer may qualify for command of a naval ship. As a naval aviator, the officer assumes command of any plane in which he is the pilot. He may also, but normally only when he becomes sufficiently senior, command a deep draft ship prior to commanding an aircraft carrier. (Turner, 1981, p. 35)

At the time this study was undertaken, there were 14,488 Navy aviators. The depiction of Navy aviation provided by the movie *Top Gun* highlighted only a small portion of career in Navy aviation. In reality, Navy aviation embodies much more than

“seat-of-the-pants flying” off of an aircraft carrier. During a major part of a Navy aviator’s typical 26-year career, the officer will be assigned to duty that does not involve flying. Figure 2.1 (Department of the Navy, 1982, p. 45) illustrates the typical aviator’s career path and shows the many shore-based periods.

The aviation community is made up of two occupational specialties: (a) pilots, and (b) naval flight officers (NFOs). A pilot’s primary operational duty is to fly the airplane. This skill, though highly specialized, is readily transferable to a non-Navy career as a civilian airline pilot. An NFO’s primary operational duty is to attend to tasks not directly associated with flying the plane. NFOs may be bombardiers, navigators, radar intercept officers, and the like. The skills that NFOs learn in their operational assignments have very little transferability to non-Navy careers. It is not surprising, therefore, that the retention rate for NFOs is much greater than that for pilots.

Within the aviation community there are 15 subcommunities. These subcommunities are based on plane type (e.g., F-14s, S-3s, A-7s) and mission (e.g., patrol, anti-submarine warfare, attack). The *glamour* subcommunities within Navy aviation are fighter, light attack, and medium attack. Together, the fighter and attack subcommunities make up 29 percent of Navy aviation. These three subcommunities are similar in that they operate off aircraft carriers, fly highly maneuverable short-range jets, and have very small crews (one pilot in light attack aircraft; one pilot and one NFO in medium attack and fighter aircraft). In striking contrast to these three tactical subcommunities is the anti-submarine warfare patrol (VP) subcommunity. The VP subcommunity is the single largest subcommunity in Navy aviation, encompassing 27 percent of all Navy aviators. This subcommunity is land-based, flying large four-engine, long-range turboprop airplanes with much larger airborne crews (3 pilots, 7-8 NFOs, and 1-2 enlisted personnel). The primary duty of the VP subcommunity in peace time is to monitor foreign submarine movements. In war time, they become hunter, killers of enemy submarines.

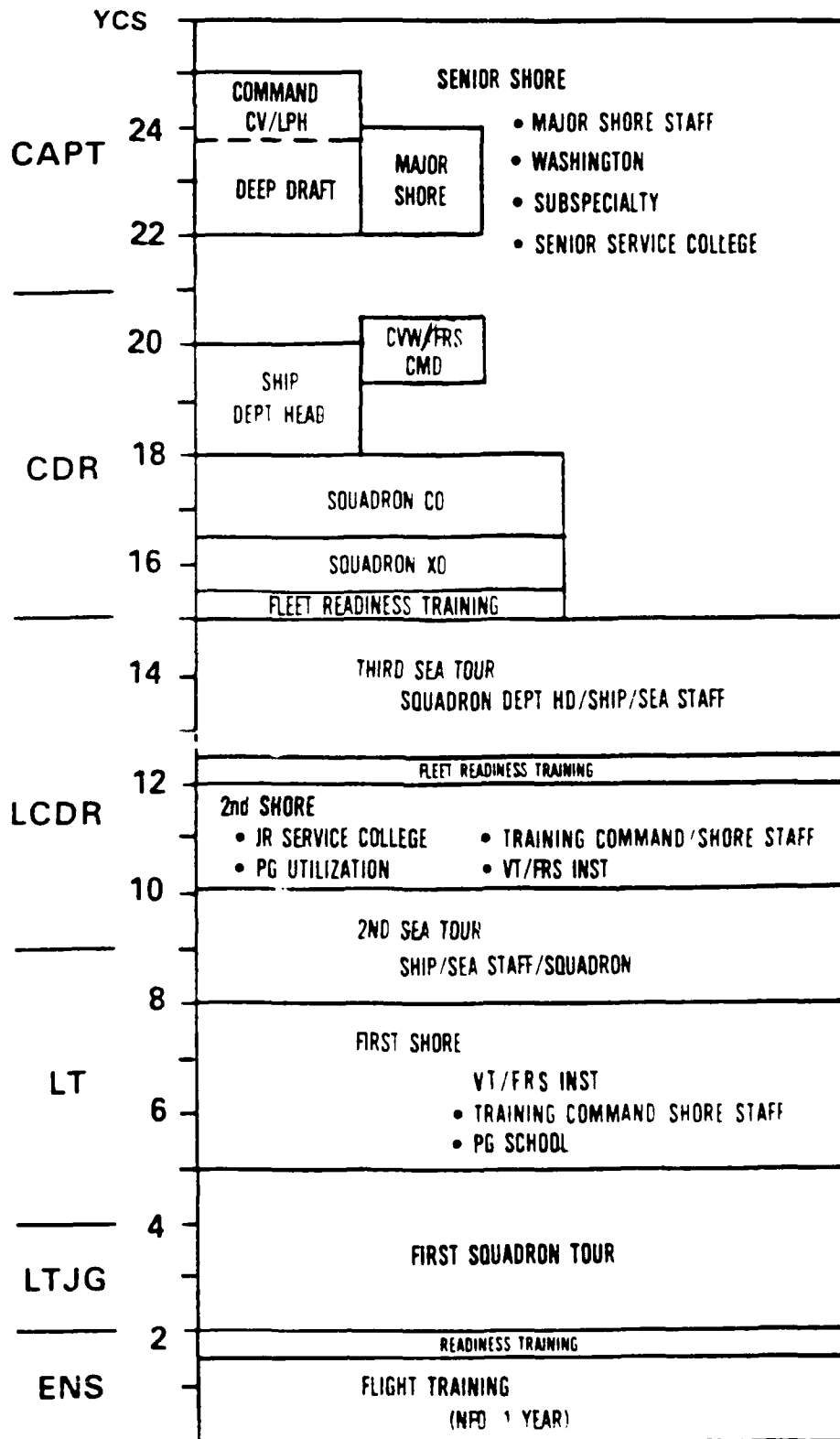


Figure 2.1. Career path of Navy aviators.

In addition to the fighter, attack, and patrol subcommunities, there is a broad mix of other smaller subcommunities. Each one has a major role in the total projection of Navy sea and air power. Including surveillance, anti-mine warfare, anti-submarine warfare, and electronic counter-measures, the mix of U.S. Navy air power is formidable.

All pilots and NFOs begin their naval aviation careers in Pensacola, Florida. Over the next one to two years, these individuals undergo a highly competitive training program there. From the initial day of training all performance is recorded. Officers are assigned to aircraft types and missions at the conclusion of training based on performance, specific anthropometric measurements, the expressed interest and desire of the individual officer, and the present needs of the various aviation subcommunities. After leaving the training command, being awarded the aviation "wings of gold," and completing final training in their specific plane type, these officers begin a series of sea billets (i.e., job assignments) interspersed with shore billets. Shore billets range from training new pilots and NFOs to attending graduate school to staff duty in Washington, DC. Throughout this sea-shore rotation, aviators try to ensure that they have the performance and the "right billets" that will lead to the pinnacle of a Navy aviator's career--command of a squadron.

Typically, Navy aviators receive new billets after a negotiation process with their *detailers*. Detailers are the Navy's assignment managers; as a result of their decisions, officers are sent from assignment to assignment. In many respects, the detailing process is an organizational mechanism that indicates to the officer how much the Navy wants him or her to continue in the Navy. Based on previous performance evaluations, recommendations by senior officers, and the reputations of the individual officers, an implicit ranking of officers occurs. Those officers who come out on top of the ranking are more likely to get the assignments they want in the locations they want. Those officers who come out on the bottom of this ranking fare less well and are often quite unhappy with the assignment process and their lack of influence over outcomes.

The Navy is also different from most other organizations in that a formal agreement exists between the officer and the Navy. Upon being awarded aviator wings, a 5-year period of obligated service begins. While preferences are considered, officers are required to go where the detailers send them unless they have submitted their resignation--at least through the end of obligated service. The first time an officer may submit a letter of resignation is 9 months prior to the end of obligated service. If the Navy wants the individual to continue, detailers will make every effort to ensure that his or her needs are being met during the assignment process. The Navy also differs from other organizations in that participation in educational and training programs (e.g., obtaining a Master's degree) typically incurs additional obligated service.

Fighter and attack subcommunities share both the similarities discussed above, as well as a *highly structured* career system. Because the individual subcommunities are small to begin with, and since many of these pilots resign to fly civilian aircraft, there is very little opportunity for these officers to have a wide variety of shore assignments (e.g., Washington headquarters jobs, War College, post-graduate education, European Staff tours, etc.). In fact, common folklore throughout these subcommunities is that high-level promotions rarely occur for those who leave their "squadron-mates" for assignments outside of their subcommunity: "out of sight, out of mind." To stay within their respective subcommunities, these officers often must go from a squadron tour onboard an aircraft carrier to training pilots how to fly their community-specific aircraft. A review of Aviation Command Selection Board results (*Perspective*, 1988) support this. Of the pilots selected for squadron command from the attack and fighter subcommunities, three-fourths had prior experience in training pilots to fly their community-specific airplanes. In contrast, only one-fourth of those selected had obtained a postgraduate degree. For the individual who primarily wants to fly, this may be attractive. However, for the individual who wants something else (either for personal development or because of spousal/family commitments), there are often few alternatives.

In contrast to the attack and fighter subcommunities, once again, is the patrol subcommunity. Because of the large number of pilots and NFOs in patrol, there are many more opportunities for shore assignments. Part of this opportunity is borne out of necessity. Since the subcommunity is so large, not all top performers are able to train pilots and NFOs in their community-specific airplane. Furthermore, promotion in the patrol subcommunities seems to be related to breadth of development and experience. Results from the most recent Command Selection Board show that while less than half of the patrol pilots and NFOs selected for squadron command had experience training pilots and NFOs in their community-specific airplane, nearly two-thirds of those selected had obtained a postgraduate degree.

How often are organizations as clear about what entry-level managers will be doing during the next 20 years? The structured career system of Navy aviation presents a unique opportunity for studying career transition dynamics. The clear ladder of progression, sequence of assignments, and "tickets to be punched," as well as the large sample of individuals available, makes this a model population for exploratory analyses of this kind. The "real world" (i.e., the world of work apart from the military) is rarely so clear and structured. Nonetheless, once we can begin to understand the career transition process from within a structured environment, future studies can progress to less structured settings.

Sampling Strategy

This study was cross-sectional in design, allowing for a one-time assessment of the participants. Because of this, a sampling strategy was developed to assess both individuals approaching focal career events, as well as individuals having recently completed the same events. This bracketing strategy affords the greatest explanatory power (when using a cross-sectional design) to describe the dynamics of career transitions and the adjustment processes that occur as a result of them. Officers were

selected for participation to ensure this bracketing of specific events. As a result, the design provides an opportunity to address such questions as: "When does a transition place the most stress on the individual -- before or after the career event?"

Bearing this in mind, the first sampling objective was to select officers around four general types of career events:

1. *Entry Transitions*: Initial socialization of organizational newcomers and attainment of full membership status,
2. *Resignation Transitions*: The decision to remain in or to leave the Navy, at the end of one's obligated service (typically 6-9 years after entry),
3. *Mid-career Transitions*: Intraorganizational career events along two dimensions -- upward progression and lateral career moves (9-14 years after entry), and
4. *Retirement Transitions*: Approaching statutory involuntary retirement or voluntary (early) retirement after 20 years of service.

The second sampling objective was to sample officers equally from two aviation subcommunity groups: (a) patrol, and (b) fighter and attack. As mentioned earlier, the patrol subcommunity encompasses 27 percent of all Navy aviators; fighter and attack subcommunities encompass 29 percent of all Navy aviators.

Finally, the third sampling objective was to sample officers proportionally from the two occupational specialties in Navy aviation: pilots and NFOs. Within Navy aviation, there are approximately twice as many pilots as NFOs. However, as discussed earlier, there are no NFOs within the light attack subcommunity. Therefore, only pilots from the light attack subcommunity could be sampled. Within the other subcommunities, however (patrol, medium attack, and fighter), participants were selected to proportionately represent pilots and NFOs.

While officers were selected based on the career event they were most likely to be experiencing, in certain circumstances they were actually closer to career events in adjacent transitions. For example, a lieutenant commander commissioned in 1975 and sampled to be in a mid-career transition, might actually now be approaching his end-of-

obligated service date because of an additional incurred obligation (e.g., in return for attending a Navy-funded postgraduate education program). This was not a major concern, however, since the questionnaire was developed to be answered by all aviators, regardless of the particular career event they were closest to in time. Officers were assigned to transition groups based on the career event they indicated they were closest to. Nonetheless, the sampling strategy was designed to obtain comparable sample sizes across the four main career transition groups.

Entry Transitions. Officers just beginning their careers as Navy aviators confront the same issues that newcomers in any organization do. That is, they not only must learn the specific jobs they are to perform, but they must also develop an understanding of the environment within which they perform these jobs. Furthermore, they must also learn the norms, values, and beliefs within their new social surrounding. This transition group experiences the major aspects of the *basic training stage* discussed by Schein (1978): (a) dealing with the shock of what work and membership are really like, (b) becoming an effective member as quickly as possible, (c) adjusting to the daily routines of work, and (d) achieving acceptance as a regular contributing member. For Navy aviators, this transition also means getting used to 6- to 8-month deployments at sea. The aviation community clearly identifies these newcomers. Until aviation officers have completed their first deployment (or overseas detachment), they are called "nuggets" by senior aviators. By the time officers have begun their first shore assignment, they have lost the label "nugget" and have passed from the basic training stage to the *full membership in early career stage* (Schein). At this stage, organization members begin: (a) accepting increasing responsibility and successfully meeting job requirements, (b) developing and displaying skills and expertise to lay the groundwork for promotion or lateral career growth, and (c) deciding whether to remain in the organization or to seek a better match between their own needs and organizational constraints. In selecting officers who had reported to or were about to report to their first

operational squadron or were leaving on their first deployment, primary consideration was given to an officer's commissioning date. This date indicates when an individual became an officer. Once commissioned, it takes approximately 2 years for an officer to complete training before beginning his or her first "job." The length of this training is dependent on skills to be taught and the point at which the officer entered the training program course sequence. With the assistance of AWO detailers, it was decided that individuals commissioned between 1982 and 1984 would most likely provide us with a sample meeting the entry transition criteria at the time of the study in late 1986. Within the entry transition group there are two subgroups: (a) officers entering the aviation community or leaving on their first deployment (i.e., "nuggets"), and (b) officers beginning their first shore assignment (i.e., those attaining full membership status).

Resignation Transitions. Officers were selected for this sub-sample on the basis of their minimum service requirement date. This date is established upon completion of basic aviation training and accounts for the obligation to the Navy incurred based on the source of entry (e.g., Naval Academy) and the specific flight training undertaken. Although many organizations provide educational and training programs for its members, the Navy is different from most other organizations in that a formal payback agreement exists between the individual and the Navy. As a result of this agreement, additional years of obligated service time are incurred by the individual in return for taking advantage of educational opportunities. However, such additional obligations are not reflected in changes to the minimum service requirement on an officer's personnel record (cf. Mullins, 1986). Therefore, the minimum service requirement was used simply to provide a "ballpark" date around which we could focus our selection. Using a 3-year window, those officers from commissioning years 1978 to 1981 were selected to satisfy the criteria of the resignation transition group.

Mid-career Transitions. Officers were selected for this group based on the likelihood that they would be undergoing intraorganizational transitions, that is, job

changes within the Navy. There are two different dimensions of career events within the mid-career transition group. Along an upward progression dimension, we find officers becoming heads of departments or commanding squadrons. Along a specialization dimension, we find officers obtaining post-graduate degrees or being designated as "proven subspecialists." This latter designation indicates an officer has received additional education, experience, and training needed to satisfy special requirements in a professional development field (e.g., manpower/personnel management). These subspecialties are secondary to the officer's primary warfare specialty (e.g., pilot). However, possessing a subspecialty often limits that officer to assignments that require such skills. Specialization is one way for an officer to begin to prepare for an alternative career -- either within the Navy as a restricted line officer or outside of the Navy. The exact time that an officer undergoes one of these intraorganizational transitions depends on many factors, but it is likely it will be while the officer is either a fairly senior lieutenant, a lieutenant commander, or a somewhat junior commander. This occurs roughly between the 9th and 14th years of active service. Therefore, officers commissioned between 1973 and 1977 were sampled to fulfill the criteria of this transition group.

Retirement Transitions. Each officer's personnel record contains the year he or she is first eligible to retire. For most officers, this point occurs 20 years after their commissioning date. Except for lieutenant commanders, who must retire at 20 years if they have not been selected for the rank of commander, other officers (commander and above) may choose to continue service with the Navy beyond 20 years. Therefore, officers with a retirement year between 1985 and 1988 were sampled in order to fulfill the criteria for the retirement transition group. This sampling window includes not only officers who are approaching the retirement decision, but also those who have already chosen not to retire when initially eligible.

Sample Selection. A database was developed that included all current aviators with any designated subcommunity (N=14,488). Next, officers from subcommunities other than patrol, fighter, light attack, or medium attack were eliminated. Following this, all individuals remaining in the database who participated in a concurrent study on the officer assignment process (these officers were randomly selected from commissioning years 1961 to 1985) were also eliminated. Those remaining in the database (N=4,655) were the population from which the sample was selected to meet the transition group, aviation subcommunity, and occupational specialty criteria. From this population, approximately 50 percent (N=2,300) were selected and sent the study questionnaire.

Data Gathering Methods

Administering the Questionnaire

Most of the data were collected through questionnaire administration. The survey was given during the latter part of 1986. Selected officers were informed of the study at their primary work place. The selected sample was sent a package including: (a) a letter encouraging participation from Admiral Francis Donovan (Assistant Commander, Navy Military Personnel Command), (b) an instruction sheet for completing the questionnaire, (c) the questionnaire booklet, and (d) an addressed pre-paid return envelope. Appendix A presents the study materials sent to each participant. Respondents were informed that the questionnaire would be used only by the Navy Personnel Research and Development Center (NPRDC) and would not become part of their official records nor be used to make decisions about their future careers. In addition, the commanding officer of each selected individual was sent a letter notifying them of the study and encouraging their support. Six weeks after mailing the questionnaires, a follow-up letter was sent to the entire

sample. This letter thanked individuals for completing the questionnaire if they had done so, and encouraged individuals who had not yet completed the questionnaire to do so.

All completed questionnaires were returned to NPRDC. A cut-off point for receiving completed questionnaires was established three months after the questionnaires were mailed. This date was based on questionnaire return rates from previous NPRDC studies, and only a handful of questionnaires were received after the cut-off date. Completed questionnaires were optically scanned and the initial database was constructed.

Because of the problems and delays associated with mail service to aviators assigned overseas and to ship-based squadrons, it is difficult to accurately assess the response rate. There is no way of determining what percentage of the selected sample actually received questionnaire packets. Assuming all 2,300 officers in our selected sample received their questionnaires, the final tally of respondents (N=1,456) reflects a 63 percent response rate. More likely, only three-fourths of the sample actually received a questionnaire packet. In this case, 81 percent returned their questionnaires.

The final sample was further reduced. Officers who did not fit the sampling criteria (e.g., those who had changed to an aviation subcommunity other than attack, fighter, or patrol) or who did not indicate the date of their focal career event were eliminated. The final sample used for the present study became 1,301.

Data from Additional Sources

In addition to the questionnaire, data were also available from the Officer Master File (OMF) -- a computerized personnel file with information on each officer's past assignments, educational background, qualifications, and other demographic data. By matching the social security number of each participant (the first question in the questionnaire) to the OMF, it was possible to extract information from the personnel record of each participant.

Similarly, previous evaluations for each participant (based on the Officer Fitness Report) were obtained from the Officer Fitness Reports File -- a computerized file with each officer's past evaluations recorded. The social security number of each participant was once again used to extract evaluation information for each officer.

Sample Characteristics

Within the participating sample (N=1,301), the typical respondent was 33 years old, held a BA degree, was married, and had been in the Navy 9.8 years. There were no female aviators in the sample. The majority of officers were in assignments that required 10 or fewer hours of flying per week. The sample consists of a greater percentage of mid-grade officers (lieutenant and lieutenant commander) than junior officers or senior officers: (a) 4 ensigns, (b) 71 lieutenants junior-grade, (c) 669 lieutenants, (d) 387 lieutenant commanders, (e) 148 commanders, and (f) 22 captains.

One of the sampling objectives was to obtain an equal representation of officers from the patrol subcommunity and from the attack and fighter subcommunities. A second objective was to obtain a representative proportion of pilots and NFOs. Table 2.1 presents the final sample sizes reflecting these sample criteria. The third sampling objective was to sample equally across transition groups. Table 2.2 shows the sample composition by transition type and phase in the career transition cycle. Although group sizes vary across the six primary transition groups, there are sufficient numbers within any single transition group to support most of the planned analyses.

Subcommunity	Occupational Specialty		Total	Percent
	Pilots	NFOs		
Attack/Fighter	369	270	639	49%
Patrol	352	310	662	51%
Total	721	580	1301	
Percent	55%	45%		

Table 2.1. Composition of the sample: Subcommunity by occupational specialty.

Career Transition Phase	Transition Type						Total	Total (%)
	Initial Socialization	Full Membership	Resignation	Promotion	Lateral Moves	Retirement		
Pre-event	24	154	142	166	60	98	644	50
At Event ($\pm$ 1 month)	28	39	38	48	18	21	192	15
Post-event	126	71	35	119	79	35	465	35
Total	178	264	215	333	157	154	1301	
(%)	14	20	17	26	12	12		

Table 2.2. Composition of the sample: Career transition phase by transition type.

Measures

Constructed Scales

A number of criteria were used to construct scales (i.e., composite measures based on an individual's mean response across a number of different items). For scales, the average intercorrelation of an item with the other items measuring the same concept had to be significant. Secondly, the estimate of internal consistency (Cronbach's α) had to be high enough to suggest that a single construct was being measured. For the present study, an acceptable level of Cronbach's α was 0.70 or higher. Finally, the average correlation of an item with other items in the same scale had to be higher than the average correlations of the item with items from other scales.

Indices (i.e., a linear combination computed from a subset of an individual's data) were developed typically as "difference scores." For example, one index was computed as a difference between how much an officer expects to gain and to lose in his career from a career change.

Description of Measures

Table 2.3 lists all major constructs (i.e., scales and indices) and variables employed in this research. If the measure of a construct or item was from another study, the source of the measure is also presented. Appendix B presents additional information about each measure used in this study. For single item measures and indices, means and standard deviations are provided. For multiple-item measures, the means and standard deviations for each variable are presented, as well as the mean, standard deviation, and coefficient of internal consistency for the entire scale.

In the following paragraphs, the major categories of variables are outlined. Within each category, specific measures used in the present study are described.

Measures	Abbreviation	Number of Items	Source/Notes
<i>Environment Measures</i>			
Role Ambiguity	Ambiguity	4	Caplan et al. (1975)
Role Adjustment	Adjustment	4	
<i>Person/Personal Preference</i>			
Control Orientation	Mastery	5	Pearlin et al. (1981)
<i>Transition Dimensions</i>			
Perceived Magnitude	Perceived Mag.	1	
Perceived Desirability	Perceived Desir.	1	
Control Over Event	Event Control	1	
Career Transition Phase	Phase	1	
Personal Gain	Pers. Gain	2	

Table 2.3. Major constructs and variables used in study.

Measures	Abbreviation	Number of Items	Source/Notes
Career Gain	Care. Gain	2	
Personal Loss	Pers. Loss	2	
Career Loss	Care. Loss	2	
Personal Assessment	Pers. Assess.	1	Difference index between Pers. Gain and Pers. Loss
Career Assessment	Care. Assess.	1	Difference index between Care. Gain and Care. Loss
Multiple Transition	Multiple	1	
Time to/from Event	Time	1	
<i>Social Support</i>			
Superior Support	Superior Sup.	4	Adapted from French et al. (1983)

Table 2.3. Major constructs and variables used in study.
(continued)

Measures	Abbreviation	Number of Items	Source/Notes
<i>Transition Outcomes</i>			
Eagerness for Event	Eagerness	2	
Adjustment Difficulty	Adj. Difficulty	2	Shaw et al. (1985)
Anxiety	Anxiety	4	Caplan et al. (1975)
Depression	Depression	6	Caplan et al. (1975)
Irritation	Irritation	4	Caplan et al. (1975)
Psychological Strain	Strain	14	Caplan et al. (1975)

Table 2.3. Major constructs and variables used in study.
(continued)

Measures of Environment. These measures were used to assess the respondent's perception of (and attitudes toward) factors in his immediate environment. Specifically, these measures pertain to an officer's perceptions of his present role.

Role ambiguity refers to the amount of uncertainty about what is required in the individual's present role. This also refers to the degree to which the demands from others can be anticipated. With minor adaptation, the present measure of role ambiguity was extracted from Caplan et al. (1975).

Role adjustment reflects the degree to which individuals think they presently meet the requirements of their current Navy role (e.g., leadership requirements and job requirements). This scale was measured with four items. Two of the items were adapted from the job adjustment measure presented by Shaw, Fischer, and Woodman (1985).

Measures of Social Support. These measures reflect the amount of support available to officers in their careers. As such, they constitute one specific type of perception of an individual's social environment.

Superior support reflects the amount of personal assistance available to the individual from his immediate superior. French et al. (1983) assessed supervisory and peer support using a three-item scale. Using their response format and adapting their questions, a four-item scale was developed to measure social support available from the respondent's superior.

Measures of Person and Personal Preference. These measures were used to assess past experiences of the individual, traits of the individual, and the individual's preferences for his surroundings.

Control orientation or mastery refers to the degree to which individuals see themselves as being in control of the forces that importantly affect their lives. It is measured by a five-item scale developed by Pearlin et al. (1981).

Measures of Transition Dimensions. These measures were used to assess characteristics of the career event and transition that individuals were experiencing.

Individuals were asked to identify which of 24 career events (e.g., leaving on first deployment, screening for department head, or becoming squadron commanding officer) they had most recently gone through or were about to go through. For purposes of later analyses and classification, this became the individual's focal career event.

Perceived magnitude refers to the degree of change required for an officer to successfully adjust after each of the 24 possible career events. An individual's response to the particular career event that he was going through was used as an indication of the perceived magnitude of his focal career event.

Perceived desirability refers to the degree to which officers want the same 24 career events to occur in their careers. Respondents were asked to rate how desirable each of the 24 potential career events was to them. An individual's response to the particular career event that he was going through was used as an indication of the perceived desirability for his current career event.

Control over event refers to the degree to which the individual believes he has influence over the career event he is presently going through. This measure was assessed with a single questionnaire item.

Career transition phase indicates whether officers were in the pre-event, at-event, or post-event subgroups. Individuals were assigned to these subgroups based on the date they completed the questionnaire and the date they reported their focal career event either had occurred (post-event) or was to occur (pre-event). Those within one month either before or after their focal career event were assigned to the at-event subgroup.

Personal gain, career gain, personal loss, and career loss refer to the degree to which the focal career event is seen in a positive or negative fashion by the individual. Any career event has both positive and negative attributes. Gains and losses due to the career event were measured with respect to two areas of impact: (a) one's personal and family life, and (b) one's career. Two items assessed personal gain and two items

assessed career gain. Similarly, two items were used to assess personal loss and two items were used to assess career loss.

Personal assessment and *career assessment* were indices computed to provide an estimation of intuitive balancing of potential gains and losses resulting from the career event. Personal assessment was computed as the difference between personal gain and personal loss (i.e., personal gain minus personal loss). Similarly, career assessment was the difference between career gain and career loss.

Multiple transition refers to the presence of a second specific event occurring at the time of the focal career event. Previous research suggests that the occurrence of additional transitions often increases stress. For the present study, a single item was used to determine if one type of multiple transition was occurring -- a geographic move. Individuals were asked to indicate whether their focal career event involved a relocation.

Measures of Transition Outcomes. These variables assess different results of the career transition cycle.

Eagerness for event reflects the degree to which individuals want (or wanted) their focal career event to occur. As mentioned earlier, it is likely that high scores on this measure reflect successful career event preparation which leads to expedient transition adaptation. In the present study, eagerness was measured with a two-item scale.

Adjustment difficulty reflects the degree of difficulty either the individual or the individual's family faced as a result of the focal career event. For individuals who have not yet come upon their focal career event, this measure reflects their anticipation of complications that may arise as a result of the career event. Two items were used to estimate adjustment difficulty.

Anxiety, depression, and irritation reflect the degree to which the individual faced psychological strain during the two weeks prior to completing the questionnaire. As such, these measures tap officers' present *state* rather than their general disposition. The measures of anxiety, depression, and irritation were developed by Caplan et al. (1975).

Four items were used to measure anxiety, six items were used to measure depression, and four items were used to measure irritation.

Strain is a composite measure of officers' present state of psychological health. It was computed as the mean across the 14 items assessing anxiety, depression, and irritation. A single composite measure was used, rather than the three separate measures, because of concern over high multicollinearity and the desire to reduce the number of variables being modeled.

Specific Hypotheses and Questions

Figure 2.2 presents the specific structural model of transition outcomes hypothesized in the present study. This model results directly from the more generic model of transition outcomes presented in the previous chapter (see Figure 1.7). This hypothesized model consists essentially of three separate but related sub-models: (a) perceptions regarding one's present role, (b) perceptions of the career event, and (c) career transition outcomes. With the exception of mastery, all other variables are hypothesized to be at least partially determined by other variables in the model. That is, mastery is exogenous while the other variables are endogenous. However, with the exception of eagerness and strain, all other variables in the model are also independent variables for other variables in the model. For example, while role adjustment is hypothesized to be a partial determinant of adjustment difficulty and strain, it is also hypothesized to be partially determined by role ambiguity. However, role ambiguity is not hypothesized to have a direct effect on either adjustment difficulty or strain. Therefore, role adjustment may be considered an intervening variable in the relationships between role ambiguity with both adjustment difficulty and strain.

Enduring traits and past experiences of the individual play a dominant role in how the officer perceives the environment and constructs preferences for his surroundings.

These perceptions and preferences, together with characteristics of the career event and social support in an officer's environment (a specific perception of one's environment), subsequently influence career transition outcomes.

In the present study, one personal trait measured is an individual's level of mastery (i.e., control orientation). This is postulated to influence directly both perceptions of one's present role (i.e., superior support and role ambiguity), as well as perceptions and preferences related to the focal career event (i.e., control over the event). Present role perceptions (specifically, superior support and role adjustment) and characteristics of the career event (specifically, perceived desirability and perceived magnitude of the career event) are hypothesized to influence directly level of career transition outcomes.

Shown in Figure 2.2 are not only hypothesized relationships, but also the hypothesized direction of influence between elements of the model. For example, the greater an officer's disposition is to control factors in his environment (i.e., mastery), the more likely it is that the officer will perceive himself as having control over the various facets of his career and of the career event. Furthermore, the higher the level of control over the career event is, the greater will be the propensity to assess the career event as having a favorable influence on one's personal life and one's career. Thus, mastery is hypothesized to influence levels of personal assessment and career assessment only indirectly -- through control over the event.

It should be noted that there are two levels of transition outcomes in the model -- adjustment and personal reactions. Above all else, career events bring about uncertainties. As a result of these uncertainties and the career event, people adjust. The better they adjust, the more positive will be their reactions to the career event. The more problematic the period of adjustment is, the less positive will be their reactions to the career event.

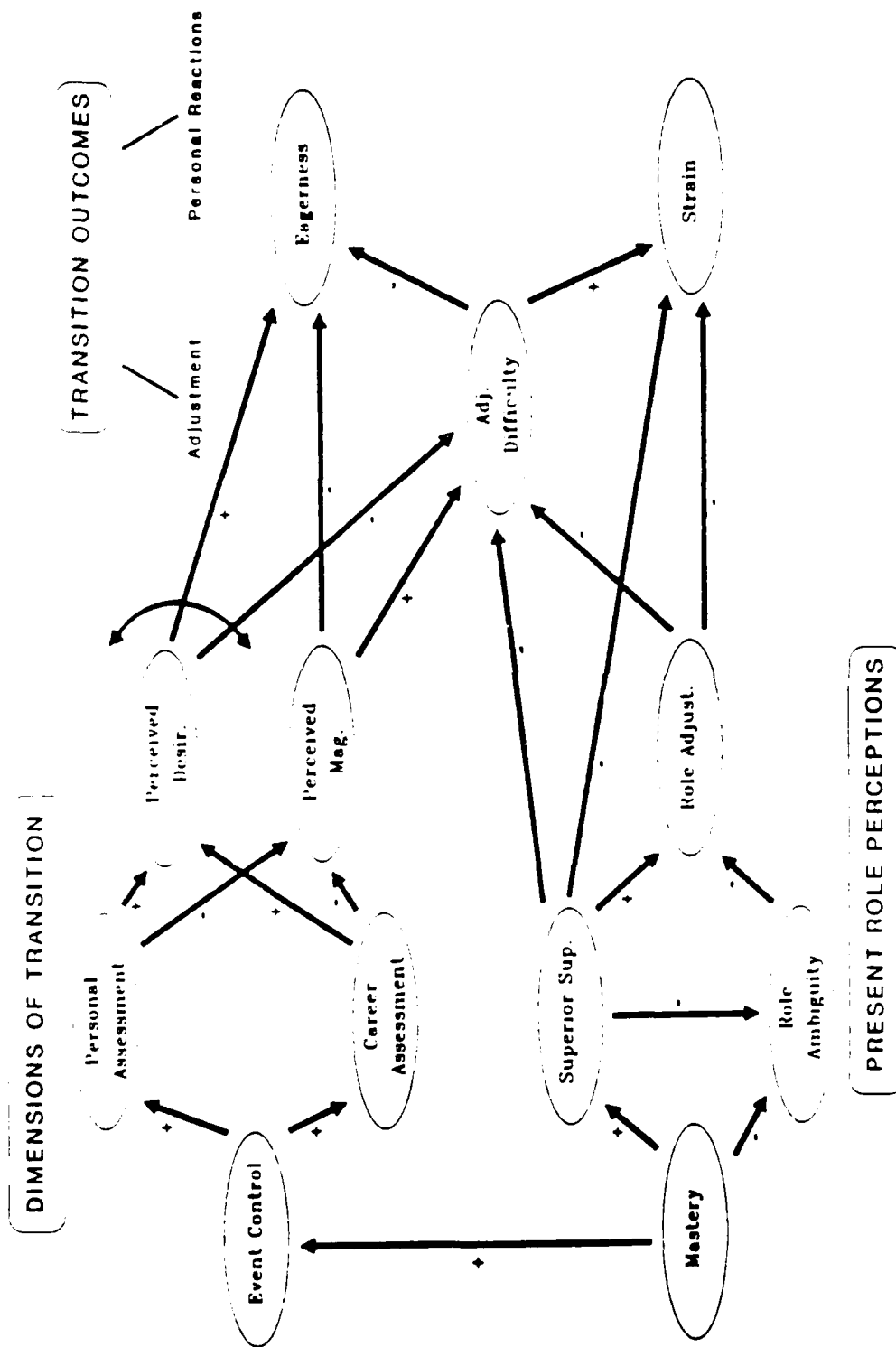


Figure 2.2. Hypothesized structural model of the determinants of career transition outcomes.

There are two personal reactions included in the present model -- psychological strain and eagerness toward the event. As mentioned previously, most earlier studies of career transitions identified psychological strain as the primary result of change. That is, career events bring about disruption in one's life that increases anxiety, irritation, or depression. Prior studies suggest that strain always accompanies career transitions and that only with the passage of time will strain be alleviated (cf. Frese, 1984; Hopson & Adams, 1976; Van Maanen & Schein, 1979). However, this study hypothesizes that such disruption and strain need not result from every career event. Indeed, people often want change in their lives. Therefore, a second reaction to career transitions included in the theoretical model of career transition outcomes is the individual's outlook toward the career event itself. A positive outlook, that is, an eagerness for the event, is important for two reasons. First, few would argue that everything else being equal, it is desirable for people to feel good about what they do. Certainly much of the research in organizational behavior over the past 50 years would support this. Secondly, having a favorable outlook toward the career event is important because of its impact on individual behavior. People who are favorable toward a career event occurring in their lives are less likely to devote a great deal of energy toward resisting the change and are more likely to devote energy toward reestablishing career equilibrium and productive role behavior. Finally, this model hypothesizes that strain results more from one's present role than from a career event, *per se*. A career event will evoke strain only to the degree that it results in adjustment problems for the individual.

Aside from the effects of the main influences, shown in Figure 2.2, this study also hypothesizes that the following factors moderate relationships and outcomes for aviators undergoing career events: (a) phase in the career transition cycle, (b) type of career event, and (c) occurrence of multiple (i.e., concurrent) transitions.

Based on the structure of career transitions presented earlier (the career transition cycle), the primary factor moderating outcomes of the transition process is where in the

cycle individuals are (i.e., career transition phase). Thus, what is consequential for people who are coming upon a career event is likely to be somewhat different than for people who have already experienced a career event. Prior to the event, there is uncertainty about what is to follow the career event. For people who have already encountered their focal career event, however, the uncertainty has been eliminated. An event has transpired and consequences have emerged. The psychological strain related to uncertainty, therefore, is moderated by career transition phase.

For example, the hypothesized model of transition outcomes posits that increased levels of adjustment difficulty will lead to increased levels of psychological strain. This study hypothesizes that such a relationship will be much stronger for people who have already passed through the career event, than for people who have yet to experience the career event. For the former group, the level of adjustment difficulty they report is based on their recent actual experience of having to adjust to the event. For the latter group, the level of adjustment difficulty they report is only their expectation of how difficult adjusting to their upcoming career event will be. For the former group, adjustment difficulty (in a very real sense) is genuine -- having actual consequences. For the latter group, adjustment difficulty is a compilation of pre-event expectations. Although these expectations may influence the individual's outlook toward the event (i.e., eagerness for the event to occur), it seems unlikely that a great deal of psychological strain will result.

In a similar fashion, officers who have recently passed through their focal career event will likely be faced with more urgent concerns regarding their new role. Previous research has suggested that the amount of support given to newcomers is directly related to how expeditiously they adapt to their new surroundings (Feldman & Brett, 1983; Stout et al., 1986). Thus, a second relationship hypothesized to be moderated by career transition phase is the relationship between amount of support from one's immediate superior and both role adjustment and adjustment difficulty. If there is any single

individual likely to have a significant effect on the expeditious adjustment of a newcomer, it is that individual's new superior.

The second moderator variable hypothesized to effect outcomes of career transitions is the type of event being undertaken. Louis (1980b) postulates that there is a commonality across career events of all types. The present study examines if, when, or in what specific instances such a premise is valid. Additionally, this present study hypothesizes that certain structural parameters will vary as a function of the career event being undertaken.

The first relationships postulated to be moderated by career event type are the relationships between superior support and both role adjustment and adjustment difficulty. As mentioned earlier, support from one's immediate superior appears to be important for those entering new roles. The support of one's superior is particularly critical to aviators who are just starting their Navy careers. Because of this, superior support should play a greater role for officers going through the initial socialization career events (i.e., obtaining wings, entering first operational squadron, and leaving on first deployment), than for officers passing through most other career events.

Furthermore, these same relationships should also be stronger for officers going through the resignation career transition (i.e., the continuation decision and voluntarily resigning from active duty). Commanding officers are put under a fair amount of pressure to help retain qualified junior officers. Thus, when officers in their squadron come upon the end of obligated service, commanding officers often provide much attention and counseling with the aim of ensuring that the junior officers choose to continue. On the other hand, junior officers often report that, after they submit their letters of resignation, their commanding officers often make their remaining time in the Navy difficult. Thus, junior officers' commanding officers are very much like a two-edged sword; they can make life very good, or very bad.

Analytic Techniques

Most of the analyses were conducted using structural equation modeling (Jöreskog, 1969, 1973; Jöreskog & Sörbom, 1981, 1984). The analysis of linear structural relationships by the method of maximum likelihood (LISREL VI) has the power to separate questions of measurement from questions about the relationships under study. LISREL VI is a computer program that is able to estimate the unknown coefficients in a set of linear structural equations simultaneously. The variables in the equation system may be manifest variables (i.e., directly observed) or latent variables (i.e., unmeasured hypothetical constructs).

One of the primary benefits of using LISREL VI is that it provides an overall χ^2 goodness-of-fit test for the model being tested, as well as maximum likelihood estimates for all parameters and standard errors. For each model evaluated, the program produces a χ^2 statistic that indicates the degree of *overall fit* between the actual covariance matrix and the covariance matrix generated by the model being assessed. The probability level reflects the significance of the difference between the actual covariance matrix and the one generated by the LISREL model. Low values of χ^2 indicate good fit, high values indicate poor fit. Hence, χ^2 values with non-significant probability levels indicate that the hypothesized models provide a satisfactory fit to the data. Hypotheses about the significance of specific path parameters may be evaluated by examining the critical *t*-ratios (i.e., the estimated parameter divided by its standard error). Critical *t*-ratios greater than or equal to 1.96 ($p < .05$) are considered evidence for the statistical significance of the parameter in question (cf. Bagozzi, 1980).

A major drawback to the use of χ^2 is that with large sample sizes even trivial differences in fit tend to be detected as highly significant. This occurs since $\chi^2 = 2nF$ (where *n* is the sample size and *F* is the value of fit function minimized within LISREL). This feature of χ^2 has prompted researchers (Bentler & Bonett, 1980; Fornell, 1983;

Hayduk, 1987; James, Mulaik, & Brett, 1982; and Jöreskog, 1969) to suggest alternative criteria for assessing goodness-of-fit.

The first widely-used alternative to χ^2 was an index comparing χ^2 to the degrees of freedom (Jöreskog, 1969) -- that is, χ^2/df . Wheaton, Muthen, Alwin, and Summers (1977) recommend that a χ^2 five times the degrees of freedom indicates good fit. Carmines and McIver (1981), however, suggest that a χ^2 two to three times the degrees of freedom is more reasonable.

One can also assess the effect that additional fixed parameters have upon fit (i.e., parameters specified at a set value, typically zero). The difference between two χ^2 s is also a χ^2 statistic with degrees of freedom equal to the difference in degrees of freedom between the original χ^2 s (Jöreskog & Sörbom, 1979). If this difference χ^2 ($\chi_d^2 = \chi_r^2 - \chi_f^2$) is significant, one rejects the null hypothesis about the fixed parameter(s). A large drop in χ^2 compared with the difference in degrees of freedom indicates that the model with additional parameter(s) set free (i.e., allowed to be estimated by the program) offers a significant improvement over the more restrictive model. Such a comparison statistic is only useable if one of the models is nested within the other (i.e., the models are essentially composed of the same ordering of variables with the exception that one model has more fixed parameters than the other). Also, this test may only be conducted within populations. One must use caution when interpreting χ_d^2 . As with χ^2 , χ_d^2 is subject to fluctuations due to sample size. Therefore, with large sample sizes a significant χ_d^2 may be obtained even when the difference between the two models is minute.

Marsh, Balla, and McDonald (1988) argue that while neither χ^2 nor χ^2/df vary with sample size for a true model, both are strongly affected by sample size when the model is false. They recommend using the Tucker and Lewis (1973) *nonnormed incremental fit index* (NNI) and demonstrate that the NNI is the only widely used χ^2 fit index that is relatively independent of sample size. The NNI is defined as:

$$NNI = (\chi_o^2/df_o - \chi_i^2/df_i)/(\chi_o^2/df_o - 1.0),$$

where χ_o^2 and df_o are based on the *null model* (i.e., the most restrictive model where most, if not all, relations among the manifest variables are fixed at zero), and, χ_i^2 and df_i are based on the *target model* being assessed. The NNI, therefore, is an extension of the simple χ^2 incremental assessment.

Although the NNI may be relatively independent of sample size, there is no absolute standard for NNI that indicates what constitutes an acceptable fit. Bentler and Bonett (1983) suggest that considerable improvement to the model can be made when NNI values are less than .90 (though this standard has yet to be empirically supported).

However, a drawback of this type of index is that it does not account for the degrees of freedom used in the target model when compared to the null model. James et al. (1982) recommend the *parsimonious fit index*, calculated by multiplying an incremental-type index by df_i/df_o . In effect, such a strategy invokes a penalty for the greater degrees of freedom used in the target model. At the time, James et al. used the Bentler and Bonett (1980) *normed fit index*. Recent analyses (Marsh et al., 1988) have shown this index to be influenced by fluctuations in sample size. Therefore, combining the James et al. approach with the NNI provides us with an additional measure of goodness-of-fit for the present study:

$$(df_i/df_o) \text{ NNI.}$$

This index has the advantage of both being relatively independent of sample size and providing a penalty function for the inclusion of additional model parameters. This parsimonious NNI (PNNI) will be used to assess relative fit among a series of nested structural models.

LISREL VI provides additional means of assessing the goodness-of-fit of any single model. One of the more important means of assessing the fit of a model is through the *root mean square residual* (RMR). Small residuals imply that the model fits the data rather well. The RMR is an estimate of the average of the residual variances and covariances. Specifically, the RMR is the square root of the average of the squared

residuals. As such, it gives greater weight to larger residuals. According to Jöreskog and Sörbom (1986), the RMR can only be used to compare the fit of two different models for the same data. The RMR may be used to compare not only nested models, but also models that are not nested (Herting & Costner, 1985). The model with the smallest RMR has the better fit. According to Dennison (1982), a RMR of less than .05 implies a reasonable fit.

LISREL VI also reports *normalized residuals* that result from the residual covariance "divided by the square root of its asymptotic variance" (Jöreskog & Sörbom, 1986, p. 1.42). These normalized residuals estimate how many standard deviations the observed residuals are from a perfectly fitting model. Further, if only random errors remain in these residuals, all but approximately 5 percent should be within two standard deviations (Hayduk, 1987). Finally, when assessing relative fit among a series of nested models, it seems quite reasonable not only to evaluate the individual values of the normalized residuals, but also to compute the mean of the absolute value of all normalized residuals (MNR). This computed measure provides additional indication about the overall goodness-of-fit between the observed and predicted covariance matrices.

A further suggestion for assessing fit made by Jöreskog and Sörbom (1986) is the use of *squared multiple correlations* (SMC). SMCs are computed for each equation, whether measurement equation or structural equation. The SMC is a measure of the strength of the relationship between the predictor and outcome variables. In one sense, these values are analogous to the coefficient of determination (R^2) in multiple regression. That is, they provide an estimation of the amount of variance accounted for in the latent variables. These coefficients lie between zero and one, larger values being associated with better models.

A measure of the correctness of fixed parameters (i.e., unestimated parameters) in any single model is also provided by LISREL VI. The *modification index* (MI) for a

given fixed parameter estimates how much the χ^2 value would decrease if the model were to be reestimated with the parameter set free. Therefore, this index may be evaluated as a χ^2 with 1 degree of freedom. A modification index greater than or equal to 6.64 ($p \leq .01$) suggests significant improvement to the model. As expected, Jöreskog and Sörbom (1986) urge caution when using the MI; a parameter should be relaxed only when it makes sense from a theoretical point of view.

In most cases, initial structural models are disconfirmed (i.e., the null hypothesis is rejected) in LISREL VI. Hence, it is necessary (to some degree) to conduct exploratory analyses to develop data-based models. MacCallum (1986) refers to such analyses as specification analyses. Whenever these are required, the specification analyses ideally should be conducted on one half of the sample. The second half (the hold-out sample) would then be used to validate the solution obtained from the first half (cf. Cliff, 1983; Cudeck & Browne, 1983).

Finally, it should be apparent that rather than relying on a single measure of goodness-of-fit, a number of measures can be used. In the present study, the overall- χ^2 measure as well as the RMR will be used to provide a general assessment of whether the model is a good or poor fit to the data. The significance of specific path parameters will be assessed using the critical t-ratios. The SMCs will be used to give an indication of the goodness-of-fit for different parts of the model. A modified version of the NNI will be used as a more reliable indication of the goodness-of-fit of a single model. When comparing different nested target models, the χ^2 test and the MNR will be used to assess the effect that freeing previously-constrained parameters has on model fit. Finally, in certain instances, the normalized residuals and the MI will be used to suggest where possible model improvements can be made (i.e., which constrained paths could be freed). However, whenever such exploratory analyses are conducted they will be validated with a hold-out sample (if the sample size for the particular model being estimated is sufficient) and only those paths that are supported by theory will be unconstrained.

As with more conventional analytic methods, the "best-fitting" models that result from LISREL VI are not proven to be correct. Rather, the analyses have *failed to disconfirm* them. Thus, the final models will have achieved a certain degree of support from the present data. One cannot disregard the fact that different "best-fitting" models can be developed from the same covariance matrix. It is only within the confines of conceptual development that such competing models can be compared and assessed.

Moderator Analyses

Many of the planned analyses require modeling two or more groups simultaneously. For example, phase in the career transition cycle (e.g., pre-event vs post-event) is hypothesized to moderate certain relationships and transition outcomes. LISREL VI has the capability of analyzing latent structural equations across multiple groups.

The statistical test for moderation compares two different χ^2 s. The first χ^2 comes from an analysis conducted simultaneously on one model across all groups. The second χ^2 comes from an analysis similar to the first analysis, except that the path parameters, which are free to vary between groups in the first model, are constrained to be equal across groups in the second model (Hayduk, 1987). Because the second model is nested in the first model, a χ^2_d can be computed. If there is a moderator effect, this χ^2_d will be significant. Furthermore, this allows us to examine moderation across entire matrices (e.g., by setting the β matrix to be equal across groups) or to examine moderation across specified parameters (e.g., by setting β_{ij} to be equal across groups). LISREL VI, therefore, provides much flexibility in assessing moderation in models and in identifying the particular relationships that are affected by group membership.

Analytic Strategy

Following the recommendations of Anderson and Gerbing (1988), a series of different models were developed for each group of analyses. Two of these models (i.e., the null model and the hypothesized model) were used as benchmarks against which the other models were compared. The groups of analyses were created in such a way that the models within each group were nested. From this, a series of χ^2 tests were conducted and, using the additional goodness-of-fit measures, refinements to the hypothesized model were made.

Throughout the various analyses testing for moderation, the sample size for any single category had to be large enough to avoid developing models that capitalized on chance. The general rule-of-thumb used was that a category of a moderator variable had to have at least 100 people in it for a structural model to be developed.

The analytic strategy is rather straightforward. In Step 1, the model of adjustment and transition outcomes was evaluated by using the entire sample. The sample was then randomly divided into two. The first half of the sample was used to conduct specification searches on the data. The second half of the sample was used to validate the findings of the specification searches.

The refined model developed as a result of Step 1 was then evaluated for each of the hypothesized moderating groups. For example, in Step 2 the refined model was estimated simultaneously for officers in different phases in the career transition cycle (pre-event and post-event). Moderation was judged to be occurring if the χ^2 resulting from the analysis allowing parameters to vary across groups was significantly smaller than the χ^2 coming from the analysis specifying all parameters to be equal. Subsequently, a series of analyses was conducted to determine which of the relationships were moderated by career transition phase. This series of analyses led to refinement of the model describing determinants of career transition outcomes. Step 3 focused on the

moderating effects of career event type and followed the same approach as in Step 2. Finally, Step 4 explored the possible moderating effects of multiple transitions.

CHAPTER III

RESULTS

This chapter presents the results of analyses testing the hypotheses and examining the questions presented in the first two chapters. The first section examines the *a priori* categorization of career events used for the grouping of subjects in this study. That is, are the six types of career events (i.e., initial socialization, full membership, resignation, upward progression, lateral moves, and retirement) used to categorize the sample valid? The second section presents the results and subsequent refinement of the hypothesized structural model of career transition outcomes. The third section examines whether career transition phase is a moderator in the model of career transition outcomes. The fourth section examines whether career event type is a moderator in the model of career transition outcomes. The fifth section examines whether the occurrence of multiple transitions is a moderator in the model of career transition outcomes.

A Career Event Typology

The purpose of this section is to report on the development of a career event typology. As discussed earlier, Louis (1980a) postulated that there are five types of inter-role transitions: (a) entering/re-entering a labor pool, (b) assuming a different role/responsibility within the same organization, (c) moving from one organization to another, (d) changing professions or occupational specializations, and (e) leaving a labor pool. Based primarily on this typology, a six-type structure was postulated to exist in

Navy aviation (see Table 3.1 and Table 2.2). This typology differs from Louis' in that two types of initial career events were postulated: (a) initial socialization and (b) obtaining full membership.

The factor structure of career events was examined and compared to the *a priori* structure categorizing the sample for this study. A series of product terms formed from items rating the *magnitude* and *desirability* of twenty career events (i.e., the rated magnitude of a career event multiplied by the rated desirability of the same event) were factor analyzed. The magnitude items asked individuals to give their opinion of: the degree of personal change required by the "average" officer within their community to successfully adjust after the event. The desirability items asked individuals to give their impression of: how desirable each of these potential events is, regardless of the effect it might have on advancement in their Navy careers. Both items had five-point Likert response scales (see Appendix B).

Implicit in the use of the product terms is the assumption that individuals develop cognitive maps of career events based on these two related, but different, qualities. That is, magnitude and desirability interact to influence how individuals perceive different career events. Furthermore, for the present analyses, these qualities are assumed to effect equally the overall clustering of events. Also, by using these product terms, the number of items being analyzed is reduced from 40 to 20 and the number of factor structures being interpreted is reduced. Additional analyses (see Appendix C) demonstrate that factor analyzing the two qualities separately reveals fundamentally the same factor structure underlying each.

Factor analysis of the twenty product terms revealed five factors: (a) promotion events, (b) preparation for retirement, (c) lateral career moves, (d) initial career events, and (e) resignation. These five factors had eigenvalues greater than 1.00 after using a principal components analysis with a varimax rotation solution. This solution accounted for 57 percent of the total variance (see Table 3.2).

Career Event	Career Event Typology					
	Early Career Events		Mid-career Events		Exit Events	
	Initial Socialization	Full Membership	Upward Progression	Lateral Moves	Resignation	Retirement
Entering flight training	X					
Obtaining your wings	X					
Entering first operational squadron	X					
Leaving on first deployment	X					
Entering first shore assignment		X				
Becoming department head			X			
Screening for department head			X			
Screening for command			X			
Becoming squadron XO			X			
Becoming squadron CO			X			
Being selected for O-6			X			
Being selected for flag rank			X			
Entering a ship's company tour				X		
Entering a full-time education program				X		
Screening for Test Pilot School				X		
Screening for proven specialty				X		
Approaching end of obligation					X	
Voluntarily resigning from duty					X	
Leaving CO tour						X
Coming upon 20 years						X
Deciding to retire or not when eligible						X
Retiring from active duty						X

Table 3.1. *A priori* categorization of career events.

Career Event	Factor Loadings ^a					h ²
	1 Promotion	2 Retirement	3 Lateral Moves	4 Early Career	5 Resignation	
Entering flight training	--	--	--	.74	--	.61
Obtaining your wings	--	--	--	.67	--	.48
Entering first operational tour	--	--	--	.63	--	.48
Leaving on first deployment	--	--	--	--	--	.22
Entering first shore assignment	--	--	.43	.36	--	.47
Approaching end of obligation	--	--	--	--	.76	.62
Voluntarily resigning from duty	--	--	--	--	.80	.70
Entering a ship's company tour	--	--	.47	--	--	.31
Entering a full-time education program	--	--	.73	--	--	.61
Becoming department head	.56	--	--	--	--	.55
Screening for proven subspecialty	--	--	.64	--	--	.52
Screening for command	.86	--	--	--	--	.76
Becoming squadron XO	.84	--	--	--	--	.73
Becoming squadron CO	.87	--	--	--	--	.78
Leaving CO tour	--	.45	.35	--	--	.33
Coming upon 20 years	--	.83	--	--	--	.72
Deciding to retire or not when eligible	--	.81	--	--	--	.69
Being selected for O-6	.73	--	--	--	--	.63
Being selected for flag rank	.75	--	--	--	--	.62
Retiring from active duty	--	.75	--	--	--	.58
Eigenvalue	4.85	2.76	1.37	1.25	1.17	
Percent of variance	24	14	7	6	6	

^a Factor loadings less than .35 are not reported.

Table 3.2. Summary of principal components factor analysis (varimax rotation) of magnitude x desirability product terms for 20 career events.

The first factor accounted for 24 percent of the total variance and had six items (or career events) that loaded on it above .60. These six items all related to upward movement (i.e., promotion) in a Navy career.

The second factor accounted for 14 percent of the total variance and had three items that loaded on it above .60 and one item that loaded on it above .40. The three items with the highest factor loadings unquestionably pertain to preparation for retirement. The fourth item relates to retirement in that leaving a CO (commanding officer) tour is the last major career event an aviator experiences prior to becoming eligible to retire.

The third factor accounted for 7 percent of the total variance and had two items with factor loadings greater than .60, two items that loaded on it above .40, and one item that loaded on it at .35. The two items with factor loadings greater than .60 are lateral career moves in a Navy career. That is, these career events develop skills and experience apart from Navy aviators' primary warfare skill. The two items loading next highest (entering first shore assignment and entering ship's company tour) are "necessary evils" in most aviators' careers. These events remove officers from the cockpit and place them in assignments not directly related to their warfare skill. Finally, it needs to be noted that one item (leaving CO tour) had a factor loading of .35. This helps to clarify the fact that this item also had a moderate loading on factor 2 (retirement). That is, although this career event is related to preparation for retirement (as discussed earlier), it is also related to lateral career events. With the exception of approximately 35 aviators yearly who leave their commanding officer tours and subsequently command specialized squadrons (i.e., carrier air groups and fleet replacement squadrons), there is no opportunity for an aviator to fly beyond his commanding officer tour. Thus, in a very important way, the commanding officer tour is the last opportunity for an aviator to practice his occupational specialty.

The fourth factor accounted for 6 percent of the total variance and had three items that loaded on it above .60 and one item that loaded on it at .36. The three items with the highest factor loadings are the three initial career events that Navy aviators pass through (i.e., entering flight training, obtaining wings, and entering first operational squadron). The fourth item (entering first shore assignment) jointly loaded on factor 3 and factor 4. That is, this career event is a lateral career move (in that it removes officers from the cockpit) and yet, it is also an early career developmental experience. As mentioned in the previous chapter, it isn't until this point in officers' careers that they begin to be fully accepted as Navy officers (having lost their "nugget" labels).

Finally, the fifth factor accounted for 6 percent of the total variance and had two items that loaded on it above .60. These items refer to the continuation decision and resignation.

A fundamental objection to the use of the varimax solution is that it assumes orthogonality among the factor axes. Such a solution implies that there is no relationship between the different types of career events. An oblique solution relaxes this constraint and allows correlated factors. These solutions, though they probably portray reality more closely, are often more difficult to interpret than the simple structures resulting from orthogonal solutions. Nonetheless, even the results of the varimax solution showed that there are career events (e.g., leaving CO tour) that reflect facets of more than one type of career event. Table 3.3 presents the results of an oblique solution of the five factors extracted by the principal components analysis.

In terms of the pattern of high factor loadings among the career events, the five factors are very much the same as with the varimax solution: (a) promotion, (b) retirement, (c) early career events, (d) lateral career moves, and (e) resignation. The most interesting discrepancy between the two solutions is the loading pattern of "entering first shore assignment." From the oblique solution, it can be seen that this career event encompasses aspects of three different categories of career events. As with the varimax

Career Event	Factor Loadings ^a				
	1 Promotion	2 Retirement	3 Early Career	4 Lateral Moves	5 Resignation
Entering flight training	--	--	.73	--	--
Obtaining your wings	--	--	.69	--	--
Entering first operational tour	--	--	.68	--	--
Leaving on first deployment	--	--	--	.39	--
Entering first shore assignment	--	--	.43	.45	.45
Approaching end of obligation	--	--	--	--	.78
Voluntarily resigning from duty	--	--	--	--	.80
Entering a ship's company tour	--	--	--	.47	--
Entering a full-time education program	--	--	--	.75	--
Becoming department head	.65	--	--	.46	--
Screening for proven subspecialty	--	--	--	.68	--
Screening for command	.86	--	--	--	--
Becoming squadron XO	.85	--	--	--	--
Becoming squadron CO	.88	--	--	--	--
Leaving CO tour	--	.48	--	--	--
Coming upon 20 years	--	.85	--	--	--
Deciding to retire or not when eligible	--	.83	--	--	--
Being selected for O-6	.77	--	--	--	--
Being selected for flag rank	.77	--	--	--	--
Retiring from active duty	--	.75	--	--	--

• Factor loadings less than .35 are not reported.

Table 3.3. Summary of principal components factor analysis (oblique rotation) of magnitude x desirability product terms for 20 career events.

solution, this career event resembled partly a lateral career move (i.e., a career shift that removes the officer from his primary occupational specialty) and partly an early career developmental experience. Unlike the varimax solution, however, this event also loaded moderately with resignation career events. This is plausible since it is often during their initial shore assignment that officers become eligible to resign from the Navy.

The joint results of the varimax and oblique solutions provide support for the *a priori* career typology guiding the classification of subjects in this study. These results lend support to the theoretical typology presented by Louis (1980a). They also support the view of designating "obtaining full membership" as an event somewhat different from the other items comprising Louis' "initial career events." With this sample, a career transition typology consisting of six transition types is merited.

The Hypothesized Structural Model of Career Transition Outcomes

This section examines and refines the hypothesized structural model of career transition outcomes. Figure 3.1 is a diagram of the full model with all parameters specified. Following customary guidelines, ellipses represent latent unmeasured constructs (η) and rectangles represent measured (i.e., observed) variables (y). Measurement error and unique variance in measured variables (ϵ) and unexplained residual variance in latent variables (ζ) are not enclosed. Straight arrows between two variables show the hypothesized influence of one variable on another. In the present model there are two possible straight arrows: (a) from latent constructs to their respective measured variables (λ), and (b) from one latent construct to another latent construct (β). A curved two-headed arrow between ζ -terms indicates a covariance between the unexplained residual terms (Ψ). When this covariance is estimated without also estimating a direct linkage (i.e., β) between two latent constructs, Ψ is an estimate of

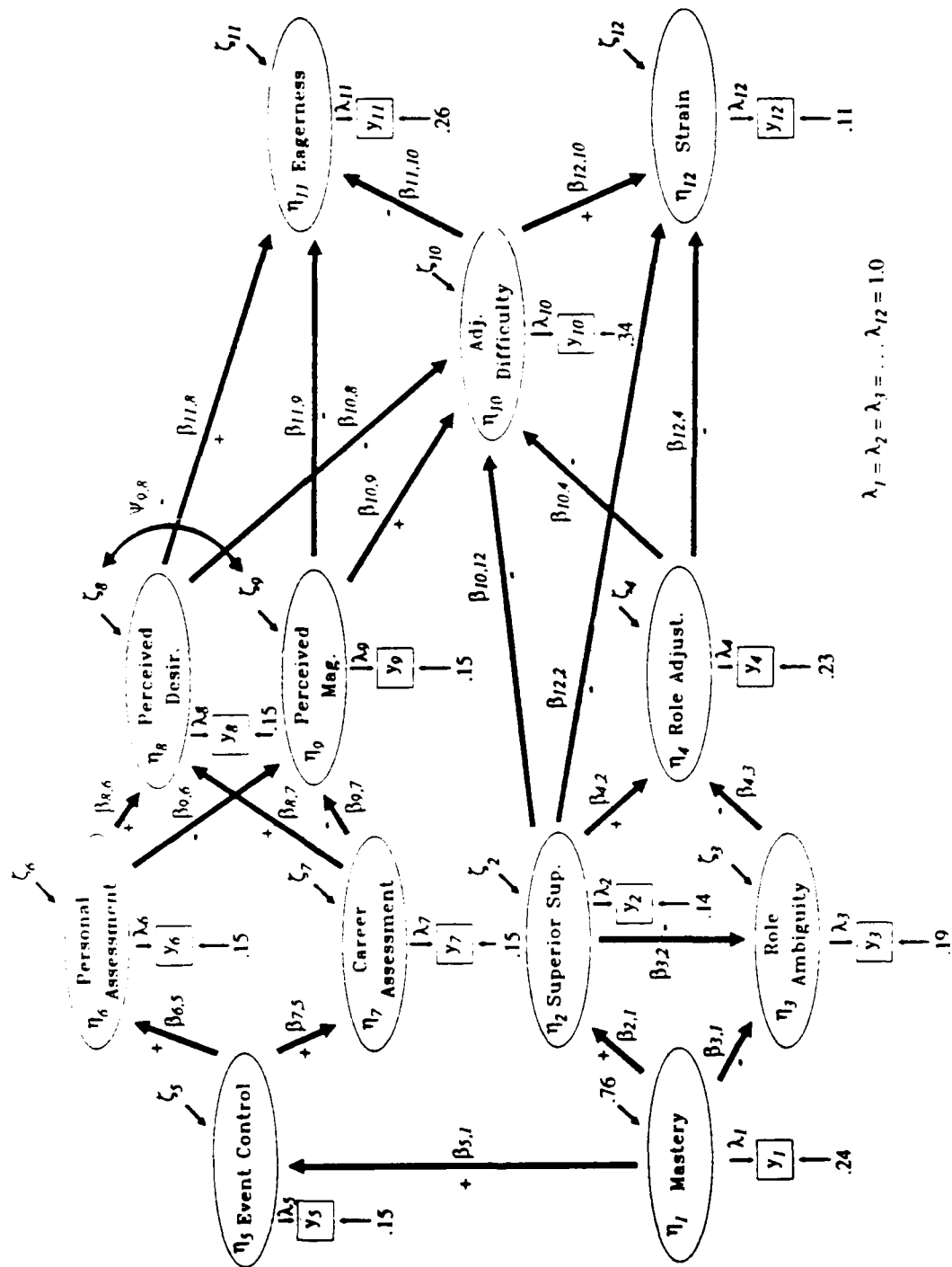


Figure 3.1. Hypothesized structural model of career transition outcomes (full model).

the strength of relationship between the two constructs and does not uniquely estimate covariance among their respective ζ -terms.

In the present model each latent construct is indicated by only one measured variable (either a single variable or a composite measure). This is because the fitting function used in the present analyses (maximum likelihood) requires observed variables that do not deviate far from normality. Conditions that violate this assumption lead to increased errors in estimated standard errors and to erroneous χ^2 statistics (Bentler & Chou, 1987). One way to partly remedy this situation is through the use of composite measures (or scales). Often, such composites approximate normality more closely than their individual components. For example, the five items comprising the mastery scale (see Appendix B) have an average kurtosis of .95 (ranging from -.62 to 2.17) and an average skewness of -1.03 (ranging from .70 to -1.22). The mastery scale (i.e., the mean of these five items) has a kurtosis of .45 and a skewness of -.74. Clearly, the composite of the five single items is less skewed and less leptokurtic than its component items.

Further, unlike many studies that use only single indicators of latent variables (see Fornell, 1983), perfect measurement of each variable was not assumed. Therefore, the λ_y matrix was defined as an identity matrix and the ϵ -terms were fixed to equal one minus α (Cronbach's measure of internal reliability). If a measured variable was not a composite measure (i.e., if it was a computed index or a single questionnaire item), the ϵ -term was fixed arbitrarily at .15. This value was chosen so that the variance of the respective η variable would more closely approximate its true variance.

Initial Examination of the Hypothesized Model

Figure 3.2 presents the results of the hypothesized model. Except as noted, this analysis and all subsequent analyses were conducted on the subsample of 1,045 individuals for whom data on all measures were available. Because the λ_y matrix was defined as an identity matrix, the rectangles representing observed variables (and their

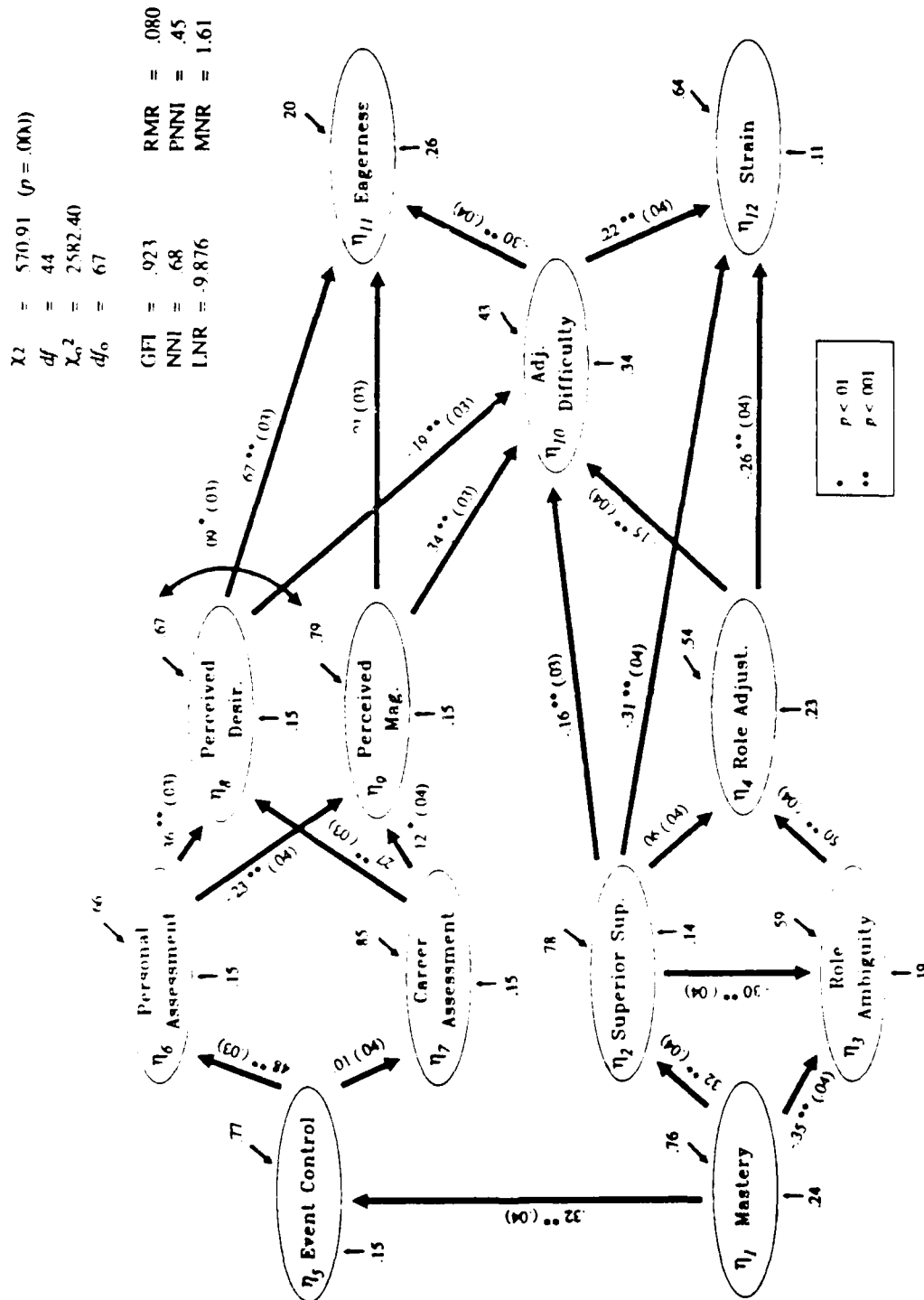


Figure 3.2. Evaluation of hypothesized structural model.

respective λ s) are not portrayed. The fixed ϵ terms are shown as leading directly to their respective η variables. Standardized parameter estimates are shown in the figure along with their corresponding standard errors in parentheses. Also, the significance level of each β (as reflected in the associated t -value) is represented with asterisks. This will be the convention for reporting results throughout this study.

The χ^2 is extremely large and significant -- indicating that this hypothesized model does not adequately represent patterns in the data. Furthermore, with the exception of the GFI statistic, the remaining statistics also indicate only a moderate fit to the data.

Nonetheless, only three hypothesized relationships were shown to have nonsignificant β s: (a) superior support to role adjustment ($\beta_{4,2}$), (b) control over the event to career assessment ($\beta_{7,5}$), and (c) perceived magnitude of the event to eagerness toward the event ($\beta_{11,9}$).

Identifying Misspecification in the Hypothesized Model: Assessing the Sub-models

A search for misspecified parameters was undertaken by separately assessing the three sub-models in the full model: (a) present role perceptions, (b) dimensions of the transition, and (c) transition outcomes. Next, relationships between pairs of sub-models were examined. Finally, all refinements to the hypothesized model were evaluated simultaneously. This incremental approach toward searching for specification error (by ensuring goodness-of-fit in the component sub-models) lessens the likelihood that parameters *between η s of different sub-models* will be unconstrained strictly on the basis of chance alone.

Present role perceptions. The first sub-model, present role perceptions, is presented in Figure 3.3. As expected, goodness-of-fit measures for this sub-model were quite satisfactory. With the large sample size it is not unusual for the χ^2 to be significant. The goodness of fit index (GFI = .992), root mean squared residual (RMR = .032), and

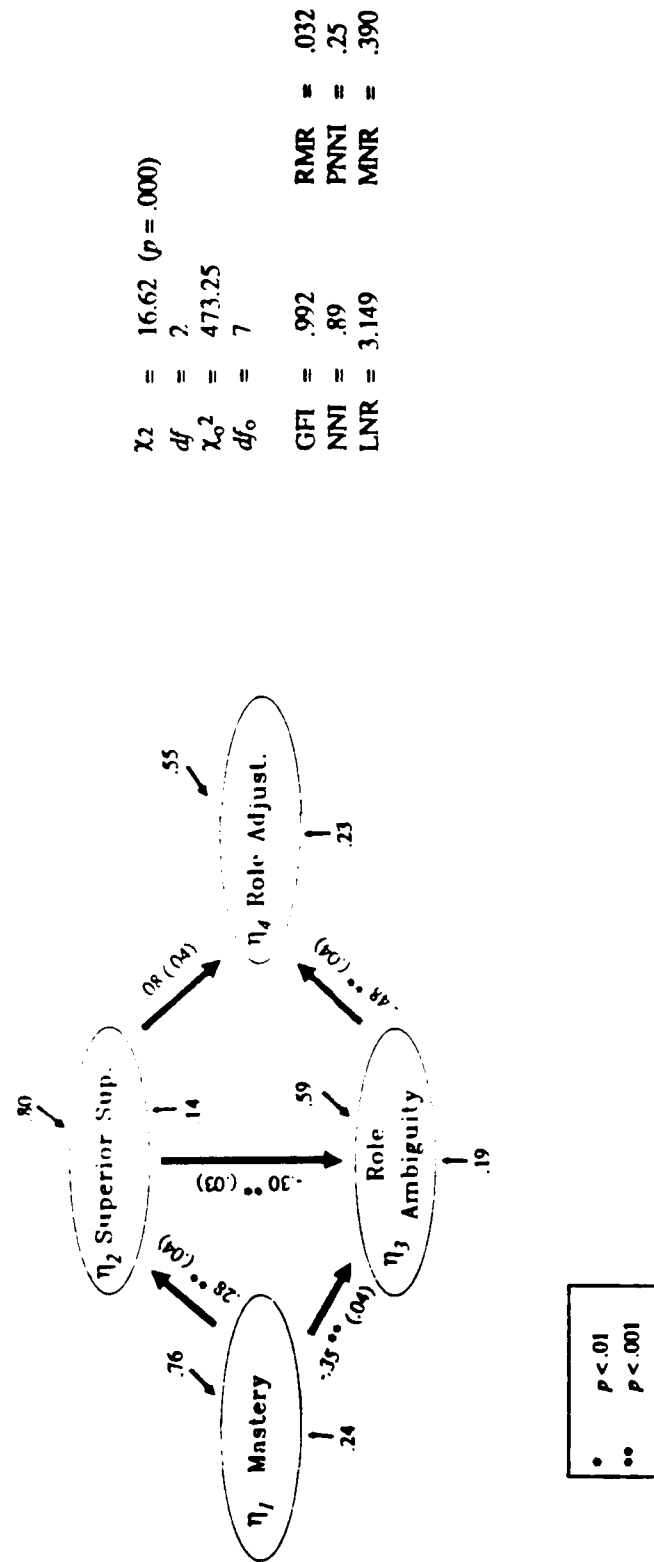


Figure 3.3. Role perceptions sub-model.

nonnormed index (NNI = .89) are all indicative of good fit. Further, the largest normalized residual (LNR = 3.149) is within acceptable limits. The arithmetic mean of the absolute value for all normalized residuals (MNR = .390) also represents adequate fit.

In the present role perceptions sub-model, 22 percent of the variance in role adjustment is accounted for by superior support and role ambiguity (once residual variance is considered). Furthermore, it is clear from the model that most of this is due to $\beta_{4,3}$ (role ambiguity to role adjustment). Also, level of mastery and support from one's immediate superior account for 22 percent of the variance in role ambiguity. Interestingly, $\beta_{4,2}$ was nonsignificant -- indicating a lack of relationship between the amount of support one receives from one's immediate superior and overall adjustment to one's present role. However, as hypothesized previously, this relationship is expected to be moderated by where in the career transition cycle the individual is, as well as by the type of career event being experienced. This will be evaluated shortly.

Dimensions of the transition. Figure 3.4 presents the second hypothesized sub-model: dimensions of the transition. Goodness-of-fit measures for this sub-model were quite good. The χ^2 was very low and nonsignificant (indicating a near perfect fit). All other measures of fit are indicative of good fit. For this sub-model the LNR also was quite low (.116), indicating that no additional parameters need to be unconstrained. In addition, the PNNI (which accounts for degrees of freedom used) was also moderately high (PNNI = .37) -- especially considering that two-thirds of the degrees of freedom were used.

One of the hypothesized relationships, $\beta_{7,5}$ (control over the event to assessment of the gains and losses in one's career), was nonsignificant. Although this parameter could be constrained, thereby freeing up an additional degree of freedom and raising the PNNI to .46, one should not remove theoretically-hypothesized parameters from the model simply to improve overall fit (cf. Hayduk, 1987; MacCallum, 1986).

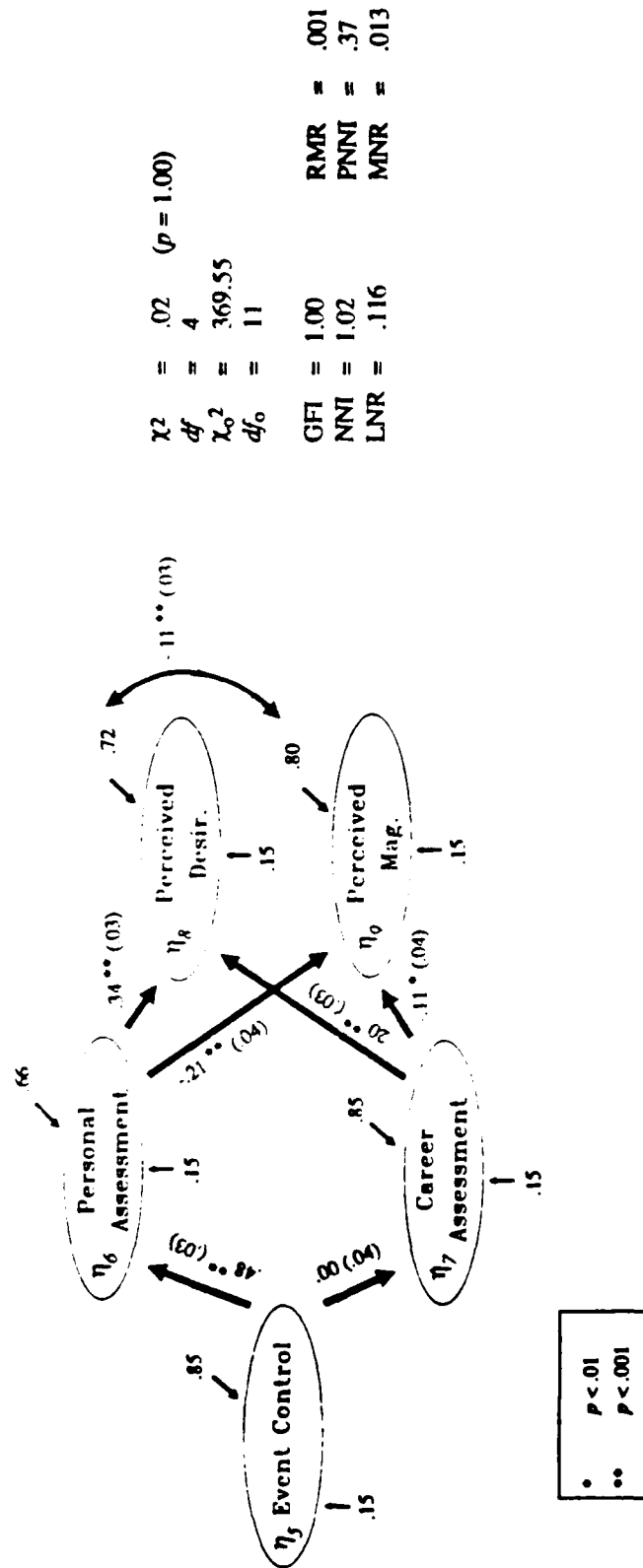


Figure 3.4. Dimensions of the transition sub-model.

By knowing individuals' assessment of how much they stand to gain or lose in their personal lives and in their careers, we can account for 13 percent of the variance in their perceptions of how desirable the career event is. We can also account for a small portion (five percent) of the variance in their rating of the overall magnitude of the career event. Finally, knowing how much the focal career event is under individuals' control accounts for 19 percent of the variance in their assessment of gains and losses in their personal lives.

Career transition outcomes. The third sub-model focused on potential career transition outcomes. As can be seen by looking at Figure 3.5, the goodness-of-fit measures are quite good. The results also support the postulation that one's eagerness toward the career event is a consequence separate from and independent of the amount of psychological strain one experiences as a result of the career event. How difficult adjustment to the career event either will be or was (depending on whether the focal career event is in the future or past) accounted for 9 percent of the variance in psychological strain and 19 percent of the variance in eagerness toward the focal career event.

Linkages between role perceptions and dimensions of the transition. Up to this point, the specification search revealed no problems in model fit (for η s within each sub-model). The next step in the specification search involved assessing the hypothesized relationships between present role perceptions and dimensions of the transition. The only relationship postulated to exist between these two sub-models is between an individual's overall level of mastery and his level of control over the focal career event. Specifically, individuals who believe they have control over their lives and their destiny will also feel a sense of control over aspects of their focal career event.

Figure 3.6 presents the results from the hypothesized model. As can be seen, most goodness-of-fit measures are adequate. However, the largest normalized residual is also quite large ($LNR = 5.632$). This occurs between mastery and assessment of the

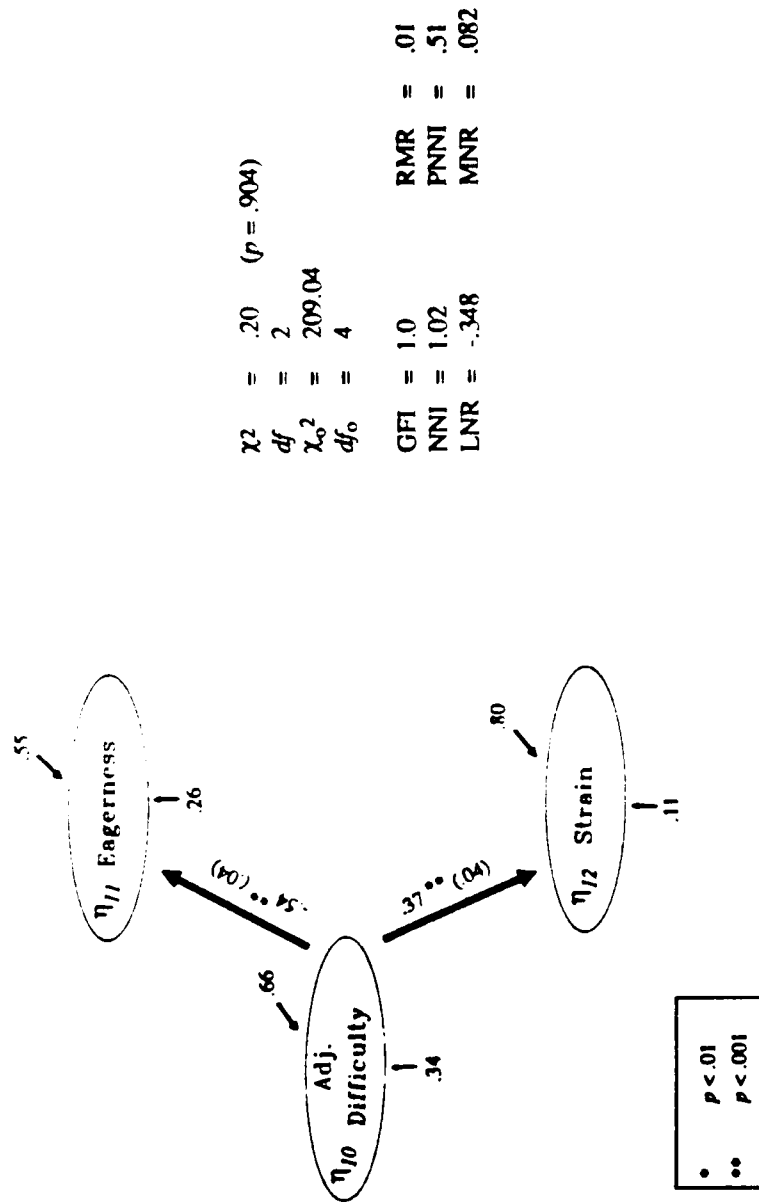


Figure 3.5. Career transition outcomes sub-model.

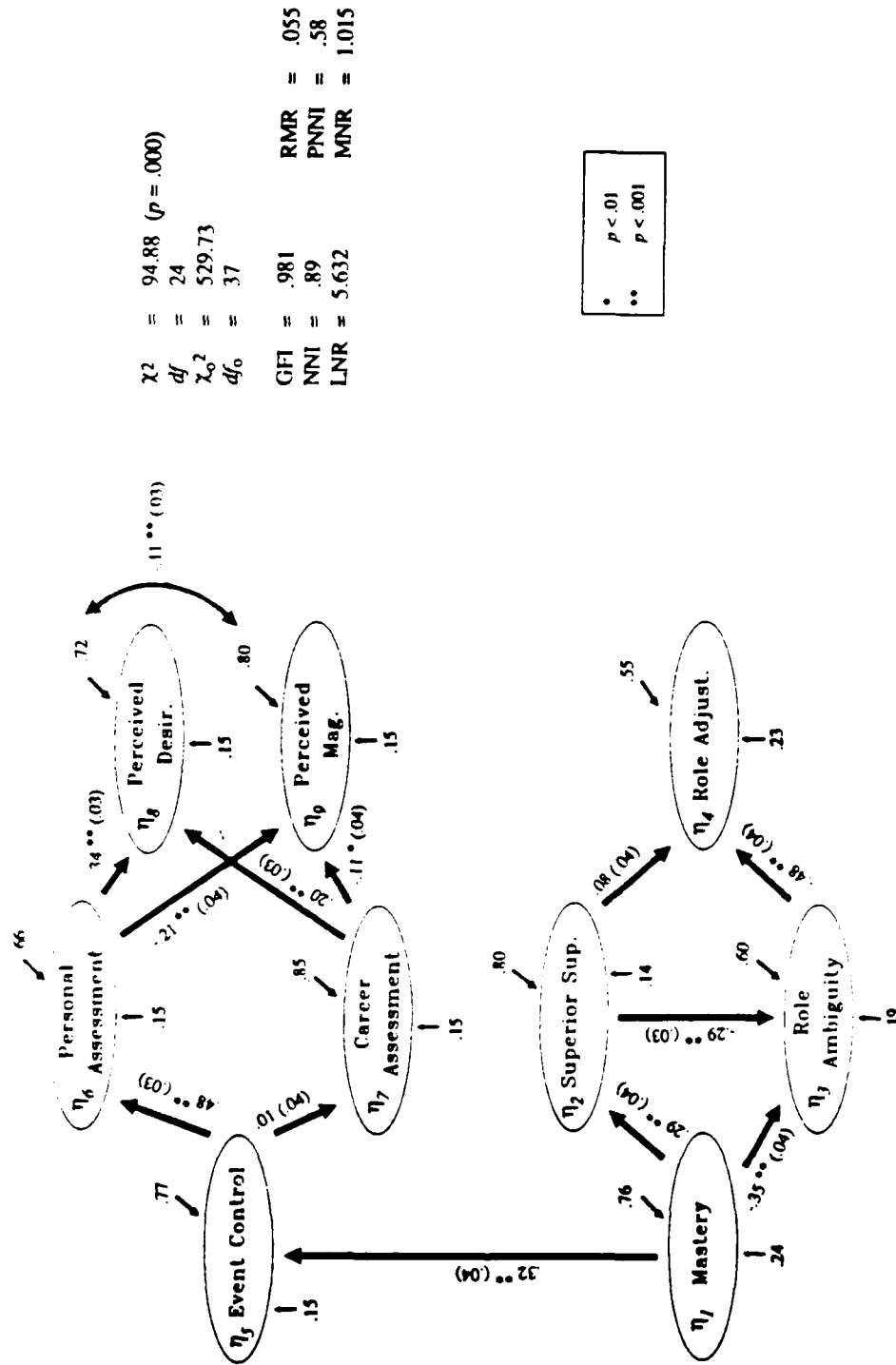


Figure 3.6. Initial evaluation of linkages between role perceptions and dimensions of the transition sub-models.

gains and losses in one's career as a result of the career event and indicates a specification error in the model (Jöreskog & Sörbom, 1986). Although a direct linkage between mastery and career assessment could not be supported theoretically, it seems likely that there are unmeasured constructs that influence both mastery and career assessment. One such construct is the accumulation of prior career experiences. If an officer has been successful in the past, it seems likely that such past success will reinforce his belief in control over the environment. By the same logic, if an individual had been unsuccessful in past career experiences, it seems equally plausible to think that his level of mastery would lessen. Similarly, past career success would tend to make an individual's outlook toward future career events highly favorable. On the other hand, a lack of success in previous career events likely would lead an individual to be uncertain about upcoming career events. Therefore, it was decided to unconstrain $\Psi_{7,1}$ (the covariance between the unexplained residuals in mastery and career assessment).

Table 3.4 presents the results of this specification search. The total sample was randomly divided into two subgroups: (a) a specification search subgroup, and (b) a cross-validation subgroup. The cross-validation subgroup (or hold-out sample) was used to validate freeing parameters that had not been previously hypothesized. The hypothesized model was reassessed using only the specification search subgroup ($N = 522$) and measures of goodness-of-fit were obtained. Next, $\Psi_{7,1}$ was unconstrained and the resulting goodness-of-fit measures were estimated. By allowing the unexplained residual between mastery and career assessment to covary, a significant drop in χ^2_d occurred ($\chi^2_d = 23.85$, $p < .001$) and the overall χ^2 for the model became nonsignificant ($p = .028$). Furthermore, the drop in χ^2 relative to the χ^2 of the hypothesized model was quite respectable ($\chi^2_d/\chi^2_{i-1} = .39$). Finally, the LNR dropped to an acceptable level. These results revealed that no additional parameters needed to be unconstrained.

This refinement (allowing $\Psi_{7,1}$ to be unconstrained) was then cross validated using the second subgroup ($N = 523$) in a process analogous to testing for moderation

Step	Description	χ^2	df	p	χ^2_d	$\frac{\chi^2_d}{\chi^2_{i-1}}$	Parameter t-value	GFI	RMR	NNI	PNNI	LNR
1	Hypothesized Model	61.40	24	.000	--	--	--	.975	.066	.88	.57	4.317
2	Addition of $\Psi_{1,1}$	37.55	23	.028	23.85**	.39	4.944**	.985	.045	.95	.59	2.910

** $p < .001$

Note. Null model for specification search subgroup:

$\chi^2 = 529.73$

df = 37

$\chi^2/df = 14.32$

Table 3.4. Summary of specification search on linkages between role perceptions and transition dimensions sub-models.

between two groups. This cross-validation test compares two different χ^2 s. The test comes from analyses evaluating the refined sub-model across both the specification search subgroup and the cross-validation subgroup. This first analysis allows the path parameters to vary between the two subgroups. The second analysis constrains all parameters in the refined model to be equal across subgroups. The χ^2_d resulting from these two analyses indicates whether the model fits equally well in both subgroups. A nonsignificant χ^2_d demonstrates cross validation by the hold-out subgroup. The χ^2 associated with allowing parameters to vary ($\chi^2 = 97.35$, $df = 46$) was not significantly different from the χ^2 associated with constraining all parameters equal across subgroups ($\chi^2 = 126.92$, $df = 68$; $\chi^2_d = 29.57$, $df = 22$, ns). Therefore, the hold-out subgroup was able to validate the model.

Finally, the entire sample was used to evaluate the refined model (see Figure 3.7). When compared to results from the original hypothesized model, we can see that there is a significant drop in χ^2 ($\chi^2_d = 41.54$, $df = 1$, $p < .001$) and that the remaining goodness-of-fit statistics improved as well. It is important to note that the addition of $\Psi_{7,1}$ (at the cost of one degree of freedom) did not lower the PNNI to any considerable extent.

Linkages between role perceptions and transition outcomes. The next step in the specification search evaluated the hypothesized linkages between present role perceptions and transition outcomes. The amount of support an individual receives from his immediate superior and the degree to which an officer has adjusted to his present role are hypothesized to influence directly: (a) psychological strain, and (b) perceived difficulty in adjusting to the officer's new role (either for an upcoming career event or for a career event just passed). None of the constructs in the present role perceptions sub-model are postulated to influence directly one's eagerness toward the focal career event. As will be seen, this construct is thought to be influenced primarily by adjustment difficulty and dimensions of the transition.

Figure 3.8 presents the results from the hypothesized model. The goodness-of-fit statistics show that there is some misspecification in this model. Although the GFI is relatively high (.956), the other statistics indicate unacceptable fit. In particular, the LNR is quite large (-9.938) and occurs between mastery and psychological strain. Although a direct influence from mastery to strain was not assumed, it seems plausible to postulate that level of mastery influences strain indirectly. Specifically, individuals high in mastery may be able to access and effectively use the resources available to mitigate or alleviate the negative effects of environmental stressors. For example, such individuals may actively seek out help and support from others. In the present model there is only one form of social support -- support from one's immediate superior. Therefore, a specification search of these relationships was conducted, beginning by unconstraining $\Psi_{12,1}$.

Table 3.5 presents the results of this specification search. Once again, the total sample was randomly divided into two subgroups (a specification subgroup and a cross-validation subgroup). In the first step, the hypothesized model was reanalyzed using only the specification subgroup. As expected, the goodness-of-fit statistics indicate less than adequate fit. Next, the unexplained residual terms between mastery (ζ_1) and strain (ζ_7) were allowed to covary ($\Psi_{7,1}$). This step led to a proportional χ^2 decline of nearly 60 percent from the χ^2 in the previous step and a significant χ^2_d ($\chi^2_d = 44.57$, $df = 1$, $p < .001$). Furthermore, improvements were noted in the NNI, PNNI, and LNR. However, the χ^2 still was significant -- indicating that additional improvement to the fit of the model was possible.

Inspection of the normalized residual matrix indicated that improvement to the model was likely by allowing additional parameters to be unconstrained -- specifically by accounting for the relationship between eagerness toward the career event and level of mastery. As was the case with the relationship between mastery and strain, a direct relationship between level of mastery and eagerness toward the career event was not

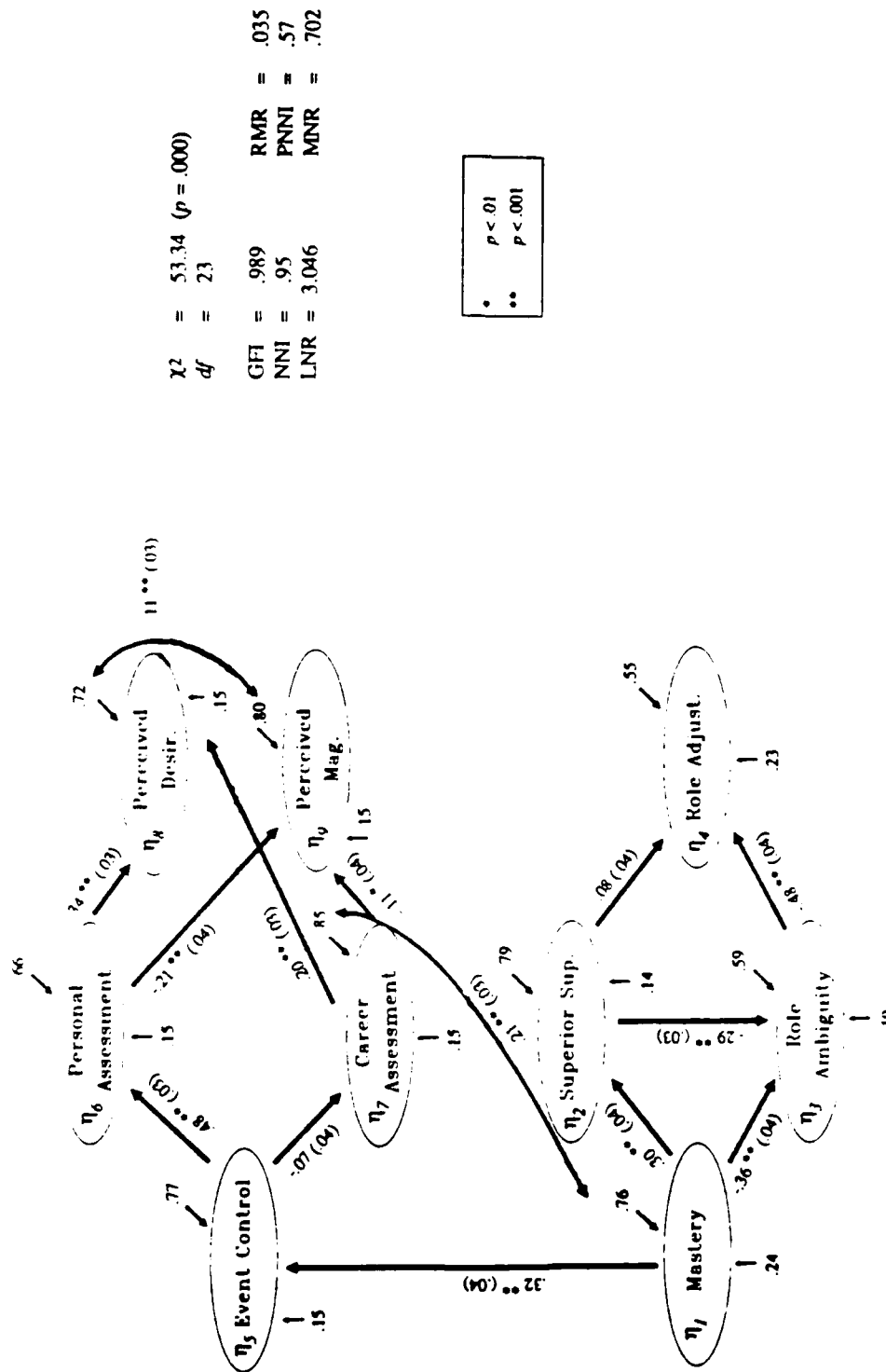


Figure 3.7. Refined model of the linkages between role perceptions and dimensions of the transition sub-models.

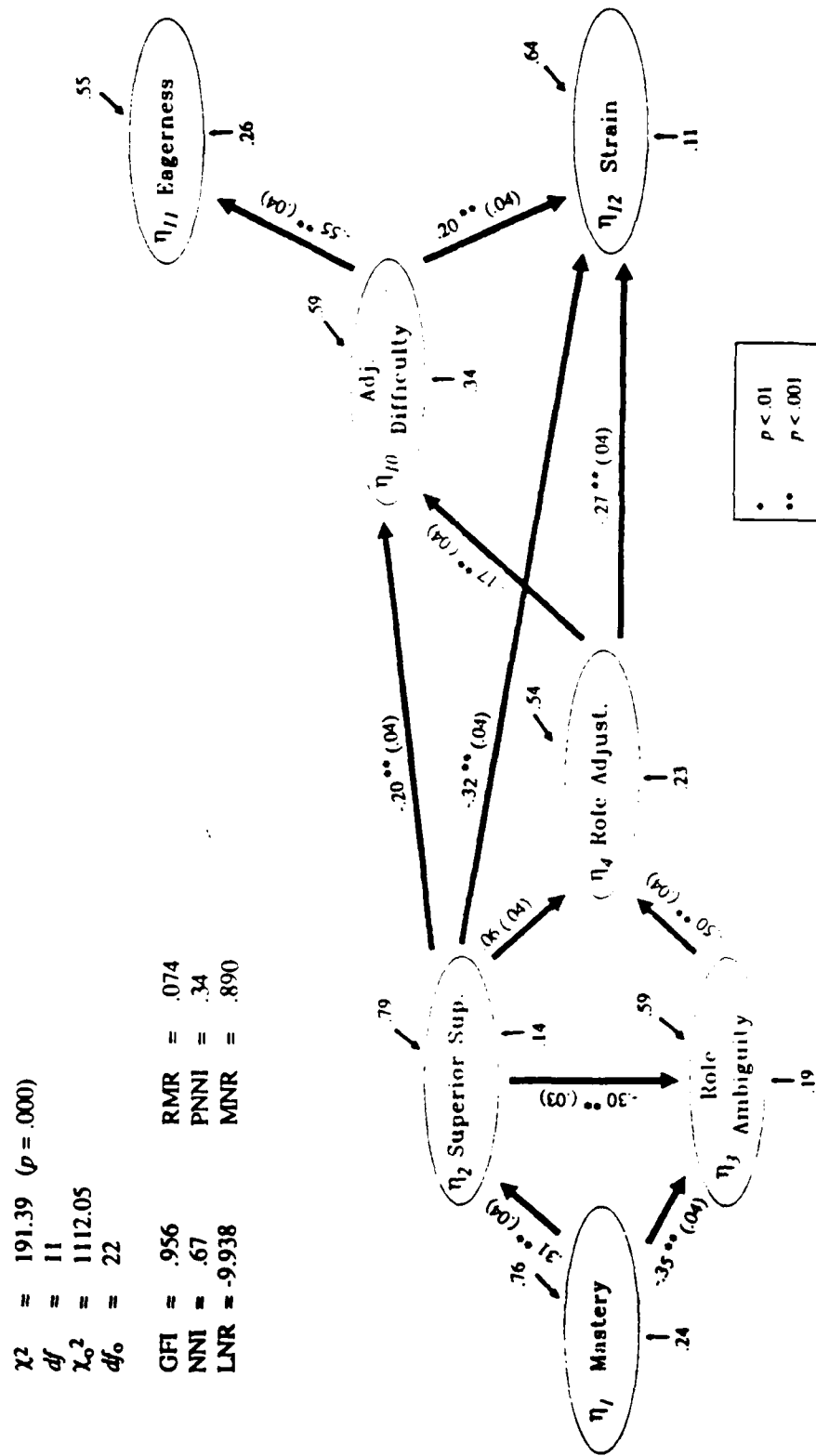


Figure 3.8. Initial evaluation of linkages between role perceptions and transition outcomes sub-models.

Step	Description	χ^2	df	p	χ_d^2	$\frac{\chi_d^2}{\chi_{d-1}^2}$	Parameter t-value	GFI	RMR	NNI	PNNI	LNR
1	Hypothesized Model	108.63	11	.000	--	--	--	.949	.080	.67	.34	-6.842
2	Addition of $\Psi_{12,1}$	44.57	10	.000	64.06**	.59	-8.588**	.976	.054	.87	.40	3.890
3	Addition of $\Psi_{19,1}$	35.28	9	.000	9.29*	.21	3.138**	.981	.042	.89	.37	-3.558
4	Addition of $\Psi_{10,1}$	22.22	8	.005	13.06**	.39	-3.699**	.988	.028	.93	.34	-1.877

* $p < .01$ ** $p < .001$

Note. Null model for specification search subgroup:

 $\chi^2 = 618.70$

df = 22

 $\chi^2/df = 28.12$

Table 3.5. Summary of specification search on linkages between role perceptions and transition outcomes sub-models.

hypothesized. However, based on the structure of career transitions presented in the first chapter, it is possible to postulate that individuals high in mastery are better able to prepare for their career events. That is, their career event preparation should be more complete and consequently more successful. As a result, they can be expected to have a greater eagerness toward the career event. Therefore, it was decided to allow $\Psi_{11,1}$ to be unconstrained.

By allowing the unexplained residual in mastery and eagerness to covary, there was a significant drop in χ^2 ($\chi^2_d = 9.29$, $df = 1$, $p < .01$). Further, while there were improvements in GFI, RMR, and NNI, this came at the expense of an additional degree of freedom -- leading to a slight decline in parsimony from the previous step (PNNI = .37). Nonetheless, since the overall χ^2 was still significant and because there was only a slight decline in the magnitude of the LNR, the specification search was continued.

Inspection of the normalized residual matrix indicated that a relationship between mastery and adjustment difficulty needed to be accounted for. Using the earlier logic to account for the covariance in unexplained residual between mastery and strain, it appeared likely that since individuals high in mastery are able to acquire resources, support, and assistance from their environment, this would also result in a reduction in the difficulty they experience in adjusting to their new roles. Thus, it was decided to unconstrain $\Psi_{10,1}$.

All goodness-of-fit statistics from the analysis allowing $\Psi_{10,1}$ to be unconstrained are indicative of superior fit. While there was a nonsignificant χ^2 ($\chi^2 = 22.22$, $df = 8$, ns), there was also a decline in the parsimony of the model (PNNI = .34). The specification search in this portion of the full model was terminated.

At this point, the tabulated results from the steps in this specification search (Table 3.5) were inspected. Taking everything into account (both goodness-of-fit and parsimony), step 2 was chosen as the best alternative. That is, the goodness of fit statistics were adequate and parsimony was not sacrificed.

The refined model (i.e., the hypothesized model and the one additional parameter -- $\Psi_{12,1}$) was then evaluated for cross validation with the hold-out subgroup. The χ^2 resulting from allowing parameters to vary ($\chi^2 = 43.33$, $df = 16$) was not significantly lower than the χ^2 resulting from constraining all parameters to equal values across the specification and cross-validation subgroups ($\chi^2 = 57.45$, $df = 36$; $\chi^2_d = 14.12$, $df = 20$, ns). Thus, the hold-out subgroup provided evidence of cross validation.

The entire sample was then used to evaluate the refined model (see Figure 3.9). These results indicate significant improvement to the overall fit of the model when compared to the results from the analysis of the original hypothesized model ($\chi^2_d = 136.51$, $df = 1$, $p < .001$). Further, while improvement in all goodness-of-fit statistics occurred, there was no loss of parsimony. In fact, the parsimony index actually improved (PNNI = .41).

This model explained 7 percent of the variance in adjustment difficulty and 21 percent of the variance in psychological strain. Superior support and role adjustment were able to explain 12 percent of the variation in strain over and above the 9 percent accounted for by adjustment difficulty alone. As hypothesized, present role perceptions did not directly account for variance in eagerness toward the career event.

Linkages between transition dimensions and transition outcomes. The next step evaluated the hypothesized relationships between dimensions of the transition and transition outcomes. Specifically, two characteristics of a career event (perceived desirability and perceived magnitude) are postulated to influence directly level of adjustment difficulty and level of eagerness toward the career event. Psychological strain is not assumed to be a direct result of the characteristics of the particular career event. Rather, as demonstrated earlier, strain is postulated to result from adjustment difficulty and the situation in one's present role.

The results of the hypothesized model are presented in Figure 3.10. All but one of the hypothesized linkages between dimensions of the transition and transition

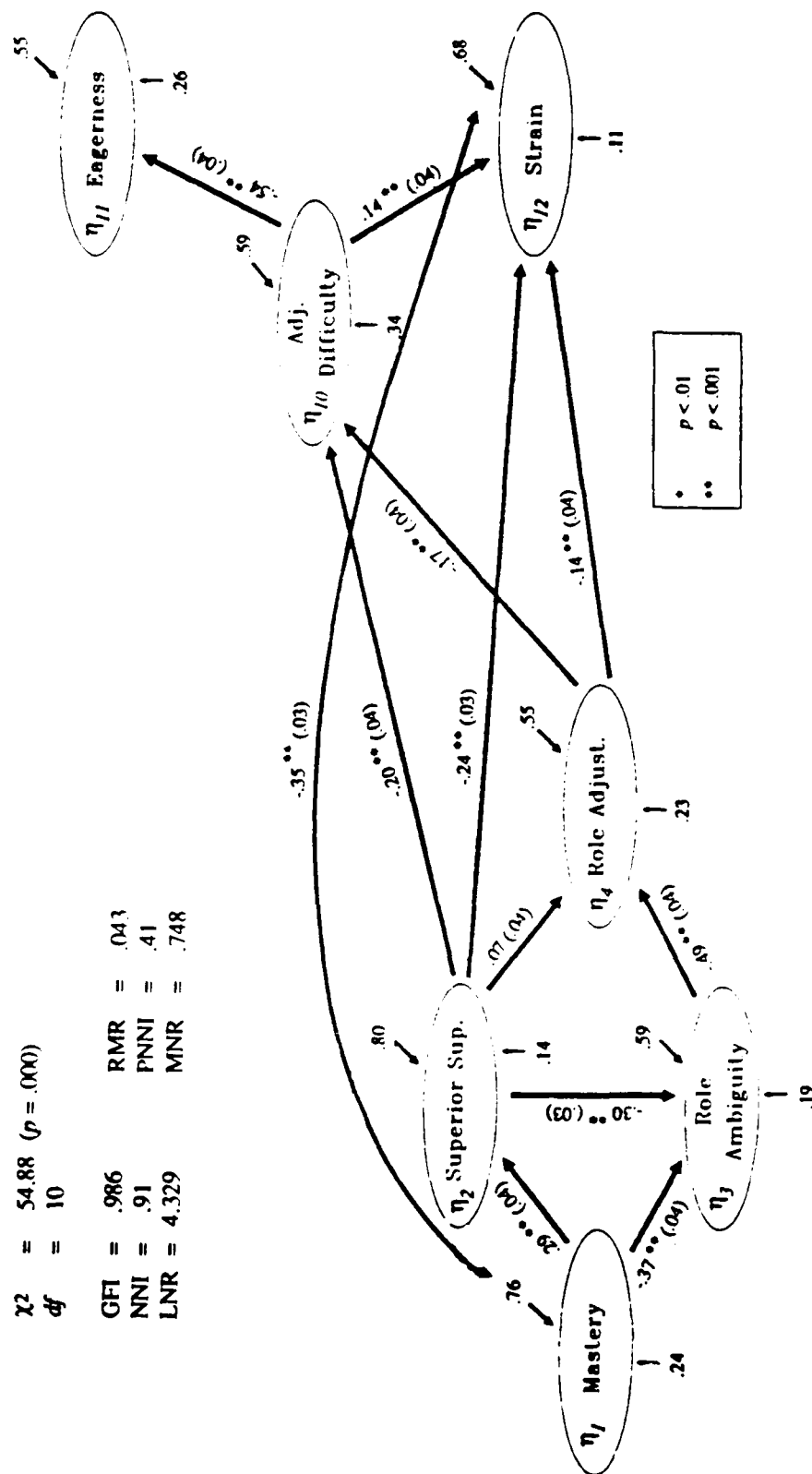


Figure 3.9. Refined model of the linkages between role perceptions and transition outcomes sub-models.

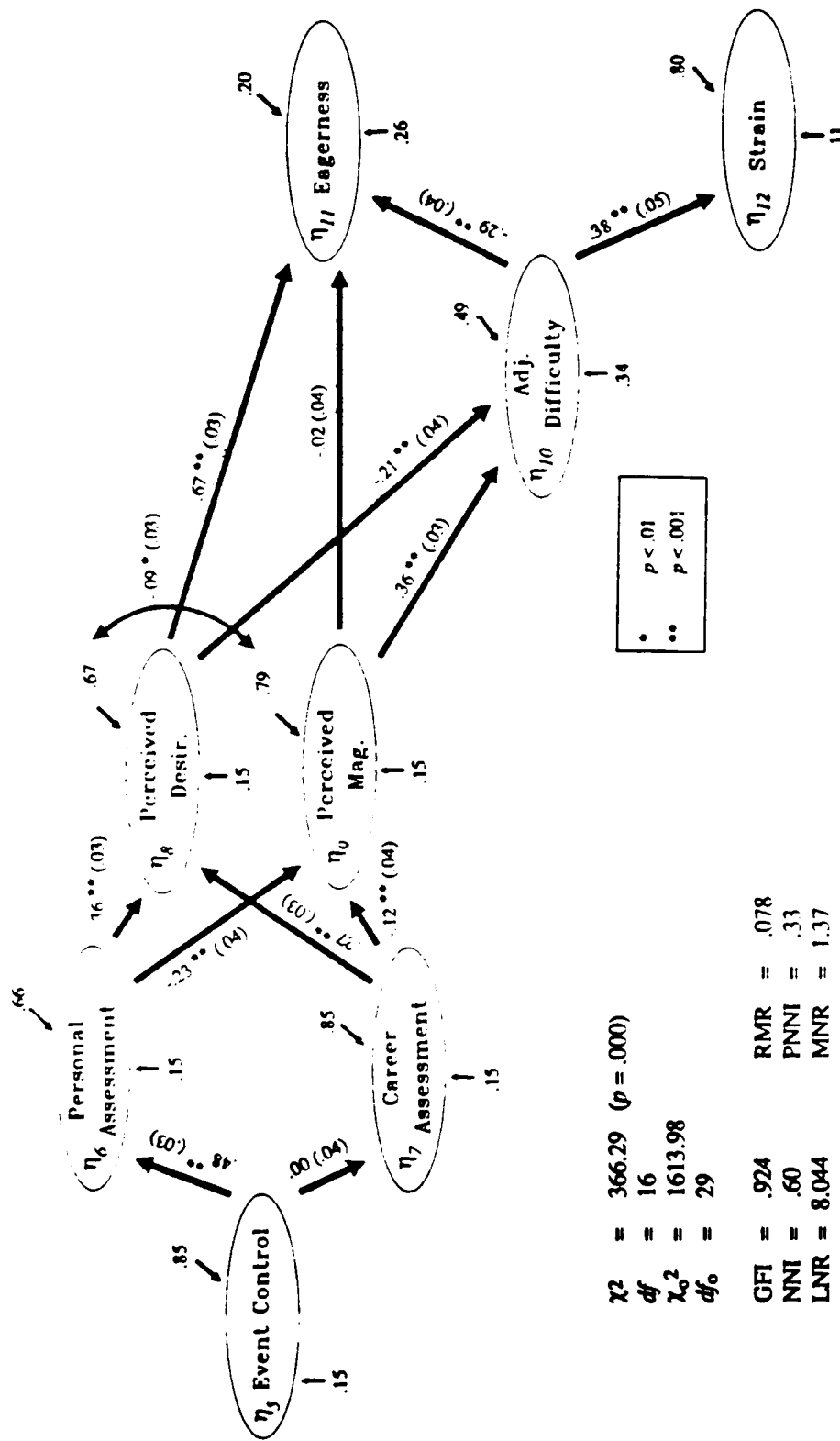


Figure 3.10. Initial evaluation of linkages between transition dimensions and transition outcomes sub-models.

outcomes ($\beta_{11,9}$) were significant. In particular, career event desirability has the greatest effect on eagerness toward the career event. On the other hand, the magnitude of the career event has the greatest effect on perceptions of how difficult it is to adjust to the career event.

The overall goodness-of-fit statistic for the hypothesized model was less than acceptable ($\chi^2 = 366.29$, $df = 16$, $p < .001$). The other goodness-of-fit statistics also indicate poor fit. Further, the average of the absolute value of normalized residuals was quite high ($MNR = 1.37$). The LNR ($LNR = 8.044$) occurs between career assessment (i.e., the perceived gains minus the perceived losses in one's career as a result of the career event) and eagerness toward the career event. It is reasonable to assume that there could be a direct influence of career assessment on eagerness. Specifically, the more an individual has to gain relative to the amount he has to lose in his career as a result of the career event, the more favorable his outlook toward the career event should be.

A specification search in this portion of the full model was conducted (see Table 3.6). In the first step, the hypothesized model was evaluated using a specification search subgroup. Next, $\beta_{7,3}$ (career assessment to eagerness) was unconstrained. This led to a significant improvement in the overall fit of the model ($\chi_d^2 = 124.58$, $df = 1$, $p < .001$), as well as to improvements in the other goodness-of-fit statistics. However, the χ^2 was still relatively high and significant ($\chi^2 = 112.67$, $df = 15$, $p < .001$), and the additional goodness-of-fit statistics were indicative of less than acceptable fit.

Investigation of the normalized residual matrix suggested that a relationship exists between personal assessment (i.e., the relative gains and losses in one's personal life resulting from the career event) and adjustment difficulty. The next step in the specification search unconstrained $\beta_{6,2}$ (personal assessment to adjustment difficulty). Briefly, it was reasoned that the more one stands to lose from a career event the more difficult it will be to adjust to resulting changes. This led to a significant drop in χ^2 ($\chi_d^2 = 55.73$, $df = 1$, $p < .001$) and improvement in GFI, RMR, NNI, and PNNI. Further, the

Step	Description	χ^2	df	p	χ^2_d	$\frac{\chi^2_d}{\chi^2_{i-1}}$	Parameter t-value	GFI	RMR	NNI	PNNI	LNR
1	Hypothesized Model	237.25	16	.000	--	--	--	.908	.083	.51	.28	6.998
2	Addition of $\beta_{11,7}$	112.67	15	.000	124.58**	.48	11.876**	.952	.067	.77	.40	-5.353
3	Addition of $\beta_{10,6}$	56.94	14	.000	55.73**	.51	-7.752**	.974	.042	.89	.43	3.090
4	Addition of $\beta_{11,5}$	27.39	13	.011	29.55**	.48	5.581	.987	.034	.96	.43	-3.004

** $p < .001$

Note. Null model for specification search subgroup:

$\chi^2 = 848.91$

df = 29

$\chi^2/df = 29.27$

Table 3.6. Summary of specification search on linkages between transition dimensions and transition outcomes sub-models.

LNR dropped moderately. Nonetheless, the overall χ^2 was still rather high and significant ($\chi^2 = 56.94$, $df = 14$, $p < .001$).

The normalized residual matrix showed that a fairly large residual exists between event control (i.e. the extent to which the officer controlled the various aspects of the career event) and eagerness. Specifically, this would suggest that the amount of control one has over the event the more eager one would be to go through the career event. Therefore, the next step in this specification search was to unconstrain $\beta_{7,1}$. This led to a good fit overall ($\chi^2 = 27.39$, $df = 13$, ns) and significant improvement from the previous step ($\chi^2_{\Delta} = 29.55$, $df = 1$, $p < .001$). Further, there were improvements in all other measures of goodness-of-fit. Finally, the increase in fit (from the addition of this parameter) did not sacrifice parsimony (PNNI = .43). The model resulting from this final step in the specification search was then cross validated with the hold-out subgroup using the previously described procedure ($\chi^2_{\Delta} = 28.28$, $df = 23$, ns).

Evaluation of the refined model from this step using the total sample is presented in Figure 3.11. The addition of three parameters ($\beta_{7,3}$, $\beta_{6,2}$, and $\beta_{7,1}$) provided significant improvement in the fit of the model, when compared with the results from the hypothesized model ($\chi^2_{\Delta} = 310.60$, $df = 3$, $p < .001$). Additionally, the remaining goodness-of-fit statistics were also greatly improved. Finally, there was an increase in parsimony (PNNI = .42) and a decrease in the LNR (LNR = -4.100).

As hypothesized, there was no direct relationship between the dimensions of the career event and psychological strain; their effect was indirect through adjustment difficulty. The additional explanatory power of perceived desirability, career assessment, and event control was able to account for 44 percent of the variance in eagerness toward the career event over and above the 19 percent of variance explained by adjustment difficulty. Furthermore, perceived magnitude and personal assessment were able to account for 26 percent of the variance in adjustment difficulty.

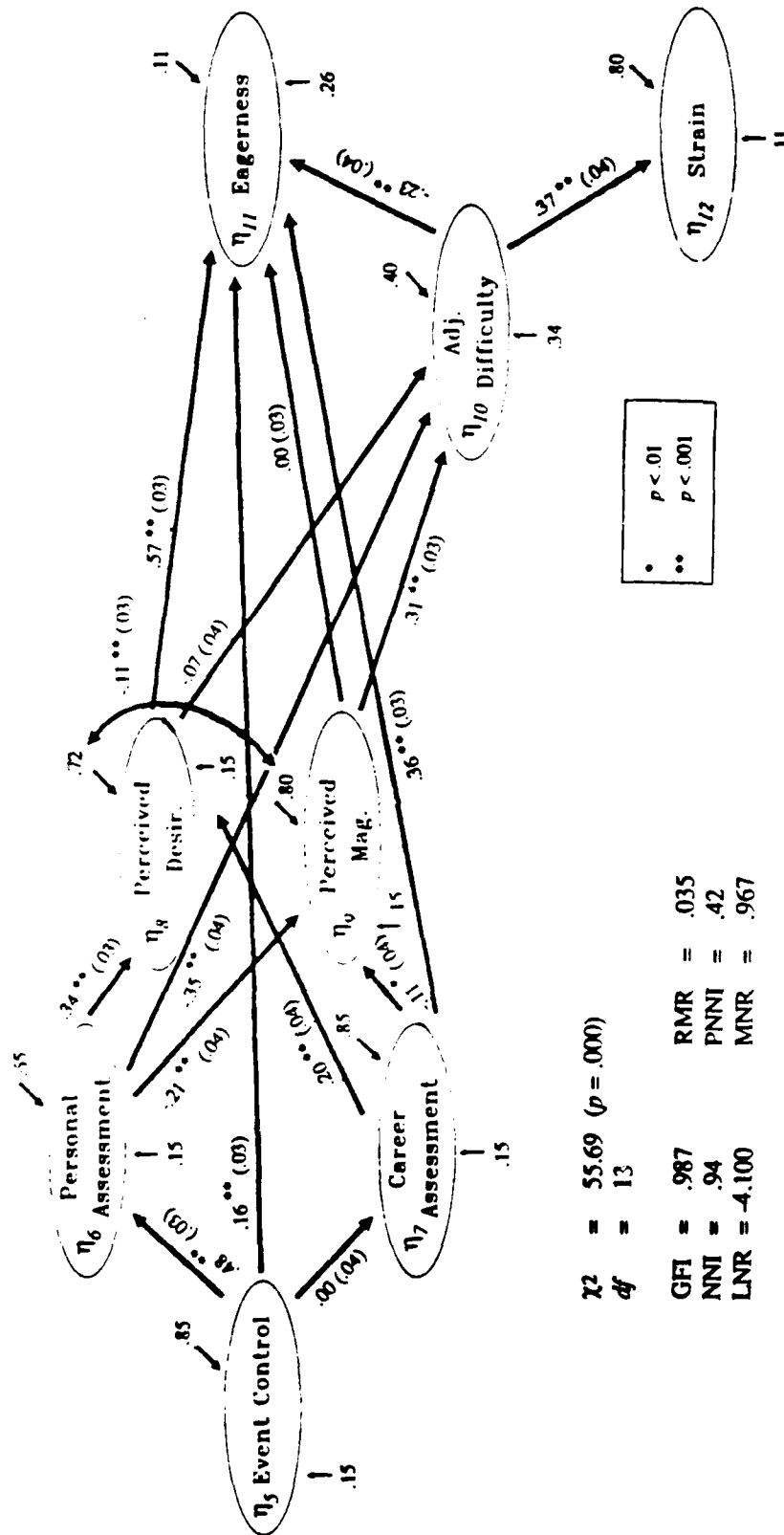


Figure 3.11. Refined model of the linkages between transition dimensions and transition outcomes sub-models.

Evaluation of the Refined Model

Now that the various parts of the full model have been evaluated and linkages between sub-models added to improve fit to the data, it is important to reassess the entire model. Based on the incremental specification search presented above, the refined model in Figure 3.12 was evaluated as an alternative to the originally hypothesized model.

Figure 3.13 presents the findings from an assessment of the refined model. In general, the goodness-of-fit measures are quite good. Although the χ^2 is significant ($\chi^2 = 101.44$, $df = 39$, $p < .001$), there is considerable improvement when compared to the findings from the original hypothesized model ($\chi^2 = 570.91$, $df = 44$; $\chi^2_d = 469.47$, $df = 5$, $p < .001$). Furthermore, the goodness-of-fit measures improved while parsimony was not sacrificed (PNNI = .56).

Once measurement error and unexplained residual variance were accounted for, this final model accounted for 29 percent of the variance in adjustment difficulty, 21 percent of the variance in strain, and 63 percent of the variance in eagerness toward the event. Table 3.7 presents a complete decomposition of the effects on career transition outcomes. The explained variance in psychological strain is due entirely to the direct effects of adjustment difficulty, superior support, and role adjustment. As hypothesized, there was no relationship between eagerness for the career event and psychological strain. The existence of a correlation between the ζ -terms in mastery and strain (as opposed to a β -parameter), although providing useful information about the relationship between traits of the person and transition outcomes, accounts for no additional statistical variance in strain. Also as expected, the explained variance in eagerness for the event is a result of the direct effects of adjustment difficulty and various dimensions of the transition. Specifically, how desirable the career event is and how much an officer stands to gain in his career have the strongest effects on eagerness.

Another way of assessing the relative effects of present role perceptions and dimensions of the transition on transition outcomes is to conduct a breakdown of the total

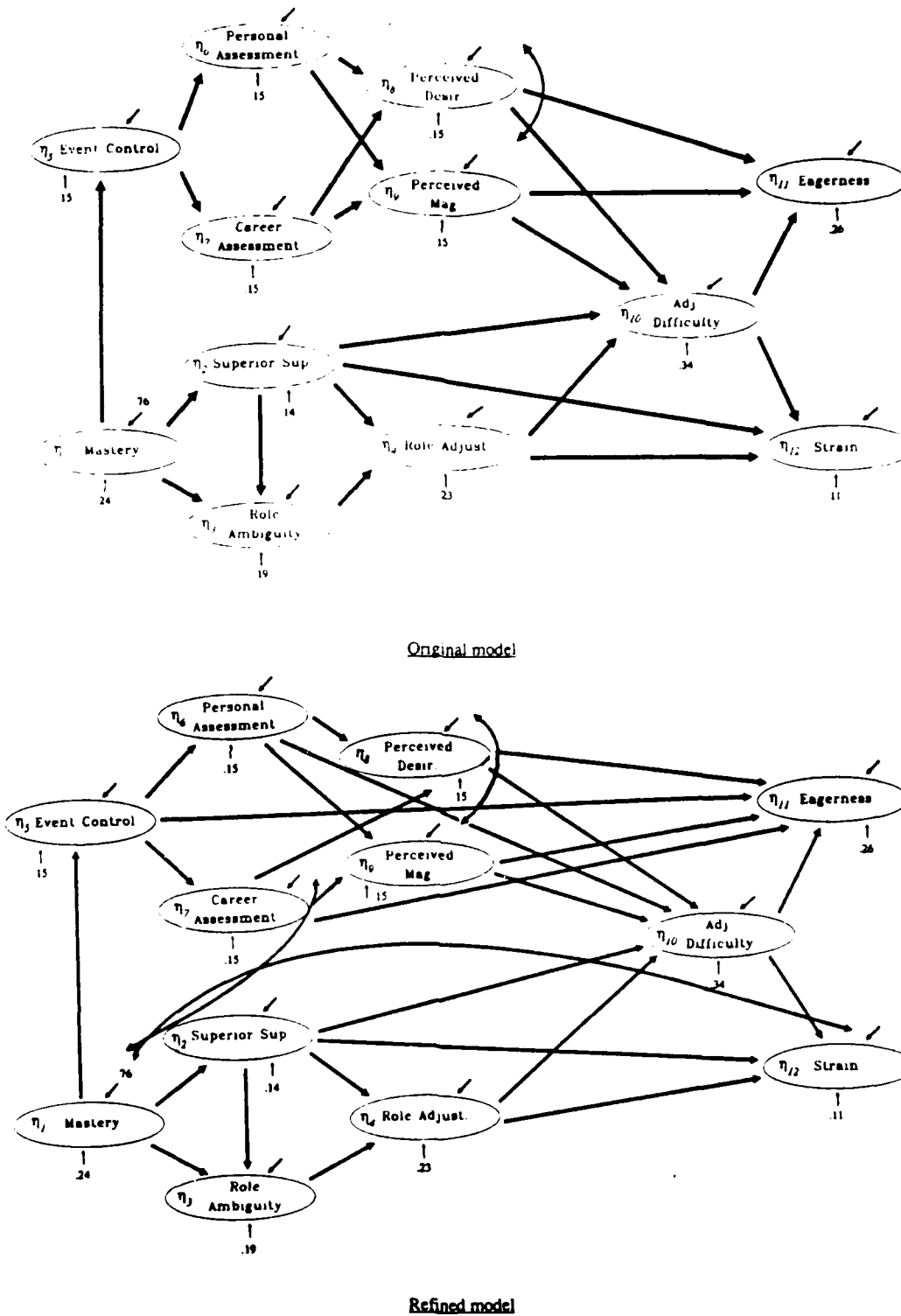


Figure 3.12. Original and refined models compared.

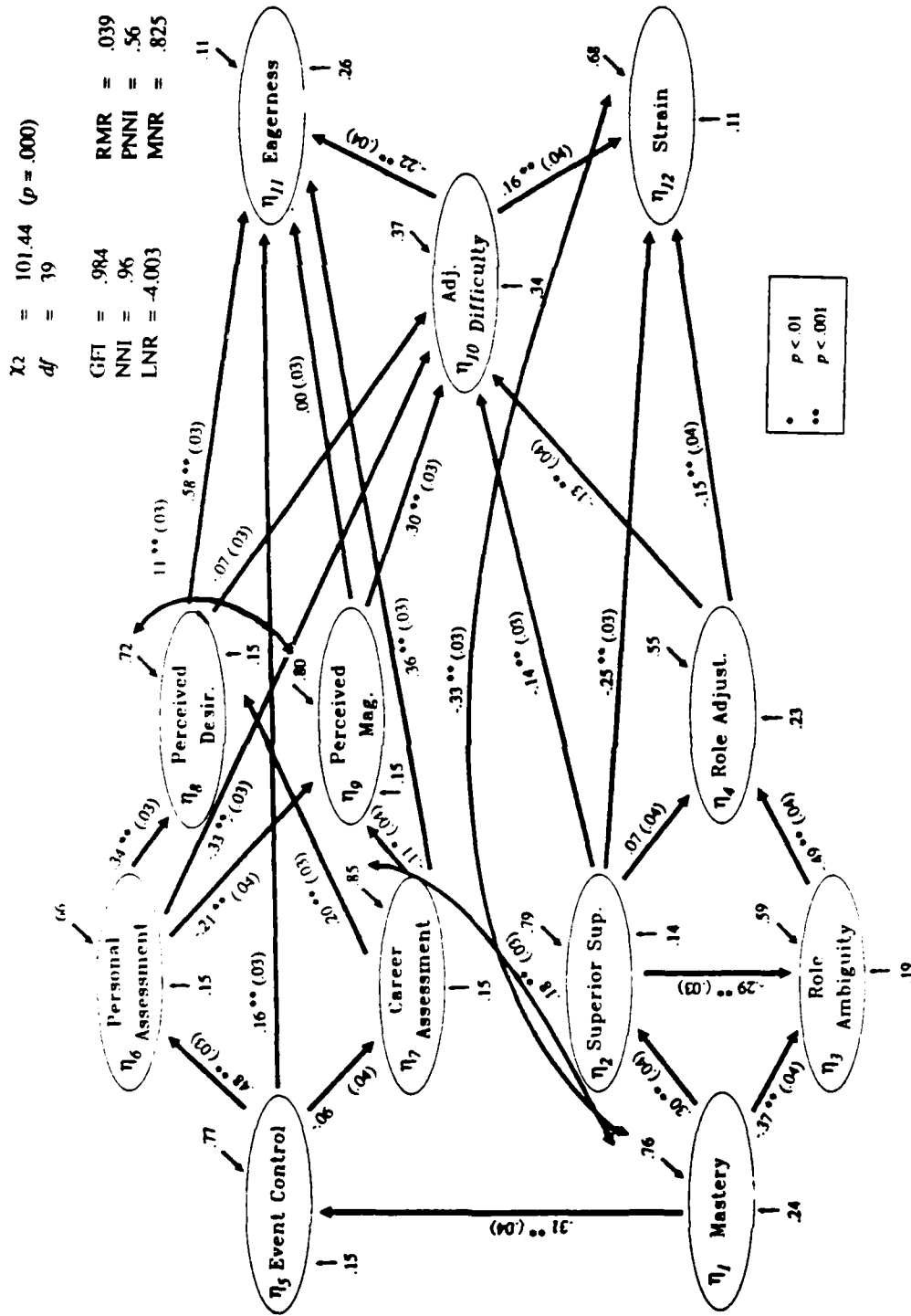


Figure 3.13. Refined structural model of transition outcomes.

Variable	Career Transition Outcomes									
	Adjustment Difficulty			Eagerness for Event			Psychological Strain			
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total	
Mastery	--	-.14	-.14	--	.10	.10	--	-.13	-.13	
Superior Support	-.14	-.03	-.17	--	.04	.04	-.25	-.05	-.30	
Role Ambiguity	--	.06	.06	--	-.01	-.01	--	.08	.08	
Role Adjustment	-.13	--	-.13	--	.03	.03	-.15	-.02	-.17	
Event Control	--	-.20	-.20	.17	.10	.27	--	-.03	-.03	
Personal Assessment	-.33	-.09	-.42	--	.29	.29	--	-.07	-.07	
Career Assessment	--	-.05	-.05	.36	.13	.49	--	-.01	-.01	
Perceived Desirability	-.07	--	-.07	.58	.01	.59	--	-.01	-.01	
Perceived Magnitude	.30	--	.30	--	-.07	-.07	--	.05	.05	
Adjustment Difficulty	--	--	--	-.22	--	-.22	.16	--	.16	

Table 3.7. Decomposition of effects on career transition outcomes.

explained variance. To do this, it is first imperative to understand what enters into the variance of a variable:

$$\text{Total Explained Variance} = 1.0 - (\text{residual variance} + \text{measurement error variance})$$

[ζ]
[ϵ]

Further, the unique variance accounted for in an outcome variable by a particular independent variable (or set of independent variables) is the total explained variance (of the full model) minus the variance explained in a model without the inclusion of the independent variable (or set of independent variables). When looking at the relative contribution of competing independent variables (or sets of independent variables) on an outcome variable, one may compare the unique variance accounted for by each. Alternatively, use of multiple regression betas or comparison of simple bivariate relationships (i.e., Pearson correlations) can be used. In the following discussion, the approach using the unique contribution to a dependent variable is used.

For example, the unique variance of dimensions of the transition in accounting for the variance in adjustment difficulty was 22 percent. This was determined by subtracting the explained variance in adjustment difficulty accounted for by present role perceptions (7 percent; see Figure 3.9) from the total explained variance (29 percent; see Figure 3.13). On the other hand, the unique variance of present role perceptions in accounting for the variance in adjustment difficulty was only 3 percent. As above, this was determined by subtracting the explained variance in adjustment difficulty accounted for by dimensions of the transition (26 percent; see Figure 3.11) from the total explained variance. By comparing the unique variance of present role perceptions to the unique variance of dimensions of the transition, in accounting for the variance of adjustment difficulty, it is apparent that adjustment difficulty is determined much more by dimensions of the transition.

Likewise, eagerness toward the event was influenced more by dimensions of the transition than by present role perceptions. The unique variance of dimensions of the transition in accounting for the variance in eagerness was 44 percent (after accounting for

the 19 percent of variance in eagerness explained for by a model without dimensions of the transition). On the other hand, present role perceptions accounted for no unique variance in eagerness (after accounting for the 63 percent of variance in eagerness explained for by a model without present role perceptions).

Finally, dimensions of the transition accounted for no unique variance in strain (after accounting for the 41 percent of variance in strain explained for by a model without dimensions of the transition). Moreover, the unique variance of present role perceptions in accounting for the variance in strain was 12 percent (after accounting for the 9 percent of variance in strain explained for by a model without present role perceptions).

Of the 23 parameters depicting hypothesized relationships, only four were found to have nonsignificant *t*-values: (a) perceived desirability to adjustment difficulty, (b) perceived magnitude to eagerness, (c) superior support to role adjustment, and (d) control over the event to career assessment. The remaining 19 hypothesized parameters were found to have significant *t*-values and were in the direction postulated (i.e., positive or negative influence).

Evaluating the Moderating Effect of Phase in the Career Transition Cycle

The phase of the career transition cycle is postulated to moderate relationships determining transition outcomes. To review briefly the structure of career transitions (presented in the first chapter): *career event preparation sets the stage and prepares the individual for a career event. A period of transition adaptation follows the career event that, if successful, results in career equilibrium. This state of relative stability remains until a new career event is anticipated and the cycle begins again.* Apart from this complete cycle, three alternatives were discussed in which not all of the four primary career states occur (e.g., when an unforeseen career event takes place). The important point to be made here is that what is consequential for people who are coming upon a

career event is likely to differ from that for people who have already experienced a career event.

Specifically, three relationships in the hypothesized model of career transition outcomes were presumed to be moderated by an individual's place or phase in the career transition cycle (i.e., pre-event or post-event). The first relationship is the influence of adjustment difficulty on psychological strain. The influence of adjustment difficulty in determining strain is hypothesized to be greater for individuals who are post-event than for individuals who are pre-event. As discussed earlier, adjustment difficulty for post-event individuals is based on real problems resulting from the career event. Such real problems require individuals to adjust and may lead to significant levels of strain. Individuals who are pre-event can only speculate about the problems that might occur.

The second relationship concerns the influence of support from one's immediate superior on degree of role adjustment. This influence is hypothesized to be greater for post-event individuals than for pre-event individuals. People who have been in their roles for a reasonable period of time (pre-event individuals) have multiple sources of assistance, support, and information to help them adjust to the ongoing challenges in their roles. Primary among these sources is an individual's co-workers. On the other hand, people who have been in their roles only a short period of time (post-event individuals) have weaker or even non-existent ties with their co-workers and rely more on direction and assistance from their immediate superior in adjusting to their roles. With time, and by developing a network of additional support sources, sole reliance on the support of one's superior diminishes.

Similarly, the third relationship hypothesized to be moderated by phase of the career transition cycle is the influence of support from one's immediate superior on the difficulty an individual has in adjusting to new roles. Individuals who are pre-event are more likely to have multiple support sources and, therefore, are able to rely less on support from their immediate superiors. However, individuals who have recently entered

a new role (i.e., post-event) are more likely to depend on the support they receive from their immediate superiors.

As described earlier, the test for moderation compares a model where the parameter or parameters of concern are allowed to vary across groups with a model where the parameter or parameters of concerns are forced to be equal across groups. Thus, LISREL allows one to assess moderation across entire models, sets of particular parameters, or individual parameters.

The first test for moderation assessed the entire refined model simultaneously for individuals who were pre-event and for individuals who were post-event. The χ^2 resulting from the analysis that allowed the same parameters to vary across groups ($\chi^2 = 137.43$, $df = 78$) was subtracted from the χ^2 resulting from the analysis that constrained the same parameters to be equal across groups ($\chi^2 = 223.45$, $df = 117$). The resulting χ^2_d ($\chi^2_d = 86.02$, $df = 39$, $p < .001$) was highly significant indicating that at least some of the parameters in the refined model are moderated by phase in the career transition cycle.

Figure 3.14 presents the refined model results for each subgroup evaluated separately. Comparison of the results from the two subgroups provides some indication of likely points in the refined model where moderation occurs (i.e., where there are fairly large differences in the magnitude of comparable parameters across groups). The parameters with moderate to large differences across groups (i.e., differences greater than .10) were identified and separately assessed for moderation.

Table 3.8 presents the parameters with moderate to large differences and the results of the moderation analyses. For each parameter, the value of the parameter in each transition phase subgroup is presented along with the magnitude of the difference between groups. Also presented in this table is the χ^2_d resulting from constraining the parameter to be of equal magnitude across groups compared to allowing the parameter to vary in magnitude across groups. Finally, for those parameters where moderation was

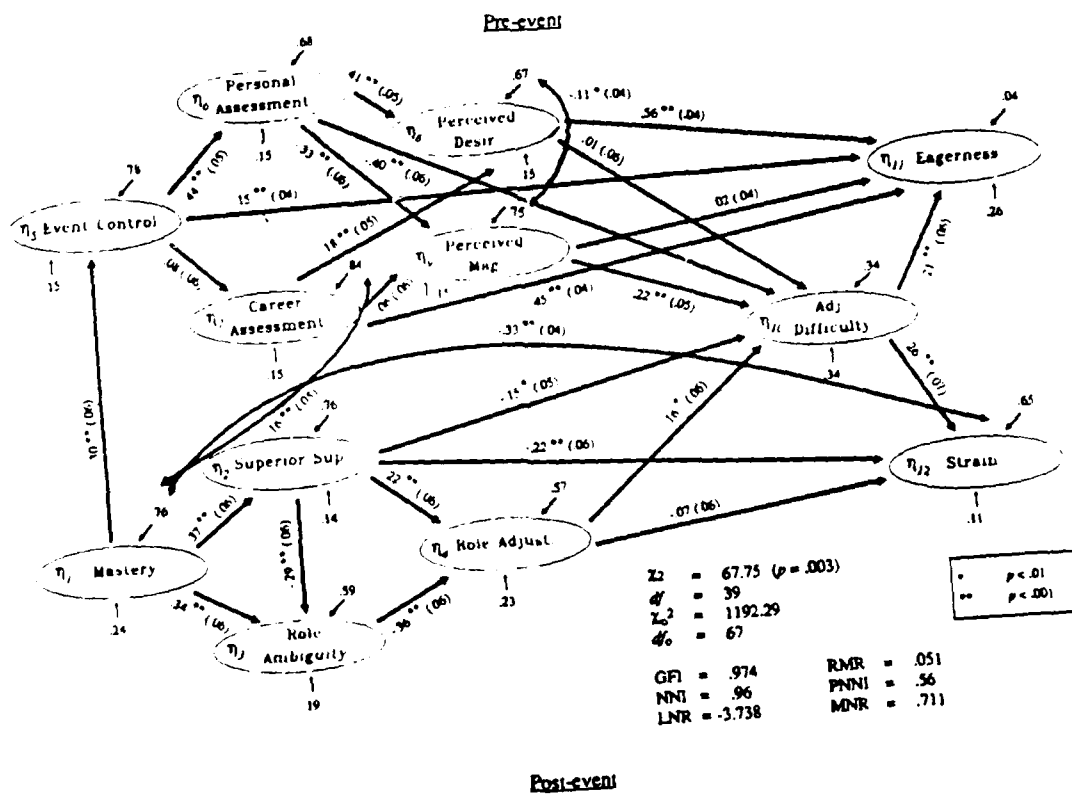
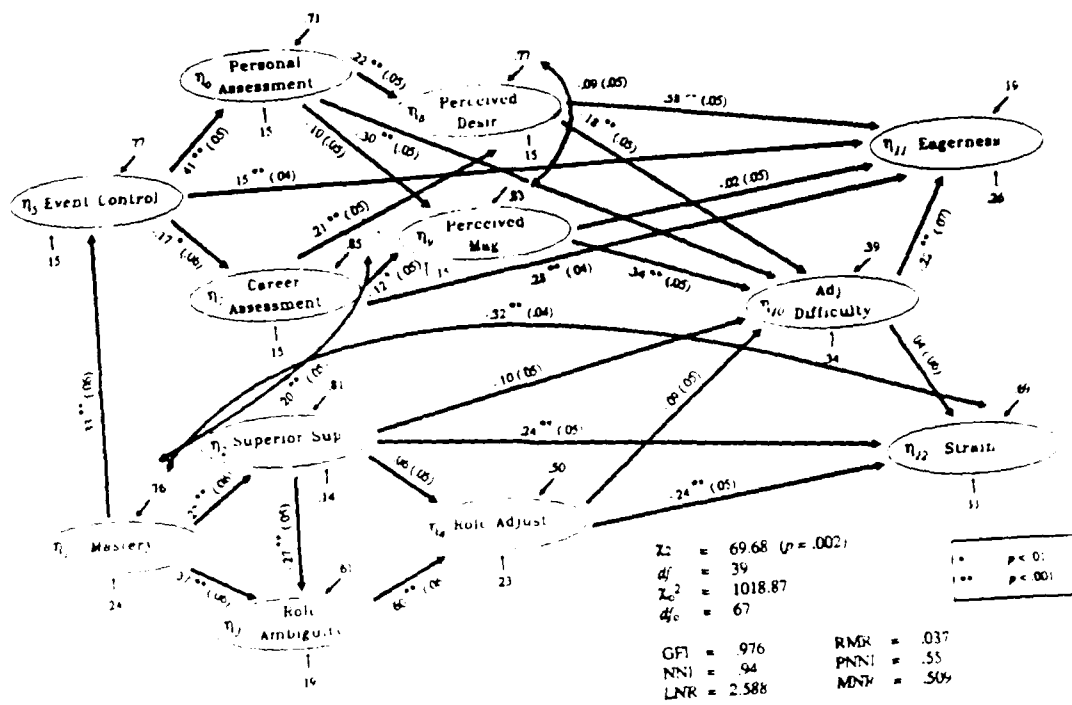


Figure 3.14. Comparison of pre-event and post-event subgroups on refined model.

Description	Parameter (X_{ij})	Non-moderation Assumed ^a		Δ^c	χ^2_{df} ^d	Accounting for Moderation ^b	
		Pre-event X_{ij}	Post-event X_{ij}			Pre-event X_{ij}	Post-event X_{ij}
Superior Sup.→Role Adjustment	$\beta_{4,2}$	-.06	.22	.28	6.28*	-.02	.17
Event Control→Career Assess.	$\beta_{7,5}$	-.17	.08	.25	9.12*	-.16	.07
Ambiguity→Role Adjustment	$\beta_{4,3}$	-.60	-.36	.24	1.65	--	--
Pers. Assess.→Perc. Magnitude	$\beta_{9,6}$	-.10	-.33	.23	6.62*	-.11	-.31
Adj. Difficulty→Strain	$\beta_{12,10}$	.04	.26	.22	4.15*	.03	.25
Pers. Assess.→Perc. Desirability	$\beta_{8,6}$	.22	.41	.19	3.64	--	--
Perc. Desir.→Adj. Difficulty	$\beta_{10,8}$	-.18	.01	.19	6.59*	-.18	-.01
Role Adjustment→Strain	$\beta_{12,4}$	-.24	-.07	.17	4.98*	-.24	-.07
Career Assess.→Eagerness	$\beta_{11,7}$	.28	.45	.17	6.82*	.28	.45
Residual Variance in Eagerness	ζ_{11}	.19	.04	.15	11.57**	.19	.03
Perc. Magn.→Adj. Difficulty	$\beta_{10,9}$	.34	.22	.12	2.91	--	--

^a Parameter values resulting from allowing all X_{ij} to vary across transition phase groups.

^b Parameter values resulting from allowing only moderated X_{ij} to vary across transition phase groups.

^c $\Delta = |\text{Pre-event } X_{ij} - \text{Post-event } X_{ij}|$ (only relationships in which Δ is greater than .10 are included here).

^d χ^2_{df} is the difference between the χ^2 when the parameter is fixed and freed ($df = 1$).

* $p < .05$

** $p < .001$

Table 3.8. Assessing moderation by phase in the career transition cycle
(pre-event vs. post-event).

found to exist, the values of the respective parameters are presented when all non-moderated parameters are constrained to be equal across subgroups.

As can be seen, there were eight parameters moderated by phase in the career transition cycle. After this set of eight parameters was allowed to vary across groups, a second overall test for moderation was conducted on the remaining parameters in the refined model. The χ^2 resulting from the analysis allowing the same parameters to vary across groups ($\chi^2 = 137.43$, $df = 78$) was not significantly different from the χ^2 resulting from constraining all non-moderated parameters to be equal across groups and allowing the values of those parameters thought to be moderated to vary across groups ($\chi^2 = 165.50$, $df = 109$; $\chi_d^2 = 28.07$, $df = 31$, ns). This provides evidence that no additional parameters in the refined model were moderated by phase in the career transition cycle.

Two of the eight parameters being moderated were hypothesized: (a) superior support to role adjustment, and (b) adjustment difficulty to strain. Further, these relationships were moderated in the direction hypothesized; the relationships are stronger for post-event individuals than for pre-event individuals. The third relationship hypothesized (superior support to adjustment difficulty) was not found to be moderated by an individual's phase in the career transition cycle ($\chi_d^2 = 1.02$, $df = 1$, ns). That is, the magnitude of this relationship was approximately the same regardless of whether the individual was pre-event ($\beta_{10,2} = -.10$) or post-event ($\beta_{10,2} = -.15$).

Of the remaining six parameters moderated by phase in the career transition cycle, four deal with transition outcomes: (a) perceived desirability to adjustment difficulty, (b) role adjustment to strain, (c) career assessment to eagerness, and (d) the unexplained residual variance in eagerness. The first of these relationships indicates that expectations of how desirable the career event is dominate perceptions of upcoming difficulty in adjusting to the career event. However, these expectations become relatively unimportant after the career event occurs. Post-event individuals are faced with real

consequences of the career event and, therefore, may rely less on expectations and more on their experiences in the formation of perceptions of adjustment difficulty.

The second of these relationships indicates that, for pre-event individuals how well adjusted an officer is in his present role strongly influences his present level of strain; the better the adjustment, the less the strain. However, this relationship is virtually nonexistent for individuals who have recently gone through a career event. Perhaps what is occurring is that post-event individuals understand and accept that it will take a certain amount of time for them to become adjusted to their new role. Alternately, during post-event there may be so many new things occurring that increase strain that the relative importance of this relationship diminishes.

The third moderated relationship dealing with transition outcomes concerns the relationship between an assessment of the gains and losses in one's career (as a result of the career event) and one's outlook toward the career event. Evidently, the real consequences for one's career of a recent career event are a stronger factor in determining one's outlook toward the career event, than are one's conjectures about the potential gains and losses of an upcoming career event.

Finally, the fourth moderated parameter dealing with transition outcomes is the amount of variance explained in eagerness (i.e., one's outlook toward the event). Eagerness is attributable much more to specific dimensions of the transition for post-event individuals, than for pre-event individuals. One's outlook toward an upcoming career event is likely to result from gossip or unsubstantiated rumor as well as from perceived characteristics of the future career event. On the other hand, individuals who have passed through their focal career event are able to base their outlook toward their respective career events more on the tangible characteristics of the career event that they have experienced.

Evaluating the Moderating Effect of Career Event Type

The second variable hypothesized to moderate transition outcomes is the type of career event being experienced. Recall that 20 career events were organized into six transition types: (a) initial socialization, (b) obtaining full membership, (c) resignation, (d) promotion, (e) lateral moves, and (f) retirement. The objective of the next analyses is twofold. First, the analyses seek to determine if transition type moderates relationships in the model of transition outcomes. Taking Louis' (1980b) postulation that there is a commonality across different transition types to the extreme would suggest that no such moderation occurs. However, as stated in the first chapter, this study questions the belief that different types of career events are experienced similarly. Second, if moderation is found, the analyses will investigate which parameters are most influenced by transition type. Specifically, two relationships were hypothesized to be moderated by transition type: (a) superior support to role adjustment ($\beta_{4,2}$), and (b) superior support to adjustment difficulty ($\beta_{10,2}$). Earlier, it was suggested that these relationships should be stronger for officers going through initial socialization and resignation transitions, than for officers going through other transition types. This study also probed other points of moderation.

The omnibus test for moderation assessed the refined model simultaneously across all six transition type subgroups. The χ^2 resulting from the analysis allowing all parameters to vary across subgroups ($\chi^2 = 417.21$, $df = 236$) was subtracted from the χ^2 resulting from the analysis that constrained the same parameters (both ψ s and β s) to be equal across subgroups ($\chi^2 = 751.33$, $df = 429$). The resulting χ_d^2 ($\chi_d^2 = 334.12$, $df = 193$, $p < .001$) was significant and indicated that some moderation by transition type was occurring. When compared to the analysis constraining all parameters to be equal across subgroups, the χ_d^2 resulting from unconstraining only ψ s ($\chi_d^2 = 80.78$, $df = 68$) was not significant. The χ_d^2 resulting from unconstraining only β s ($\chi_d^2 = 241.96$, $df = 125$, $p < .001$) was significant. These analyses reveal that the moderation occurs only in the β -matrix of the refined model.

Table 3.9 presents the parameters of the refined model for each transition type subgroup evaluated separately. Unlike the analyses assessing moderation by phase in the transition cycle (in which there were only two subgroups to compare), locating moderation across six transition subgroups was not a simple matter of looking for moderate to large differences between parameter values and carrying out a χ^2 test on parameters where likely points of moderation existed. Rather, χ^2 tests were carried out on all β s in the refined model. These tests compared the χ^2 resulting from allowing the respective parameter to vary across subgroups to the χ^2 resulting from constraining the respective parameter to be equal across subgroups. As shown in Table 3.9, moderation was found for 10 parameters (i.e., those with significant χ^2 s).

After this set of 10 parameters was allowed to vary across subgroups, a second overall test for moderation was conducted on the remaining parameters in the refined model. The χ^2 resulting from the analysis allowing the non-moderated parameters to vary across subgroups ($\chi^2 = 509.37$, $df = 304$) was not significantly different from the χ^2 resulting from the analysis constraining non-moderated parameters to be equal across subgroups ($\chi^2 = 602.34$, $df = 379$; $\chi^2_d = 92.97$, $df = 75$, ns). This provides additional evidence that there were no additional parameters in the refined model moderated by transition type.

Table 3.10 highlights the 10 moderated parameters and presents parameter values resulting from constraining all non-moderated parameters to be equal across subgroups. Furthermore, the significance levels of the t -values for individual parameters are also indicated. An interesting observation may be made from this table. Two parameters ($\beta_{4,2}$ and $\beta_{11,9}$) revealed significant moderation, yet, none of the t -values for these parameters are significant. That is, while there was significant variation in these parameters among subgroups, none were different from zero. For one of these parameters ($\beta_{4,2}$), it is likely that the values are suppressed because of joint moderation with phase in the transition

Transition Type

Description ^a	Parameter (X_{ij})	Initial					Transition Type			χ^2_{df}
		Socialization	Membership	Resignation	Promotion	Lateral Moves	Retirement			
		X_{ij}	X_{ij}	X_{ij}	X_{ij}	X_{ij}	X_{ij}			
Mastery→Superior Support	$\beta_{2,1}$	.32	.36	.28	.32	.36	.26			.57
Mastery→Ambiguity	$\beta_{3,1}$	-.48	-.25	-.23	-.49	-.44	-.30			6.05
Superior Support→Ambiguity	$\beta_{3,2}$	-.20	-.29	-.39	-.26	-.27	-.03			7.30
Superior Support→Role Adj.	$\beta_{4,2}$	.22	-.18	-.08	.21	.18	.05			15.19*
Ambiguity→Role Adjustment	$\beta_{4,3}$	-.34	-.53	-.57	-.28	-.55	-.56			9.53
Event Control→Pers. Assess.	$\beta_{6,5}$	.35	.30	.30	.07	.57	.36			15.24*
Event Control→Career Assess.	$\beta_{7,5}$	.33	.39	.11	.16	.44	-.05			17.79*
Pers. Assess.→Perc. Desirability	$\beta_{8,6}$	.40	.39	.33	.18	.70	.49			23.10**
Pers. Assess.→Perc. Magnitude	$\beta_{9,6}$	-.34	-.16	.08	.05	-.46	-.05			15.73*
Career Assess.→Perc. Desirability	$\beta_{8,7}$	.14	.16	-.07	.21	.27	-.18			23.10**
Career Assess.→Perc. Magnitude	$\beta_{9,7}$	.06	-.10	-.28	-.10	-.04	-.03			6.63
Perc. Desirab.↔Perc. Magnitude	$\psi_{9,8}$	-.08	-.04	.20	.00	.17	.10			--c
Adj. Difficulty→Eagerness	$\beta_{11,10}$	-.11	-.14	-.24	-.29	-.22	-.60			3.39
Adj. Difficulty→Strain	$\beta_{12,10}$	.25	.04	.12	.32	.04	.05			7.34
Mastery→Event Control	$\beta_{5,1}$	.27	.35	.24	.36	.56	.12			6.73
Mastery↔Career Assess.	$\psi_{7,1}$	.15	.17	.14	.15	.22	.11			--c

^a Recursive relationships are depicted by → ; correlated residuals are depicted by ↔.

^b χ^2_{df} is the difference between the χ^2 when the parameter is fixed and freed ($df=5$).

^c Analyses (see text) revealed no moderation in matrix Ψ (ζ variance/covariance matrix).

* $p < .05$

** $p < .001$

Table 3.9. Parameter values resulting from allowing all X_{ij} to vary across transition type subgroups.

Transition Type

Description ^a	Parameter (X _{ij})	Transition Type					χ^2_b
		Initial Socialization X _{ij}	Full Membership X _{ij}	Resignation X _{ij}	Promotion X _{ij}	Lateral Moves X _{ij}	
Mastery↔Strain	$\Psi_{12,1}$	-.34	-.30	-.35	-.39	-.19	---c
Superior Supp.→Adj. Difficulty	$\beta_{10,2}$	-.37	-.07	-.35	.01	-.18	17.19*
Superior Supp.→Strain	$\beta_{12,2}$	-.17	-.27	.15	-.25	-.21	3.59
Role Adjustment→Adj. Difficulty	$\beta_{10,4}$	-.06	-.25	.03	-.17	-.03	6.85
Role Adjustment→Strain	$\beta_{12,4}$	-.08	-.19	-.19	-.05	-.22	2.11
Event Control→Eagerness	$\beta_{11,5}$	.12	.10	.21	.29	.18	4.67
Pers. Assess.→Adj. Difficulty	$\beta_{10,6}$	-.10	-.14	-.26	-.51	-.76	19.62**
Career Assess.→Eagerness	$\beta_{11,7}$	.33	.33	.22	.45	.28	6.66
Perc. Desir.→Adj. Difficulty	$\beta_{10,8}$	-.24	-.10	-.19	-.03	.54	9.71
Perc. Desir.→Eagerness	$\beta_{11,8}$	.56	.58	.42	.21	.57	19.47**
Perc. Magn.→Adj. Difficulty	$\beta_{10,9}$	.14	.34	.41	.21	.52	9.57
Perc. Magn.→Eagerness	$\beta_{11,9}$	-.12	-.11	.01	.15	.03	11.32*

^a Recursive relationships are depicted by → ; correlated residuals are depicted by ↔.

^b χ^2 is the difference between the χ^2 when the parameter is fixed and freed ($df=5$).

^c Analyses (see text) revealed no moderation in matrix Ψ (ζ variance/covariance matrix).

* $p < .05$

** $p < .001$

Table 3.9 (Cont.). Parameter values resulting from allowing all X_{ij} to vary across transition type subgroups.

Transition Type

Description	Parameter (X_{ij})	Initial					Transition Type		
		Socialization X_{ij}	Membership X_{ij}	Resignation X_{ij}	Promotion X_{ij}	Lateral Moves X_{ij}	Retirement X_{ij}		
Superior Support→Role Adj.	$\beta_{4,2}$	.17	-.14	-.01	.14	.22	.05		
Event Control→Pers. Assess.	$\beta_{6,5}$	.35**	.30*	.30**	.08	.55**	.35*		
Event Control→Career Assess.	$\beta_{7,5}$	.32**	.38**	.10	.19	.46**	-.08		
Pers. Assess.→Perc. Desirability	$\beta_{8,6}$	.40**	.39**	.35**	.18	.64**	.50**		
Pers. Assess.→Perc. Magnitude	$\beta_{9,6}$	-.28*	-.16	.11	.06	-.43**	-.04		
Career Assess.→Perc. Desirability	$\beta_{8,7}$	.13	.16	-.10	.22*	.25	-.20		
Superior Supp.→Adj. Difficulty	$\beta_{10,2}$	-.34**	-.07	-.30**	.00	-.14	-.11		
Pers. Assess.→Adj. Difficulty	$\beta_{10,6}$	-.14	-.18	-.29**	-.53**	-.34**	-.42**		
Perc. Desir.→Eagerness	$\beta_{11,8}$	.51**	.52**	.49**	.27**	.44**	.55**		
Perc. Magn.→Eagerness	$\beta_{11,9}$	-.06	-.08	.03	.13	-.03	-.06		

* $p < .05$ ** $p < .001$ Table 3.10. Parameter values resulting from constraining non-moderated X_{ij} to be equal across transition type subgroups.

cycle. As demonstrated earlier, this parameter is strongly moderated by whether the individual is pre-event or post-event.

Finally, these analyses assessed transition-type moderation to locate where moderation occurs. The detection of moderation across more than two subgroups requires more analyses than when locating moderation between two subgroups. When only two subgroups are involved, a significant χ^2_d test for any particular parameter (resulting from an analysis constraining a respective parameter to be equal across both groups and an analysis allowing the parameter to vary across the two groups) indicates that the two groups vary. A simple examination of the values of the parameter in the two subgroups locates the difference. This was the approach taken when moderation by phase in the transition cycle was assessed.

When more than two groups are involved, a significant χ^2_d could mean that one of the subgroups differs from the rest, that all subgroups vary from each other, or that some other combination of differences exists. If the moderation being examined is well understood ahead of time, a series of planned comparisons is the optimal way to locate where moderation exists (cf. James & James, 1988). Yet, in an exploratory study such as this or one in which little is understood regarding moderation effects, planned comparisons are not possible. The next best approach is to conduct a series of χ^2_d tests in which, for each parameter and subgroup, a χ^2 resulting from an analysis constraining the parameter to be equal across all subgroups is compared to a χ^2 resulting from allowing the parameter to vary from the remaining subgroups (which are constrained to be equal). This *moderation localization procedure* is analogous to conducting post-hoc analyses to assess specific group differences after finding significance with an ANOVA and was recommended by L. R. James (personal communication, October 31, 1988).

Table 3.11 presents the results of the moderation localization procedure. When used in conjunction with Table 3.10, these results enable us to identify where the moderation occurs. Moderation was found to occur in ten parameters. Two of the

Transition Type

Description	Parameter (X_{ij})	$\chi^2_{\text{EQ}}^a$	Initial Socialization		Full Membership		Resignation		Promotion		Lateral Moves		Retirement	
			χ^2	χ_d^2 b	χ^2	χ_d^2	χ^2	χ_d^2	χ^2	χ_d^2	χ^2	χ_d^2	χ^2	χ_d^2
Superior Support→Role Adj.	$\beta_{4,2}$	613.16	611.81	1.35	606.35	6.81*	612.08	1.08	611.82	1.34	610.81	2.35	613.13	.03
Event Control→Pers. Assess.	$\beta_{6,5}$	617.09	616.66	.43	617.06	.03	617.05	.04	606.25	10.84**	610.34	6.75*	616.66	.43
Event Control→Career Assess.	$\beta_{7,5}$	620.68	619.62	1.06	617.38	3.30	618.27	2.41	620.20	.48	615.42	5.26*	612.11	8.57*
Pers. Assess.→Perc. Desir.	$\beta_{8,6}$	616.52	616.47	.05	616.51	.01	616.43	.09	607.74	8.78*	609.55	6.97*	615.09	1.48
Pers. Assess.→Perc. Magn.	$\beta_{9,6}$	625.23	621.33	3.90*	624.61	.62	619.60	5.63*	619.51	5.72*	614.27	10.96**	624.91	.32
Career Assess.→Perc. Desir.	$\beta_{8,7}$	619.09	618.98	.11	618.50	.59	613.62	5.47*	615.25	3.84*	616.91	2.18	611.43	7.66*
Superior Supp.→Adj. Diff.	$\beta_{10,2}$	616.72	611.13	5.59*	615.66	1.06	612.14	4.58*	610.18	6.54*	616.70	.02	616.60	.12
Pers. Assess.→Adj. Diff.	$\beta_{10,6}$	619.80	614.43	5.37*	615.87	3.93*	619.32	.48	608.60	11.20**	619.79	.01	618.94	.86
Perc. Desir.→Eagerness	$\beta_{11,8}$	615.21	614.28	.93	613.53	1.68	614.83	.38	603.26	11.95**	615.20	.01	613.60	1.61
Perc. Magn.→Eagerness	$\beta_{11,9}$	610.25	609.31	.94	608.40	1.85	610.14	.11	603.69	6.56*	510.09	.16	609.58	.67

a χ^2_{EQ} is the χ^2 resulting from constraining X_{ij} to be equal across transition type groups.

b χ_d^2 is the difference between χ^2_{EQ} and the χ^2 when the parameter is unconstrained in the particular subgroup ($df = 1$).

* $p < .05$

** $p < .001$

Table 3.11. Locating points of moderation by transition type.

moderated parameters were hypothesized: (a) superior support to role adjustment, and (b) superior support to adjustment difficulty. Of the remaining eight parameters, three pertain to the determination of transition outcomes and five concern relationships among dimensions of the career transition.

As discussed previously, results regarding the first moderated parameter hypothesized ($\beta_{4,2}$) present some problems in interpretation. This parameter is moderated by phase in the transition cycle (i.e., it is highly significant for post-event individuals and non-significant for pre-event individuals). The reason that the values across all six transition types appear to be nonsignificant could be due to the influence of career transition phase, or some other joint-moderator. Additional research is needed to fully understand the moderating effect of transition type on the relationship between superior support and role adjustment.

Results regarding the second moderated parameter hypothesized ($\beta_{10,2}$) are as expected. This relationship was postulated to be most important (i.e., largest β) for officers going through initial socialization career events and for officers going through the resignation career transition. Tables 3.10 and 3.11 confirm that moderation in this parameter is due to initial socialization ($\beta_{10,2} = -.34, p < .001; \chi^2_d = 5.59, p < .05$), resignation ($\beta_{10,2} = -.30, p < .001; \chi^2_d = 4.58, p < .05$), and promotion ($\beta_{10,2} = .00, ns; \chi^2_d = 6.54, p < .05$). For officers in initial socialization and resignation transition subgroups, the greater the level of support from one's immediate superior, the less difficulty one faces (or at least perceives) in adjusting to the career change. For officers in the four other transition subgroups, this relationship was nonsignificant. Thus, while there was significant moderation located in the promotion subgroup, this was apparently due to the large differences in magnitude between the parameter values in the initial socialization and resignation subgroups and the parameter value for the promotion subgroup.

Moderation in the remaining two transition outcome parameters ($\beta_{10,6}$ and $\beta_{11,8}$) was due primarily to promotion. Moderation in the first of these parameters ($\beta_{10,6}$) was

found in the initial socialization subgroup ($\beta_{10,6} = -.14$, ns; $\chi_d^2 = 5.37$, $p < .05$), the obtaining full membership subgroup ($\beta_{10,6} = -.18$, ns; $\chi_d^2 = 3.93$, $p < .05$), and the promotion subgroup ($\beta_{10,6} = -.53$, $p < .001$; $\chi_d^2 = 11.20$, $p < .001$). The relationship between assessment of the gains and losses in one's personal life and adjustment difficulty due to the career event is weaker for those going through the early career transitions (initial socialization and full membership) than for officers in other career transitions. This same relationship is stronger for officers going through promotion career events than for officers going through other career events.

Moderation in the remaining transition outcome parameter ($\beta_{11,8}$) was due to the promotion subgroup. The relationship between the perceived desirability of the career event and eagerness toward the event was significantly less important for officers going through promotion career events than for other officers ($\beta_{11,8} = .27$, $p < .001$; $\chi_d^2 = 11.95$, $p < .001$).

The five additional parameters moderated by transition type all pertain to relationships among dimensions of the career transition. Moderation in the relationship between control over the event and personal assessment was due to the promotion subgroup ($\beta_{6,5} = .08$, ns; $\chi_d^2 = 10.84$, $p < .001$) and the lateral moves subgroup ($\beta_{6,5} = .55$, $p < .001$; $\chi_d^2 = 6.75$, $p < .05$). Specifically, this relationship is nonsignificant for officers going through promotion events and significantly stronger for officers going through lateral career events.

Moderation in the relationship between control over the event and career assessment was due to the lateral moves subgroup ($\beta_{7,5} = .46$, $p < .001$; $\chi_d^2 = 5.26$, $p < .05$) and the retirement subgroup ($\beta_{7,5} = -.08$, ns; $\chi_d^2 = 8.57$, $p < .05$). This relationship is strongest for officers going through lateral career events and weakest for officers going through retirement. In addition, this relationship was nonsignificant for officers going through resignation and promotion career events.

Moderation in the relationship between personal assessment and perceived desirability ($\beta_{8,6}$) was due to officers in the promotion subgroup ($\beta_{8,6} = .18$, ns; $\chi_d^2 = 8.78$, $p < .05$) and officers going through lateral career moves ($\beta_{8,6} = .64$, $p < .001$; $\chi_d^2 = 6.97$, $p < .05$). While this relationship was significant for all officers except those going through promotion career events, it appears to be most important for officers who are going through lateral career moves.

Moderation in the relationship between personal assessment and perceived magnitude appears to be due to officers going through initial socialization ($\beta_{9,6} = -.28$, $p < .05$; $\chi_d^2 = 3.90$, $p < .05$) and officers going through lateral career moves ($\beta_{9,6} = -.43$, $p < .001$; $\chi_d^2 = 10.96$, $p < .001$). However, the pattern of results is somewhat clouded by the fact that significant moderation was also found to exist for officers going through resignation ($\beta_{9,6} = .11$, ns; $\chi_d^2 = 5.63$, $p < .05$) and promotion ($\beta_{9,6} = .06$, ns; $\chi_d^2 = 5.72$, $p < .05$). By considering the strength of their respective parameters (i.e., significance levels of t -values associated with $\beta_{9,6}$), it can be seen that this parameter is nonsignificant for these other subgroups (i.e., the moderation reflects variation around zero). Therefore, these results indicate that officers going through initial socialization and lateral career moves, more than other officers, rely on the assessment of the gains and losses of the respective career events in their estimation of the amount of change that will likely be required by the event.

The final parameter where moderation by transition type was found to occur concerns the relationship between career assessment and perceived desirability ($\beta_{8,7}$). Significant moderation was found among officers going through resignation events ($\beta_{9,6} = .06$, ns; $\chi_d^2 = 5.72$, $p < .05$), promotion events ($\beta_{9,6} = .06$, ns; $\chi_d^2 = 5.72$, $p < .05$), and retirement events ($\beta_{9,6} = .06$, ns; $\chi_d^2 = 5.72$, $p < .05$). However, this relationship was significant only for officers going through promotion events.

Evaluating the Moderating Effect of Multiple Transitions

The third variable hypothesized to moderate transition outcomes is the existence of multiple (i.e., concurrent) events. In the present study, the concurrent event that was examined was a geographic relocation resulting from the focal career event. Undoubtedly, there could have been many other concurrent events that were not examined. Previous research (e.g., Pinder & Walter, 1984) suggests that relocations have a strong influence on psychological strain and on how individuals perceive their environment. Because this area has been relatively unexplored, however, no specific relationships were hypothesized to be moderated by the existence of multiple transitions. Rather, this study only sought to determine if moderation existed.

The omnibus test for moderation assessed the refined model simultaneously across the two groups (i.e., those facing a relocation and those not). The χ^2 resulting from the analysis allowing all parameters to vary across subgroups ($\chi^2 = 143.49$, $df = 78$) was subtracted from the χ^2 resulting from the analysis that constrained the same parameters (both ψ s and β s) to be equal across subgroups ($\chi^2 = 196.18$, $df = 117$). The resulting χ_d^2 ($\chi_d^2 = 52.69$, $df = 39$, *ns*) was not significant and indicated that there was no moderation occurring as a result of whether or not there was a concurrent geographic relocation.

CHAPTER IV

DISCUSSION

The purpose of this undertaking was to present a general framework of career transitions as a cyclic process of adaptation and adjustment. Previous research on the outcomes of career events has suggested that: (a) increased stress and strain result from most career events, and (b) personal reactions are similar regardless of the type of career event being experienced. The present study challenged these assumptions. Further, this study hypothesized that personal reactions to career events change over time. That is, where an individual is in the career transition cycle strongly influences what social and organizational factors are most relevant to his or her reaction and subsequent adjustment to the career event. Using survey data from a sample of Navy aviators, this study assessed and refined a model of role adjustment and transition outcomes. Because the study was cross-sectional, a sampling strategy was used that measured both individuals who had yet to experience their focal career event (pre-event) and individuals who had recently gone through their focal career event (post-event). The analysis of data relied on LISREL VI to develop the resulting model of role adjustment and transition outcomes. This same statistical program also provided the means to determine if and where moderation in the model occurred as a result of phase in the career transition cycle and type of career event being experienced.

This final chapter first presents a brief overview of the study and reiterates the primary research questions. The next section discusses some necessary cautions regarding interpretation of the results. With this background information in mind, the

next section summarizes and interprets the results of the analyses. Attention then turns to a discussion of the implications of the results both for individuals and for organizations. Finally, this chapter concludes with some recommendations for future research.

Overview

Summary of Study Questions

This research began by contrasting previous research in the area of career theory with William James' vision of careers as passages along multiple paths. It was asserted that a new perspective of careers and of career events was needed. This new perspective must accentuate the fact that individuals' careers cannot be understood without an awareness of the context within which each individual exists. Furthermore, this perspective must be based on the premise that careers are not discrete steps on a linear path. Rather, they can be better understood as ongoing change processes. The career transition concept embodies this continual dynamic interactional process.

Previous definitions of careers can be placed into two major categories: (a) careers as designated by the work roles held, or (b) careers as defined through the cognitions of the individual under question. The implication of this point is that career events (i.e., changes in work role demands) can be externally defined (e.g., a visible geographic relocation) or internally defined (e.g., changes in attitudes toward a presently held role). Thus, when talking about and investigating careers and career phenomena, one had to be careful to delineate whether one was referring to the "external career" or to the "internal career."

To eliminate this problem, the present study developed an integrated definition of careers that encompassed both perspectives. A career transition is that period of time during which an individual's career is out of equilibrium as the result of some career event (either externally or internally defined). Most importantly, for a career event to

lead to disruption or disequilibrium, that career event (whether external or internal) must be *identifiable to, and perceived by* the individual. The proverbial question of whether a tree makes noise if it falls in a forest and nobody is around to hear it, is raised again. In this case, it is argued that no noise is made if no one hears it.

The structure of career transitions was then examined and previous studies on transitions were reviewed. Briefly, career transitions have been seen as: (a) times of upheaval and disruption, (b) opportunities for learning and development, (c) passages or seasons amidst changed work roles, and (d) cycles of recurring adjustment periods. What became evident from this review was that careers consist of periods of relative stability (or equilibrium) interspersed with periods of change surrounding career events. As a result of these periods of change, people adjust. Therefore, any theory of career transitions necessarily must be, to some extent, a theory of adjustment. Also, it was demonstrated that a cyclic perspective of career transitions, as opposed to the more traditional linear conception, better serves to accentuate the dynamic nature of careers. The career transition cycle that was formulated consists of three periods of adjustment: *career event preparation* and *transition adaptation* surrounding a career event and the *career equilibrium* that exists before the next career event becomes known.

It was within the context of a cyclic perspective of career transitions and adjustment processes occurring around career events that a hypothesized model of role adjustment and transition outcomes was conceived (Figure 2.2). This model portrayed some of the relations among present role perceptions, characteristics of the career event, and transition outcomes.

By examining this model in light of the cyclic perspective of career transitions, it was hypothesized that the phase an individual was in (pre-event or post-event) moderated several of the relationships within the general model of transition outcomes. Furthermore, the type of career event being experienced was hypothesized to moderate certain relationships in the model of role adjustment and transition outcomes.

Caveats

There are certain caveats that need to be considered when drawing conclusions from the results of the present study. The following five areas will be addressed below: (a) the use of a limited number of specific measures, (b) the generalizability of results, (c) the preliminary nature of the primary statistical technique used, (d) the use of a cross-sectional data collection design to assess an ongoing process, and (e) the shortcomings in present career theory.

In all studies, there is a limit to the number of constructs that can be measured practically. The 12 constructs modeled in this study were chosen to represent portions of only three categories of variables (i.e., present role, characteristics of the career event, and transition outcomes). As presented in the general model of transition outcomes (Figure 1.7), the relationships among many other constructs and categories of variables could have been evaluated. For example, the influence of support from sources other than one's supervisor could also have been modeled. Likewise, there are many personal traits of the individual (e.g., cognitive style, willingness to change, and adaptability) that were not included. Because properly specifying the model to be evaluated becomes more difficult with an increase in the number of constructs covered by the model, the present study was limited to 12 constructs. Other studies are required to examine relations among the remaining constructs.

As discussed in the first chapter, there are also many ways in which the same construct can be measured. For example, several different scales have been used in the past to measure role ambiguity (e.g., Caplan et al., 1975; Quinn & Staines, 1977). Interpreting the results from any study should be done in light of the specific measures used. The measures used in this study are presented in Appendix B and should be referred to when trying to understand these results and to extrapolate findings from this study to other formulations of careers and career transitions.

A second restriction in this study concerns the sample used and the degree to which generalizations can be made from the results. The sample was not randomly drawn from the general population. Rather, it was drawn from a population of Navy aviators. As discussed in the second chapter, there are some marked differences between a Navy career and careers in the private sector. Perhaps the most relevant distinction that could impact the generalizability of the results is the clear and standardized career progression present in Navy aviators' careers. Because of this, officers in the present sample may not be faced with as much uncertainty due to career events as managers in other organizations. That is, career events are probably more readily anticipated by Navy aviators than they are for individuals in the general population. On the other hand, this population provided a unique opportunity for identifying and sampling individuals moving through a number of widely different career events. This would not have been as easy to accomplish in a less structured organization. Whereas the strength of some of the relationships may change if this study were conducted with another population (e.g., private sector corporate managers), the sample used in the present study does allow an initial understanding of the dynamics of career transitions across a variety of career events. Nonetheless, one should use caution when generalizing the findings from this study to individuals in careers other than Navy aviation. These results are probably most generalizable to other Navy officers and to officers in the other armed services.

A third limitation pertains to the use and interpretation of the LISREL results. LISREL is a relatively new and still evolving technique. While LISREL VI allows the simultaneous estimation of maximum likelihood estimates and provides a χ^2 statistic indicating overall fit between the actual and hypothesized covariance matrices, there are few established guidelines to follow when fit is other than nearly perfect or seriously deficient. To overcome this shortcoming, a number of measures (e.g., MNR, PNNI, GFI, LNR) were developed and used to evaluate goodness-of-fit in addition to the overall χ^2 or χ_d^2 tests. At present, it appears that rather than having a single measure of absolute

goodness-of-fit, the best one can hope for is using measures of relative goodness-of-fit among a series of nested models. This study demonstrated how such relative measures can be used and interpreted.

A fourth limitation that needs to be addressed is the use of cross-sectional data to draw causal inferences about what is postulated to be a dynamic process. One must always be cautious when using cross-sectional correlational data to infer causality. While LISREL VI allows one to assess how plausible a model is, there is still no substitute for repeated measures over time. On the other hand, the sampling design of this study (selecting both individuals approaching focal career events as well as individuals having recently completed the same events) did provide some indication of the effect of phase in the transition cycle on both role adjustment and transition outcomes. Nonetheless, the findings from this study are not proof positive of the existence of the causal paths hypothesized and examined.

The final shortcoming pertains to the present state of career theory. Clearly, careers are more than upward progressions through the ranks of an organization. The intended use of the various theories of careers needs to be addressed. For example, Holland's theory of the determinants of vocational choice (Holland, 1973) has been useful for practitioners who attempt to match individuals with specific occupations. Likewise, Krumboltz's social learning theory of careers (Krumboltz, 1979) is helpful in understanding the impact of an individual's social environment upon subsequent career decisions. Nevertheless, present career theories seem to skirt the issues of what happens to an individual once career decisions or vocational choices are made and how careers are shaped over time. Without a comprehensive theory of career transitions, these issues will be left unanswered. We cannot conduct comprehensive research addressing these issues based on career theories intended for other uses. While the present study made some inroads into developing such a career transition theory, much work and theoretical development is left to be done.

Summary and Interpretation of the Findings

Toward the Development of a Typology of Career Events

Analysis of the data supported Louis' (1980a) postulation that different career events have similar meanings to individuals. Factor analysis of individuals' ratings of the magnitude and desirability of 20 different career events resulted in a five-factor solution. The same basic solution resulted whether the product terms formed from both perceived magnitude and perceived desirability were factor analyzed or whether ratings of perceived magnitude and perceived desirability were factor analyzed separately. As discussed in the third chapter, it is appropriate also to surmise that a sixth "factor" existed -- one that differentiates initial socialization career events from career events reflecting attainment of full membership in the organization.

On the other hand, the five factor solution accounted for only 57 percent of the total variance in the measures. This suggests that there are other dimensions relevant to classifying career events (in addition to magnitude and desirability). Two such dimensions evaluated in previous studies of life events are *controllability* and *predictability* of the event.

It is important to note that the measures used in assessing magnitude and desirability of the career event differed in one important attribute. The measure of career event magnitude asked individuals to rate the degree of change required for "the average officer" to successfully adjust; the measure of career event desirability asked individuals to rate how "personally" desirable each of the career events are. The relationship between individuals' ratings of career event magnitude for "the average officer" and for oneself, in particular, should be addressed in future studies. At the very least, future studies should ensure that the same focal individual is used in questions pertaining to career event magnitude and career event desirability.

This may help to explain why the percent of variance explained by the upward progression factor was higher than that explained by the other factors. Whether referring to oneself, or to other officers, few would dispute the belief that promotions are highly favorable career events. Promotions are visible to other organizational members and bring increased authority and pay. Thus, they are propitious external career events. Promotions also signal to the individual that past deeds and achievements are being rewarded. Thus, they are gratifying internal career events, as well. It seems likely that the distinction between "oneself" and "the average officer" would play a greater role in evaluations of career events for any event that is less "universally favorable" than promotions.

Modeling Role Adjustment and Transition Outcomes

The hypothesized model of transition outcomes postulated that facets of one's role and characteristics of the career event chiefly influenced levels of transition outcomes. While the results indicated that refinement of the model was in order, most parameters hypothesized were significant and in the direction of influence postulated. A specification search was then conducted on the various sub-models and linkages between the sub-models. Further, the modifications made to the hypothesized model were cross validated. The refined model resulting from the specification search had a very good fit to the data.

Perhaps the most surprising finding from the examination of the refined model of transition outcomes was that there was a nonsignificant relationship between superior support and role adjustment. The precise measure of superior support used focused on whether one's immediate superior: (a) makes one's work life easier, (b) is easy to talk with, (c) is helpful, and (d) is willing to listen. Unquestionably these are important behaviors in helping individuals get situated in their roles. Apparently there is something else occurring, however, that is suppressing the effect of superior support. As will be

discussed shortly, this suppression is due to the moderating effect of phase in the career transition cycle. Without evaluating the relationship for moderation, however, we would have been at a loss to explain such findings. Further, this demonstrates the importance of evaluating theoretically-called-for moderators in our research.

Also interesting in the development of the refined model of role adjustment and transition outcomes were the relationships between perceived magnitude and perceived desirability with both adjustment difficulty and eagerness. Past research on life events and career events has noted the significance of these two event characteristics in determining subsequent outcomes (adjustment and personal reactions). What this study has provided, however, is an indication that outcomes are differentially linked to each of these event characteristics. With the sample of Navy aviators studied, it is evident that career event desirability influences one's overall outlook toward the event (i.e., eagerness) much more than does the magnitude (i.e., how much change is required as a result of the event) of the career event. Furthermore, it also is evident that the magnitude of the event influences one's perception of the difficulty of adjusting to the career event much more than does one's perception of how desirable the career event is. Both of these findings seem quite reasonable. One would expect that the more personal change a career event requires of an individual, the more that individual will have difficulty in adjusting to the career event. This would explain the strong relationship between magnitude and adjustment difficulty. At the same time, a career event can require much personal change and still be viewed as a highly favorable event. This could help to explain the strong relationship between desirability and eagerness. Finally, the relatively inconsequential relationship between desirability and magnitude seems to support these conclusions.

Contrary to previous research, this study did not find a strong relationship between characteristics of the career event and strain. In fact, as the breakdown of unique variance demonstrated, most of the influence on strain was due to one's present

role, as opposed to the career event, *per se*. This is not to say that career transitions are not occasions where stress and strain may arise, albeit the influence of career events does not directly result in higher levels of strain. It is likely that career events bring about changes in one's present role, and these resulting changes are what lead to increased levels of strain. It also is possible that previous studies on career transitions have placed too great a priority on the disruptive influences of career events. As discussed in the first chapter, careers are replete with change and people are quite adaptable to most change. More research is called for to investigate when career events are disruptive and when they are not.

That there was a strong negative relationship between mastery and strain was interesting indeed. Could it be that individuals who believe they are less in control of their environment are predisposed to have higher levels of strain than others? If control orientation (i.e., mastery) is a relatively stable trait, then the results would tend to support this conclusion. On the other hand, if control orientation is changeable, then the results would support a conclusion that increased levels of strain reduce individuals' feeling of mastery over their environment. Without further research into this relationship, however, it would be a mistake to draw too much from the present study.

This study did demonstrate that there are different classes of personal reactions resulting from career events. On the one hand there is strain; on the other hand, there is one's outlook toward the career event (i.e., eagerness for the event to occur). These different personal reactions are not so surprising. What is startling, however, is the lack of any appreciable relationship between eagerness and strain. That is, an individual's cognitive assessment of a career event is independent of the individual's affective response to the event. This supports a conclusion that career events can be both alluring and anxiety-producing. Likewise, they can be both very distasteful and yet anxiety-free. It does not appear that individuals let the strain they feel resulting from career events

dominate their outlook toward the event. Is strain bad, or is it a part of one's normal existence? The present study would tend to endorse the latter perspective.

Finally, the significant relationship between control over the event and eagerness supports some of the past research that found controllability of life events an important factor. The more one controls various aspects of the career event, the more favorable the career event appears. However, there was no relationship between controllability and strain, as previous studies might have suggested. Just what are the dynamics of controllability and strain? In what instances is level of control over a career event important in the determination of felt level of strain? These questions can not be answered in the present study, but are important enough to be the focus of future investigations.

The Moderating Effect of Phase in the Career Transition Cycle

As mentioned earlier, what is of consequence for individuals who are pre-event is likely to differ from what is important to individuals who are post-event. Individuals who have yet to go through their focal career event have many expectations about what is to occur. Though these expectations about the career event may be grounded in some fact, it also is likely that "scuttlebutt" one hears about the upcoming career event may not be directly pertinent to any single individual. On the other hand, once an individual has gone through a career event, the challenges in adjusting to the new role are real and consequential. The individual no longer has only pre-event expectations on which to base an understanding of what is to come.

In particular, the moderating effect of phase on four of the parameters in the refined model merit further elaboration. These parameters are: (a) superior support to role adjustment, (b) adjustment difficulty to strain, (c) perceived desirability to adjustment difficulty, and (d) role adjustment to strain.

The rather dubious finding that there was no significant relationship between superior support and role adjustment is better understood once phase in the transition cycle is accounted for. Whereas this relationship is not significantly different from zero for individuals who are just coming upon their career events, the relationship is highly significant for individuals who have recently gone through career events. As individuals enter new roles, reliance on their immediate superior to "learn the ropes" is quite high. After they have been in their roles for some time, they need not rely solely on their immediate superior for support. They will have developed other sources of support (e.g., from other coworkers) and also will have learned the role requires for effective performance. Thus, when the refined model was evaluated using the entire sample, phase in the career transition cycle seems to have been masking the relationship between superior support and role adjustment.

A second relationship moderated by phase was that between adjustment difficulty and strain. As explained earlier, individuals who have yet to come upon their focal career event have only pre-event expectations regarding the career event. On the other hand, individuals who have passed through the career event are faced with actual repercussions of the career event. It appears that the expectation of how difficult it will be to adjust to a career event is not nearly as strongly related to level of strain as the reality of adjusting to a career event is. It is conceivable that people give less credence to these pre-event expectations.

The relationship between perceived desirability and adjustment difficulty was also moderated by phase. Whereas this relationship was nonsignificant when phase was not considered, we see that this relationship is moderately large for individuals who are pre-event. This indicates that an individual's perception of how desirable a career event is helps to shape pre-event expectations concerning how difficult it will be to adjust to the event, once it has occurred. After the individual has passed through the career event, however, this relationship becomes nonsignificant. That is, for individuals who have

recently passed through their focal career events, perceptions of how difficult it is to adjust to the career events are not based on their perceptions of how desirable the career events are. Rather, their perceptions of how difficult it is to adjust to their career events are based on the actual difficulties they are faced with in their new roles.

Finally, a fourth relationship moderated by phase in the career transition cycle is that between present role adjustment and strain. This relationship is quite strong for individuals who have yet to go through their focal career event, but becomes nonsignificant for individuals who have recently gone through their career event. What this indicates is that people who are entering new roles are not necessarily bothered by not feeling well adjusted to their roles. Individuals who have been in their roles for some time, on the other hand, experience greater levels of strain when they are not adjusted to their roles. A certain amount of lack of adjustment is to be expected for anyone in a new role. The larger questions that loom are: How long is (or should be) this post-event adjustment period? Does it change as a result of career event type? Clearly, this is an important issue that warrants further research.

The Moderating Effect of Career Event Type

As mentioned previously, Louis' (1980b) postulation of commonality across transition types suggests that the refined model will show no moderation by event type. The omnibus test for moderation was performed and revealed that, on the contrary, moderation was occurring across the six transition types. However, of the two relationships hypothesized to be moderated by transition type (i.e., superior support to both role adjustment and adjustment difficulty), moderation was found to occur in only one (i.e., superior support to adjustment difficulty). This will be discussed.

This study found that for individuals going through initial socialization events and for those going through the continuation decision, the amount of support from one's immediate superior greatly eases the difficulty they face in their career events. As was

stated when discussing the moderating effect of phase, it seems probable that the support from one's immediate superior is most important when an individual is becoming accustomed to a new role. Such support is also important as an individual is becoming accustomed to a new career. Thus, officers going through early career events show a strong reliance on the support they receive from their superior.

It was also suggested that officers who are facing the continuation decision interact with their superiors much more often than they normally would. One of the objectives of commanding officers is to ensure that high quality Navy aviators remain in the service. Not only do commanding officers put pressure on their department heads to convince officers coming upon a continuation decision to remain in the Navy, but commanding officers may also make direct attempts at convincing officers to remain. Thus, officers at this junction in their careers receive considerable attention. If they decide to stay in the Navy, then all is well and good. On the other hand, if they decide to leave the Navy (despite all the pressure that has been applied), then they describe their remaining time in the service as often fraught with unfavorable tasks and duties.

The sample distribution across career event types limits the conclusions we can make regarding the moderating effect of career event type. While the present sample was almost equally divided between those individuals who were pre-event and those who were post-event (thus making clear evaluations of the moderating effect of phase possible), there were wide differences in sample sizes across career event types. These differences limit our ability to fully analyze career event type moderation. For example, while significant moderation by career event type was found to occur in the relationship between superior support and role adjustment (as hypothesized), none of the *t*-values for this parameter were significant in any of the groups. As demonstrated previously, this relationship is strongly moderated by phase in the career transition cycle. Without jointly considering the moderating effect of phase on this relationship, interpretation of the significant moderating effect by transition type cannot be fully understood. However,

because of the uneven distribution of officers across transition types, evaluating the joint moderation of phase and transition type was not possible. Thus, further research will be required to fully understand the moderating effect of transition type.

The Moderating Effect of Multiple Transitions

A somewhat unexpected finding was that the existence of a concurrent event (in this case a geographic relocation) did not moderate relationships in the refined model. Once again, this is likely due to unique characteristics of the population. In this population, career events and geographic moves are frequently synonymous. Often officers are relocated when they report to new assignments. In fact, the officer who "homesteads" (i.e., remains in the same geographic location through many different assignments) is in the minority. Do officers and their families enjoy this aspect of a Navy career? Interviews have suggested that this is not the case (Bruce, 1986). Nonetheless, officers and their families typically concede that moves are a "necessary evil" to be endured as a part of Navy life. This stoic acceptance of relocations may help explain the lack of moderation due to a concurrent relocation. Alternately, factors not included in the refined model (e.g., the impact of family support on adjustment difficulty) might be moderated by a concurrent relocation.

Does this finding rule out the moderating effect of concurrent life events? Most certainly not. Officers often face concurrent events other than a geographic relocation. For example, it is not uncommon for an officer to be reassigned, to come upon the end of obligated service, and to be promoted all at the same time. Looking only at relocation may have been too limited an attempt to assess potential moderation of multiple transitions. Although the present study was not able to examine this issue more completely, previous research (e.g., Latack, 1984) has demonstrated that multiple events are important to individuals going through career transitions. Future research should

investigate the concurrent occurrence of other events (both career events and life events) and their moderating effects on the refined model.

Implications of the Findings

This study demonstrated that a cyclic perspective of career transitions is useful for examining the process of adjusting to new roles and for predicting levels of personal reaction to career events. Furthermore, this perspective is intuitively meaningful. People are confronted with constant change in their careers. Often the amount of adjustment is minimal. For example, when people are "in the groove" in their present role (i.e., in a state of career equilibrium), only day-to-day adjustments need to be made. At other times (e.g., during career event preparation and post-event adaptation), greater energy must be expended to resolve uncertainties and to develop adequate person-role congruence. Change and adjustment are not infrequent or unknown elements in careers. The career transition framework offered in this study can be used effectively to better understand our own careers, to appreciate the transitions others face as a result of their career changes, and to guide further career research.

This study underscored the significance of superior support both for individuals just beginning their careers, as well as for individuals who are entering into new roles. Certainly this finding is not surprising. Supervisors and managers play a key part in easing subordinates' adjustment to career changes. This finding provides us with additional justification for training Navy officers in procedures they can use to ease the career transitions of their subordinates. It also suggests that Navy officers, as well as civilian managers and supervisors, need to be aware of the critical influence they can have in this area. Furthermore, if career transitions of superiors influence subordinates' perceptions of their jobs (as suggested by Stout et al., 1986), then it also seems appropriate to posit the reverse. That is, a superior may feel repercussions from

subordinates' career transitions. Such an implication provides managers with an additional incentive to help their subordinates adjust to career events.

This study also highlighted the differential personal reactions to career events. Two such personal reactions addressed in this study were one's cognitive outlook toward the event (i.e., eagerness) and the level of strain one feels. These reactions were found to be relatively independent of each other. Thus, when programs are developed to assist individuals going through career events, both reactions should be addressed. The means to cope with environmental stressors and potential disruptive aspects of the change, as well as means to develop a positive outlook toward the event are both important. Simply by addressing the issue of strain, one cannot be certain that a positive outlook will result. By the same token, an assistance program intended to expedite adjustment in new roles and careers should not be focused solely on making people "feel happy" about the upcoming change. The specific elements in the environment that are stressful must be acknowledged, and coping mechanisms useful for dealing with these stressors must be taught.

One mechanism that can be used to help increase eagerness for the event is to foster individuals' perceptions of control over the event. The more individuals have or believe they have control over the various aspects of the upcoming career events, the more eager they are toward their career events. One way to increase control is to involve employees as much as possible in decisions that will influence the event (e.g., whether the event occurs or not and the timing of the event).

Individuals often have a great deal of influence over whether a particular career event occurs or not. In other cases, individuals have little or no control over their career events. In both instances (of high and low actual control) certain difficulties may arise. These difficulties occur if individuals erroneously perceive their level of control. Individuals who do have some control over what happens related to their career events, may not be aware of this. In such instances, it is imperative that they be shown the

impact that they have. On the other hand, what happens when individuals do not control the event as much as they believe? When things go as they "plan" (even though they are not necessarily making things happen), there is no dilemma. However, if their career event does not proceed as they had "planned", they may react quite negatively -- disparaging those whom they see as causing the deviation or resisting the upcoming career event.

It also is important to develop mechanisms that help people adjust more quickly to the challenges in their new roles. Based on the research findings from this study, the more expeditiously an individual adjusts, the less will be their levels of strain. Adjustment difficulty (the measure used) does not necessarily indicate the length of the post-event transition adaptation period, but there probably is a strong positive relationship between the two. As was discussed earlier, the support one receives from one's immediate superior can greatly accelerate adjustment to a new role. But there are more things that an organization can do to aid individuals going through career transitions. For example, if the individual going through a career event that includes a geographic relocation is married, what sort of assistance is provided to help the spouse find a new job in the new location? Also, does the organization provide information concerning housing, schools, day care, and medical facilities in the new location? As employees move from non-managerial jobs into managerial positions, does the organization provide training, mentoring, or other forms of assistance to help them become effective managers? A variety of career transition programs can be developed to ensure that such help is available.

The results from this study have a number of implications for career theory. Although this study did not address specific prior theories of transition, several conclusions can be made.

Glaser and Strauss' (1971) discussion of status passages delineated important dimensions of events. Two dimensions that they mentioned as having an impact on how

people interpret and respond to events (desirability and controllability of the passage) were strongly supported by the analyses. Glaser and Strauss also emphasized that status passages are not immediate, but that they take time. As discussed earlier, this study would suggest that not only do passages take time, but also that the character of a passage changes over time.

Although this present study does not directly evaluate the appropriateness of the seven-phase model postulated by Adams, Hayes, and Hopson (1976), it is apparent that among Navy aviators undergoing career events, high levels of disruption and stress do not necessarily result from a career transition. While disruption obviously results from certain transitions, it is evident that much more research and theoretical development needs to occur in order to describe the conditions and events in which high levels of stress are likely.

Pinder and Walter (1984) postulated that transitions have both cognitive and affective implications for individuals. Though this study could not fully assess the mechanisms of experiential learning that Pinder and Walter hypothesized (with the exception of support from one's superior), the analyses did have implications for several of Pinder and Walter's hypotheses regarding the potential impact of geographic relocations. One of their hypotheses -- that anxiety is related to the amount of support provided by the person's new role set -- received firm support from the findings. The negative relationship between superior support and strain demonstrates how one facet of support impacts individuals' reactions to career events. Pinder and Walter also hypothesized that whether or not a transfer is requested by the individual determines the developmental impact the event will have. This hypothesis was not evaluated directly in this study. However, because events requested by the individual often result in a greater sense of control over the event, this study was able to provide some support for their hypothesis. As described earlier, control over the event had an impact on one's

perception of various characteristics of the event, as well as on one's overall outlook toward the event.

The cyclic model put forth by Nicholson (1987) highlights the adjustment inherent in career transitions. As was mentioned previously, it is quite difficult to evaluate such a dynamic process with cross-sectional data. Nonetheless, his perspective proposes that career events require individuals to adjust and that the adjustment process changes depending on where in the cycle individuals are. Such an implication can also be found in the career transition cycle hypothesized in the introduction. The results of the analyses assessing moderation by phase supported such a cyclic perspective. On the other hand, this effort did not address the basic difference between Nicholson's structure of career transitions and the structure postulated in the present study. Specifically, is it best to think of career events as discrete occurrences (as this study postulates), or is it best to think of career events as unfolding over time (as Nicholson postulates)? This difference, however, may not be that acute. Some career transitions center around distinct events (e.g., "You're fired!"). Other career transitions center around a gradually unfolding series of occurrences (e.g., moving an individual's office to the far reaches of the building, taking away the individual's reserved parking space, not inviting the individual to group meetings, and finally sending the individual a notice of termination). Perhaps even the same event experienced by the same individual can be viewed as either discrete or unfolding -- depending on the purpose of investigation.

Suggestions for Future Research

This study has left a number of questions unanswered, partially because only a small portion of the career transition issue could be examined. This final section will be used to stimulate future research on the career transition cycle.

The general model of role adjustment and transition outcomes hypothesized in the first chapter was only partly examined. While this study examined three potential outcomes of career events (adjustment difficulty, eagerness, and strain), these are not the only effects of career transitions. What is the effect of career transitions on other outcomes (e.g., job performance, career intent, organizational commitment, and family/marital satisfaction)? Under the rubric of the career transition cycle, further research should be conducted to investigate some of these other consequences of career transitions and their relationships with other variables in the model.

A second suggestion for further research concerns the post-event adaptation period. How long does it take to adjust to new roles? What factors influence the length of this adjustment period? Are shorter adjustment periods necessarily better (for the individual and the organization)? Different career events probably require different adjustment periods. For example, it is unlikely that the time it takes to get used to the idea of being promoted will be as long as it would if a geographic relocation was also connected to the promotion.

A third area for research stemming from this study focuses on the disruptive impact of career events. While this study found that characteristics of career events do not necessarily determine individuals' level of strain, it may be that, as individuals traverse the career transition cycle, levels of stress and strain change accordingly. What factors influence the varying levels of stress and strain (be they organizational factors, individual traits, or characteristics of the career event) are unknown at this time. Research in this area could help to give a more complete understanding of the career transition cycle. It is also possible that a typology of transition cycles would emerge from such a line of research.

Related to this is a fourth area of suggested future research. Specifically, we do not know what impact experiences in one phase of the cycle have on experiences in other phases or how experiences in one cycle influence experiences in subsequent cycles.

Does success during one transition cycle foster success during subsequent cycles? And likewise, does successful career event preparation ease the post-event adaptation process *within the same cycle*? The cross-sectional data from the present study were inadequate to address this issue. Such an issue could be better addressed with a longitudinal study.

A fifth area for future investigations is also related to this. It was suggested earlier that adequate career event preparation time was necessary for proper adjustment to the new role. But what happens when the career event comes about with little or no advanced warning? More importantly, what happens when there are incomplete career transition cycles? Further, in what instances are these incomplete cycles relatively innocuous and in what instances do breaks in the cycle lead to serious complications?

Future research should not rely exclusively on quantitative methods. This is not to suggest that traditional quantitative studies (e.g., surveys) should not be used. However, even if they are longitudinal in design, such methods limit the degree to which we are able to evaluate what is essentially an ongoing process. It was suggested that a process theory of careers is needed. Often, advancements in theory generation and development are held back by those very methods which are hoped to advance our understanding. Career theory would likely benefit from qualitative research focused on understanding the dynamics of the career transition cycle. Such research could take the form of in-depth case studies in which the researcher and transitioner delve into what happened and why. However, researchers using this approach must be cautioned against exploring or highlighting only a portion of the career transition experience (e.g., possible disruptions arising), to the exclusion of other experiences.

Finally, how far can we extend the basic concept of a transition cycle across organizational levels? Early in this undertaking, it was suggested that *transition* is in that small class of variables denoted as a "durable," that is having meaning across systems. If this is the case, then systems other than individuals going through career events would be expected to experience similar types of cycles of preparation and adaptation around

changes they confront. The transition cycle might effectively apply to events experienced within interpersonal relationships (e.g., a couple entering marriage), small group interactions (e.g., a change of therapist responsible for an ongoing therapy group), as well as organizational units. For example, Beckhard and Harris (1987) discuss the dynamics of organizational change. Many of the issues that individuals going through career transitions face, are also concerns of organizations moving from a present state, through a transition state, to a future state. Does the change come about because of the wishes of organization members, or is it forced upon the organization by some external source (i.e., the controllability issue)? Is the organization open to change, or is it fixated on the imperfections in its present state (i.e., the eagerness toward the event issue)? While our understanding of organizational change processes may be increased with a more thorough comprehension of the career transition cycle, so too may future research into careers and career transitions be facilitated by learning more about the phases that larger systems pass through when undergoing change.

Consider momentarily what might occur as an organization is confronted with the requirement to make changes in how it operates. This need to change may be brought about by external pressures or may be driven because of internal changes. In either case, the organization has moved from a point of relative equilibrium into a preparatory adjustment phase.

Certainly organizations progressing through a planned change program (e.g., instituting a total quality management program) have to invest energy in preparing the organizational components for the change. Are organizational members receptive to the upcoming changes, or is there resistance to change? What level of training or expertise is necessary for the modifications to be established, and are the organizational members lacking in this area? Is the upcoming change driven by the desires and vision of upper management, or has there been involvement of individuals at all levels of the organization? Perhaps most important is whether or not there is sufficient notification

time prior to the change. The answers to such issues are likely to be important in determining how successful the individuals and the organization are in dealing with future change.

Following the implementation of the change is a period of organizational adaptation. It is during this phase that resistance to change must be resolved, new patterns of organizing established, and new habits and behaviors established. Failure to do so often has negative results (Mirvis & Berg, 1977). In much the same way as individuals going through career transitions must learn new ways of performing, so too must the organization (and its members) discover and adapt new modes of comportment.

If the transition adaptation phase of the organization is successful, a period of relative stability arrives. During this period, the task at hand is to perform, grow, and survive in the environment. On the other hand, disruptions in the transition cycle (similar to those presented in the first chapter) could occur. Sudden, unexpected changes might occur or the organization might be unsuccessful in adapting to the change. In such cases the organization is thrust into another transition cycle.

Although this discussion of organizations facing change is rather simplistic, the point is to demonstrate an alternative perspective toward the phenomenon of transition. While the cyclic perspective of career transitions can hardly be considered a fully developed multi-level theory (Rousseau, 1985), such a development is plausible. Although the basic cyclic structure of transitions provides a starting point for such development, more work is needed to specify variables that are functionally equivalent across levels. The hypothetical model of transition outcomes evaluated and refined in the present study is not intended to be such a specification. Nonetheless, for the student of organizations, the areas of change and transition are vital -- both in increasing our understanding of the behavior of individuals as they progress through their careers, as well as in increasing our understanding of the behavior of individuals as they progress through their careers, as well as in increasing our awareness of how larger systems (e.g.,

small groups or organizations) face the task of adjusting to continual change in the environment.

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APPENDIX A

MATERIALS ENCLOSED IN EACH QUESTIONNAIRE PACKET



DEPARTMENT OF THE NAVY
NAVAL MILITARY PERSONNEL COMMAND
WASHINGTON, D.C. 20370

IN REPLY REFER TO

18 September 1986

From: Assistant Commander, Naval Military Personnel Command

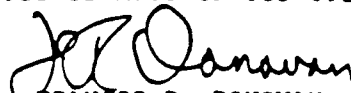
Subj: WARPAE OFFICER CAREER RESEARCH

Encl: (1) Career Event Questionnaire

1. Navy Personnel Research and Development Center (NAVPEPSRANDCEN) is conducting research to assess factors leading to officers expediently adjusting to changes in their Navy careers (e.g., entry into initial assignment) and the outcomes of this adjustment (e.g., performance and career intent). Questionnaire results will be provided to NMPC and OPNAV to assist in the development of policy and the manner in which that policy is implemented.

2. Please complete the following questionnaire. It should produce important data as we continue our effort to improve the Navy's career management system. Our goal is to publish the results in the Perspective.

3. I appreciate your participation in this study. If you have any questions, please call Reginald A. Bruce, Research Psychologist, at (619) 225-6911 or AUTCVON 933-6911.


FRANCIS R. DONOVAN



MANPOWER AND PERSONNEL LABORATORY
NAVY PERSONNEL RESEARCH AND DEVELOPMENT CENTER
SAN DIEGO, CALIFORNIA 92161-0000

From: Reginald A. Bruce

Subj: Instructions for completing attached survey

1. As RADM Donovan stated, this study is part of a larger project initiated to improve the Navy's career management system. This is not a test and there are no right or wrong answers. Some of the questions are objective, factual; others ask for your personal views, opinions, and attitudes. All responses will be confidential. Individuals will not be identified in reports, briefings, or discussions. Please answer the questionnaire frankly.

2. From previous surveys, we have learned to expect certain questions. Below we have tried to anticipate what questions you may have, as you complete the survey. If there are any additional questions you have, please do not hesitate to call either Dr. Robert Morrison or myself, at (619) 225-6911 or AUTOVON 933-6911.

What if I have comments to make on an item in the survey? Can I simply write a note next to the question?

We ask you not to write on the booklet, except where you are specifically asked to do so on the last page, because the survey booklet was designed to be optically scanned. If there is not enough room on the last page to make comments, please include additional pages.

When answering each question, should I take an informal poll of my command and report the "average" response?

No. You were selected in a statistical random sampling and for our results to be generalizable throughout the aviation community it is important for you to choose the response that best matches the description of your situation or how you feel about particular statements.

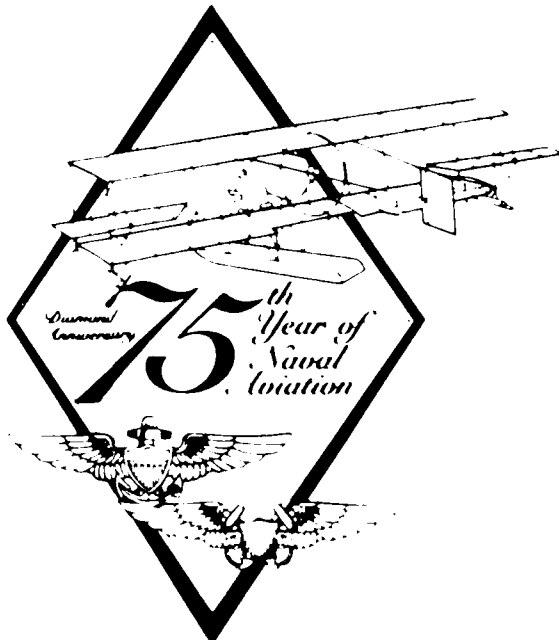
What about when answering the pages rating the magnitude and desirability of particular career events? Should I go talk to officers who may have gone through the particular events?

You can go talk to other officers, but when you rate the magnitude of the respective career events, answer how much change you think is required, in general, by most officers going through the events. Even if you have not been through particular events, attempt to rate an event's magnitude and personal desirability.

I notice that some of the same questions are asked in several different ways. Are you trying to trick me?

No. We do this to test how reliably our different questions measure the same ideas. All we ask is that you answer each question as carefully and frankly as possible.

AVIATION CAREERS IN TRANSITION



**NAVY PERSONNEL
RESEARCH and DEVELOPMENT CENTER**

San Diego, California 92152-6800

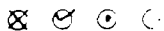


MARKING INSTRUCTIONS

USE NO. 2 PENCIL ONLY

- Use a No. 2 pencil only
- Read each question carefully. Make a **HEAVY BLACK MARK** that **FILLS THE CIRCLE** representing your answer
- Please do not make stray marks of any kind

INCORRECT MARKS



CORRECT MARKS



USE NO. 2 PENCIL ONLY

PRIVACY ACT NOTICE

Under the authority of 5 USC 301, information regarding your background, attitudes, experiences, and future intentions in the Navy is requested to provide input to a series of studies on officer career processes and retention. The information provided by you will not become part of your official record, nor will it be used to make decisions about you which will affect your career in any way. It will be used by the Navy Personnel Research and Development Center for statistical purposes only. You are not required to provide this information. There will be no adverse consequences should you elect not to provide the requested information or any part of it. Return of the questionnaire constitutes acknowledgement of these Privacy Act provisions.

A. BACKGROUND INFORMATION

1. Social Security No.:

Print your Social Security No. in the boxes provided. Then fill in the appropriate bubble below each number.

			+						
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. Current designator:

2a. Aviator type:

- ☐ Pilot
☐ NFO

1			
☒	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐

Did you answer question 2a?

3. Grade:

- ☐ 0-1 ☐ 0-3 ☐ 0-5 ☐ 0-7
☐ 0-2 ☐ 0-4 ☐ 0-6

4. Sex:

- ☐ Male ☐ Female

5. Family status:

- ☐ Single ☐ Married, with children
☐ Single parent ☐ Separated/Divorced
☐ Married without children ☐ Other

6. Date questionnaire completed:

- ☐ Aug 86 ☐ Nov 86
☐ Sept 86 ☐ Dec 86
☐ Oct 86

7. Year awarded wings:

- ☐ 86 ☐ 76-77
☐ 84-85 ☐ 74-75
☐ 82-83 ☐ 72-73
☐ 80-81 ☐ Before 1972
☐ 78-79 ☐ Not applicable

8. Which of the following best describes your warfare specialty community?

- ☐ VAL ☐ VF ☐ HM
☐ VAM ☐ VP ☐ HS
☐ VAW ☐ VQ ☐ HSL
☐ VAQ ☐ VS ☐ Other support (e.g., VRC)
☐ VC ☐ HC ☐ Other

9. How long have you been a member of the above warfare specialty community?

- ☐ Less than 1 year ☐ 6-9 years
☐ 1-2 years ☐ 10-14 years
☐ 3-5 years ☐ 15 or more years

10. How many other specialty communities have you been a member of?

- ☐ None ☐ 2 ☐ 4 or more
☐ 1 ☐ 3

11. Which of the below Surface Warfare qualifications have you obtained?

- ☐ None ☐ Several but not
☐ OOD (U) SWO qualified
☐ One goal, not OOD (U) ☐ Am SWO qualified

12. Approximately how many hours a week do you fly?

- ☐ Duty involves no flying ☐ 11-15 hours
☐ Less than 5 hours ☐ 16-20 hours
☐ 5-10 hours ☐ More than 20 hours

B. CURRENT BILLET AND ASSIGNMENT

1. These questions deal with different aspects of work. Please indicate how often these aspects appear in your job.

- a. How often are you unsure about what your nonflying job responsibilities are?
- b. How often can you predict what others will expect of you on the job?
- c. How much of the time are your work objectives poorly defined?
- d. How often are you clear about what others expect of you on the job?

1 Rarely Or Never	2 Some- times	3 Fairly Often	4 Very Often
①	②	③	④
①	②	③	④
①	②	③	④
①	②	③	④

2. The following statements deal with different aspects of work. How strongly do you agree or disagree with each statement?

- a. On my job, I know exactly what is expected of me.
- b. Rarely do I know what I have to do on my job.
- c. On my job there are procedures for handling everything that comes up.
- d. My job has rules and regulations concerning almost everything I might do or say.
- e. My superior does not give me clear goals to achieve.
- f. My superior makes it clear how I should do my work.
- g. I don't know what performance standards are expected of me.

1 Strongly Disagree	2 Dis- agree	3 Uncertain	4 Agree	5 Strongly Agree
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤

3. Conflicts can occur in any job. How often do you face problems in your work like those listed below?

- a. Persons who have equal rank over you ask you to do things which conflict.
- b. People who closely supervise your work give you things to do which conflict with one another.
- c. Persons who do not have authority over you give you things to do which conflict with other work you have to do.

1 Rarely Or Never	2 Some- times	3 Fairly Often	4 Very Often
①	②	③	④
①	②	③	④
①	②	③	④

4. Here are some items about how people may feel. When you think about your feelings during the past two weeks, how much of the time did you feel this way?

- a. I felt good
 b. I felt nervous
 c. I felt angry
 d. I felt sad
 e. I felt jittery
 f. I felt calm
 g. I felt aggravated
 h. I felt unhappy
 i. I felt irritated
 j. I felt depressed
 k. I felt fidgety
 l. I felt blue
 m. I felt cheerful
 n. I felt annoyed

	1 Never Or A Little Of The Time	2 Some Of The Time	3 A Good Part Of The Time	4 Most Of The Time
a. I felt good	☐	☐	☐	☐
b. I felt nervous	☐	☐	☐	☐
c. I felt angry	☐	☐	☐	☐
d. I felt sad	☐	☐	☐	☐
e. I felt jittery	☐	☐	☐	☐
f. I felt calm	☐	☐	☐	☐
g. I felt aggravated	☐	☐	☐	☐
h. I felt unhappy	☐	☐	☐	☐
i. I felt irritated	☐	☐	☐	☐
j. I felt depressed	☐	☐	☐	☐
k. I felt fidgety	☐	☐	☐	☐
l. I felt blue	☐	☐	☐	☐
m. I felt cheerful	☐	☐	☐	☐
n. I felt annoyed	☐	☐	☐	☐

5. How strongly do you agree or disagree with these statements about yourself?

- a. Sometimes I feel that I'm being pushed around in life
 b. I have little control over the things that happen to me
 c. I can do just about anything I really set my mind to
 d. What happens to me in the future mostly depends on me
 e. There is little I can do to change many of the important things in my life

	1 Strongly Disagree	2 Dis- agree	3 Uncertain	4 Agree	5 Strongly Agree
a. Sometimes I feel that I'm being pushed around in life	☐	☐	☐	☐	☐
b. I have little control over the things that happen to me	☐	☐	☐	☐	☐
c. I can do just about anything I really set my mind to	☐	☐	☐	☐	☐
d. What happens to me in the future mostly depends on me	☐	☐	☐	☐	☐
e. There is little I can do to change many of the important things in my life	☐	☐	☐	☐	☐

6. Overall, how would you describe your adjustment to the leadership role of a Navy officer? Would you say you understand and accept the responsibilities the position entails?

- ☐ Very well adjusted
☐ Adjusted
☐ Somewhat adjusted
☐ Not well adjusted
☐ Don't know

7. Overall, how would you describe your adjustment to your present billet and assignment?

- ☐ Very well adjusted
☐ Adjusted
☐ Somewhat adjusted
☐ Not well adjusted
☐ Don't know

8. Most of us have in our minds an idea of an "ideal" career and work situation for ourselves. Would you say that your current career in the Navy is:

- ☐ A very poor match with your ideal
☐ A poor match with your ideal
☐ Probably ok, but there are portions of it that are a poor match
☐ A good match with your ideal
☐ A very good match with your ideal
☐ Uncertain at this time

C. COMMUNITY CAREER MANAGEMENT

1. How much say or influence do you think each of the following officers (A) presently have and (B) should have over the career policies and practices within your community?

	A PRESENTLY HAVE					B SHOULD HAVE				
	None	Little	Some	Quite A Bit	Very Much	None	Little	Some	Quite A Bit	Very Much
a. Yourself	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b. Other officers you work with (in general)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c. Your CO	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d. Other COs in your wing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e. The wing commander	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f. Detailers	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g. Placement officers	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
h. The aviation community manager	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
i. DCNO (Air Warfare)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. How much say or influence do you think each of the following officers (A) presently have and (B) should have over the direction of your career path in the Navy?

	A PRESENTLY HAVE					B SHOULD HAVE				
	None	Little	Some	Quite A Bit	Very Much	None	Little	Some	Quite A Bit	Very Much
a. Yourself	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b. Other officers you work with (in general)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c. Your CO	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d. Other COs in your wing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e. The wing commander	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f. Detailers	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g. Placement officers	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
h. The aviation community manager	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
i. DCNO (Air Warfare)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

3. Below are several statements that relate to the way career policy is implemented in your community (VP, VF, VAL, etc.). First indicate (A) the current extent that each statement is true for your community and then indicate (B) your preferred extent that each statement be true.

- a. Established career policies and practices make life difficult for the nonconformist in a squadron.
- b. It is clear as to which assignments will enhance an officer's career, although this information may not be explicitly stated in a manual somewhere.
- c. Officers instinctively know what billets are required in order to be promoted.
- d. There is a lot of flexibility available to officers to determine their own career path.
- e. An officer's Navy career is fairly well planned out for him.
- f. There are a lot of written rules and regulations that determine officer careers in my community.
- g. Very little information about which assignments will enhance an officer's career is explicitly stated in a manual somewhere.
- h. Written policy clearly states what assignments and billets are required in order to be promoted.
- i. Promotion is obtained by learning and following standard work procedures.
- j. Promotion is obtained by questioning well-established ways of doing things.
- k. My community uses an "old boy" (informal) network to keep tabs on officers for best assignments.
- l. It's not so much "what you do" but "who you know" that gets one ahead in this community.

A CURRENT EXTENT				B PREFERRED EXTENT			
Not At All	A Little Extent	Some Extent	Considerable Extent	Not At All	A Little Extent	Some Extent	Considerable Extent
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐

4. Within your community, how easy would it be to rotate officers of the same grade, so that each could do a good job performing the others' tasks — in non-operational assignments?

- ☐ Very difficult. Most members would need extensive retraining.
☐ Quite difficult. Some members would need extensive retraining.
☐ Somewhat difficult. A few members would need retraining.
☐ Quite easy. Some members would need only minor retraining.
☐ Very easy. No members would need retraining.

5. Within your community, how easy would it be to rotate officers of the same grade, so that each could do a good job performing the others' tasks — in operational assignments?

- ☐ Very difficult. Most members would need extensive retraining.
☐ Quite difficult. Some members would need extensive retraining.
☐ Somewhat difficult. A few members would need retraining.
☐ Quite easy. Some members would need only minor retraining.
☐ Very easy. No members would need retraining.

6. Officers of the same grade should be similarly trained, so that each could do a good job performing the others' tasks — in non-operational assignments.

Strongly Disagree Disagree Uncertain Agree Strongly Agree
☐ ☐ ☐ ☐ ☐

7. Officers of the same grade should be similarly trained, so that each could do a good job performing the others' tasks — in operational assignments.

Strongly Disagree Disagree Uncertain Agree Strongly Agree
☐ ☐ ☐ ☐ ☐

8. To what extent are there realistic alternatives to your current Navy career that you could take advantage of within the next six months?

- ☐ To a very great extent
☐ To a considerable extent
☐ To some extent
☐ To a little extent
☐ Not at all

9. About how easy would it be for you to find a job outside the Navy with approximately the same income and fringe benefits you now have?

- ☐ Very easy
☐ Somewhat easy
☐ Somewhat difficult
☐ Very difficult

D. SUPPORT IN YOUR CAREER

These items refer to how supportive those around you are to your career in the Navy.

1. How much do each of these people go out of their way to do things to make your work life easier for you?

- a. Your immediate superior
 b. Other officers you work with (in general).
 c. Your spouse
 d. Friends and relatives
 e. Your detailer

	1 Doesn't Apply	2 Not At All	3 A Little	4 Somewhat	5 Very Much
a. Your immediate superior	1	2	3	4	5
b. Other officers you work with (in general)	1	2	3	4	5
c. Your spouse	1	2	3	4	5
d. Friends and relatives	1	2	3	4	5
e. Your detailer	1	2	3	4	5

2. How easy is it to talk with each of the following people about career issues?

- a. Your immediate superior
 b. Other officers you work with (in general).
 c. Your spouse
 d. Friends and relatives
 e. Your detailer

3. When things get tough at work, how helpful are these people?

- a. Your immediate superior
 b. Other officers you work with (in general).
 c. Your spouse
 d. Friends and relatives
 e. Your detailer

4. How much is each of the following people willing to listen to your personal problems?

- a. Your immediate superior
 b. Other officers you work with (in general).
 c. Your spouse
 d. Friends and relatives
 e. Your detailer

5. How important is it that you get support from each of the following people?

- a. Your immediate superior
 b. Other officers you work with (in general).
 c. Your spouse
 d. Friends and relatives
 e. Your detailer

	1 Not At All Important	2 Somewhat Important	3 Considerably Important	4 Very Important	5 Of Utmost Importance
a. Your immediate superior	1	2	3	4	5
b. Other officers you work with (in general)	1	2	3	4	5
c. Your spouse	1	2	3	4	5
d. Friends and relatives	1	2	3	4	5
e. Your detailer	1	2	3	4	5

E. MARRIAGE AND YOUR CAREER

Married officers complete this section. Single officers please skip this section and go to Section F, on page 9.

1. How many years have you been married to your current spouse?

- | | |
|--|--|
| ☐ Less than 1 year | ☐ 6-10 years |
| ☐ 1-2 years | ☐ 11-15 years |
| ☐ 3-5 years | ☐ More than 15 years |

2. All in all, how satisfied would you say you are with your marriage?

- | | | | | |
|-------------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Not at all
Satisfied | Not too
Satisfied | Somewhat
Satisfied | Very
Satisfied | Extremely
Satisfied |
| ☐ | ☐ | ☐ | ☐ | ☐ |

3. How do you think your spouse feels toward your Navy career?

- | | |
|--|---|
| ☐ Completely opposed | ☐ Moderately supportive |
| ☐ Moderately opposed | ☐ Completely supportive |
| ☐ Neutral | |

4. How is your spouse primarily employed? (Choose best response)

- | | |
|---|---|
| ☐ Full-time homemaker | ☐ Other professional |
| ☐ Secretary/Clerical | ☐ Navy officer |
| ☐ Retail sales | ☐ Navy enlisted |
| ☐ Teacher | ☐ Other military officer |
| ☐ Nurse | ☐ Other military enlisted |
| ☐ Engineer | ☐ Other |

5. Please indicate your degree of agreement with the below statements which relate to the family's impact on your career.

	1	2	3	4	5	6
	Strongly Disagree	Dis- agree	Uncertain	Agree	Strongly Agree	NA
a. My spouse's career limits considerably the options available in my career decisions.	①	②	③	④	⑤	⑥
b. At the present time, my career is more important to me than my spouse's career.	①	②	③	④	⑤	⑥
c. Family separation, because of deployment, makes my Navy career less attractive to <u>my spouse</u>	①	②	③	④	⑤	⑥
d. Family separation, because of deployment, makes my Navy career less attractive to <u>myself</u>	①	②	③	④	⑤	⑥
e. Family separation, because of in-port working hours, is a problem.	①	②	③	④	⑤	⑥
f. I feel that my detailer will make an honest effort to locate me in an area where my spouse can realistically relocate.	①	②	③	④	⑤	⑥
g. I have cut back on my career involvement in order to meet the needs of my spouse and/or children.	①	②	③	④	⑤	⑥
h. Counseling should be available to married couples to help them reduce the stress associated with dual career marriages.	①	②	③	④	⑤	⑥
i. Better support services (e.g., spouse employment information or help in coping with relocation) should be provided for transferring couples.	①	②	③	④	⑤	⑥

F. RATING CAREER EVENTS

1. Please rate the magnitude of the following career events. Strive to give your opinion of the degree of personal change required by the "average" officer within your community to successfully adjust after the event.

	1 Little Or No Change	2	3 A Moderate Amount Of Change	4	5 A Great Deal Of Change	6 Don't Know
a. Entering flight training	1	2	3	4	5	6
b. Obtaining your wings	1	2	3	4	5	6
c. Entering first operational squadron	1	2	3	4	5	6
d. Leaving on first deployment	1	2	3	4	5	6
e. Entering first shore assignment	1	2	3	4	5	6
f. Approaching end of obligation—the continuation decision	1	2	3	4	5	6
g. Voluntarily resigning from active duty	1	2	3	4	5	6
h. Entering a ship's company tour (disassociated)	1	2	3	4	5	6
i. Entering second operational squadron	1	2	3	4	5	6
j. Entering a full-time education program (War College, NPGS, etc.)	1	2	3	4	5	6
k. Screening for department head (VP community only)	1	2	3	4	5	6
l. Screening for Test Pilot school (omit if not applicable)	1	2	3	4	5	6
m. Becoming department head	1	2	3	4	5	6
n. Screening for a proven subspecialty	1	2	3	4	5	6
o. Screening for command	1	2	3	4	5	6
p. Failing to be selected for command	1	2	3	4	5	6
q. Becoming squadron XO	1	2	3	4	5	6
r. Becoming squadron CO	1	2	3	4	5	6
s. Leaving CO tour	1	2	3	4	5	6
t. Coming upon 20 years—the retirement decision	1	2	3	4	5	6
u. Deciding to <u>retire or not to retire</u> as soon as eligible	1	2	3	4	5	6
v. Being selected for O-6	1	2	3	4	5	6
w. Being selected for flag rank	1	2	3	4	5	6
x. Retiring from active duty	1	2	3	4	5	6

2. Now, please rate the desirability of these same events. That is, provide your impression of how desirable each of these potential events are to you, regardless of the effect they possibly may have on advancement in your Navy career.

	1 Not At All Desirable	2	3 Moderately Desirable	4	5 Extremely Desirable	6 Don't Know
a. Entering flight training	①	②	③	④	⑤	⑥
b. Obtaining your wings	①	②	③	④	⑤	⑥
c. Entering first operational squadron	①	②	③	④	⑤	⑥
d. Leaving on first deployment	①	②	③	④	⑤	⑥
e. Entering first shore assignment	①	②	③	④	⑤	⑥
f. Approaching end of obligation – the continuation decision	①	②	③	④	⑤	⑥
g. Voluntarily resigning from active duty	①	②	③	④	⑤	⑥
h. Entering a ship's company tour (disassociated)	①	②	③	④	⑤	⑥
i. Entering second operational squadron	①	②	③	④	⑤	⑥
j. Entering a full-time education program (War College, NPGS, etc.)	①	②	③	④	⑤	⑥
k. Screening for department head (VP community only)	①	②	③	④	⑤	⑥
l. Screening for Test Pilot school (omit if not applicable)	①	②	③	④	⑤	⑥
m. Becoming department head	①	②	③	④	⑤	⑥
n. Screening for a proven subspecialty	①	②	③	④	⑤	⑥
o. Screening for command	①	②	③	④	⑤	⑥
p. Failing to be selected for command	①	②	③	④	⑤	⑥
q. Becoming squadron XO	①	②	③	④	⑤	⑥
r. Becoming squadron CO	①	②	③	④	⑤	⑥
s. Leaving CO tour	①	②	③	④	⑤	⑥
t. Coming upon 20 years – the retirement decision	①	②	③	④	⑤	⑥
u. Deciding to <u>retire or not to retire</u> as soon as eligible	①	②	③	④	⑤	⑥
v. Being selected for O-6	①	②	③	④	⑤	⑥
w. Being selected for flag rank	①	②	③	④	⑤	⑥
x. Retiring from active duty	①	②	③	④	⑤	⑥

3. This question relates to the single career event of Question 2 which you are closest to in your career.

a. Which one career event have you recently gone through or are about to go through? Mark the letter associated with the event in Question 2.

☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X

b. Where are you in the process of this event?

- ☐ I have recently gone through this event.
☐ I am about to go through this event.

c. What was/is the approximate month and year of the event?

MONTH				YEAR			
☐ JAN	☐ APR	☐ JUL	☐ OCT	☐ 1981	☐ 1984	☐ 1987	☐ 1990
☐ FEB	☐ MAY	☐ AUG	☐ NOV	☐ 1982	☐ 1985	☐ 1988	☐ 1991
☐ MAR	☐ JUN	☐ SEP	☐ DEC	☐ 1983	☐ 1986	☐ 1989	☐ 1992

d. Does this event involve a relocation (PCS)?

- ☐ Yes
☐ No
☐ Uncertain

G. ADJUSTING TO CAREER EVENTS

The questions in this section all pertain to the career event you most recently completed or the one you are about to go through. This should be the same event you marked in question 3a of the previous Section, just above.

1. How eager or reluctant were/are you to go through this event?

- ☐ Very reluctant to go through the change
☐ Somewhat reluctant to go through the change
☐ Indifferent toward the change
☐ Somewhat eager to go through the change
☐ Very eager to go through the change

2. For you, was/is this a change for the better or for the worse?

Definitely for the better	Probably for the better	Probably for the worse	Definitely for the worse
☐ 1	☐ 2	☐ 3	☐ 4

3. How much control did/do you feel that you had/will have over all the different aspects of this event?

Complete Control	Some Control	No Control
☐ 1	☐ 2 ☐ 3 ☐ 4	☐ 5

4. Looking at all the real or anticipated effects of this event (responsibility, money, friends, family time, autonomy, etc.) provide an estimate of how much you stand to gain:

- a. In your personal life
b. For your personal career goals
c. For your Navy career
d. For your family life

1	2	3	4	5
Very Little To Gain	A Moderate Amount To Gain		A Great Deal To Gain	
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

5. Looking at all the real or anticipated effects of this event (responsibility, money, friends, family time, autonomy, etc.) provide an estimate of how much you stand to lose:

- a. In your personal life
 b. For your personal career goals
 c. For your Navy career
 d. For your family life

1	2	3	4	5
Very Little To Lose		A Moderate Amount To Lose		A Great Deal To Lose
☐	☐	☐	☐	☐
☐	☐	☐	☐	☐
☐	☐	☐	☐	☐
☐	☐	☐	☐	☐

6. If you have recently completed a career event (the one marked on page 11, how easy or difficult was it for you to adjust to your job after the change? If you have not yet gone through the career event (on page 11), how easy or difficult do you anticipate it will be for you to adjust to your job after making the change?

- ☐ Very difficult
☐ Difficult
☐ Uncertain
☐ Easy
☐ Very easy

7. If you have recently completed a career event, how easy or difficult was it for your family to adjust after the change? If you have not yet gone through the career event, how easy or difficult do you anticipate it will be for your family to adjust after making the change?

- ☐ Very difficult
☐ Difficult
☐ Uncertain
☐ Easy
☐ Very easy
☐ Not applicable

H. CAREER ATTITUDES

1. How certain are you that you will continue your career as a Navy officer, at least until you are eligible for retirement?

- ☐ I am virtually certain that I will continue my career until I am eligible for retirement
☐ I am almost certain I will continue my career if possible.
☐ I am confident that I will continue my career until I can retire
☐ I probably will continue until I am eligible for retirement
☐ I probably will not continue until I can retire.
☐ I am confident that I will leave as soon as possible.
☐ I am almost certain that I will leave as soon as possible.
☐ I am virtually certain that I will not continue until I am eligible for retirement.

2. Taking everything into consideration, how likely is it that you will make a genuine effort to find a job outside the Navy within the next year?

- ☐ Very likely
☐ Somewhat likely
☐ Not at all likely

3. Knowing what you know now, if you had to decide all over again whether to be a naval officer, what would you decide?

- ☐ Decide definitely not to join the Navy
☐ Have some second thoughts
☐ Decide without hesitation to join the Navy

4. In general, how well would you say that your Navy career measures up to the sort of career you wanted when you joined active duty?

- ☐ Not much like the career I wanted.
☐ Somewhat like the career I wanted.
☐ Very much like the career I wanted.

5. All in all, how satisfied would you say you are with your career?

Not At All Satisfied	Not Too Satisfied	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
☐	☐	☐	☐	☐

6. All in all, how satisfied would you say you are with your life these days?

Not At All Satisfied	Not Too Satisfied	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
☐	☐	☐	☐	☐

I. CAREER DECISION MAKING

Listed below is a series of statements representing how individuals go about making important career decisions. Please indicate your level of agreement with each statement.

	1 Strongly Disagree	2 Disagree	3 Not Sure	4 Agree	5 Strongly Agree
1. I plan my important career decisions carefully.	☐	☐	☐	☐	☐
2. My career decisions are based on facts, not opinions.	☐	☐	☐	☐	☐
3. I consider the positive and negative outcomes of any important career decision to be made.	☐	☐	☐	☐	☐
4. I have benefited from my past mistakes in that I make better decisions today about my career.	☐	☐	☐	☐	☐
5. When making career decisions, I analyze my past career decisions.	☐	☐	☐	☐	☐
6. I consider my options before making career decisions.	☐	☐	☐	☐	☐
7. I make important career decisions in a logical and systematic way.	☐	☐	☐	☐	☐
8. My career decision making requires careful thought.	☐	☐	☐	☐	☐
9. I double-check my information sources to be sure I have the right facts before making career decisions.	☐	☐	☐	☐	☐
10. Often I see each of my career decisions as stages in my progress toward a definite goal.	☐	☐	☐	☐	☐
11. I often make important career decisions without hesitation.	☐	☐	☐	☐	☐
12. When making career decisions, I rely upon my instincts.	☐	☐	☐	☐	☐
13. When I make career decisions, I tend to rely on my intuition.	☐	☐	☐	☐	☐
14. I rarely consider my options before making career decisions.	☐	☐	☐	☐	☐
15. I am often unable to give a rational reason for my decisions about my career.	☐	☐	☐	☐	☐
16. I generally make career decisions which feel right to me.	☐	☐	☐	☐	☐
17. My career decisions are often made spontaneously.	☐	☐	☐	☐	☐
18. When I make a career decision, it is more important to me to feel the decision is right than to have to have a rational reason for it.	☐	☐	☐	☐	☐
19. When I make a decision about my career, I trust my inner feelings and reactions.	☐	☐	☐	☐	☐
20. I don't really think about a career decision; it's in the back of my mind for awhile, then suddenly it will hit me and I know what I will do.	☐	☐	☐	☐	☐

- [illegible]

J. PERFORMANCE

The following questions are designed to measure your perceptions of your effectiveness as a leader — in your current assignment in the Navy.

1. How effective are you in carrying out your duties in your present leadership role?
- ☐ Very effective
☐ Effective
☐ Holding my own
☐ Ineffective
☐ Very ineffective
☐ Don't know
2. How effective are you in carrying out your duties in your present managerial role?
- ☐ Very effective
☐ Effective
☐ Holding my own
☐ Ineffective
☐ Very ineffective
☐ Don't know
3. Overall, how much confidence do you have in your leadership abilities?
- ☐ A great deal
☐ Some
☐ Little
☐ None
☐ Don't know
4. Given your history of performance in the Navy, what is the highest grade you think you can achieve?
- ☐ LT
☐ LCDR
☐ CDR
☐ CAPT
☐ RADM, Lower half
☐ RADM, Upper half
☐ VADM
☐ ADM
5. Please complete the following table by providing the indicated information from your most recent fitness report. Please circle your position on the Evaluation and Summary rankings. The first line is filled in as an example. Since this is privileged information, you are not required to complete the below, but your help is essential to our ability to provide useful results. No information from an individual will be reported.

DATE Block 13	Sea/Shore*	Evaluation and Summary (blocks 51 & 52)							Early Promotion		
						TYPICALLY EFFECTIVE		BOTTOM	(block 62) RECMD EARLY	(block 66) RANKING	(block 65) NUM RECMD
		1%	5%	10%	30%	50%	50%	30% MARG UNSAT			
5/86	2	1	③		1			1	NO		of
											of

** Sea 2 Shore

6. To what degree do you think your performance was inaccurately portrayed on your most recent fitness report?

- ☐ Performance was considerably higher than reported
☐ Performance was somewhat higher than reported
☐ Performance was accurately reported
☐ Performance was somewhat lower than reported
☐ Performance was considerably lower than reported

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P

C

K. COMMENTS

1. What more can the Navy do that may help officers like yourself expediently adjust to the career event you have most recently gone through, or are about to go through?

2. What personal skills could you develop that would help you to expediently adjust to the career event you have most recently gone through, or are about to go through?

THANK YOU FOR YOUR ASSISTANCE WITH THIS QUESTIONNAIRE.

NOTE: Would you like to receive feedback on the general findings of this questionnaire?

☐ YES

☐ NO

If yes, please provide name, SSN, and address:

Name _____

SSN _____

Address _____

APPENDIX B

SCALE AND ITEM DESCRIPTIVE STATISTICS

The following is a compilation of all measures used in the study on Aviation Officers Career Transitions. For single item measures, means and standard deviations are provided. For multiple-item measures, the means and standard deviations for each component are provided -- as well as the mean, standard deviation, and coefficient alpha for the entire scale.

Note: For every item, there is a code that indicates the location of the item in the questionnaire booklet.

- Items that were reverse scored for inclusion in a composite are marked (*R*).
- Values set to missing are marked (*M*). Such responses were excluded from further analyses.

Age

Mean = 33.40 SD = 5.52

*Sex***N**

Male	1301
Female	0

Rank

ENS	4
LTJG	71
LT	667
LCDR	387
CDR	148
CAPT	22

Aviator Type

Pilot	721
NFO	580

Marital Status

Single	248
Single parent	4
Married, without children	271
Married, with children	722
Separated/Divorced	48
Other	4

Education Level

Mean = 2.32 SD = .74

1=1-4 yrs. college, no degree awarded	5
2=Baccalaureate degree	1003
3=Baccalaureate degree and 18 or more hours toward master's degree	19
4=Master's degree	178
5=Post-master's degree	4

Aviation Subcommunity

Light Attack	160
Medium Attack	161
Fighter	318
Patrol	662

Present Flight Time (Hrs/Week)

Duty involves no flying	344
Less than 5 hours	196
5-10 hours	526
11-15 hours	157
16-20 hours	48
More than 20 hours	18

Role Ambiguity

How often are you unsure about what your nonflying job responsibilities are?

B1A Mean = 1.49 SD = .67

How often can you predict what others will expect of you on the job? (*R*)

B1B Mean = 1.84 SD = .78

How much of the time are your work objectives poorly defined?

B1C Mean = 1.95 SD = .81

How often are you clear about what others expect of you on the job? (*R*)

B1D Mean = 1.90 SD = .81

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Rarely Or Never	Some- times	Fairly Often	Very Often

Scale = AMBIG

Mean = 1.79 SD = .61 Cronbach's α = .81

Correlation

	B1A	B1B	B1C	B1D
B1A	-			
B1B	.46	-		
B1C	.53	.43	-	
B1D	.47	.68	.49	-

Control Orientation

Sometimes I feel that I'm being pushed around in life. (*R*)

B5A Mean = 3.79 SD = 1.10

I have little control over the things that happen to me. (*R*)

B5B Mean = 3.84 SD = 1.02

I can do just about anything I really set my mind to.

B5C Mean = 4.37 SD = .69

What happens to me in the future mostly depends on me.

B5D Mean = 4.12 SD = .91

There is little I can do to change many of the important things in my life.
(*R*)

B5E Mean = 4.14 SD = .85

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

Scale = CONTROL

Mean = 4.05

SD = .66

Cronbach's α = .76

Correlation

	B5A	B5B	B5C	B5D	B5E
B5A	-				
B5B	.58	-			
B5C	.27	.32	-		
B5D	.32	.43	.42	-	
B5E	.35	.44	.33	.46	-

Focal Career Event:

Which one career event have you recently gone through or are about to go through?

	<u>N</u>
<u>Exit</u>	369
Resignation	215
Approaching end of obligation--the continuation decision.	139
Voluntarily resigning from active duty.	76
Retirement	154
Leaving CO tour.	17
Coming upon 20 years--the retirement decision.	68
Deciding to <u>retire or not to retire</u> as soon as eligible.	43
Retiring from active duty.	26
<u>Upward Movement</u>	269
Becoming department head.	156
Screening for command.	51
Becoming squadron XO.	4
Becoming squadron CO.	12
Being selected for O-6.	46
<u>Early Socialization</u>	178
Entering first operational squadron.	30
Leaving on first deployment.	148

<u>Lateral Movement</u>	157
Entering a ship's company tour (disassociated).	80
Entering a full-time education program (War College, NPGS, etc.).	46
Screening for Test Pilot school.	21
Screening for a proven subspecialty.	10

Event Magnitude

Please rate the magnitude of the following career events. Strive to give your opinion of the degree of personal change required by the "average" officer within your community to successfully adjust after the event.

Consensual Career Event Magnitude (CM)

Mean response for the magnitude of each career event.

Entering flight training.

F1A Mean = 4.34 SD = .98

Obtaining your wings.

F1B Mean = 3.41 SD = 1.13

Entering first operational squadron.

F1C Mean = 4.21 SD = .89

Leaving on first deployment.

F1D Mean = 4.49 SD = .82

Entering first shore assignment.

F1E Mean = 3.04 SD = 1.01

Approaching end of obligation--the continuation decision.

F1F Mean = 3.78 SD = 1.23

Voluntarily resigning from active duty.

F1G Mean = 4.58 SD = .85

Entering a ship's company tour (disassociated).

F1H Mean = 4.54 SD = .73

Entering second operational squadron.

F1I Mean = 2.92 SD = .98

Entering a full-time education program (War College, NPGS, etc.).

F1J Mean = 3.32 SD = 1.01

Screening for department head (VP community only).

F1K Mean = 3.33 SD = 1.14

Screening for Test Pilot school (omit if not applicable).

F1L Mean = 3.56 SD = 1.03

Becoming department head.

F1M Mean = 3.57 SD = .96

Screening for a proven subspecialty.

F1N Mean = 2.68 SD = 1.00

Screening for command.

F1O Mean = 4.08 SD = 1.03

Failing to be selected for command.

F1P Mean = 4.17 SD = 1.04

Becoming squadron XO.

F1Q Mean = 4.11 SD = .87

Becoming squadron CO.

F1R Mean = 3.99 SD = .97

Leaving CO tour.

F1S Mean = 3.94 SD = 1.03

Coming upon 20 years--the retirement decision.

F1T Mean = 3.99 SD = 1.10

Deciding to retire or not to retire as soon as eligible.

F1U Mean = 3.80 SD = 1.12

Being selected for O-6.

F1V Mean = 3.45 SD = 1.01

Being selected for flag rank.

F1W Mean = 4.02 SD = 1.04

Retiring from active duty.

F1X Mean = 4.45 SD = .90

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Little Or No Change		A Moderate Amount Of Change		A Great Deal Of Change	Don't Know (M)

Perceived Career Event Magnitude (PM)

Response for the magnitude of the career event which each officer has recently gone through or is about to go through.

PERCMAG Mean = 3.92 SD = 1.16

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Little Or No Change		A Moderate Amount Of Change		A Great Deal Of Change	Don't Know (M)

Event Desirability

Now, please rate the desirability of these same events. That is, provide your impression of how desirable each of these potential events are to you, regardless of the effect they possibly may have on advancement in your Navy career.

Consensual Career Event Desirability (CD)

Mean response for the desirability of each career event.

Entering flight training.

F2A Mean = 4.85 SD = .48

Obtaining your wings.

F2B Mean = 4.96 SD = .27

Entering first operational squadron.

F2C Mean = 4.68 SD = .64

Leaving on first deployment.

F2D Mean = 3.48 SD = 1.23

Entering first shore assignment.

F2E Mean = 4.18 SD = .92

Approaching end of obligation--the continuation decision.

F2F Mean = 3.02 SD = 1.20

Voluntarily resigning from active duty.

F2G Mean = 2.42 SD = 1.30

Entering a ship's company tour (disassociated).

F2H Mean = 1.64 SD = .98

Entering second operational squadron.

F2I Mean = 4.15 SD = 1.12

Entering a full-time education program (War College, NPGS, etc.).

F2J Mean = 3.71 SD = 1.19

Screening for department head (VP community only).

F2K Mean = 4.20 SD = 1.23

Screening for Test Pilot school (omit if not applicable).

F2L Mean = 3.81 SD = 1.35

Becoming department head.

F2M Mean = 4.25 SD = 1.06

Screening for a proven subspecialty.

F2N Mean = 3.64 SD = 1.17

Screening for command.

F2O Mean = 4.40 SD = 1.04

Failing to be selected for command.

F2P Mean = 1.31 SD = .79

Becoming squadron XO.

F2Q Mean = 4.20 SD = 1.13

Becoming squadron CO.

F2R Mean = 4.38 SD = 1.07

Leaving CO tour.

F2S Mean = 2.32 SD = 1.16

Coming upon 20 years--the retirement decision.

F2T Mean = 3.34 SD = 1.23

Deciding to retire or not to retire as soon as eligible.

F2U Mean = 2.94 SD = 1.18

Being selected for O-6.

F2V Mean = 4.40 SD = 1.02

Being selected for flag rank.

F2W Mean = 4.12 SD = 1.21

Retiring from active duty.

F2X Mean = 3.36 SD = 1.33

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Not At All Desirable		Moderately Desirable		Extremely Desirable	Don't Know (M)

Perceived Career Event Desirability (PD)

Response for the desirability of the career event which each officer has recently gone through or is about to go through.

PERCDES Mean = 3.90 SD = 1.32

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Not At All Desirable		Moderately Desirable		Extremely Desirable	Don't Know (M)

Control Over Event

How much control did/do you feel that you had/will have over all the different aspects of this event?

G3 Mean = 2.95 SD = 1.25

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Complete Control		Some Control		No Control

Transition Phase:

	<u>N</u>
<u>Pre-Event</u>	465
Indicates that the individual is preparing for the career event.	
<u>At Event</u>	192
Indicates that the individual is currently going through the career event.	
<u>Post-Event</u>	644
Indicates that the individual has just completed the career event.	

Personal Assessment (PG-PL)

Index computed to look at the difference between how much individuals stand to gain in their personal lives from the event and how much individuals stand to lose.

PERASSES Mean = .92 SD = 2.24

Career Assessment (CG-CL)

Index computed to look at the difference between how much individuals stand to gain in their careers from the event and how much individuals stand to lose.

CARASSES Mean = 1.53 SD = 1.91

Multiple Transition

Does this event involve a relocation (permanent change of station)?

	<u>N</u>
Yes	557
No	444
Uncertain	221

Superior Support

How much do each of these people (your immediate superior) go out of their way to do things to make your work life easier for you?

D1A Mean = 3.49 SD = .95

How easy is it to talk with each of the following people (your immediate superior) about career issues?

D2A Mean = 4.14 SD = .91

When things get tough at work, how helpful are these people (your immediate superior)?

D3A Mean = 3.88 SD = .93

How much is each of the following people (your immediate superior) willing to listen to your personal problems?

D4A Mean = 3.83 SD = .93

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Doesn't Apply (M)	Not At All	A Little	Somewhat	Very Much

Scale = SUPERIOR

Mean = 3.82

SD = .79

Cronbach's α = .86

Correlation

	D1A	D2A	D3A	D4A
D1A	-			
D2A	.50	-		
D3A	.66	.62	-	
D4A	.55	.62	.69	-

Role Adjustment

Overall, how would you describe your adjustment to the leadership role of a Navy officer? Would you say you understand and accept the responsibilities the position entails? (R)

B6 Mean = 3.51 SD = .63

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Well Adjusted	Adjusted	Somewhat Adjusted	Not Well Adjusted	Don't know (M)

Overall, how would you describe your adjustment to your present billet and assignment? (R)

B7 Mean = 3.30 SD = .80

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Well Adjusted	Adjusted	Somewhat Adjusted	Not Well Adjusted	Don't know (M)

How effective are you in carrying out your duties in your present leadership role? (R)

J1 Mean = 4.39 SD = .67

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Very Effective	Effective	Holding My Own	Ineffective	Very Ineffective	Don't Know (M)

How effective are you in carrying out your duties in your present managerial role? (R)

J2 Mean = 4.37 SD = .68

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Very Effective	Effective	Holding My Own	Ineffective	Very Ineffective	Don't Know (M)

Scale = ROLEADJU (standardized measure)

Mean = .01

SD = .77

Cronbach's α = .77Correlation

	B6	B7	J1	J2
B6	-			
B7	.41	-		
J1	.49	.38	-	
J2	.44	.40	.62	-

Eagerness for Event

How eager or reluctant were/are you to go through this event?

G1

Mean = 3.85

SD = 1.30

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Reluctant To Go Through The Change	Somewhat Reluctant To Go Through The Change	Indifferent Toward The Change	Somewhat Eager To Go Through The Change	Very Eager To Go Through The Change

For you, was/is this a change for the better or for the worse? (*R*)

G2

Mean = 3.24

SD = .77

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Definitely For The Better	Probably For The Better	Probably For The Worse	Definitely For The Worse

Scale = EAGERNESS (standardized measure)

Mean = .00

SD = .89

Cronbach's α = .74***Adjustment Difficulty***

If you have recently completed a career event, how easy or difficult was it for you to adjust to your job after the change? If you have not yet gone through the career event, how easy or difficult do you anticipate it will be for you to adjust to your job after making the change? (*R*)

G6

Mean = 2.62

SD = 1.06

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Difficult	Difficult	Uncertain	Easy	Very Easy

If you have recently completed a career event, how easy or difficult was it for your family to adjust after the change? If you have not yet gone through the career event, how easy or difficult do you anticipate it will be for your family to adjust after making the change? (R)

G7

Mean = 2.78

SD = 1.20

1

2

3

4

5

6

Very
Difficult

Difficult

Uncertain

Easy

Very
Easy

Not
Applicable
(M)

Scale = DIFFADJU

Mean = 2.70

SD = .97

Cronbach's $\alpha = .66$

Psychological Strain

Here are some items about how people may feel. When you think about your feelings during the past two weeks, how much of the time did you feel this way?

Strain

I felt good. (*R*)

B4A

Mean = 1.90

SD = .81

I felt nervous.

B4B

Mean = 1.48

SD = .63

I felt angry.

B4C

Mean = 1.69

SD = .65

I felt sad.

B4D

Mean = 1.25

SD = .49

I felt jittery.

B4E

Mean = 1.24

SD = .51

I felt calm. (R)

B4F

Mean = 1.92

SD = .78

I felt aggravated.

B4G Mean = 1.93 SD = .72

I felt unhappy.

B4H Mean = 1.47 SD = .67

I felt irritated.

B4I Mean = 1.83 SD = .69

I felt depressed.

B4J Mean = 1.31 SD = .59

I felt fidgety.

B4K Mean = 1.26 SD = .50

I felt blue.

B4L Mean = 1.26 SD = .52

I felt cheerful. (R)

B4M Mean = 2.05 SD = .81

I felt annoyed.

B4N Mean = 1.82 SD = .69

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Never Or A Little Of The Time	Some Of The Time	A Good Part Of The Time	Most Of The Time

Scale = STRAIN

Mean = 1.60

SD = .42

Cronbach's α = .89

Correlation

	B4A	B4B	B4C	B4D	B4E	B4F	B4G	B4H	B4I	B4J	B4K	B4L	B4M	B4N
B4A	-													
B4B	.30	-												
B4C	.42	.23	-											
B4D	.28	.24	.32	-										
B4E	.18	.52	.15	.18	-									
B4F	.52	.43	.31	.18	.36	-								
B4G	.47	.27	.63	.29	.21	.35	-							
B4H	.53	.28	.47	.49	.21	.34	.50	-						
B4I	.46	.24	.61	.30	.21	.37	.71	.51	-					
B4J	.46	.29	.37	.49	.27	.29	.38	.62	.40	-				
B4K	.19	.37	.17	.16	.45	.24	.17	.19	.20	.23	-			
B4L	.38	.26	.34	.53	.26	.24	.33	.57	.37	.69	.27	-		
B4M	.72	.28	.39	.28	.16	.53	.43	.50	.42	.43	.15	.37	-	
B4N	.46	.26	.59	.29	.20	.35	.66	.50	.72	.39	.19	.35	.41	-

Anxiety

I felt nervous.

B4B Mean = 1.48 SD = .63

I felt jittery.

B4E Mean = 1.24 SD = .51

I felt calm. (*R*)

B4F Mean = 1.92 SD = .78

I felt fidgety.

B4K Mean = 1.26 SD = .50

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Never Or A Little Of The Time	Some Of The Time	A Good Part Of The Time	Most Of The Time

Scale = ANXIETY

Mean = 1.47

SD = .45

Cronbach's α = .73Correlation

	B4B	B4E	B4K	B4L
B4B	-			
B4E	.53	-		
B4F	.44	.37	-	
B4K	.38	.46	.24	-

DepressionI felt good. (*R*)

B4A Mean = 1.90 SD = .81

I felt sad.

B4D Mean = 1.25 SD = .49

I felt unhappy.

B4H Mean = 1.47 SD = .67

I felt depressed.

B4J Mean = 1.31 SD = .59

I felt blue.

B4L Mean = 1.26 SD = .52

I felt cheerful. (*R*)

B4M Mean = 2.05 SD = .81

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Never Or A Little Of The Time	Some Of The Time	A Good Part Of The Time	Most Of The Time

Scale = DEPRESS

Mean = 1.54

SD = .50

Cronbach's α = .85Correlation

	B4A	B4D	B4H	B4J	B4L	B4M
B4A	-					
B4D	.28	-				
B4H	.53	.49	-			
B4J	.46	.49	.62	-		
B4L	.38	.53	.57	.69	-	
B4M	.72	.28	.50	.43	.37	-

Irritation

I felt angry.

B4C Mean = 1.69 SD = .65

I felt aggravated.

B4G Mean = 1.93 SD = .72

I felt irritated.

B4I Mean = 1.83 SD = .69

I felt annoyed.

B4N Mean = 1.82 SD = .69

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Never Or A Little Of The Time	Some Of The Time	A Good Part Of The Time	Most Of The Time

Scale = IRRITATE

Mean = 1.82

SD = .59

Cronbach's α = .88Correlation

	B4C	B4G	B4I	B4N
B4C	-			
B4G	.63	-		
B4I	.61	.71	-	
B4N	.58	.65	.70	-

APPENDIX C

**RESULTS OF FACTOR ANALYSES OF MAGNITUDE AND
DESIRABILITY RATINGS OF CAREER EVENTS**

Career Event	Factor Loadings ^a					h ²
	1 Promotion	2 Retirement	3 Early Career	4 Lateral Moves	5 Resignation	
Entering flight training	--	--	.73	--	--	.59
Obtaining your wings	--	--	.64	--	--	.46
Entering first operational tour	--	--	.48	--	--	.49
Leaving on first deployment	--	--	.52	--	--	.40
Entering first shore assignment	--	--	--	.62	--	.47
Approaching end of obligation	--	--	--	--	.72	.62
Voluntarily resigning from duty	--	.54	--	--	.47	.53
Entering a ship's company tour	--	--	.39	--	--	.21
Entering a full-time education program	--	--	--	.64	--	.60
Becoming department head	.53	--	--	.39	--	.52
Screening for proven subspecialty	--	--	--	.70	--	.59
Screening for command	.77	--	--	--	--	.61
Becoming squadron XO	.80	--	--	--	--	.66
Becoming squadron CO	.78	--	--	--	--	.66
Leaving CO tour	--	.55	--	--	--	.40
Coming upon 20 years	--	.76	--	--	--	.65
Deciding to retire or not when eligible	--	.76	--	--	--	.66
Being selected for O-6	.65	--	--	--	--	.64
Being selected for flag rank	.64	--	--	--	--	.61
Retiring from active duty	--	.70	--	--	--	.54
Eigenvalue	5.25	1.96	1.49	1.15	1.07	
Percent of variance	26	10	7	6	5	

• Factor loadings less than .35 are not reported.

Table C.1. Summary of principal components factor analysis (varimax rotation) of ratings of magnitude of 20 career events.

Career Event	Factor Loadings ^a					h ²
	1	2	3	4	5	
	Promotion	Retirement	Early Career	Lateral Moves	Resignation	
Entering flight training	--	--	.77	--	--	.60
Obtaining your wings	--	--	.75	--	--	.61
Entering first operational tour	--	--	.71	--	--	.56
Leaving on first deployment	--	--	.41	.38	--	.36
Entering first shore assignment	--	--	--	--	.54	.38
Approaching end of obligation	--	--	--	--	.64	.49
Voluntarily resigning from duty	--	--	--	--	.60	.57
Entering a ship's company tour	--	--	--	.54	--	.36
Entering a full-time education program	--	--	--	.75	--	.61
Becoming department head	.64	--	--	--	--	.65
Screening for proven subspecialty	--	--	--	.70	--	.61
Screening for command	.90	--	--	--	--	.88
Becoming squadron XO	.86	--	--	--	--	.80
Becoming squadron CO	.90	--	--	--	--	.88
Leaving CO tour	--	.55	--	--	--	.40
Coming upon 20 years	--	.85	--	--	--	.74
Deciding to retire or not when eligible	--	.82	--	--	--	.68
Being selected for O-6	.80	--	--	--	--	.72
Being selected for flag rank	.73	--	--	--	--	.66
Retiring from active duty	--	.75	--	--	--	.61
Eigenvalue	5.25	2.58	1.88	1.35	1.12	
Percent of variance	26	13	9	7	6	

^a Factor loadings less than .35 are not reported.

Table C.2. Summary of principal components factor analysis (varimax rotation) of ratings of desirability of 20 career events.

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