CAREER DECISION MAKING
HOW CHINESE ADULTS IN CANADA
MAKE CAREER DECISIONS

BY
Xiaowen Cao

BA., Northwest Normal University, Lanzhou, PR. China, 1982

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS
in

THE FACULTY OF GRADUATE STUDIES
(Department of Counselling Psychology)

We accept this thesis as conforming to the required
standard

THE UNIVERSITY OF BRITISH COLUMBIA

Aug. 1995

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of _Counselling Psychology_

The University of British Columbia
Vancouver, Canada

Date _Sept. 5, 1995_

Abstract

While career counsellors use theoretical career decision making models to prescribe and describe the career decision making process, it is not clear if these models effectively account for people's career decision making experiences. In addition, in North America, most of the career decision making theories and models have been developed on the basis of small samples of White college students. Few studies have been found concerning how minority groups make career decisions or determining if the existing career decision theories and career decision making models are applicable to their career decision making processes. Given Canada is a multicultural country with thousands of immigrants coming to settle here every year, it is obviously worthwhile conducting career decision making studies among minority groups. To this end, Chinese adults who were from Mainland China were chosen as the subjects for this study.

This study proposed to (1) investigate career decision making processes of Chinese adults who have been in Canada for at least one year to examine the decision making patterns involved, (2) examine to what extent the existing North American career decision theories or models are applicable to this group of people, and (3) potentially discover approaches to guide future career counselling practice for this group of people.

The participants in this study consisted of twenty Chinese adults, twelve males and eight females, who came to Canada from Mainland China in recent years for the initial purpose of academic study or visiting. The Critical Incident Technique was used to collect and analyze the data in order to elicit critical incidents regarding career decision making. A total of 207 critical incidents were derived from twenty interviews. Out of these incidents, two similar career decision making patterns were developed, one of them represents the participants' career decision making process in China, the other one accounts for their career decision making process in Canada. Each pattern consisted of three stages that became the scheme to support the pattern itself. The career decision making pattern that

happened in China contains the stages of (1) setting up occupational choices, (2) acting towards the choices, and (3) reflecting on outcomes. Above and around this pattern, there existed an external determining context, i.e., the impact of the government policy and political events, that actually dominated and directed the participants'career decision making processes. The pattern that reflects the career decision making in Canada includes the stages of (1) goal setting, (2) acting towards the goals, and (3) reflecting on outcomes. In this pattern, the external impact of the government and political events diminished greatly.

In order to ensure trustworthiness and soundness of the categories, and the developed pattern, the categories and the pattern were subjected to several tests of reliability and validity. Also identified were another two categories referring to the participants'career decision making incidents in Canada, separate and unrelated to the pattern, which indicated a new aspect in the participants' career decision making processes in Canada.

Finally, a comparison was made between the North American theoretical career decision making models and the results of this study. It was found that the participants' career decision making pattern did not resemble any of the rational theoretical models reviewed in this study, although there were some minor aspects that were shared by both the theories and the results. However, the other two reviewed theories related to social learning and determining contexts partially account for the results of this study.

Internal and external factors which contribute to shaping the participants' career decision making pattern were explored and discussed. Implications for counselling and future research in the area of career decision making involving Chinese adults were suggested.

TABLE OF CONTENTS

LIST OF FIGURES

Acknowledgments

Dr. William A. Borgen acted as my Advisor not only in this project but throughout my studies. He has been an invaluable source of support and inspiration to me and it is through his help that this project has come to fruition. I am grateful to him for his generosity, understanding, support, guidance and supervision.

Dr. Norman E. Amundson supported me endlessly in this project and throughout my studies as well. His valuable academic advice contributed greatly to the fulfillment of this project. His help has been counted very much all along the way of my growth in the professional field. I am grateful to him for his support and guidance.

I would like to thank the other member of my committee, Dr. Du-Fay Der, who offered encouragement and advice. Other people have made contributions to my research along the way. I extend special thanks to the participants of this study for their time and willingness to share their career lives; to Dan Zhang, and Aicheng Young, who offered help; to my husband, who supported me in many practical ways.

This study is dedicated to:

My father and mother, who give me love and encouragement in my career life,

To my children, Sijia Zhang, and Sihua Zhang, who give me joy.

Xiaowen Cao

August, 1995

CHAPTER 1

INTRODUCTION

A person to some extent shapes the pattern of his or her life by choices or decisions at successive stages (Gelatt, 1962). However, one of the most frequent problems that clients report to career counsellors is their inability to decide on careers (O'Hare, 1987). To assist clients who are confronted with issues of career decision-making, counsellors generally rely on career decision theories or a particular career decision-making model either as a conceptual framework to understand how the decision maker processes information and arrives at career decisions (O'Hare, 1987; Harren, 1979), or as a source of guidance for prescribing or proposing formulas for an individual to follow to arrive at an optimal decision.

While practitioners and researchers acknowledge that career decision making models are applicable to career decision making issues, and they are used to prescribe or describe the career decision-making process, it is not clear which one is the best or most useful model because there have been very few studies in which the consequences of the use of those models in counselling have been determined and tested (O'Hare, 1987). Counselling theory and practice, therefore, remain unguided by an empirically based model of career decision making.

In addition, in North America, most of career decision making theories and models have been developed on the basis of small samples of White college students (Leong, 1991). Few studies have been found concerning how minority groups make career decisions or determining if the existing career decision theories and career decision making models are applicable to their career decision making processes. Given Canada is a multicultural country with thousands of

immigrants coming to settle here every year, it is obviously worthwhile conducting career

decision making research among minority groups.

Statement of the Problem

The purpose of this study was three-fold: (1) investigate career decision making

processes of Chinese adults who have been in Canada for at least one year to determine if there

are any decision making patterns involved, (2) examine to what extent the existing North

American career decision theories or career decision making models are applicable to this group

of people, (3) potentially discover approaches to guide future career counseling practice for this

group of people. To this end, this research attempts to answer the following questions: what are

the internal and external factors which contribute to shaping Chinese adults' career decision

making patterns? What are the actions they take given the stage in career decision making

processes? What are the emotions involved? How do they cope with decision conflicts?

Rationale

There are several reasons for investigating the experiential patterns of career decision

making processes Chinese adults have gone through. First, the rapid development of

globalization of the marketplace as well as the increase in the number of Chinese immigrants to

this country make it important for counsellors and psychologists to develop a better

understanding of these people regarding their career decision-making processes. This may help

this group of people better adjust to changing social attitudes regarding work, rapid

technological development, and quickly changing market conditions (Bridges, 1988).

Second, in North America, several different models have been used to describe and prescribe the career decision making process. But since the theoretical relevance of these models is unconfirmed, the pattern of career decision making process is not yet known, especially that of this minority group of people. This study developed a more accurate description of their career decision making processes and discovered if any of the reviewed models are more useful for counsellors to help those Chinese people who have need of an assessment of their career decision making issues.

Third, the importance of career decision making has given rise to the development of counselling services for career changers as a major area of professional activity. The findings of this study contain practical implications for the development of counselling strategies and intervention programs.

Definitions

"Decision-making" is essentially problem-solving process, which assumes the presence of a decision-maker, a decision situation, and relevant information both from within and outside the person. Two or more alternative actions are considered, and several outcomes or consequences are anticipated from each action. Each outcome has two characteristics: probability, that is, likelihood of occurrence in the future, and value, that is, relative importance to the decision-maker (Jepsen, 1984).

"Decision-making strategies" are rules or criteria which guide the assembling of decision making concepts into an array so that straightforward judgments can reveal the commitment.(Jepsen, 1984).

"Career" is defined as the course of life in working to produce ends (Cochran, 1991).

"Career decision-making" is something that occurs throughout life as people seek to maneuver through education, work, and other life experiences (Amundson, 1992). "vocational decision making" is considered synonymous with "career decision-making" for this study.

"Vocational choice" is regarded as a particular case of decision making under uncertainty when the aim is to reach an optimal choice among alternatives (Gati, 1986).

"Career Decision Making Models" are conceptual frameworks to understand how the decision maker processes information and arrives at career decisions (O'Hare, 1987).

Delimitations

The scope of the project is confined to Mainland Chinese adults who have been in Canada for at least one year with the initial purpose of academic study or visit. Subjects will be reasonably homogeneous with respect to their socioeconomic and educational background in both of their home and host countries. The twenty participants included ten males and ten females. The study is limited to volunteer participants.

Assumptions

The assumption for this research, based on the pilot study, was that there may exist two different career decision making patterns among Chinese adults because of the life experiences that may have happened within two different countries, China and Canada.

It is also assumed that external factors have very strong influences on these people's career decision making patterns because of very limited individual freedom.

Subjects' career decision making processes may only partially fit some of the reviewed North American career decision making models.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of the literature relevant to general decision making process and career decision making theories and models. In addition, several career transition models were introduced to further understand mutual influences of career transition and career decision making.

Theories of General Decision Making Processes

Throughout the literature there is a tendency to describe hypothetically the decision-making process as involving several phases or stages. Examples of such phases are: identifying and defining the problem, obtaining necessary information, generating alternative solutions, evaluating possible solutions, selecting the "best" alternative through decision aids, implementing the decision, actual performance of an action or actions, and subsequent learning and revision (Bachhuber & Harewood, 1978; Brammer, 1979; Brim, Glass, Lavin & Goodman, 1962; Dessler, 1982; Fels, Buckles & Johnson, 1979; Glover, 1980; Hill, Edau, Chechile, Crochetiere, Kellerman, Ounjan, Pauker, Pauker & Rubin, 1979; Koberg and Bagnall, 1976; Montgomery & Svenson, 1989; Simon, 1980.) Although there is no general agreement on a specific phase model, that is, different theorists distinguish a different number of phases or stages and group them in their own ways, overlap among these stages is apparent.

The review of the literature for this study supports the view that there tends to be approximately six major phases throughout decision making processes. The following section

aims at illuminating the substantial nature of each stage described in the theoretical decision making models.

1. Problem awareness

This stage happens when the direction of a person's current course of action needs to be questioned or reconsidered. The decision maker wants either to preserve the status quo or to change it. Several theorists name this stage as a "pre-definition" stage (Carkhuff & Anthony, 1979; Koberg & Bagnall, 1976; Patton & Giffin, 1973;). Some others call it the Diagnosis stage (Montgomery, 1989). Janis and Mann (1977) named this stage as "Appraising the Challenge". They indicated that the decision making process starts when the person is exposed to information about a threat or an opportunity that effectively challenges a current course of action. The challenging information can either disturb the person's equanimity because a particular threat can no longer be ignored; or may generate a challenge through compelling communications that argue in favor of a new course of action. The probability that a person will respond positively or negatively to a given challenge depends partly on various factors, such as the perceived trustworthiness of the communicator, the explicitness of the message, and the personality predispositions and mood of the person at the time he or she receives the challenging message.

Koberg and Bagnall (1976) call this stage "acceptance" of the problem. It is the time when a person determines whether or not she or he will try to solve the identified problem. They emphasized that the important aspects at this stage include consideration of a person's commitment to solving the problem, personal motivation, available resources and existing comments. Similar to Koberg, et al., Brim (1962) called this stage "identification of the problem" or "problem recognition". The decision maker recognized that he or she was confronted with a

problematic situation which requires attention and definition. Brim stressed that this stage is influenced by the degree to which the problem involves the unconscious components of personality. A person's defense against such a situation may be to deny the existence of any problem or to identify the problem incorrectly (Brim, 1962). Heppner (1978) found that generally there are three distinct sub-steps connected with this stage of the process: (1) "verbally acknowledge" that a problem exists and behave as though one can "cope effectively", (2) identify and label "troublesome situations," and (3) avoid acting on impulse or ignoring important problems.

Overall, this stage of decision making might be regarded as a turning point from which a transition would happen in a person's life. This requires a careful assessment of oneself and the situation through the use of several open-ended questions.

By carefully defining their values, goals and priorities early in the process, people can avoid the most common mistake in making an important decision with regard to transition: basing it upon the single value that "is most immediate, obvious and accessible" (Carkhuff & Anthony, 1979).

2. Problem definition

Whatever the decision, it is precipitated by a problem of one sort or another. An accurate definition of the problem is a major step toward its eventual solution (Hill, et al., 1979). An unclear perception and statement of the actual problem can lead to ineffective decision making and wasted effort (Adams, 1980; Brammer, 1979; Koberg & Bagnall, 1976; McCasky, 1977). However, in his literature review, Heppner (1978) concluded that very little research has been done and "much remains unknown" about the defining stage of decision making. However, those

models which include a "definition stage" tend to suggest some of the following steps as a part of this stage: (1) Obtain and analyze available, relevant information about the problem. (2) Define vague and unfamiliar words and statements in simple, concrete terms. (3) Assess one's behaviors, emotions, values, beliefs, feelings, knowledge, resources, needs, priorities and competencies. (4) Assess one's environment and the possible consequences of particular actions and reactions related to the problem. (5) Delineate the problem situation including goals, expectations and conflicts (Heppner, 1978). It is believed that such an identification, analysis and statement of the situation will provide a comprehensive view of the real problem and any related problems or "subproblems".

3. Developing alternatives

At the developing alternatives stage, a decision maker searches for possible alternative courses of action, identifies the consequences of each course of action, and clarifies whether or not uncertainty is involved in the occurrence of possible consequences.

At this stage, theorists mostly focus on the issue of how to develop alternatives. According to Hayes (1981), many difficulties in creative problem solving and decision making arise from trying to think up alternative solutions. Two techniques seem to be constantly described throughout the literature for stimulating the production of ideas: brainstorming and analogizing. i.e., associating, (Burns, 1976; Hayes, 1981; Heppner, 1978; Hill, 1979). For brainstorming, Hill (1979) suggested that it is important to write down all possible alternatives, no matter how foolish or far-fetched they may seem at first. Only in this way can one reduce the likelihood that a reasonable alternative is overlooked. By analogizing, Burns (1976) defined it as recalling what has been done in similar situations in the past for analogous cases and applications

that lead to other ideas. Heppner (1978) contended that there are four major aspects of the stage: avoiding fixation, overcoming emotional factors, brainstorming and associating ideas. Janis and Mann (1977) pointed out that, at this stage, people begin to survey alternatives by searching their memories. Meanwhile, they try to handle challenges and threats by seeking advice and information especially from knowledgeable acquaintances. They argued that when vigilance is the dominant coping pattern, the person actively searches for viable alternatives by asking other people for advice. By the end of this stage, the decision maker has narrowed down the list of alternatives to those that appear to have a good chance of averting the losses without entailing intolerable costs or risks.

The number and content of the alternatives generated depend partly on factors determining the intensity of memory search and the efficiency of retrieval. It was pointed out that too often people at this stage may block their own progress and creativity by concentrating time, energy, effort and thought power upon limitations they associate with the task, small cues, irrelevant data, and past experiences and habit. Sometimes negative emotions such as fear, anxiety and frustration can reduce the range and depth of creative thinking (Glover, 1980; Heppner, 1978).

4. Evaluating alternatives

The evaluating alternatives stage has been the central topic for decision theory (Montgomery & Svenson, 1989). The main task for this stage is to select one alternative out of a set of alternatives through filtering alternatives according to one or several levels of acceptance (Montgomery, 1989). Every model contains this stage and each varies in terms of its specific focus.

Probability theory emphasizes that making intelligent decisions in a world of uncertainty requires that we make probabilistic predictions with sound judgment, specific criteria, statistical reasoning, and knowledge of probability theory (Behn and Vaupel, 1976,). Evaluating alternatives means evaluating consequences and the probabilities of each alternative (Montgomery & Svenson, 1989), in other words, predicting the consequences of each alternative and choosing the preferred consequences which meet pre-set goals. For Patton & Giffin (1973), each proposed alternative must be evaluated in terms of its probable effect on important supporting and blocking forces so as to identify the most functional and satisfying alternative. They further emphasized the process of predicting outcomes from past experiences by: (1) discovering reasons or principles, (2) identifying "relevant similarities" in like events, and (3) calculating probabilities.

Labrecque (1980) concluded that while making decisions, people use techniques which reduce complex statistical and logical reasoning to simple judgments. This reduction process often leads to errors in judgment in the following ways: (1) Using stereotypic images instead of probability. (2) Judging alternatives based upon data that "comes to mind most readily". (3) Interpreting events according to one's perceptions and opinions only. (4) Predicting consequences without using probabilistic principles. (5) Ignoring covariation of events and overusing semantic associations. (6) Overestimating the role of people's dispositions and intentions as a cause of their behavior.

A person's value system is another focus at this stage. Ranking values or goals requires a rating from most to least important, weighing for each value. Some theorists suggest use of a matrix table to compare the quality of various alternatives (Behn & Vaupel, 1976, Carkhuff & Anthony, 1979; Hill, 1979; Koberg & Bagnall, 1976; Marple, 1977). Once the matrix cells are

created, the decision maker needs a procedure for assessing each alternative's impact on, or fulfillment of, every value in the matrix. Carkhuff & Anthony (1979) recommended a very systematic process for evaluating and selecting alternatives, which contains the six steps: (1) combining or modifying alternatives to make realistic plans, (2) specifying, ranking and weighing important values, (3) creating a matrix, (4) establishing a "favorability scale" for each value, (5) completing the matrix, and (6) choosing the alternative with the highest favorability score.

Hill (1979) suggested that the weight one gives to each alternative is usually determined by long- or short-range plans and policies, costs, rewards, facilities, as well as one's own personal preferences.

Janis and Mann (1977) suggested that this stage, weighing alternatives, was characterized by considerable vacillation when focusing on the pros and cons of each of the surviving alternatives in an effort to select the best available course of action. Insofar as the decision maker is vigilant, he or she deliberates about the advantages and disadvantages of each alternative until he or she feels reasonably confident about selecting the one that will best meet his or her objectives.

5. Implementing a plan

Implementing the chosen alternative means that the decision maker takes action by making a final plan, setting up a time schedule, and using supportive relationships (Epperley, 1977). Both "thinking" and "doing" steps are involved at this stage. The former refers to checking points for determining the success of past and present steps; the latter means specific activities aimed at particular goals (Carkhuff & Anthony, 1979), such as establishment of realistic

subgoals, intermediate steps or tasks and a hierarchical sequence of action (Cormier & Cormier, 1979). Willingness to change and commitment are also essential to this stage (Marple, 1977).

Janis & Mann (1977) called this stage "deliberating about commitment". They described in detail some psychological dynamics involved in this stage. After having covertly decided by telling themselves that they are going to adopt a new plan of action, people begin to deliberate about implementing it and convey their intentions to others. Janis and Mann pointed out that the decision maker's deliberations about commitment are likely to be influenced by the salience of persons and groups with whom he or she was affiliated. The decision maker is likely to announce the choice first to those from whom he or she expects approval and to withhold the information for a while from anyone who he or she suspects will strongly disapprove. Meanwhile, the decision maker realizes that once he or she takes action it will become more difficult to reverse it, or the person will be "locked into" it. This realization results in reconsideration of just how serious the risks involved might be. Such concerns are inhibitory and sometimes lead to a series of cautious, piecemeal commitments over a period of many days or weeks (Janis & Mann, 1977).

6. Evaluating results

This stage refers to the evaluation of the result of the specific alternative chosen at the previous stage. It requires data collection, judgment and modification of one's plan after a testing, judging and matching (goals and values with action and results) process.

Similar to Stage 4, the evaluating alternatives stage, there also exist different evaluation focuses with different theoretical frameworks at this stage. Probability theory emphasizes that

the decision maker at this stage searches for new information on the probabilities of specific consequences in order to revise the decision problem (Montgomery & Svenson, 1989).

Glover (1980) and Hays (1981) contended that evaluation at this stage is a measurement of both quantity of achievement and a judgment of the total value of the plan and the entire "journey." It includes judging goal achievement, assessing the decision making process itself and identifying important "side effects". For Glover and Hays, this is the "consolidating gains" phase.

Heppner (1978) elaborated the process of this stage as identifying actual consequences of the plan, and matching these results with one's standards or goals. The decision maker needs to answer important questions regarding: a) the specific steps taken, b) the actual, expected and desired results, c) needed revisions and additions and d) future expectations. Therefore, "Evaluation at this stage is the time for accounting, for comparing the beginning with the end, for detecting flaws and discoveries, and for planting the seeds of future challenge" (Epperley, 977; Koberg and Bagnall, 1976; Marple, 1977).

Janis and Mann (1977) described some specific phenomena at this stage. For them, any decisions go through a honeymoon period in which people are quite happy about their choice and implement it without any questions. All too often, however, this postdecisional state is interrupted, sooner or later, by new threats or opportunities. At this point, Janis and Mann indicated that each unfavorable event or communication that constitutes negative feedback is a potential challenge to the newly adopted policy. However, even when a challenge is powerful enough to provoke a concern about whether the risks are serious if no changes are made, decision makers are only temporarily shaken and soon decide that despite the challenge they prefer to stick with the original decision. In order to feel secure about reaffirming the decision, they are likely to keep developing fresh rationalizations that help to play up the gains and play

down the losses. Decision makers will remain in the stage indefinitely, until they encounter an effective challenge that is so powerful as to provoke dissatisfaction with their chosen course of action. Then they embark once again on a tour through the successive stages, seeking a different and hopefully better alternative. Obviously, the stability of a decision is influenced considerably by the amount and intensity of negative feedback that people encounter when they carry out the chosen course. Meanwhile, it also depends upon the person's capacity to endure the negative feedback and to commit to the chosen action (Janis & Mann, 1977).

Summary

Scholars in a number of different fields basically agree that people usually experience the aforementioned six decision making stages whenever they make decisions. Presumably, the above description of the substantial nature of each stage will provide a longitudinal perspective as well as a general framework to understand the analysis of Chinese adults' career decision making experiences, which was the focus of this study. In addition, as a significant part in people's lives, the task of career decision making often challenges people whenever they are facing career decisions. Along with it, various career decision making theories and models have been specifically developed to analyze and explain this complicated phenomenon. The following section focuses on several North American career decision making theories based on different assumptions.

Career Decision Making Theories

Career decision-making studies have traditionally put emphasis on trait, structural and developmental approaches (Bordin, 1963; Hewer, 1963). In these models, the importance of an individual's internal qualities is considerably stressed. In recent years, there is a tendency that career decision making models gradually put emphasis not only on individuals' internal variables but also on external factors. In order to provide a broad view of theoretical models regarding career decision making, the review of the literature of career decision-making in this study will cover several different theoretical models, including trait theory, structural theories, developmental theories, social learning theory and an interactive model of career decision making (Amundson, 1995).

Trait Theory

Trait theory used for career decision-making models is also labeled as attribute-matching, or the trait-and-factor approach (Hilton, 1962). The basic proposition underlying this theory is that people differ in their traits and jobs differ in their requirements. If the traits of people and the requirements of jobs can be isolated and measured or quantified, it will be possible to match people with jobs.

Holland's (1959) theory is widely viewed as an effort to relate personal traits to occupational choice (Osipow, 1983). For Holland, career decision-making is a process through which an individual first develops self awareness of personal attributes required for a successful adjustment to a set of occupations and then selects that occupation the requirements of which best match his or her attributes (Hilton, 1962). Put in another way, career choice is a process

through which one compares one's own personality traits with the perception of an occupation and subsequently accepts or rejects it. See Figure 1.

TRAIT THEORY

| development of self awareness: | | occupation choice out of alternatives | |
| personality attributes | congruence → | work environment | |

Figure 1

The central term for understanding Holland's theory is the concept of modal personal orientation, a developmental process established through heredity and the individual's life history of reacting to environmental demands (Zunker, 1990). One chooses a career to satisfy one's preferred modal personal orientation. Again, the reason why the person is attracted to, and decides to choose that occupation is that the specific occupational environment meets his or her needs for that personal orientation and provides him or her with satisfaction.

Based on this rationale, Holland's theory states that: (1) people can be divided into six personality types or some combination of the six types, (2) environments also can be described according to the six types, and (3) choices are made as people seek the type of environment that matches, or is congruent with, their personality type. Holland's six types are Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Holland's theory also stresses the concept of consistency of personality patterns, which means that a person's interests cluster in

related types; and the concept of congruence, which occurs when an individual's personality type matches the work environment.

Holland emphasized the importance of knowledge of both occupational environment and corresponding modal personal orientations (i.e., an individual's personality and numerous variables that constitute that person's background), since individuals are products of their environments, which subsequently influences their personal orientations and eventual career choices.

Holland's theory is primarily descriptive with little emphasis on explanation of time periods in the development of hierarchies of the personal modal styles. Holland concentrated on the factors that influence career choices rather than on the developmental processes that lead to career choices.

Structural Theories

The structural view stresses the dynamic organization of traits within the person (Smith, 1961). The following are some structural models related to career decision-making.

1. Needs theory

Roe (1956) pointed out that needs, whether at the conscious or unconscious level, are the major determinants of, and motivation for career decision-making. This theory stresses that individuals make career decisions to reduce need tension (Hilton, 1962). Within this framework, people go through a career decision making process by appraising their own needs, estimating the need-reducing value of some set of alternatives, and finally making the decision to commit to that alternative which satisfies their needs. Roe (1956) further emphasized that the individual's

need structure is greatly influenced by early childhood frustrations and satisfactions. Specifically, the climate of the relationship between child and parent is the main generating force of needs, interests, and attitudes that are later reflected in vocational choice (Zunker, 1990). The individual learns to satisfy these developed needs primarily through interaction with people or through activities that do not involve people. Roe (1956) classified occupations into two major categories: person-oriented and nonperson-oriented. Based on Maslow's hierarchy of needs, Roe proposed that individuals who desire to work in contact with people were reared by warm and accepting parents and were primarily drawn in this direction because of their strong needs for affection and belongingness. On the other hand, those who chose the nonperson type jobs were reared by cold and rejecting parents and would seek to meet lower level needs for safety and security.

This theory attempts to explain distorted job perceptions. An individual may persist in a choice which he or she unrealistically believes will meet his or her needs (Gonyea, 1963). Since individuals perceive occupations largely in terms of needs satisfaction potential, job perceptions are structured by the individual in accordance with his or her needs.

2. Self-concept theory

In choosing an occupation, one is, in effect, choosing a means of implementing a self-concept (Super & Bohn, 1971). Striving for self-actualization is regarded as a primary dynamic aspect for the self concept theory just as striving for need satisfaction is understood as a dynamic feature by the needs theory (Hewer, 1963). From the occupation chosen, individuals expect to be able to be the kind of people they perceive themselves as being, to assume a role which is congenial and compatible with their self-concept (Super, 1957). Super believed that people

obtain a degree of satisfaction from their work which is proportionate to the degree to which they have been able to implement their self concept.

For Super, career decision-making is a process of testing one's self-concept against reality, of finding out whether one can actually live up to one's image of self. According to Super, an individual's vocational self-concept develops through physical and mental growth, observations of work, identification with working adults, general environment, and general experiences. As experiences become broader in relation to an awareness of the world of work, a more sophisticated vocational self-concept is formed. Although the vocational self-concept is only a part of the total self-concept, it is the driving force that establishes a career pattern one will follow throughout life.

3. Value theory

Like Super, Katz believed that "self-concept" has become a key construct in career development. However, he further indicated that individual values are the major synthesizing force in self-concept and the major dynamic force in decision making. Individual values are the satisfying goals or desired states that order, arrange, and unify the individual's perceptions of traits and socio-forces, then muster these perceptions for a particular decision or for a model of choosing (Katz, 1963, 1966). For Katz, vocational development is a continuous process which is enacted through a sequence of choices. The entry point into this process is the identification and definition of values rather than the listing of alternatives.

Katz's career decision-making process consists of a value system, an information system, and prediction system. The value system works as an entry point, that requires decision-makers

to develop their own list of dominant values, scale them according to the relative magnitude of value, and finally select that option for which the expected value is the greatest.

The information system stresses that decision-making may be regarded as a strategy for acquiring and processing both hard and soft information. By "soft" information Katz meant limited observations, estimates, and educated guesses.

The prediction system contains the expectancy tables for each option, the decision-maker's predictor scores may be considered representing the individual's probability of entry or success. This consideration will not happen until the task in the value system has been accomplished.

The career decision making processes that are described in the above structural theories are illustrated in Figure 2

STRUCTURAL THEORY

| SELF AWARENESS |

NEEDS THEORY
awareness of one's
own needs
conformation of
needs structure

SELF CONCEPT
THEORY:
awareness,
conformation and
test of self concepts

INFOR. SYSTEM
strategies for
infor. processing

PREDICTION
develop.
options / alterns.

DECISIOIN

VALUE THEORY
identification and
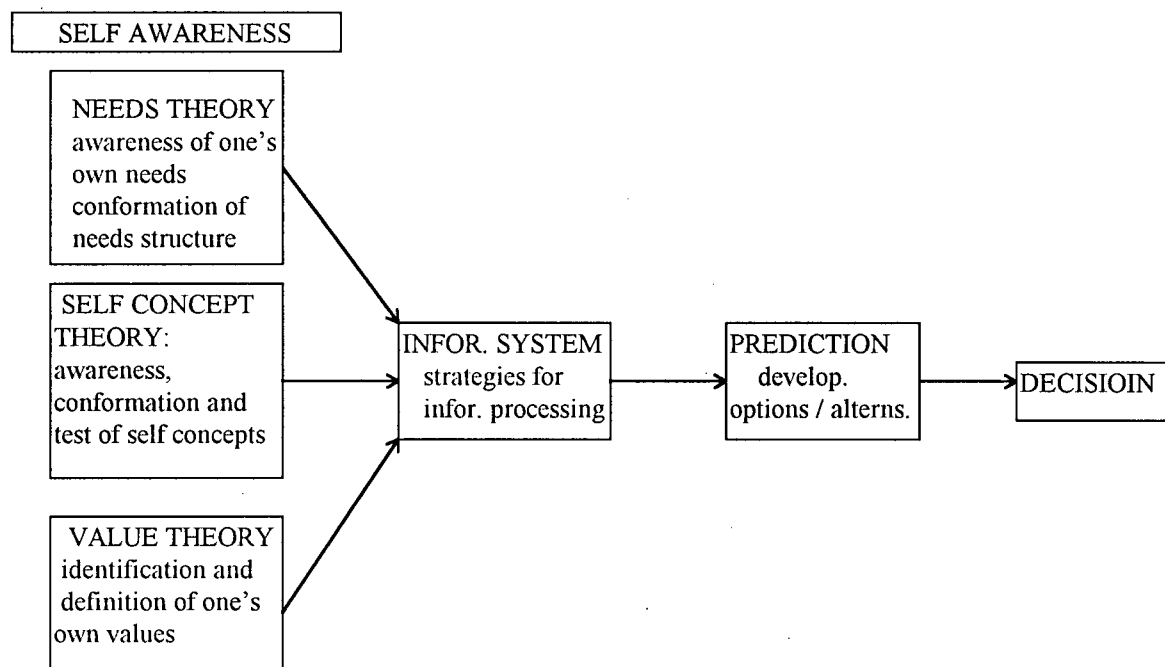definition of one's
own values

Figure 2

It is stressed that these dynamic features of personal needs, self concept, and personal values are the entry point, and play the key role in a person's career decision making process. Full understanding of these components will lead to a sound career decision.

In addition, Gelatt (1962) proposed a decision-making framework in which he developed the three systems similar to that of Katz: predictive system, value system, and rules for the evaluation system. Like Katz, he recognized the value system as a significant part of the decision-making process. However, he stressed the predictive system as the entry point.

What should be mentioned is that Gelatt (1989) proposed a new decision strategy called positive uncertainty, which is very different from that totally rational approach that was developed in 1962. In this new framework, Gelatt indicated that decision making is a nonsequential, nonsystematic, nonscientific human process. He defined decision making as a process of arranging and rearranging information into a choice or action. The three guidelines of this framework include (a) information, (b) the process, and (c) a choice of action. Under each guideline, Gelatt stressed that clients should be helped to deal with change and ambiguity, accept uncertainty and inconsistency, and utilize the nonrational and intuitive side of thinking and choosing. This model emphasizes an individual's attitude which is important in making decisions. That is, feeling uncertain about the future and feeling positive about the uncertainty allows people to be able to act when they are not certain about what they are doing (Gelatt, 1989). Obviously, the development of this framework resulted from the recognition of the rapid change of the present, including science, information, and knowledge, etc..

Developmental Theories

According to Schlossberg (1984), stage theories of development can be categorized into three types: those based on age; those based on issues that precipitate new development; and those related to the unfolding of ethical and moral development, cognitive development, or ego development. Within this context, a group of researchers have come to view the career decision-making process using a developmental stage framework.

Ginzberg, Ginsberg, Axelrod, & Herna (1951) developed an age-linked developmental career decision making model. It assumes some universality of age-specific experience, and asserts that an individual never reaches the ultimate career decision at a single moment in time, but through a series of decisions over a period of many years. The expressed reasons for vocational choice change qualitatively over the adolescent years (Jepsen,1984). The three distinct periods involved in the occupational-choice process are fantasy, tentative choices, and realistic period. Each period is characterized by its own age ranges and behaviors. The fantasy period coincides with the latency period between age six and eleven. Play gradually becomes work oriented and reflects initial preferences for certain kinds of activities. Various occupational roles are assumed based on "function pleasure" (Ginzberg, 1951), resulting in initial value judgments about the world of work.

The period of tentative choices coincides somewhat with early and late adolescence including the ages of eleven to seventeen, and is divided into four stages: interest, 11-12; capacity, 13-14; value 15-16; and transition 17-18. Each stage reflects an individual's orientation regarding career decision making at that age. For instance, at first, interests serve as the major basis for choice. People make more definite decisions concerning their likes and dislikes. When coming

to the capacity stage, they become aware of the necessity to introduce realistic elements into their considerations and begin to consider their capacities as related to vocational decision making. The value stage represents a time when clearer perceptions of occupational styles emerge. During the final transition stage, individuals become aware of the decision for vocational choice and the subsequent responsibilities accompanying a career choice.

The realistic period involves three stages: exploration, crystallization and specification. It is no longer as dependent as the tentative stage on biological growth or chronological age.

Ginzberg (1951) placed the exploration stage at college entrance. At this point, people have narrowed the scope of their career choices, but they generally are in a situation of ambivalence and indecisiveness since it is still the time to explore both themselves and the outside world. Unswerving attitude characterizes the crystallization stage. At this stage, individuals make the commitment to a specific career field by synthesizing many internal and external forces relevant for their decisions, and are aware that there are many types of work which they will not consider except under unusual circumstances. The specification stage is characterized by an individual being willing to specialize and confine himself or herself to a relatively narrow field and finally select a job or professional training for a specific career.

Ginzberg et al saw the process as consisting of successive stages and guided by an emphasis on a single decision point (Bordin, 1963), with the early choices based on simple likes and later choices on abilities and values, finally ending up with choices being based on consideration of reality and compromises with reality.

Tiedeman and O'Hara (1963) developed a vocational decision making model based on cognitive development and ego development rather than on chronological age development.

They emphasized how people use their cognitive abilities to integrate themselves into a career society (Zunker, 1990). It assumes that, if the uniqueness of the individual finds congruency with the uniqueness of the world of work, integration, synthesis, success, and satisfaction will follow. This suggests a continuous process beginning with exploration and ending up with integration. It is referred to as a "paradigm of the cognitive mechanisms of differentiation and integration in attempting rational solutions to the problems of one's vocational situation" (Tiedeman and O'Hara, 1963).

Tiedeman divided the career decision making process into two periods: anticipation and implementation-adjustment. Each period consists of different stages. The anticipation period includes four stages: exploration, crystallization, choice, and clarification. The exploration stage is similar to that of Ginzberg's, but not necessarily confined to the college domain. Vague anxiety and doubts characterize this stage. The decision maker feels the need for knowledge of self and the occupational world, but she or he has developed no strategy or plan of action for meeting this need.

During the crystallization stage, decision-makers represent a progress toward, but not attainment of, choice. They put themselves into a process of attempting to clarify the order and pattern of possible goals, recognizing alternative possible choices and at least some of the consequences of these alternatives. They focus primarily on assessing personal values, clarifying conflicts, and evaluating advantages and disadvantages. The bases for a decision are being developed at least implicitly by recognizing false steps and inappropriate earlier decisions.

The choice stage resembles Ginzberg's crystallization stage, representing a commitment with some degree of certainty to a particular goal. It is accompanied by expressions of satisfaction and relief for having made the commitment, the pessimism part of the exploratory

stage is gradually replaced by optimism about the future. The individual tends to focus on a singleness of purpose and an unswerving attitude regarding goal direction. The expression of eagerness and impatience to reach the goal orients the person to act.

The clarification stage represents planning of the details and next steps to follow through on the commitment. The individual attempts to be engaged in a process of elaboration and perfection of his or her self-image and image of the future.

The implementation period includes three stages: induction, reformation, and integration, which focus on: (1) self identification within the career social system, (2) career group's conformation to the self-view held by the individual and a greater acceptance of modified goals, (3) integration with the career environment.

Tiedeman & O'Hara (1963) emphasized that ego identity played a key role in the whole career decision-making process. On the one hand, as self-in-world evolves, the individual develops the concepts of differentiation and integration, and further develops career-relevant decision-making possibilities. On the other hand, increased self-awareness and understanding of a person's belief system are a product of the decision-making process and allow him or her to live a decision-guided life.

This model suggests that the vocational decision making process is initiated by an individual's experiencing of a vocational problem and by the recognition that a decision must be made because of external forces (such as an economic crisis or the work setting itself) or because of broad internal psychological drives (such as unmet needs or changes in aspiration); the decision-maker may reverse himself or herself in the order of stages, but advancement predominates over time; and an individual may be at different stages with regard to different vocationally relevant decisions at the same time, since decisions interconnect. A person may also

also be at an advanced stage on one particular decision, yet, at an earlier stage with regard to another decision (Jepsen, 1984).
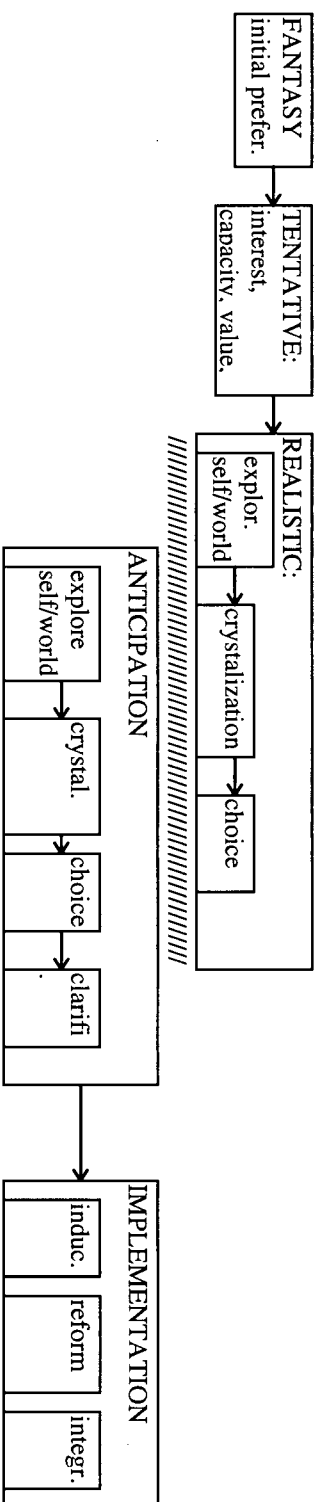
The developmental process of career decision making is illustrated in Figure 3.

In viewing the career decision making theories and models presented above, it becomes clear that each kind of models highlights a specific aspect regarding career decision making processes. Trait theory emphasizes the congruence between personality attributes and work environment. It insists that an awareness of personal attributes lead to an appropriate occupational choice.

Structural models put emphasis on the dynamic structure of traits within the person. These models indicate that self awareness of personal needs, self-concept and personal values leads to appropriate career choices. Similar to trait theory, the structural models stress an individual's internal qualities for career decision making, whereas external factors or contextual variables are lightly stressed.

Ginzberg's age-linked developmental career decision making model also put emphasis on people's internal development. Tiedeman & O'Hara's vocational decision making model emphasizes the integration of individuals into a career society. At this point, this theory recognizes the importance of individuals' internal qualities and external factors as well in career decision making.

All these three kinds of theories tend to commonly regard career decision making as a rational, sequential, and systematic human process.

FANTASY
initial prefer.

TENTATIVE:
interest,
capacity, value.

REALISTIC:
explor.
self/world → crystalization → choice

ANTICIPATION
explore
self/world → crystal. → choice → clarifi

IMPLEMENTATION
induc. | reform | integr.

DEVELOPMENTAL THEORY
FIGURE 3

Social Learning Theory of Career Choice

Krumboltz and his colleagues (1976) developed a career decision-making model which indicates that the process of career choice is influenced by four factors: (1) genetic endowment and special abilities, (2) environmental conditions and events, (3) learning experiences, and (4) task approach skills.

Genetic endowment and special abilities are those inherited qualities or predispositions that, according to Krumboltz et al, may limit an individual's skills or preferences with regard to career choice, such as physical handicaps, musical or artistic gifts, or gender.

Environmental conditions and events refer to those external factors that are often beyond the control of the individual. What is emphasized here is that certain events and circumstances in the individual's environment influence his or her skill development, activities, and career preferences. For example, governmental policies regulating certain occupations and the availability of certain natural resources in the individual's environment may determine to a large extent the opportunities and experiences available to the individual.

An individual's learning experiences, including instrumental learning experiences and associative learning experiences, are regarded as the third factor. Instrumental learning experiences are those the individual learns through reactions to consequences, through direct observable results of actions, and through the reactions of others. The consequences of learning activities and their later influence on career decision making are primarily determined by the reinforcement or nonreinforcement of the activity, the genetic endowment of the individual, special abilities and skills, and the task itself.

Associative learning experiences refer to those the individual learns by observation of the environment rather than by directly acting on the environment. One may learn occupational

stereotypes, for example, by the observation of real or fiction models, which always plays a role in the career decision making process. Krumboltz (1976) further pointed out that, included in the observational model is the paradigm for classical conditioning, wherein a previously neutral situation, after being paired in time with an emotionally balanced situation, elicits a positive or negative emotional response. These associations may also be learned through observations, written materials and films.

The fourth factor of task approach skills includes the sets of skills the individual has developed, such as problem-solving skills, work habits, mental sets, emotional responses, and cognitive responses. These sets of developed skills determine to a large extent the outcome of career decision processes faced by the individual.

Through successive learning experiences, these task approach skills may become increasingly adaptive. Thus they are both the outcomes of learning experiences and factors that influence the course of new learning experiences in regard to the career decision-making process.

Krumboltz and associates stressed that each individual's unique learning experiences over the life span are the primary influences that lead to career choice. These influences include (1) generalization of self derived from experiences and performance in relation to learned standards, (2) sets of developed skills used in coping with the environment, and (3) career-entry behavior such as applying for a job or selecting an educational or training institution. The dynamic structures of traits within the person that other theoretical models regarded as key roles in the career decision making process are not very much stressed in this social-learning model. It emphasizes the importance of learning experiences and their effect on occupational selection. Genetic endowment is considered primarily as a factor that may limit learning experiences and subsequent career choice.

An Interactive Model of Career Decision Making

Amundson (1995) developed a career decision making model which highlights the interaction between contextual factors, decision triggers, establishing a perspective of the problem, reframing, and action planning. This model has been developed with the consideration of the current social and economic situation. It puts emphasis on realistic situations people may face during their career decision making, and describes in detail the components involved in decision making processes.

Determining contexts are presented as the central point. The determining contexts refer to environmental and personal factors, such as culture, economic and political events, the interpersonal roles and self-structure. Amundson indicated that these factors help determine people's perception for career decision making. Meanwhile, he stressed that an individual's self-awareness and a sense of agency help moderate his or her response to challenges and external circumstances during the career decision making.

Decision triggers are described in this model as another component that serve to mobilize a person toward action. Decision triggers include events as well as people. Some triggers may be evident, others may not.

Framing, action, and reframing steps seem to be very important components in this model. The framing process refers to the conceptualization of the problem. It includes the problem definition and the preliminary strategies for compromise and action. Amundson pointed out that the framing process is directly influenced by various determining contexts. As a result, certain aspects of the problem may be highlighted, whereas others are diminished. At this stage, the person may be confined to limited job opportunities because of various determining contexts.

Action may imply inaction with respect to some possibilities. It is stressed that if the person is not able to be open for adjustment about his or her initial decision, he or she may lose some possibilities. Willingness to adjustment still depends on individuals' determining contexts. At this point, decision makers are challenged to master how to appropriately reframe their original decisions. Amundson encouraged people to ask others for help instead of solving problems only by themselves.

To Amundson, the relationship between action and reframing is dynamic and reflects an ongoing process of decision making. The process of reframing may be affected by and in turn affect the nature of the determining contexts. Various emotions might be evident during the reframing process, and even result in a state of indecisiveness.

In addition, Amundson pointed out that the process of reframing and action could contribute to the change of the determining contexts. For instance, with career decision making, people become more aware of the current labor market and their personal reactions to career choice and job search. This could result in either positive or negative understanding of the real situation. He also stressed that in addition to the influences from decision making process, there are also influences from other sources of economic and political events, and so on. These events affect determining contexts and in some instances can serve as new decision triggers.

It is clear that determining contexts are stressed in this model. The critical point in this model seems to be that career decision making is a process that combines the inner world of decision makers with the outer world that they perceive to be, and eventually a career decision comes along.

To this point, the literature relevant to general decision making and career decision making has been reviewed. The reviewed theories and models present different angles that help understand career decision making processes. To complete, it is necessary to briefly review some of the career transition models in that career transition is a process of decision making (Janis and Mann, 1977). The time when people are facing career decisions marks the beginning of a career transition for those people. How people develop an appraisal of themselves in a career transition will have a strong effect on their career decision making processes. Therefore, a consideration and an understanding of individuals' career transition process will help understand their career decision making patterns.

Career Transition Models

Schlossberg (1981, 1984) considered transition primarily as a process of appraisal and assimilation. It involves a pattern of movement where people shift from total preoccupation with the transition to integration of the transition into their lives. Under this model, the transition process has a characteristic pattern of experience that involves three phases, move in, move through, and move on. In the first phase, a person is pervaded by the transition, becoming completely preoccupied by it. This is frequently accompanied by feelings of shock and disbelief. In the middle period, the phase of moving through, the person feels between worlds. The previous structure of life has been upset and a new one is just beginning to emerge. During this period it is common for the person to feel confused and ambivalent about what is happening. A person can feel excited about the future while feeling sad or angry about what has happened. In the final period a person establishes a new life structure which incorporates the transition.

Typically, a person will feel positive about his or her new situation as well as a new sense of investment and commitment.

Schlossberg argued that the type, context, and impact of a transition will influence a person's response to it. For instance, the change could be expected or unanticipated. It could be triggered by a particular event, by something that was expected to happen but never occurred, or by a "chronic hassle". The change in assumptions can require an accompanying change in relationships, routines, and roles. Furthermore, these changes can occur within self, work, family, health, and economic domains (Schlossberg, 1981, 1984). Likewise other characteristics of the transition itself (duration, timing, source), person's environment (social support, options available) and oneself (personal characteristics, psychological resources, coping responses) will influence the experience.

For Bridges (1980), transition represents the means by which an individual realizes personal growth or development. Bridges considers transitions to be fundamentally positive rather than something that can have either a good or bad outcome. The purpose of the transition process is not only self-renewal but the realization of a more fulfilled, significant life.

He described an individual's movement through a transition as a three phase process: ending, neutral zone, and new beginning. In the phase of ending, an individual typically experiences a disengagement from activities, relationships, settings, or roles that have been important to him or her. A person loses his or her way of defining self, and is disenchanted with life. He or she feels disoriented, vulnerable, and stuck.

The neutral zone is described as a time of chaos where there is a moratorium declared on the activities of people's everyday existence. Time is spent thinking about their lives. People feel a pervading sense of emptiness and meaninglessness which they struggle to escape. They wish

for a return to their old lives. People often try to deny these feelings or are overwhelmed by them. Eventually, they surrender to the emptiness and chaos, letting go of the persons they used to be, and stop struggling.

In the final phases of new beginning, people feel like they have crossed a threshold and there is no returning to their old lives, and often get a subtle or sometimes clear signal about their future in the form of an idea, image, or opportunity that they feel attracted to. As people plan for and take action they experience inner resistance to the change. This often produces doubt, confusion or even depression. Following through with the change, they gradually identify with their new lives and become engaged in them. The translation of the individual's insight into action may take the form of new commitments at home and at work or it may take the person into new relationships or projects. "But either way, the old connections that were broken with the earlier disengagement are now replaced" (Bridges, 1980, p.149). Bridges holds that while every individual experiences transitions periodically in his or her life, he or she rejects the notion of there being stages of adulthood or particular ages when a person goes through particular transitions. Secondly, while he takes the position that personal development is achieved through transitions, Bridges recognizes that not everyone facing a personal change will complete the transition process. Some people will get stuck in the ending or middle phase. Others will have experienced an ending and begun in a new situation, however, they will have truncated the middle period, and not experienced the inner reorientation required for a new beginning. However, the three phases that make up the transition process need to be completed in order for an individual to experience growth through transition.

Parkes (1971) proposed that transition is a process of grieving, loss and recovery, which may offer a paradigm for understanding a person's career change that happens without

anticipation. In this model, loss happens at the beginning. That is so significant it alters the nature of people's life structure and requires broad and fundamental changes in the way they construe themselves and the world. At the end, they will have recovered a view of themselves and the world. Transition is a process of coming to accept a loss and going on to restore a livable world. Under this model, transition involves a characteristic pattern of experience. Initially, people are numbed by the loss and alternate between denying the loss and being angered by it. Next, they often experience a sense of personal mutilation, accompanied by a pining for and frustrated attempts to recover that which was lost. They are disoriented and become depressed and apathetic. Finally, they give up hope for the recovery of the loss. While fearful of their ability to successfully live life in a way other than how it had been before the loss, eventually, they become reorganized, beginning to make new plans and to develop new assumptions about the world and themselves.

Parkes's model of transition emphasizes the progressive disorganization of life following a loss and the gradual reorganization of life as an individual recovers from the loss. While the person becomes re-oriented, there is no sense of renewal or development. The world view which a person recovers is different from, but not necessarily better than that which was lost. In becoming reoriented, the individual does not necessarily develop, become a better person, live in a more fulfilling way, or attain a higher plane of existence.

Hopson and Adams (1976) considered transition to be a process of responding to a disruption in the course of a person's life, which has some similarities to Parkes' model. They believe that a transition is a disruption of a person's world which is of such significance to the individual that it changes the way the person lives his or her life. The model has a predictable seven phase cycle of reactions and feelings which is triggered by this uprooting of a way of life.

Initially, a person experiences a sense of being overwhelmed or immobilized. This is particularly strong if the transition is a novel one for the person or if he or she has negative expectations. Such feelings are much less intense or not experienced at all if the person holds positive expectations about the transition. This is followed by the person minimizing, trivializing, or even denying the disruption as a means of trying to cope with feeling overwhelmed. As the impact of the change on one's life becomes more apparent the person becomes depressed, angry, or filled with self-doubt. Also, there is often the frustration of not knowing how to meet the challenges of a new way of living. As people begin to accept a new situation as reality, they start to let go of their attachment to the past. This enables them to begin testing themselves vis-a-vis the new situation by trying things out. At this point people often very energetic yet emotionally labile. Following this phase they become concerned with making sense of the change and seek to understand the meaning of the change in their lives. Finally, this conceptualizing enables them to internalize the discovered meaning of the change and incorporate it into their lives.

These phases are considered to represent an overall pattern of the transition experiences. Any given individuals might experience variations according to the uniqueness of their circumstances. Individuals would rarely, if ever, move smoothly throughout of the phases. Still, regardless of the nature of the transition or the type of onset (gradual or rapid, expected or unexpected), a predictable cycle of reactions and feelings involving these seven phases would be triggered.

Nicholson has developed a cyclical model of work role transitions (Nicholson, 1987). The transition cycle he describes involves four phases: preparation, encounter, adjustment, stabilization. In describing transition as cyclical Nicholson is positing that the process is recursive. From this perspective, a person is always at some point in the process, and the final

stage of a current transition can also be the first stage of a future transition. Secondly, Nicholson considers the phases to be interdependent, in that, what happens at one stage will have a powerful influence on what happens in the next one. Finally, he posits that different psychological processes (i.e., experiences, tasks, problems) dominate each phase.

Expectations and motives dominate the preparation phase. Individuals' experience at this stage will be influenced by the feelings and motives they have about future change in their life, how clear or detailed their expectations are, how well equipped they feel in the face of known and unknown future change, and how much foreknowledge about transition is available.

Emotions and perceptions reign in the encounter phase. The amount of shock and surprise an individual experiences at this stage will depend on how prepared he or she was to encounter the change. Nicholson cites Hopson and Adams' (1976) model as a possible description of the emotional component of the process involved in this phase. He also adopted Louis' (1980) description of the "sense-making" process a person goes through when he or she finds himself or herself in a new situation to be a plausible account of the cognitive component. According to the process Louis described, a newcomer inevitably experiences surprise, that is he or she encounters events that are discrepant from those which he or she anticipated. This triggers a need for explanation and a corresponding cognitive sense-making process which enables meaning to be attributed to the surprise.

Assimilation and accommodation govern the adjustment phase. This can involve the individual experiencing personal changes and changes in the work role the individual is moving into. Nicholson (1987) described four distinctive modes of adjustment: replication, absorption, determination, and exploration. In the replication mode there is little individual change or molding of a new role. In the absorption mode there is significant personal change but not much

shaping of the new role. In the determination mode the new role undergoes extensive modification and the individual experiences only minor personal changes. In the exploration mode both the new role and the individual undergo extensive change.

Relating and performing are preeminent in the stabilization phase. During this phase, changes are consolidated and the individual's activities settle into a routine. Nicholson postulated that some people never experience this stage. Rather, they move directly into preparation for the next transition.

Summary

To this end, three parts of the literature related to career decision making have been reviewed. The first part briefly described the six sequential major phases involved in a general decision making process. The characteristics of each stage have also been discussed. The second part summarized eight prominent North American career decision making models under five categories: trait theory, structural theory, developmental theory, social learning theory, and the interactive model of career decision making. The models regarding their basic assumptions, and fundamental concepts were compared and contrasted. In some ways, each model suggests a different picture of career decision making process. The review of these models provides an opportunity to understand traditional theories as well as recent study about career decision making. In the third part, five transition models related to career change were introduced. This provided an opportunity to understand some parallel relationships between career transitions and career decision making processes. The chapter was presented to provide a theoretical context for the study of career decision making processes of Chinese adults from Mainland China.

CHAPTER 3

DESIGN AND METHODOLOGY

Research Design

The purpose of the research was to determine if there are any common patterns involved in the career decision making processes of Chinese people who are from Mainland China, and further investigate if these patterns fit into some of the reviewed theoretical career decision making models that are well known in North America. These objectives were accomplished firstly by coding meaningful units of each interviewed personal account onto rating sheets (Borgen & Amundson, 1987) under several different headings, secondly by categorizing the coded data in terms of critical incidents and grouping all the categorized data, and finally by comparing the research results with the reviewed North American career decision making models.

Flanagan's (1954) Critical Incident Technique was used to collect and analyze the data. Because the goal was to determine, in an in-depth and systematic way, the common patterns involved in this group of people's career decision making processes, the critical incident methodology was chosen as it helps elicit specific personal career decision making activities, which is the focus of this research. This chapter describes the method of investigation used and summarizes the steps taken to generate the findings. It also contains a brief description of the pilot interviews which were completed prior to the actual study.

Pilot Study

A pilot study was conducted with four volunteers, who were adults from Mainland China, and who may or may not have had a post secondary education. Each person was interviewed for about an hour, talking about their career decision making experiences that took place both in China and Canada. Two out of the four were interviewed in Mandarin, the other two in the English language. All of the four interviews were tape recorded, one of them was transcribed fully, summarized and coded on the rating sheets (Borgen & Amundson, 1987) with different components, including triggers, emotions, social and cultural influences, personal values and goals, perceptions and beliefs, future expectations and coping behaviors. The pilot study was helpful in the following ways.

Firstly, it allowed an opportunity to develop an accurate interviewing approach for data collection as well as a proper schedule which would permit the participants to tell a full story of their decision making experiences while maintaining a focus on those career related significant events that happened in their lives.

Secondly, it helped the researcher to practice interviewing skills, that were needed to smooth the communication between the interviewer and the interviewee during the data collection, meanwhile eliciting the needed information as much as possible.

Thirdly, it helped develop a stepstone framework to understand and code data, and thus was a good preparation for the data analysis.

An issue that arose as a result of the pilot was the need to continue improving the researcher's questioning and responding skills during the interview so that the subject's

retrospective thinking was not interrupted or redirected while talking and so that subjects had some space and time to reveal their insights.

A second issue was the need to further clarify the criteria for the selection of the subjects so that the selected participants were capable of contributing as much as possible to the data needed for this study.

Sample

The participants in this study consisted of twenty Chinese adults, twelve males and eight females, who came to Canada from Mainland China in recent years for the initial purpose of academic study or visit. Their ages varied from 26 to 49. Some of them grew up during the Cultural Revolution that happened during 1960's and 1970's. Others were born at that period of time, and rarely experienced Mao's time, that came to the end in the mid of 1970's. Regardless of their age differences, all of them had experienced a dramatic impact from the Party rules, its ideological ideas and the social trends at each period of time with respect to their career development and career changes. All of these adults had their post secondary education after 1977 when examinations for university entrance resumed in China. They spoke Mandarin as their mother tongue, but some of them could communicate in fluent English.

The sample was relatively homogeneous with respect to their career development background, socioeconomic status, educational background, and cultural beliefs.

The sample was considered heterogeneous to the extent that they hold different residential status in Canada (twelve of them are citizens or permanent residents, two are conventional refugees, and six are student visa holders. The other five are expecting to get immigration status very soon).

The people interviewed represent different professional areas. Ten are enrolled in Ph.D. programs in UBC in the areas of science (5), engineering (3), and social sciences (2). Five are in master's programs either in UBC in the areas of science and education (2), or in Regent College (3). One is in Harvard university for postdoctoral studies after finishing a Ph.D. program of nutrition in UBC last December. Another is an undergraduate student at SFU. Two are seeking employment after finishing either the teaching program at UBC or the master's program of Public Health in McGill university. The last one started working as an English interpreter after being allowed to stay in Canada permanently.

This pool of subjects provided the research with some sound foundations. On the one hand, the age range of the population as well as their different professional backgrounds provided a broad view to understand their career decision making processes, while their similar educational backgrounds and overseas experiences provided a focused educational and cultural context.

Participant Selection

Participants were selected according to the following criteria. First, the people selected had the experience that was being investigated. They were Chinese people who came from Mainland China, had experienced career changes, and had gone through a career decision making process. Second, the selected participants were capable of reflecting on and speaking coherently about their career life experiences. This required that participants had a competent command of either Mandarin or the English language, which met the need for this retrospectively-oriented study. Finally, this also involved selecting participants who had immigrated into North America or had been in North America for at least one year, and thus were experiencing career choices in

a new country, which helped accomplish part of the purpose of this research, comparing potential differences in their career decision making processes that happened in China and in Canada.

As a result, the participants for this study were selected from the university domain for the reason that they were the people who basically met the criteria mentioned above. Accessibility was another reason for using this group of people.

Participant Recruitment

Participants were recruited through a referral network of personal contacts as well as random phone call contact based on resident name lists from UBC family housing. First of all, participants were informed of the purpose of the contact, and then were asked if they would like to be involved in the study. They were then told about the total hours needed for both initial and follow-up interviews, the voluntary nature and confidentiality of the interviews were also discussed.

Finally, twenty people were chosen as the participants in this study, twelve males and eight females, but because of a recording incident, one interview failed to be recorded, for this reason, one more male was interviewed as one of the twenty participants for this research.

Procedure

The research design used a qualitative methodology. It consisted of three phases of interaction with the participants. The first one was a brief discussion about the research topic, its purpose, and the methodology for the data collection, etc.. Participants were then asked to be involved in the study for interviews which would last for a total of two hours. In addition to explaining the voluntary and confidential nature of the study, the participant's option to withdraw

at any time was also explained in a prepared statement. This discussion took place either on the phone or in person.

The second phase took place with a semi-structured interview in order to elicit the critical incidents that had happened in their career lives and how they had made decisions to handle those events. Participants were interviewed and audiotaped for approximately 45 minutes to an hour. This step yielded the raw data for this research.

The follow-up interview was the third phase which did not happen until several months later, when the researcher had translated and transcribed the interview protocols and worked out a summary for each participant. The purpose of the interview was to check the accuracy of the researcher's understanding as well as to investigate participants' further concern about their personal protocols. The follow-up interviews, which usually lasted for half an hour, were conducted either over the telephone or in the participants' homes. Firstly, each participant was asked to listen to a summary of his or her protocol, which mainly focused on the decision making steps as well as emotions involved in the process. Then, the participants were asked to answer the following questions, "Is there any gap in this summary between what you had said and what I understood?" "Do you have any other comments about the incidents that happened in your career life?" "Do you agree with my summary with respect to the decision making steps you took and the emotions involved at that moment?". With the exception of three participants who were not available for the follow-up interview, seventeen participants agreed with the summaries with only some minor changes.

Because of the varying degrees of clarity in each participant's protocol, it was necessary to occasionally paraphrase a statement to fully convey the intent of the speaker's message. In

such cases, the researcher marked the paragraph, and checked the accuracy with the participant during the follow-up interview.

Methodological Design Weakness

(1) Because the population represents a highly selected group of college-educated professionals, they may be typically stable and psychologically resilient and therefore, somewhat less representative of the average Chinese immigrants. This characteristic poses a limitation of the generalizability of results.

(2) Population size is small and self-selected in that it represents only those who volunteered for the research.

(3) There is a variation in the number and in the extent of specificity of the decision making activities reported.

(4) The subjective nature of the data, although not unexpected, tended to be cumbersome for data analysis and interpretation.

Methodological Design Strengths

(1) The pilot study laid a sound foundation for the overall procedure of the study.

(2) The research design makes it possible to accommodate well-grounded research results with genuine and completed evidences.

(3) The design is focused on a holistic perspective of these people's career decision making experiences whereas some other methodologies focus on single, isolated aspects of such experiences.

(4) The comparative nature of the research provides readers with a fresh perspective to understand this group of people in terms of their career lives.

(5) Participants were provided an opportunity to increase their self-awareness by reviewing the significant incidents that happened in their career lives and sharing their emotions and perspectives.

(6) The combination of the two steps, coding data onto rating sheets under various headings, then focusing on the analysis of the incidents, enabled levels of reliability and stability of the results to be established.

Critical Incident Design

Flanagan's (1954) critical incident technique was used as a vehicle to collect and analyze the data for this research. It has been described in the research literature as a reliable and valid methodology, especially for exploratory, qualitative research that focuses on content domains. The technique consists of a set of procedures for collecting certain important incidents concerning behavior in defined situations and classifying and synthesizing these incidents in order to provide an accurate account of human behaviors, and thus to improve performance based on the observed incidents (Flanagan, 1954). It is congruent with the fundamental concerns of this study, which are (1) to contribute to well-grounded identification of the career decision making experiences of Chinese adults who are from Mainland China, (2) to derive some generalizable patterns existing in their decision making activities, (3) to investigate if such patterns fit into any of the reviewed North American theoretical career decision making models, and (4) to potentially discover approaches to guide future career counselling practice for this group of people.

The critical incident design required that the researcher collect reports of incidents of career decision making activities that had happened both in China and Canada for each person who was interviewed. The incidents were collected and coded according to Flanagan's criterion (1954), any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made, which ensured that the collected incidents were both plausible and complete. Interviews were conducted to yield data that were at first discrete but gradually began to coalesce and yield categories containing particular properties and concepts. At this point, all the similar events were grouped together with a same number. Because different participants often independently reported similar events, it was possible to organize the events into categories by grouping the similar events together. Eventually, the categories became saturated (Glaser & Struass, 1967). At the point of saturation, those categories, which consisted of a great number of similar incidents, and which accounted for the substantial phenomena of the participants' career decision making activities were selected. The three phases then emerged from these categories as their career decision making pattern.

The Critical Incident Interview

The critical incident interviews were conducted after the participants were recruited and informed of the nature of the research. The interviews took approximately 45 minutes to over an hour to complete and were tape recorded with an audio recorder. While the choice of location for the interview was left to the participant as much as possible, the pilot project had alerted me to the need for a place where both participant and the researcher felt relaxed, comfortable and free from interruptions. As a result, most of the interviews took place in private places either in the participant's or the researcher's home. In addition, four interviews happened in an office or

private study areas. The participants were given the option to use either Mandarin or the English language for the interview. At this point, out of 20 people, eight were interviewed in the English language, all the rest in Mandarin.

Orientation and Interview Questions

To meet the objective of this research, investigation of the career decision making patterns, a focused, semistructured interview style was adopted. That is, the first part of the interview was structured to ensure the good rapport and the focus of the interview. This was done by reiterating the purpose of the interview as well as how it would be recorded and by asking each participant to read the Consent Form and sign it. A written instruction was then given to the participant to read in order to have an accurate understanding of the focus, saying:

> *The purpose is to develop a meaningful understanding of your career decision making process throughout your career changes. I am interested in hearing career related significant events that have happened in your life. How did you handle these events and make the choice you finally did each time when the event came to your life? the steps you took and the factors that were the main concern for you when you made the decision?*

This was followed by having the participant briefly introduce his or her demographic background, and then draw a life line (Cochran, 1993) with identification of the significant events related to the participant's career transitional changes. The participant was told to feel free to ask any questions for clarification or for the thesis. If the participant felt unable to draw a life line at the beginning of the interview, the researcher helped him or her out with it at the end of the interview in terms of his or her protocols.

The Interview

The second part of the interview started with the participant telling his or her story in terms of the life line or life experiences at different periods of time. At this point, the interviewer asked questions rarely, and then usually for clarification and checking for the accuracy of my understanding. However, if the participant stayed around one topic too long and was away from the focus, the researcher purposely led him or her to the focus by asking some specific questions concerned with the topic.

By using proper probes, minimal encourages, and summary statements, the stories were kept flowing in a clear, understandable way.

Coding the Data

In order to extract the incidents for analysis, all of the interviews were tape recorded and assigned a code number. Nine of the interviews were then translated and transcribed in full, all the meaning units were then coded on the rating sheets (Borgen & Amundson, 1987), under the various components including triggers, emotions, social and political influence, perceptions of the events, personal goals and values, expectations for the future and coping behaviors. The meaning units from the other eleven of the interviews were translated and recorded directly from the tapes onto small cards, and then coded on the rating sheets under the above mentioned components. This procedure helped extract from the raw data not only of all the possible critical incidents but also some other concepts, such as emotions, personal values and perceptions of the participants regarding career decisions. These were used as sourceful data to back up the

description of the categories and decision making patterns of the participants, and to understand why such patterns.

The Critical Incident Analysis

The next step was to examine the critical incidents from the rating sheets. This was done by repeatedly reading the data on the rating sheets, underlining various incidents and coding them with numbers in terms of different concepts. In this examination the following criteria were applied: (a) Could what happened be stated as human activity?, (b) Could any intent be inferred or predicted from the personal statement?, and (c) What was the incident prior to and after the concerned one. By ensuring that this process was followed, it was possible for the researcher to be consistent with each participant, focusing on the investigation of the behaviors involved in the decision making process of this group of people rather than the factors which influenced their career decision making process. The researcher had to exercise judgment in recording the events because participants tended to speak in varying degrees of clarity. It was therefore necessary to occasionally paraphrase an event to fully convey the intent of the speaker's message. In such cases, the researcher double checked the accuracy during the follow-up interviews. As a result of this procedure, a total of 207 incidents were extracted that formed the pool of incidents used in this study. After the first round categorization of the incidents, the raw data were rechecked, resulting in 34 more incidents, which were brought into the categories after the stability of the category scheme was established.

Process of Forming Categories

After the incidents had been labelled and coded with numbers, they were divided into groups that seemed similar. It was found that some of the events tended to be ambiguous and could be categorized in one or more categories, and were therefore placed to the side in order that they be used to challenge the first scheme of categories developed. The categorization was then subjected to the supervisor's review and as a result, refined and revised. The ambiguous events were utilized in the second round of categorization in which they were then introduced to the categories to challenge them. This resulted in further refinement of the categories. The second round of categorization was then exposed to another reviewer, who is from the same department as the researcher, and has the similar cultural background to the population for this study, but independent from this study. The researcher continued consulting, grouping all the incidents and attaching labels to them until a stability of the category scheme as well as a sufficient range of categories to account for the majority of the incidents were achieved. A small group of incidents which did not fit into any categories was subjected to being used to support the description of the decision making patterns.

Developing Patterns

The next step was to derive generalizable patterns from all the categorized incidents. That is, the common structure or common pattern which formed a composite of the categories established. It was not an attempt to identify isolated, fragmented themes, but an attempt to identify the developmental phases within the categories established.

Even when the researcher was analyzing the interview account during the pilot study, the researcher's attention was caught by the tendency that whenever a career decision was to be made, the person tended to go through a procedure of setting up an occupational choice first, and then processing various possibilities or opportunities for reaching the goal for that choice, and finally accepting the outcomes with or without satisfaction. This three-step tendency was also found in the interviews of the study itself.

This process took place at two levels. At the first level, every significant event identified in each participant's lifeline was traced in terms of the mentioned three steps, guided by the following questions: Could the incident be adequately reflected with these three sequential stages? What happened in the first place? Why and How did it happen? What was the result? This procedure led to a development of the flow of the incidents in a sequential order. It was found that 15 out of 20 subjects' lifeline incidents shared the same three-step pattern. The other five had even simpler procedures for their decision making process.

At the second level, the three-step pattern, which was identified from participants' life-line incidents, was used to check against the categorized incidents to see if the same pattern revealed itself among these categories, leading usually to revision, and adjustment. This procedure of checking and revising, attending to parts and the whole, continued until a common pattern emerged from the categories in a way that did not seem to require further revision. It consisted of the three stages, (1) setting up an occupational choice, (2) acting towards that choice, and (3) reflecting on outcomes of the choice.

Limitations

Participants for this project were Chinese adults from Mainland China between the ages of 26 and 49 years old, who have had a high level of education and were mainly involved in academic fields or professional areas both in China and Canada. This group of people had been in Canada for at least one year and most of them had already immigrated to Canada. Their experiences were analogous to that of students and adults who were from the same country and had left their home country for host countries in the last ten years for academic study or visiting purpose in the first place. This study does not extend to the experience of those adults who have had overseas experiences but lack a high level of education in China, and those who are fresh graduates from universities of China in recent five years.

Reliability and Validity

A question of considerable importance to the value of this study has to do with reliability and validity. This concern required attending to the trustworthiness and soundness of the data. The reliability of this study concerns the following questions: Does the research accurately portray the evidence about the individual's career decision making activities to the extent that the collected data is coherent with the topic and nothing of importance is distorted or left out in the data transformation? Are the categories reliable to the extent that they are comprehensive and all the concerned critical incidents easily fall into them? Do most participants consistently report the decision making activities in a similar sequential order and consequently contribute to a common pattern of the decision making process? The question of validity or soundness concerns the

extent to which the categories were sound and well founded to support the decision making pattern. For an account to be considered sound it must be shown that it is well-grounded, that there needed to be sufficient evidence to support it. Several methods were then used to determine the reliability and validity of this study.

Reliability

The collected data and its transformation were checked by using a three part data review procedure. First of all, all the interview accounts from twenty participants were reviewed by the researcher and nine of them which were randomly drawn were subjected to the review of the research supervisor to ensure the collected data sufficiently portrayed the evidence of career decision making activities of this group of people.

Secondly, a follow-up interview was conducted to have the participants (3 unavailable) review a written summary of their own stories, which mainly focused on the sequential incidents and emotions that were involved in their decision making process.

Third, an independent reviewer who is working for a Ph.D. program in Counselling Psychology was invited to check the categorized data and decided if there was a faithful presentation of what was said in the interviews.

By following these procedures, the trustworthiness of the collected data was supported by four different persons.

The reliability of the category scheme for this study was determined by testing its comprehensiveness. This was done through the following procedure: After the first round categorization of the incidents, the raw data were rechecked, and another 34 incidents (approximately 10%) were extracted from that rechecking. These 34 incidents were not

categorized until the stability of the category scheme was established. When they were finally brought to the categories, 29 out of 34 incidents (90%) were easily placed into those categories.

To determine the reliability of the three-stage decision making pattern, a parallel test was conducted with two independent judges using the pattern scheme. The extent to which independent judges consistently placed incidents into the identified categories reflected the reliability of the pattern scheme.

A sample of 25 incidents (approximately 20%) were drawn from the pool of 127 critical incidents that happened in China. This size allowed for 2 or 3 incidents from each of the 9 categories to be presented in the sample. To further ensure that the categories were representative, incidents were chosen from each of the 20 participants.

The two independent judges who have a similar cultural background to the participants in this study were given a brief description of the categories with an example. Each judge then received a copy of the same numbered 25 incidents and a list of the specific categories. They were asked to determine the most appropriate category for each incident and write the number beside each incident that corresponded to the category. Both judges took approximately 30 minutes to finish the sorting. The agreement between the researcher's and the judges' sorting of incidents with the pattern scheme was 94%.

Validity

The pilot study ended up with an hypothesized three-stage pattern in the career decision making process of this group of people. This result was supported by the analysis at two different levels of the research. Firstly, every significant event identified in each participant's lifeline was analyzed following the three step pattern, setting up an occupational choice, acting

towards that choice, and reflection on outcomes. It was found that 15 out of 20 participants' lifeline incidents fit this pattern.

Secondly, the identified pattern was used to check against the categorized incidents to see if the same pattern existed among these categories. It did suggest the same pattern, and other interpretations were less likely.

The fact that the three parts of the study, pilot study, events in individual's lifeline, and the categorized incidents, consistently suggest the same pattern suggests the content validity of the study results.

Another test of validity used in this study was to check with participants. During the follow up interview, a summary of the participant's protocol which focused on the sequential steps of decision making activities was reviewed by each participant. They were then asked if they agreed with the three decision making steps: setting up occupational choices, acting towards those choices, and reflecting on outcomes, 15 participants answered "yes", two participants felt not quite sure about the decision making steps. The other three participants were not available for the follow-up interview.

Agreement between the researcher and the supervisor is another source of evidence to show the validity of the results. All the concerned data, including pilot study interview transcript, data analysis, and the interview raw data for the research, extracted incidents and categorized incidents were reviewed by the research supervisor. Several discussions took place between the researcher and supervisor. There is agreement between them that there does exist the three-phase pattern in the process of these people's career decision making. This further supports the validity of the research results.

Summary

The population and participant selection for this study were described in this chapter. The procedure of data collection and analysis was presented. In accordance with the Critical Incident Technique originally developed by Fianagan (1954) and used in various studies since, this study was designed to elicit critical incidents that contribute to the shaping of participants' career decision making pattern. Reliability and validity of the research were also discussed.

CHAPTER 4

RESULTS

A total of 207 critical incidents involved in the career decision making process were derived from the interviews with twenty Chinese adults (eight women and twelve men) who came to Canada from Mainland China at least one year ago.

In a preliminary analysis, all the meaning units of the protocols were coded on the rating sheets under the different components including triggers, emotions, social influence, perceptions of events, personal agency, and personal goals and values, future expectations and coping strategies. This step helped sketch out the whole picture of the subject's career decision making process.

In a second analysis of the data, all the critical incidents were examined and derived from the rating sheets, the similar ones were grouped together with a same number. Finally 207 critical incidents were extracted as a pool of all the incidents.

Nine categories were developed from 127 critical incidents, and three phases emerged from these categories, which compose the career decision making patterns participants went through when they were in China. Another 8 categories were developed from 80 incidents that indicate how these people made career decisions in Canada.

Schlossberg's (1984) transition model was utilized to describe the stages of the participants' career transition experiences as they left their own country and moved into Canada. This helped develop an understanding of their decision making behaviors at each transition stage.

It was found that there existed a similar career decision making pattern to the one that happened in China when the participants were at the first two stages of transition in Canada. However, some new decision making behaviors tended to emerge when the decision maker was entering to the third stage of the transition.

This section exclusively focuses on the occurrences the participants had in China, and presents each of the incidents categories by providing a brief description of them. Examples of the critical incidents contained in the categories are given in order to provide the reader with a sense of the range of incidents contained in the categories and the distinctiveness of the categories.

Career Decision Making Process in China

Context: the Impact of the Government Policy and Political Events (25 incidents)

Decision making can never be understood without taking into account the decision maker's historical background (Karlsson, 1989) and the determining context. This can never be overstressed given the tremendous external influence participants had in their career lives. Before the decision making process itself is discussed, the determining context needs to be understood.

In order to make sure its policies play the expected roles, the government demanded, at each period of time, a high level of consciousness from people through various forms of propaganda, and persuasion. These policies soon brought about correspondent social values and trends. Such an overwhelming social tide, therefore, pushed and pulled its people constantly in their career lives. Eighteen out of twenty participants offered 25 incidents (approximately 19%

of the total number of incidents) that consistently support this point and clearly underscore the controlling nature of the government as well as individual's internal desire for opportunities and freedom for their career choices.

In a personal example, one participant said, " In 1977, at the age of 33, I decided to change my career, because China' s policy was changed, which gave me some possibility to think about my career and future life. So I tried directly to get into a master's program.".

Another participant recalled his two totally different expectations from his career life when finishing his high school in 1970's. He said, "when I finished my high school in 1976, I never thought about my future, thinking there was no hope to go to university. My life meant to have a bowl of rice and have something to do, that's it. However, when the entrance examination for university resumed, all of sudden, I saw a slim of hope in my career life, thinking the Gang of Four were off the stage, and Mao died. I realized I could reconsider my career life. I told myself I must take this opportunity as a starting point".

In talking about a similar incident, one participant said, "the resumption of the entrance exam made me feel shocked, puzzled, blind and excited. At that moment, I did not know much about it but caught the opportunity for university study."

When talking about constraints imposed by the government policy, one participant commented, " if the policy was not changed, I would not have the opportunity to try, and had to stay in the countryside, no choice."

Even occasionally if people were given some options, they tended to be very limited, as one participant said, " After graduation from university, I was assigned to work in a very rural area. I was not willing to go but had to go. Finally I did get there. I was then asked to choose a job position from the three options, working in drilling company, production company or

research company. Actually I was given only thirty minutes to make a choice by filling out a form without any information as reference. I just picked the production company based on the simple knowledge I had in my mind."

Political events were reported as another factor that imposed strong impact on these people's career choices. A personal example comes from one participant, who said, "When I was in France as a visiting scholar, I contacted UBC in Canada, they would like to accept me for Ph.D. program of Asian Study. Due to the lack of a scholarship, I gave it up. But when I went back to China from France after June 4th, 1989, I was forced to tell everything I did in France. Actually I did not participate in any democratic activities in France, but they forced me to tell what kind of connections I had with the democratic organization. They wanted me to criticize myself, I had nothing to say. They deprived me of every chance to be promoted and forced me to live in a very poor house. I could no longer put up with such persecution, so I decided to go to UBC for the Ph.D. program even without a scholarship.".

Another participant said, " I was deeply hurt by the events of June 4th, 1989. Especially, after June 4th, I was forced to be present at every political meeting. As a leader, I had to convince others to attend the meetings, and organize the meetings which were against my belief and willingness. I felt insulted and tortured because at every meeting, I had to make people say that the government was right, although I knew all the media had distorted the real facts. Under such a situation, I decided to leave the country. I told my father I would never go back once I left."

Thus, government policies and political events were reported as the significant determining context or background which constantly confined and contradicted this group of people in their career lives. It seemed that it was not the decision makers, but such external

elements that directed people's career decisions, and determined the limits for their career goals. Such influences seemed so powerful that every step of the participants' career decision making process was more or less shadowed by this domain.

Categories of Critical Incidents and the Decision Making Pattern That Happened in China

I. *Setting up occupational choices*

1. To meet socially desirable needs

2. For personal achievements and success

3. To decrease personal discontent

4. To Retain and Validate cultural values and personal beliefs

II. *Acting towards the choices*

1. Develop possibilities and opportunities by any means

2. Increase qualifications

3. Seek for support and advice from parents and significant others

III. *Reflection on Outcomes*

Construe what was happening and cope with outcomes

Phase I: Setting Up Occupational Choices

Setting up occupational choices was found to be the first phase that involved in the career decision making process of this group of people. Four categories are encompassed within this phase, including (1) to meet socially desirable needs, (2) for personal achievement and success, (3) to decrease personal discontent, and (4) to retain and validate cultural values and personal interests. Each reflects the motivation and values for participants' career choices and underlies a strong sense of direction and purpose in correspondence with the dominant social tendency at the specific moment.

1. To meet socially desirable needs (31 incidents)

Meeting those needs desirable in the society seems to be the first concern, 31 incidents (approximately, 24%) were captured to constitute this category from nineteen participants. The category is characterized by such decision making behaviors as: (1) follow the social trend, (2) meet expectations from the society, (3) seek recognition from the society, and (4) work for relief from the social pressure.

During the Cultural Revolution, the most important values were loyalty to the party, and dedication to the party leadership. An individual's first concern seemed to be meeting the political demands from the government and win the recognition from the party and the society, which were regarded as people's career choices or goals. This was supported by a personal example from a participant who said, " After my high school education, I went to countryside. When I made this decision, on the one hand, it was out of control, on the other hand, I wanted to be good in other people's eyes, did not want people to say that I was a person who was against

the Party. Although at home my parents and I felt very sad and painful that I, a seventeen year old boy, was sent to a rural area doing labor work, yet to the public I behaved as a person who was in favor of the policy and went to the countryside with high praise." When commenting on the decision, the person added, "I would say at that time, I tried to convince myself or cheat myself to overcome my bad feelings in order to win the recognition from the Party and society. That was meaningful and every one had to go through that process, otherwise, life was meaningless within that specific circumstances".

Another participant shared a similar story separately in his protocol, in which he recalled, " At that time, I made the decision to follow Mao's call to go to the countryside. I wanted to motivate myself to be Mao's good guy, totally brainwashed and completely changed and removed from my original family background. I admitted I was bad because my father was a Koumintong member. I wanted to reform myself into a good guy in Mao's eyes. So I listened to Mao's call and went to Qinhai, a very rural area, took part in kinds of labor work every day, perhaps for a better life, which I did not know."

Since 1977, the society has been pervaded with various political reforms and an open-door policy, it therefore emerged with new values and new trends. The return to the highly competitive educational system was designed to provide a clear set of opportunity ladders to structure people's career live goals. Meanwhile, it sent a message to individuals that if they study hard, increase their qualifications, and in other ways become more valuable contributors to the society they can expect improving income and career prospects, and better lives.   All of these external elements tended to repeatedly highlight or remind participants of their focuses whenever they made their career decisions.   This was indicated from the comments of several participants. One person said, "I wanted to go abroad because I saw many people going abroad, I hoped to do

that too." Another one said, " At that time, math, physics and chemistry were very hot subjects, that's why I chose science as my major."

In addition to following social trends, decision makers sometimes became dominated by the feeling of pressure, fearing being ignored or excluded by society. As a result, meeting the expectations from social groups became another major concern when they made decisions, as one participant said, " around me, my relatives, friends, and neighbors kept a strong hope for me to go to university. If I could not be enrolled by a university, they would be very disappointed at me, which made me feel very pressured and pushed to study very hard every day for the examination."

Another participant said, " I myself saw a lot of people around me going abroad studying, even including some of my students. Originally, ten of us were assigned to work in the college, finally only two of us were left working there, all the rest gradually went abroad through various ways. Even some of my students questioned me how come I still stayed at school, not going abroad. They felt surprised and puzzled, which made me feel pressured. So we two just looked at each other, meaning "let's go!".

Still another said, "when I was accepted by UBC as a graduate student, a lab in US also offered me a position to work there for one year. I chose to go to UBC, as I would like to go to school and earn a degree, because later on when I went back to China, I would have nothing to show to people without a degree. Many people around earned a degree before they went back home. If I could not, I would feel pressured".

In talking about the decision to focus on engineering as her major, one participant said, "I chose engineering because it's hard, needed to have good marks to get in. I wanted to prove I could make it, to prove as a girl I could still make it, could still be good at math, physics and

chemistry. When my teacher encouraged me to choose arts, I thought he just looked down upon girls, so I did not listen to him, I wanted to be recognized that I was a good student."

Another participant offered an example about her husband's decision. She said, " actually he liked arts very much. He did not like physics. He chose to do physics because both Beijing University and the Dept. of physics were the best and the most famous in China. He wanted to prove that he was the best student."

Therefore, the process of setting up occupational choices is marked by periodic swings from one to the other for people to meet desirable needs of society with intermittent periods.

As a result, decision makers experienced a variety of related feelings about their career prospects. Sometimes they felt fresh, hopeful, and motivated to try for something new. At other times, they felt frustrated, confused, pressured and lost. However, they were highly conscious that they did not want to be abandoned or ignored by society.

2. For personal achievement and success (10 incidents)

This category includes incidents referring to personal desire for achievement and success whenever people made a career decision. In talking about his choice of a working placement, one participant said, " I chose to work in Beijing in order to develop my potential and make achievements in my academic area with famous professors. What I expected at that time was to be successful in my academic life by becoming an excellent researcher and publishing as many works as I could".

Yet another said, "I chose to work in the production company because it was easier for me to make outstanding academic achievements."

Meanwhile, striving toward success, achievements, that led to long-range goals, continue to be related to external determining context. For this group of people, the concept of achievement and success tends to be based on the belief that a person of success is one who finally gained a position higher than or highest among others after tasting to the full the bitter hardships of the world. With this belief, success and achievement can be mostly sensed in self-other competitions and measured by self-other interactions (Chu, 1985) in hierarchical relationships of the society. Therefore, it is no surprise when one participant said, " I wanted to be successful, that means I wanted to be higher and ahead among my colleagues, and wanted to be outstanding all the time. In my working unit, the majority of the staff were intellectuals, that means the competitive tendency was very strong. It's not easy to be a little bit ahead among them. However, I kept working very hard academically and politically. As a result, I became a little bit ahead of my colleagues in many aspects."

To compete with each other for success and achievement was then reported as another motivation for their career choices or career goals.

3. To decrease personal discontent (18 incidents)

The thread of cultural continuity among the Chinese has been disrupted in the last thirty years, especially during the Cultural Revolution (Chu, 1985). In the context of the new social and cultural milieus, participants in this study, who are the younger generation in China, are less submissive to authority figures than people in the past. They would rather change their fate at any cost than compromising. They no longer believe the political rhetoric, but are more concerned about the economic development and their own realistic opportunities. They are dissatisfied with the limited availability of material resources, and bored by politics and by the

various confines imposed on their career lives. Instead of enduring, they are determined to reduce such discontent in their lives with the new ideas of equal opportunity, with the enthusiasms about learning science and technology and acquiring useful skills. This theme is clearly reflected from 18 incidents (approximately, 14%) offered by 14 participants and becomes one of the significant factors for their career decisions.

Personal frustration and dissatisfaction over aspects of people's lives are reflected in this category. Uncomfortable living and working environments, dominant government policies, and not well off economic life were the salient concerns that trigger people to make decisions for change. A personal example comes from a participant who said, " The purpose at that moment was to be enrolled first, no matter whatever university, to get back to Shanghai city. I did not want to stay on the farm any longer."

In talking about the motivation for a master's program, one participant said, "the only purpose for me to get into a master's program was to avoid being assigned back to my small hometown. That was the only way to leave that backward area."

Working units sometimes also made people feel trapped. This was reflected in the comment of one participant, who said, " I decided to go abroad mainly because I felt disappointed at my working unit. When I got there after graduation, they wanted me to have one year of so called training in a suburb area for the reason that I was a fresh graduate. To me that was meaningless. It was just wasting time. In addition, I was not allowed to do research, but was supposed to prepare notes for teaching day by day. It was very boring. I thought to transfer to another unit, but it's impossible without personal connections. If I had not come to Canada, all my life would have idled away there."

Sometimes the needs for change tended to be reinforced by the mainstream of the society, in which the person's focus was no longer validated. This is reflected in a comment of one participant who said, " I had to change my situation, I did not want to be a middle school teacher any longer, I must choose a better position for myself, because few people would like to be a middle school teacher, who is very poor and has very low social status".

Another said, " at that time, lots of values, lots of opportunities coming into the society, everything changed, my value for academic work was a little bit changed to something more realistic. Because academics was no longer valued by the society."

Decisions for change that were triggered by dissatisfaction over their economic life were exemplified in the comment of one participant, who said, " Being engaged in academic work could not make money at that moment in China. That's the most important factor for me to change. Otherwise I would directly go to a Ph.D. program. I decided to give it up because it was very poor to be a student." Later on, the same person added, " I chose to work in school because school normally had more opportunities to send people abroad for further training. I believed I had a good chance to be chosen for studying abroad. If I could go abroad, I could make more money, that's the most important reason."

In talking about his choice for going abroad, one participant said, " As far as my job was concerned, I had already achieved a lot, I was honored with a national reward for my research, and I would become one of the ten advanced researchers in this field. The living conditions, job itself, and every other aspect had already been settled down, waiting for harvest. At that moment, I began to feel uncertain, hesitant and hopeless, such feelings came from the bottom of my heart when I saw a dramatic going up of the market price. My income could hardly support my life, which made me feel threatened. Around me, some famous research experts earned even

less amount of salary than some young people only with high school education. I thought if I chose to be a professor, my future would be the same. So superficially the decision I made for going abroad was for further education. Actually, I wanted to get rid of the financial worry I had in China."

In a similar way, another participant commented, " The reason for me to go abroad was that I wanted to learn new knowledge, see the world, and most importantly, improve the financial situation for my family."

It was found that several incidents here shared the same idea that going abroad was the way to improve their economic life. This might have resulted from the government policy and some other external factors.

The following example reflects how these categories blended together, which motivated the person to come to a decision, the participant said, "After June 4th, 1989, I felt very hopeless and depressed. Meanwhile, I was getting tired of my relationship with the leaders and colleagues, people pinned down to each other, jealous of each other. At that time, a lot of my friends were going abroad group by group. I could not do my projects because of lack of money, so I decided to go abroad again.".

4. To retain and validate personal interests and cultural values (5 incidents)

Incidents in this category tend to speak for the fact that although social trends and values dominated the Chinese society, it cannot be ignored that some participants were directed by personal beliefs and interests when making career choices on some occasions. Although only five incidents (approximately, 4%) were extracted from five participants to support this fact, yet it is one of the themes which can not be ignored.

An example of this type is, " When I was facing the choice of choosing either arts or science as my major focus, many people, teachers, and friends, suggested that I focus on science, because science was very popular in the society. I myself finally chose to learn arts because even early in my childhood I liked arts, read a lot of novels, hoping to become a novelist. So I made this decision totally out of my personal interests. I did not listen to the society." He then added, " Even I can say that I went against some pressure when I made this decision to focus on arts. At that moment, people believed those who went to arts were not able to pass the entrance examination for science. Actually, I was quite good at both arts and science."

While recalling a decision that was made after university graduation, another participant said, " when I was going to graduate from university, I needed to decide where I should go to work, staying in Beijing, or going back to my hometown, inner Mongolia. Many students from other provinces wanted to stay in Beijng because it is a big city, the capital of the country. It was supposed to be cool staying there. But I was wondering if it was the best place for me, and what I could do if I stayed in Beijing. After I weighed my strong points and weak points, finally I decided to go back to my hometown, because there I could have more opportunities to develop my own potential and make contributions to my inner Mongolia fellows."

Going to university for education is a traditional value in the Chinese culture. In the late 1970's and early 1980's, with the government policy to resume entrance examinations for university, there was congruence between the socio-cultural values and personal expectations. Personal aspirations and expectations for education were highly validated. Participants showed a remarkable amount of self-determination for the decision to go to university, which became the highest goal in their career lives. This was captured in a participant's comment. He said," Of course, my family and I value education very much. The government policy for university

education happened to provide me with what I had expected. So I tried to get into university desperately." He then added, " However, if the society would not value going to university, if the status for a university student was lower than that for a farmer politically and socially, I would not choose to go to university."

Obviously, part of his comment further explicates the subordinate relationship between social and individual values.

Overall, the phase of setting up occupational choices is very much related to political goals of the government as well as the socio-cultural values of the society. On the one hand, the government, with its effective methods that withhold information and ideas that might weaken its control, pervasively controls people in their career choices. As a result, the population was left with no alternatives but follow the government direction, however reluctant they may be to do so.

On the other hand, people are impelled to meet the social expectations of others during their career decision making. It seems that outside the relational context of others, they feel meaningless and less motivated to pursue their career lives. This may somehow reflect the Chinese culture that the self is conceptualized as a configuration of roles expressed in self-other expectations and observable in self-other interactions (Chu, 1985). People are seen predominantly as social beings whose sense of self is directed toward immediate social purposes. Such a socio-cultural quality reinforces the fact that the self is seldom experienced outside the social-occupational context. Personal values yield consciously or unconsciously to social values. Career concepts and development were understood as tasks to fulfill social purposes. Almost all of the participants reported that they had no idea about career choices or occupational focuses

when they went to university, and had to end up with those that were highly valued by the society.

Phase II: Acting Towards the Choices

Once the occupational choice was set up, there became an established goal for people to reach. The next phase seems to be concerned with the ways that lead to the specific goal. At this phase, very purposeful actions were taken in order to realize the established goals. Due to so many restrictions from the government, society and working surroundings, and due to limited opportunities and options in their career lives, participants usually consumed a lot of energy and time searching for possible ways leading to their goals, and usually experienced negative feelings. Since many people set up the same occupational choices at the specific period of time, this phase is characterized by a strong sense of competition and hard work. However, they tended to act very persistently, with a determination to achieve their goals at any cost. The incidents show that three entities were usually processed at this stage: (1) develop possibilities and opportunities by every means, (2) increase qualifications, (3) seek for support and advice from parents and significant others.

1. Developing possibilities and opportunities by every means (9 incidents)

This category includes incidents that reflect how the participants developed and hunted for opportunities to achieve their goals. It seems that many difficulties and barriers did not make them give up what they wanted. Rather, they were more firmly committed themselves to their goals and took actions at any cost or by any means.

Taking advantage of personal connections seems to be reflected in some personal examples, " Because I had a very good personal relationship with the leaders in my unit, when there came another quota for the professional training abroad, I was the one who got the access to the information. I purposefully strove for that opportunity and I finally made it."

Sometimes they had to resort to maneuvering to deal with the obstacles in their way to reaching their goal. One participant recalled an incident that had happened shortly before the resumption of entrance examinations for university study; " When the new term started, we were asked to work on a very far away farm for two months. I decided no to go, because there was some hearsay that the entrance examination for university study would be back soon. I wanted to study for university exam. So I got a certified statement from a doctor, asking for sick leave for two months."

Still another one said, " In order to go abroad, I played some tricks to force my department head to let me go. It took me six months to get permission for me to resign from my job position."

Sometimes participants would make some quick decision to compromise to some degree in order to gain the final goal. That was reflected in the story of one participant, who said, "The first year, I tried to get into a master's program majoring in math, but failed. The second year I switched to Chinese. I got it successfully."

It was reported that participants learned to cope with obstacles and develop opportunities by every means, including taking advantages of some personal connections to have access to more updated and accurate information or to make the impossible possible, playing tricks to remove obstacles, twisting and turning around to avoid the trap of the government policy, and making proper compromises to play down the losses.

2. Increase qualification (4 incidents)

This category includes statements that indicate the fact that individuals focused on increasing their qualifications or developing their potential abilities in order to achieve their goals. They strictly disciplined themselves and invested a tremendous amount of time in their efforts to be more qualified. This is exemplified in one participant's comment, "Although I was not satisfied with my working environment, I could not complain about that. I just had to make myself qualified for other opportunities. If I wanted to be qualified, I must get a master's degree. With that I could have the opportunity for going abroad, that's exactly what I did".

Another participant recalled, "In order to be enrolled for university study, I disciplined myself very strictly, never dared to relax. I told myself I must take this chance. Everyday, I had few hours for sleeping until I finished the examination."

Personal strength and personal agency appear to be present in this category. In addition to making use of various opportunities, developing personal competence and increasing self qualification to meet demanded requirements seem to be another approach for the decision makers to realize their goals. Thirteen out of twenty participants in this study mentioned that their academic performances were excellent even in their primary and high school education. This may account for the fact that self abilities and competence also played a very important role in such a competitive environment. Although only four incidents were extracted in the category of increasing qualifications, they do support this fact.

3. Seeking support and advice from parents and significant others (14 incidents)

Family and significant others, including teachers, were reported as the sources for support and advice for career decisions. These people are trusted by decision makers as a primary source of strength and support. In times of being confronted with significant decisions or severe distress, spouse, family members, teachers, or close friends are usually approached to share emotions and to offer good ideas.

Incidents in this category refer to the facilitative role of parents and significant others, who helped the decision makers to achieve their goals. One participant exemplifies this category in his story. He said, " After June 4th, 1989, it was a very depressing time in China politically. I was totally disappointed and decided to go abroad. I quit my Ph.D. program one month before I had my Ph.D. defense. The authority asked me to pay twenty thousand yuan for quitting the program. My parents said, ' no matter whatever cost, even if we have to sell every piece of our property at home, we will support you to leave this country.' Finally, Mom and Dad paid twenty thousand yuan for me, which was their whole life savings."

In talking about the decision for studying abroad, another participant said, " I planned time with my Dad. We talked and discussed together. I was busy preparing my GRE test. My Dad helped me with filling forms and applying for programs."

Teachers were regarded as another reliable source for advice, this was reflected in a statement of one participant, who said, " I showed my choice to my teacher. She helped me change my first option to Biology and Chemistry at Beijing University. My teachers asked me to change. I felt OK because I respected them. I thought they might know me better. If they thought so, I thought so. Later, I felt gratitude to my teachers. If I had not showed my plans to my teacher, I would have not been enrolled by Beijing University."

Occasionally they got help from other sources. While recalling her story about going abroad, one participant said, " Because I came from the countryside, I had no guanxi (connection) in the hospital where I used to work. I could not be selected to study abroad, although I had very good marks for the tests. One of my patients, a retired senior cadre, who was under my care for six months, heard about my situation, and said it was not fair. He insisted on speaking for me in terms of my professional abilities and working attitudes. He went to talk in person and wrote letters to the authorities at the different levels. Thanks to this patient, I was finally allowed to study in Canada. That's why I swore once I left, I would never come back."

There is no evidence to support the family values of loyalty, filial piety, and endurance, that have been greatly discussed in much of the literature. The dwindling influence of the family can be sensed in this research. Twelve out of 20 participants mentioned that their parents did not exercise any influence on their career choices. Only one participant mentioned that he was convinced by his parents when he chose his specialty for his university study.

This point is not to suggest that parents have no influence on these people's career decisions. As a matter of fact, they do influence decision makers in different ways. First of all, parents played a very important role as helpers or supporters in such aspects as finance, access to information, and ideas to overcome difficulties. Other than that, the majority of them tended to let the younger generation make their own final decisions, although parents shared with their offspring their own perspectives, thinking and opinions. Secondly, parents' career occupations tended to be considered as either a positive or a negative reference whenever their offspring chose their own professional occupations. For instance, six participants mentioned that because their parents were doctors or engineers, they chose to focus on those areas; while another four participants decided not to focus on those areas in which their parents were engaged. Thirdly,

while decision makers seek help from others, they only went to those people who were in favor of the decisions they already had. Actually, what they were seeking was psychological support and encouragement in the process of reaching their goals, as one participant commented, "Parents had some influence on my decision making process, but not very much. I made every decision by myself. I would never give up my decision because of parents' opposition. Of course, if they supported me, it would encourage me to stick to the decision more firmly."

At this stage, decision makers experienced feelings of pressure, frustration and anxiety. The restrictions of the government as well as the complicated social environment seemed to repeatedly confront them with their decisions and trap them on their way to reaching the goals. However, this situation did not make them give up what they wanted, although they felt very frustrated and exhausted. On the contrary, they become more determined to stick to their goals at any cost or by any means.

Phase III: Reflection On Outcomes (12 incidents)

New environments or new experiences that resulted from the first two phases of decision making usually brought participants into this phase. Incidents discussed under this phase reflect how participants construed what was happening, and coped with outcomes.

Construe what was happening and cope with outcomes

This category includes incidents referring to the reflections and explanations participants had when they were facing or experiencing the results of their decisions.

Negative feelings that served to define the experiences of the decision makers in their new environments seemed to be noticeable. Lack of sound information was blamed as being responsible for such results, which is revealed in the comment of one participant, who said, "I was not well informed when I made the decision to go back to China. I really didn't know the real picture of Chinese society after one year absence from it. The world is changing and I thought China might have changed to a stage that had more freedom and migration. But when I got there, that was not the real picture. So I was disappointed and thought that whenever I had chance to go to Canada I would stay there."

Failure to have a complete understanding of the environment and personal internal needs seems to be another reason, as one participant recalled, " When I chose to work in a Beijing Research Institute, I put emphasis on how to achieve in my career, seldom considering salary and living conditions, which later became the consequences for me to take. As a result, once this step was decided, the next step for going abroad was already on the way."

Lack of self awareness also seems to be responsible for some outcomes, as one participant recalled, "Originally I thought I would be fond of medicine. Actually when I jumped into this field, I found myself not very much interested in it. Being a doctor would be ready for hard working. Everyday, you need to be together with patients all the time. I found myself unable to commit to that requirement."

In talking about the choice for her professional focus, another participant commented, " That's a stupid choice because that was not the one I was really interested in. When I got in, I realized it's too boring, it's a very childish choice, I was very young, not mature enough."

Feelings of regrets, conflicts and gap between external environment and internal needs seem to be the salient concerns at this stage. Lack of sound information, poor understanding of self and the external environment were then reported to contribute to various negative outcomes.

When they felt trapped by the outcomes of their decisions, participants tended to cope with the results in different ways. Again the determining context seemed to play a key role that determines how they cope. Self-control seems to be one of the behaviors if they had no way to change, as one participant said, "Once I got into my working unit, I didn't like this job, but I kept telling myself it might be good, probably I would like it after working for a while. I thought maybe I could create something better, and called attention of the people around, and have them feel interested. With this hope I began my work for the first year."

The mechanism of rationalization was used to soften the blow connected with disappointment, which is exemplified in the comment of one participant, who said," I was not well informed of the Chinese situation. The decision made by me was a mistake, but I finally found out it was not my total mistake, because we were given false information, so someone else was also responsible for my wrong decision. By thinking in this way, I won't be distressed, so that I will have sort of positive mood and feel nothing will turn me down."

Making a covert decision in mind for change in the future helps the decision maker to have hope for life. For instance, the same participant added, "when I got there, that was not the real picture. So I was disappointed, and thought that whenever I have a chance to go to Canada, I will stay there."

It seems that, to some extent, career decision making for these people is a process through which the individual strives to achieve a dynamic balance between psychic demands and sociocultural requirements. When there is a discrepancy between what was happening and the feelings they were experiencing, the participants began to consciously review the decision making process they have gone through in order to explain the outcomes. Twelve incidents (approximately, 10%) that formed this stage, highlight how people construe what has happened and cope with outcomes.

Summary

The whole process of decision making seems to be cyclical in nature. Decision makers are driven to set up their career choices one after another, sometimes only to find themselves repeating their personal experiences on a new social stage, and facing a new conflict. Each repetition of the conflict pushes them to set up a choice once again to reach through the same stages.

As all the incidents were categorized into different headings, the assumed common pattern began to emerge, which finally, as a general framework, embraces and accounts for the meaning of each category. When it was rechecked against all the incidents under the different categories, it reflected each and captured the prominent parts of participants' career decision making activities.

The common pattern of career decision making involves three phases: setting up occupational choices, acting towards those choices, and reflecting on outcomes of the choices. These stages overlap and blend together, but each is distinctive in nature. That is, while the

boundaries between stages are permeable, each stage involves a distinctive character with each subsequent stage building upon the preceding one.

The three-step decision making pattern found in this research is characterized with the following points. First of all, people set up their choices without developing and evaluating any other options. Secondly, their choices were largely determined by society, that is, their choices were largely based on the social trend, and were consistent with social values. Personality characteristics, internal needs and interests were largely ignored. Thirdly, information processing was not sound, not updated, and not completed. Fourthly, their concerns, problems and emotions were usually intensified in the second and the third stages of this pattern due to their strong anxiety about acting towards the choices and coping with negative outcomes. Conflicts between occupational requirements and personal self tended to come out at the third stage, which motivated people to start a decision making process once again through the same pattern.

Several reasons could be elaborated to account for this decision making pattern. First, the overwhelming social tide imposed such a strong impact on their career lives that they felt not able to resist against its powerful currents, and thus were lured away from exploring and attending to their internal values and needs. Simply following the trend and trying not to be exclude by society became a dominant motivation for their career very limited career choices or career goals.

Secondly, having limited career options and no control over their own career lives made people insecure, worried, and floating. Whenever an opportunity was coming, they were not allowed to examine their internal needs in order to develop enough alternatives before setting up a choice. Each time, they felt the urgency to catch an opportunity for change, which also contributes to this decision making pattern.

Thirdly, the Chinese culture and the educational system did not encourage people to develop intrinsic personal values that are constantly emphasized in Western society. Since early in their lives, selflessness and service to others have been an overriding cultural theme. Such a demand to sacrifice personal interest for the welfare of the society was carried to the extreme during the Cultural Revolutions of 1966-1976, the time when these participants were just developing their career concepts or experiencing their career lives.

Career Decision Making Process in Canada

Career Transition

Since this group of people came to Canada, they have been experiencing a major

transition with respect to their cultural, socioeconomic, and career lives. Although the transition

was not unanticipated, and to some extent it was what they had expected, they were still caught

by emotional and cultural shock. They were challenged by career decisions. Before we discuss

the decision making process of these people in Canada, we need to understand the transition

experiences they have gone through. At this point, we need a transition framework, that can help

conceptualize participants' experiences and determine their position in the transition process, and

most importantly, to understand how they made career decisions at each stage of the transition

process. Schlossberg's (1981, 1984) transition model, which is usually implied in the educational

domain, is used as a framework to fulfill this purpose. This model considers transition as a

process of assimilation or movement where people shift from total preoccupation with the

transition to integration of the transition into their lives through three phases: move in, move

through, and move on. Although the experiences of the people in this study may not necessarily

share what Schlossberg described for each phase of transition, their transition experiences can be

conceptualized as a process of assimilation into the culture of Canada most probably through the

phases of move in, move through and move on.

In any transition, the first stage is moving in (Schlossberg, 1984). This model asserts

that, at this stage, the person is immersed in transition, becoming completely preoccupied by it.

This is frequently accompanied by feelings of shock and pressure. When the people in this study

moved into Canada, they had similar experiences. They were overwhelmed and preoccupied with dramatic change in every way. They were shocked culturally and felt upside down socio-economically. All of a sudden they became handicapped when they found themselves unable to communicate. All of these feelings were reflected in the accounts of the participants. One of them recalled, "When I got here in 1988, it was a big shock. In China, I was a lecturer, here I became nobody, had to start from the very beginning. I was wandering, quite wandering, I was sort of shut down." Another person recalled, " After I came to Canada, life was ten times harder. Especially, the first year when I came here, it was so miserable that I wished I could die".

Still another recalled, " When I arrived here, I experienced such a hard time that could not be imagined if I was in China, cleaning toilets for people, baby sitting, could not communicate with people because of language problems, always felt being looked down upon".

Still another said, " When I arrived here, I did not have any options, for I could not speak English, my English was almost zero, that was an absolute limitation. What I could do was doing labor work at restaurant without any choice. That really hurt me, I couldn't imagine how come I was forced into that situation!".

For some others they felt so excited about this new place. As one person commented, " When I arrived here, immediately I liked Canada, I felt like I could do more, do whatever I wanted to do."

Regardless of whatever feelings, excitement, misery, sadness, or difficulty, they began to realize the need to do something to improve their situations. They perceived this change as an opportunity to start a new life, that strongly motivated them to face the challenge. Gradually, those feelings and experiences that confined them at the very beginning of their moving into this new world were replaced by taking action to improve their lives and was frequently accompanied

by feelings of frustration, surprise and confusion and ambivalence about what was happening, feeling like being between two worlds. This seemed to be consistent with Schlossberg's (1984) second phase of transition, move through. The previous structure of one's life has been upset and a new one is just beginning to emerge.

Meanwhile, they found themselves very frustrated to know that some decisions they made turned out to be discrepant from what they had anticipated. This triggered a need for an explanation and a corresponding cognitive sense-making process which enabled meaning to be attributed to the surprise (Louis, 1980) and the frustration.

With the increase of personal experience and knowledge about themselves and the society, they began to explore the new life structure, which seems to be in agreement with the next phase of Schlossberg's transition model, the move on stage. Some of them felt a new sense of investment and was more positive about their self identity. As a result, some new steps began to emerge in their decision making process..

Categories of Critical Incidents and the Decision Making Pattern That Happened in Canada

I. Goal setting

1. To stay in Canada (for education, freedom, better future)

2. To build up one's economic life and career life in Canada

II. Action

1. Making efforts in the academic area

2. Adjust self to employment opportunities

3. Seek help and information (from friends, church, supervisors, and documents)

III. Reflection

Reflecting and self review

The above discussion highlights the transition stages the participants tended to experience as new immigrants in Canada. Presumably it will provide a focus for us to understand their career decision making activities at each stage.

In total, eighty incidents were included to outline the decision making activities of the participants since they moved to Canada. Eight categories were developed that contain all of the incidents. With the exception of the two categories, all the rest fit into the decision making pattern these people had in China.

Phase I. Goal Setting (27 incidents)

It seems that the decision making pattern that has been discussed in the first part of this chapter still dominants participants' decision making behaviors in the early period of time when these people landed in Canada. In other words, the participants tended to fall into the old pattern of decision making process at the first two stages of their career life transition from China to Canada. As newcomers, they were anxious to set up their new life goals and strive to realize those goals with every effort. Until then they had no time to think about or evaluate the outcomes of their decisions.

1. To stay in Canada (for education, freedom, better future, etc. 23 incidents)

While these people physically moved into this new country, their minds were still preoccupied with a lot of previous life experiences, various emotions, frustration, uncertainty, and insecurity, etc., which oriented their decision making behaviors. Most importantly, these people placed a great deal of hope on this country, expecting to fulfill those career goals which they could not realize in their own country. Thus, to stay in this country was the first priority.

Of course, beneath the intention to stay in Canada was the strong desire to free themselves from the control of the Chinese government, from the control of its ideological propaganda. This is indicated in the comment of one participant, who said, " my basic personal freedom was violated in China. As a person, I could not migrate within my own country, that's too bad for me." Then he continued, " I dislike political studies. But, in China, no matter if you believed it or not, that's something you had to be involved in. I always felt frustrated about it."

Behind the goal of staying in Canada are also other various purposes and motivations. In terms of advanced education, one participant said, " I decided to apply for immigration because I wanted to study for a degree. With a permanent resident status I only need to pay domestic tuition".

Some others are greatly attracted by this new place, the beautiful environment, and freedom, which make them visualize a bright future for their lives. They, therefore, decided to stay here regardless of whatever difficulties. The following instances exemplify this fact. One participant said, " I weigh my family's future more than its present. That means I put much more emphasis on my family's future than present, especially my child. I made the decision not to return to China based on the idea that I could finally achieve a bright future." Another one said, "When I arrived here, the beautiful environment made me feel close to nature. Meanwhile, here I don't know what will happen tomorrow. I am greatly motivated, having a strong hope for life." Still another said, " My immigration into Canada gave me a chance for me to control my own life, that's what I want the most. I don't like others to control my freedom for moving around. That's the biggest motivation for me to immigrate."

For some other participants, even before they arrived in Canada, for some reason, they had made up their mind to create a new life abroad instead of going back. That is reflected in

the comment of the participant, who said, " Because I ran into so many troubles before I came to Canada, I swore that I would never go back to China as long as I could stay abroad. I had such preparation in every aspect that I would not go back home". Another one says, " Because of so many regrets I experienced when I went back to China, I was determined that once I got abroad again I would stay there forever."

2. To build up one's economic life and career life in the new world (5 incidents)

When these people were granted to stay permanently in this country, the next goal for them was to build up their economic life and career life in this new country.

Overcoming financial difficulties tended to be their first concern in the short term. Therefore, the immediate need that directed their career decision making was to get employment. Basically they would go wherever there was a job. This is exemplified by the statement, "Presently, what I really need is to be financially secure. That's my major concern. To achieve this goal, I have to work very hard, don't mind whatever jobs I can have. I am meeting at the level of basic surviving."

Their cultural background and their personal experiences made them perceive that going to university was the best way to build up their economic life and career life in the long run. One participant commented, "I felt looked down upon when I was doing labor work in this society, cleaning toilets, or baby sitting. At that time, I was eager to go to school, change my situation. The reason for me to stick to the idea of going to school was that I still had traditional Chinese cultural beliefs that the only way to change my situation was to get education." Another one said, "Definitely I wanted to get a degree in this country, I thought nothing but a degree, believing with a degree, I could find a job easily".

As far as the professional focus is concerned, participants in this study tended to continue what they had already been involved in China. They did not feel confident to try other subjects, although some of them may not have been necessarily interested in what they were studying. This point was captured in the statements of some participants. One said, " Even in China, I chose my specialty passively. I can't say that I am interested in it. I only take it as a tool for living." Another said, "Because of the historical background, it's impossible for me to choose as a young man without considering my background, I can only adjust a little bit within my area. I know even in this society, I must make use of my past background". Still another said, "Because I was engaged in the major of Forestry in China, when I came here I could only continue in this field. I feel scared even if I think about changing my major due to the limitation of my age and language.

At this point, the decision here is only the continuation of the decision made in China. Several factors may account for this fact. As adults who are new immigrants in this country, their previous personal and cultural background set limits for their career choices even in an environment where freedom is available. In addition, to a great degree, their thinking is still under the guidance of the Chinese philosophical format, which determined their perspective, belief system to construe the environment and the ways to solve problems during their decision making process.

Regardless of whatever purposes and motivations, whatever feelings and emotions, the theme is clear that they visualize much hope for their future lives, they want to search for something worthwhile from this new environment. This tends to coincide with Schlossberg's first stage of transition for the participants.

Although the same step is involved in the decision making process of the participants when they were in China and in Canada, it is different in nature in terms of the specific content that happened in each country. The choice setting stage that happened in China was very much influenced by government policy, by social trends, and by interpersonal relationships. Therefore, it was externally oriented. In Canada the goal setting stage centers around searching for something worthwhile for their personal lives. Participants were more concerned about their own needs. At this point, it was internally oriented.

As new immigrants in this country, the goals they set here tended to be at more basic level, compared with those goals they had in China.

Phase II: Actions (31 incidents)

1. Making efforts in an academic area (3 incidents)

Similar to the same stage that took place in China, at this stage participants tended to act very purposefully towards their goals. Some participants made great efforts in order to obtain a degree in an academic area. This is reflected in a personal story of one participant, who said, " I took TOFEL test almost ten times in order to meet the required mark for being accepted as a graduate student."

2. Adjusting self to opportunities (14 incidents)

While acting to reach their goals, some of the participants tried to adjust themselves with some other quick decisions whenever they felt caught by the realities of their situations. One participant exemplifies this fact in his statement, " My ultimate purpose was to settle here. So whichever way could be most helpful to that goal, I would choose that. Going to university even

for ten years, I would still be a student in this country, a visitor. If I worked here even for ten years, I would still be a visitor, so I chose to make a refugee claim. My purpose was to settle here. Only making a refugee claim could lead to that goal."

In talking about the purpose of gaining a degree, one participant recalled, "I know some Chinese students switched their Ph.D. program to master's for the sake of job concerns. I switched my focus for the same reason."

3. Seeking help and information (from: friends, church, supervisors and documents; 14 incidents)

Seeking help and advice from others is also evident at this stage. Instead of consulting professional helpers, participants usually went to their Chinese friends, who have the same background, for help. A personal example comes from a participant, who recalled, " I talked to some Chinese senior students. They gave me some advice. They thought the environmental area has a future and hope for a job, so I still thought it would be a better choice than what I had focused on. Then I talked to my supervisor again for switching." Another one said, " When I made the decision to stay here in Canada, I went to ask my friends to tell me exactly what I was supposed to do."

Church was another source of help, which was reflected from the statement of one participant, who said, " The second time when I arrived in Canada, I was determined to stay here studying, but could not get in. I applied to many universities for my major study. All the replies were either no financial support or no positions, which really made me feel inadequate and worried. At that moment I got a lot of help from people in the church, which helped me become

humble and helped me know more about myself, and I accept God in my life. Finally I was enrolled by Regent College."

Some authorities, like supervisors, were also asked for advice. As one participant recalled, " I asked my friends, especially my supervisor for advice when I made the decision to take the postdoctoral position in Harvard university."

Parents sometimes still played some indirect role as a source of support, especially for those who just moved into Canada. As one participant recalled, "At that time, my parents always wrote to me, encouraged me to work hard to get enrolled at a university. Because I could not communicate with people in this society due to my poor English, I could only share my thoughts and feelings with my parents by correspondence. So at that time I still had the Chinese cultural education even I was physically in Canada."

The difference between what they did in China and in Canada is that in China they tended to be trapped by various policies from the government while processing for reaching their goals. No access to updated and accurate information hindered them to gain what they wanted. As a result they had to spend a lot of energy and time coping with whatever troubles they might run into.

In Canada, they felt free to take whatever actions they could for reaching their goals. However, they found themselves sometimes being confined because of their minority cultural background, limited communication skills, and financial situation, which made them feel inadequate to strive for their goals. However they still felt able to try. They especially appreciated the fact that they finally have control over their own lives.

Phase III: Reflection (5 incidents)

Thoughts and feelings were expressed related to this stage. Some participants felt

confused, stuck and confined when they realized the discrepancy between what they wanted and

what really happened. Others felt regret, wishing to do something different. In reviewing the

decision she made for her graduate study in McGill university, one participant recalled, "When I

decided to get into the public health program, I knew it's something similar to what China has,

but I did not expect that this area required language skills that much. I thought my English

would be good enough after I finished my program. Actually it was not the truth. Before I went

to school, I thought nothing but to get a degree. With that it would be easier to get a job. After

I finished the program, and exposed myself to the job market, I found myself in a very awkward

situation. Actually the job market for this area is quite bright. It should be easy to find a job.

But for me, it's not the case. After several interviews, I realized language is one problem.

Meanwhile, I don't think I can do it well even in a Chinese environment. Indeed, I am not a

person to do such a job to deal with people. I have no idea what to do, feel very depressed, ".

The other participant commented, " Now I think getting a Ph.D. doesn't have that big advantage

in the job market. Actually with my ability, I can always find jobs in a lab without a problem. In

fact, I have limited myself with a Ph.D. background. The higher of my academic title, the smaller

my job market. Looking back, the decision I made is not necessarily right."

Much of this stage was spent reviewing the established goals and actions they took.

Facing the outcomes, some, not knowing what they should do, took a time-out, visiting their

parents and relatives in China. Others began to immerse themselves in self-review and

pondering. This process helped them become more conscious of their cultural background and

self identity, and realize the need to make use of their strength and avoid limitations and weakness while making career choices and decisions in this society.

Such a decision making pattern revealed itself most often while participants were going through the first two stages of the transition. On the one hand, as new immigrants, they felt insecure, uncertain financially as well as culturally, and were confined by many basic needs for survival. They were challenged by language problems, cultural differences, and unfamiliar environment. All of these factors put these people into another limited situation. On the other hand, there is a likelihood that they went through the transition stages with their ideological ideas, perspectives, and problem solving style unchanged. Culturally, they were still used to focusing on extrinsic values while making decisions. Therefore, it is no surprise that the same career decision making pattern was identified from the participants' decision making activities that happened in Canada.

However, for some participants, this pattern was no longer cyclic. Reflecting on what was happening brought them an opportunity to understand themselves and the society with some new perspectives.

"Move on" stage of the transition tended to see these people, to varying degrees, emerging with a stronger sense of personal growth regarding career decision making processes. They felt more relaxed, not anxious to set up goals instantly. The first stage of goal setting in their decision making process tended to be preceded by the steps of developing awareness of self and the society, and searching for options.

Another two categories were also noted which are independent of the pattern discussed above, and can be understood as the new steps evolving from their decision making process in Canada.

1. Developing Awareness of Self And The Society (10 incidents)

Instead of setting goals as their first step of decision making process, developing awareness of themselves and the society became the primary concern of some participants. One participant commented, "Right now I am not sure what kind of gift, abilities I have, what kind of ability I should have for this society? Can I be welcomed by this society? What kind of contribution I can make for a specific company. How can I convince them? On the one hand, I need to know more about this society, on the other hand, I need to know what I have myself, what I am short of, can I make up with those I don't have? That's where I am. " Another one said, " I know very little about the system here, which is a big limitation for me to think about any specific area I can be involved in this country, including how it works, what kind of role the personal relationship is playing, etc. First of all, I need to know more about this before I make a decision."

In addition, a stronger sense of self identity seems to emerge among some of the participants, which reminds them of making use of their cultural background while avoiding their weak points when making decisions. In talking about the future plan for his career life, one participant said, " One thing becomes clear for me, that is, I hope I can do something relevant to China, hoping to do something which will be beneficial to China, because it is my own country, although I have immigrated to Canada, the latter is only my second country." Then he continued,

"Another consideration is my language and cultural background, and I wonder if I can finally integrate into the local culture. Because my generation has already accepted very typical Chinese education and culture before we came abroad. Such kind of print can not be removed from my life. Whatever problems we deal with, we do it with very strong Chinese perspective. Whatever thing we do, we do it with a typical Chinese style. So we should make use of such strength and try to avoid weakness."

2. Search For Alternatives (7 incidents)

Currently searching for options is another step emerging from their decision making process. Gradually they felt more in control of their own destiny. This empowered participants to control the pace during their decision making process. At least, for some people, they realized that it is necessary to have more alternatives before they make a final choice. They put themselves into a process of attempting to clarify the order of possible goals, recognizing alternative possible choices, and the consequences of these alternatives. They began to assess personal values, clarify conflicts, and evaluate advantages and disadvantages. However, because of a strong awareness of their cultural background, they tended to focus their attention on the socio-economic situation of China, or the market between China and Canada when they processed alternatives for their career choices.

Summary

In this chapter, all of the incidents elicited from the interview accounts were discussed under different categories. Examples of the incidents contained in each category were presented. Each category emphasized the specific aspect that contributed to the shaping of the career decision making pattern of the participants. The three-step pattern of career decision making was identified from the nine categories that include 127 incidents the participants experienced when they were in China. The phases of the pattern include: (1) setting up occupational choices, (2) acting towards those choices, and (3) reflecting on outcomes of the choices. These three headings, as a common pattern, embrace and account for the meaning of each category.

The pattern reflects that the participants' career decision making process was largely determined by the government policy and the social trend, and it was therefore greatly centered around social values. The Chinese cultural beliefs, that human beings are social beings, personal needs are subordinate to the welfare of the society, etc., as well as the communist political system contribute, to a great extent, to this pattern.

One more pattern of career decision making was also identified from another six categories developed from 63 incidents that indicate how these people made career decisions in Canada. The decision making pattern used in Canada turned out to be almost the same as the one used in China to the extent that the same processing steps were involved, as (1) setting up goals, (2) actions, and (3) reflecting on outcomes. This finding is inconsistent with the assumption of this research, that there may exist two different career decision making patterns among this group of people because of the life experiences within two different countries, China and Canada. The research results suggest that although this group have been in Canada for at

least one year, their perspectives for understanding and solving problems remain largely unchanged, especially when they were at the early stages of transition. Results also support the idea that as new immigrants, these people tended to be confined in terms of cultural life, economic life and language skills. All of these account for the fact that the same career decision making phases existed among these people when they were either in China or in Canada. Meanwhile, results suggest that participants' career decision making process in China is different in nature from one aspect in Canada, because in Canada their decisions were much less influenced by the society, by the main stream or by government policy. To this end, their career decisions were much more internal-oriented.

Finally, another two categories from 17 incidents were also discussed as part of the research results. These two categories are independent of the decision making pattern, and suggest a new tendency of participants' career decision making process in Canada in that some participants gradually came to realize the necessity of developing awareness of self and the society, and developing more alternative options before they set career goals.

CHAPTER 5

DISCUSSION

The major pattern indicates that participants initiated their decision making process by setting up career choices or goals correspondent with external changes at different periods of time in China or with their basic needs as immigrants in Canada. In the second phase, participants acted purposely to achieve the goals through various approaches. Finally, they came to reflect on outcomes that resulted from their decisions.

The dynamic process that guided participants through the decision making process appears to be a repeated cycle of a three step pattern, especially when they were in China. They would make an important change, only to become reimmersed in this pattern and end up with another conflict in a new setting. Caught in the conflict, they would try once again to reconstrue what was happening, cope with the outcomes, and set up another choice, striving for change.

Theoretical Implications

One of the purposes of this study was to examine to what extent the reviewed North American career decision theories or career decision making models are applicable to adults who are from Mainland China. This objective was accomplished by comparing the career decision making models to the results of this study.

Theoretically, a general decision making process is usually described as a model that consists of six major phases: problem awareness, problem definition, developing alternatives, evaluating alternatives, implementing a plan, and evaluating results. Within such a model, the

decision maker is presupposed to be very rational, have access to all relevant information, be able to deal with the actual situation very objectively and handle the information accurately. The results of this study do not support such a rational decision making model. The decision making process of the participants in this study is characterized by setting up one goal after another according to environmental changes, and searching for opportunities that could lead to the goal established. Only after the goal had been realized did they begin to review the process they had gone through.

However, to some extent, the results agree with what Janis and Mann (1977) indicated about the triggers that initiate the decision making process. They pointed out that decision making starts when the person is exposed to information about a threat or an opportunity that effectively challenges a current course of action. For the participants in this study, their decision making process usually began when they were exposed to opportunities that resulted from a change of the Chinese government policy or to challenges from the social environment. In Canada, their career decision making fluctuated with the transition stages they went through.

Comparison to Career Decision Making Models

Trait Theory

The results of this study do not correspond with the career decision making model that focuses on the trait-and-factor approach or attribute-matching process. In such a model, the decision maker is supposed to have access to all the occupations. The goal is to develop self

awareness of personal attributes in order to accept an occupation with requirements that match the person's personality traits. Such an internally oriented process does not correspond to the experiences of the participants in this study. The results reveal little evidence that shows personal attributes play much of a role in decision making activities. Only two or three participants reported that some of their career choices were based on their personal interests or personal abilities.

Developmental Theories

Ginzberg's (1951) age-linked developmental career decision making formulation assumes some universality of age-specific experience, and divides the decision making process into three distinct periods: fantasy, tentative and realistic, with the tentative period being divided into four stages: interest, capacity, value, and transition, and the realistic period into three stages: exploration, crystallization and specification. Such a comprehensive and systematic developmental process of career decision making is barely supported by the results of this study.

Generally speaking, participants in this study were seldom educated or trained as far as career development and career guidance are concerned. Early in their career lives, they were imbued with Mao's ideological dogmas, with such slogans as "the people's needs is my only aspiration", "placing my whole life at the disposal of the Party is my goal". The interview accounts constantly pinpoint the fact that the content of an individual's career life was greatly dominated by the needs and demands of the government as well as the social environment. A linear, progressive, or increasingly sophisticated developmental path of career decision making process presented in Ginzberg's developmental model is not found in any of the stories of the participants. Some parts of the personal stories in this study do correspond to some of

Ginzberg's theoretical descriptions, but are not necessarily in agreement with the same sequential order depicted in this model. For instance, two participants reported that some of their career choices were based purely on their personal interests or personal abilities, but that occurred either at college entrance or after their college education.

Tiedeman & O'Hara (1963) described career decision making as a two period developmental process, with each period consisting of different stages, that are similar to Ginzberg's. This model also emphasizes a continuous process beginning with exploration and ending up with integration.

Results of this study do not support this model as a whole. However, the initiation of the decision making process described in Tiedeman & O'Hara's model matches the experiences of the participants in this study to some degree. That is, participants were experiencing a vocational problem and recognized that a decision must be made because of external forces (such as an economic crisis, the work setting itself) or because of broad internal psychological drives (such as unmet needs, changing aspiration). In addition, participants' experiences at the first phase of choice or goal setting are consistent with that of the choice stage of Tiedeman & O'Hara's theoretical model to the extent that they tended to focus on a singleness of purpose and an unswerving attitude regarding goal direction. The expression of eagerness and impatience to reach the goal orients the person to act. The significant difference is that when the participants in this study commenced a decision making process, they were already preoccupied with a clear choice in their mind, and tended to act purposely toward that choice with an unswerving attitude. They seldom experienced the stages of exploration and crystallization described in this model. This is because the dominant social trend already imposed a direction for them to follow.

Currently in Canada, while they are experiencing different transition stages, some of the participants tended to explore the external world as well as themselves before they made a final decision, recognizing the need for knowledge of self and the occupational world. However, they had developed no strategy or plan of action for meeting this need. Some others began to emerge with the ego identity that is emphasized in Tiedeman and O'Hara's model. They are developing a clearer awareness of who they are and their cultural background. They tended to evaluate advantages and disadvantages while making career choices.

Needs Theory

The results of this study somewhat support Roe's (1956) needs theory. In Roe's model, needs, whether at the conscious or unconscious level, are the major determinants of, and motivation for career decision making. This accounts for these participants' decision making pattern in that they started with setting up career choices or goals. Regardless of whatever goals they set, this action helped them reduce their need tension (Hilton, 1962).

The need structure of the participants was greatly influenced by various external factors. It therefore fluctuates with external changes, which is different from the description of this model. For these people, the need-reducing value is not intrinsic, nor individual, rather, it is situational and extrinsic.

The point that a person's need structure is influenced by childhood life climate of the relationship between child and parents is more or less supported by the evidence in this research in that some participants either chose or avoided some occupations that their parents were engaged in.

Value Theory

Value theory is another model to explain the career decision making process. Katz (1963) indicated that individual values are the satisfying goals or desired states that order, arrange, and unify the individual's perceptions of traits and socioforces, then muster these perceptions for a particular decision or for a model of choosing. Katz's career decision making process consists of a value system, an information system and prediction system. Similarly, Gelatt (1962) proposed a decision making framework, predictive system, value system and rules for evaluation of the system. Both models stress a value system as having a key role in decision making and both suggest a sequential processing order leading to the final decision.

The present study agrees with the point that personal values order, arrange and unify the individual's perceptions of traits and socio-forces while a person is in the process of making career decisions. However, the difference is that participants in this study did not show any evidence that they spent any time identifying their own personal values during the process of decision making. Instead, they spent a lot of time figuring out what was highly valued by society at each specific period of time. They tried to match their personal values with that of the society. As a result, their value system, similar to their needs structure, was changeable, and situational.

Self Concept

Self concept theory indicates that in choosing an occupation, one is choosing a means of implementing a self-concept (Super & Bohn, 1971). They believe that career decision making is a process of testing one's self-concept against reality, of finding out whether one can actually live up to one's image of self. The current study does not support this model that emphasizes a personal role for self actualization and a dynamic structure of self within the person.

All these structural theories stress the dynamic organization of traits within the person. They emphasize that such intrinsic attributes as personal needs, values, and self concept play the key role through all the process of decision making. The research results showed a lack of such internal qualities of the decision makers in this study. Their decision making process was guided by the needs for recognition by social groups, for a successful person who has special status and prestige, etc.

Social Learning Theory

Social learning and sociological influences are evident in the narratives of career decision making for the participants in this study. What is notable is how much they were influenced by social groups and social pressures that impinged on their career choices.

The results support Krumboltz's (1976) depiction of the factors that influence the process of career choices. His model emphasizes the fact that external factors are often beyond the control of the individual, the fact that certain events and circumstances in the individual's environment influence their skills development, activities and career preferences. It also indicates that governmental policies regulating certain occupations and the availability of certain natural resources in the individual's environment may determine to a large extent the opportunities and experiences available to the individual. These points are strongly supported by the results of this study.

Learning experiences, including instrumental learning experiences and associative learning experiences, are also pointed out in Krumboltz's model as another factor that influences one's decision making process. There is evidence in the present study that supports this point. For some participants, after they experienced some negative consequences of their previous

decisions, they tried to learn from the experiences and began to set up another goal purposely for change. For some others, observing what others were doing and what others achieved helped them with their own career decisions. Probably, following a social trend is another good example of the aspect of learning experiences.

The big difference is that Krumboltz's model stresses the factors that influence the process of career decision making rather than the developmental process that leads to career choices. The current study focuses on how these people make their career decisions under such strong influential factors.

The Interactive Career Decision Making Model

The interactive model of career decision making (Amundson, 1995) puts emphasis on the interactive relationship between contextual factors, decision triggers, problem framing and reframing, and action planning. The model identifies that these components tend to intertwine with each other while a career decision needs to be made. It further indicates that contextual factors, such as culture, economic and political events, the interpersonal roles, etc. help determine people's perceptions and ultimately the career decisions that they make. The research results consistently support Amundson's point, since the participants' career decisions or career choices were largely determined by the social cultural values, economic and political events, and interpersonal roles. As a matter of fact, such environmental factors were so strong that these people's basic self-structure was more or less assimilated with the Chinese social structure, which became more evident when people were in the process of career decision making. Amundson continually pointed out that the exact nature of such determination is moderated by level of self-awareness as well as by a sense of agency. This idea somehow challenges the participants in this

research. The lack of internal self-process is evident in these people's career decision making pattern.

This model describes career decision making as a process of framing a problem, action, and reframing. At the framing stage, people take aim and perceive a decision needs to be taken. It was pointed out that by this time, people formed their perspectives through various determining contexts. As a result, certain aspects of the problem are highlighted, while others are diminished. It seems that what Amundson described here shares some similarity to the first stage of the participants' career decision making pattern found in this research, i.e. the stage of setting up occupational choices. For instance, at this stage, participants set up their career goals according to their understanding and perspective of the external society. Because the periodical social trend in the Chinese society easily directed their career choices, any other possibilities were left out.

The action stage described in this model seems to be compatible with the action stage involved in the participants' career decision making pattern. Amundson suggested that some people tend to be flexible and be willing to alter perspectives about the originally framed decisions, others may continue doggedly in their pursuit as originally framed. It seemed that the participants in this study tended to persistently pursue their original choices with determination at this stage. Knowledge about when to put aside some of the original conceptions and consider other options may also challenge the participants when they make career decisions in Canada.

The reframing stage mentioned in this model was not found in the results of this study. This might be due to limited opportunities in these people's career lives. This fact would prevent these people from reframing their career choices. However, this may become a tendency when

these Chinese adults make career decisions in the Canadian society, and probably in the present Chinese society as well.

This model is based on the idea that current social and economic situation is changing so rapidly that people need to adjust themselves and their career decisions constantly so as to keep up with such a sweeping change. This is fundamentally different from the situation these people used to face. The controlling nature of the Chinese socio-political structure contributed greatly to the shaping of the career decision making pattern found in this research.

Modern and developed societies need people to be open and flexible for updated information which helps to make more sound career decisions, whereas societies, like Mainland China, which were controlled by politics and social trends confined and limited people's career choices.

General Discussion

Although the career decision making pattern found in this study shares some minor aspects with the above mentioned theoretical models, it does not resemble any of them as a whole. Especially, it does not support the rational career decision making theories. As a matter of fact, the participants' career decision making proceeded in a direction which is against that of the reviewed rational North American theoretical models due to the different career development principles, information systems, and occupational structures. In these theoretical models (see Figure 4), individuals themselves are the principal, an open and comprehensive information system, and multiple occupational options are the preconditions. Within this structure, these models focus on self-knowledge, and take self process as the entry point. Awareness of internal personality characteristics, intrinsic values and needs, etc. leads to a final occupational decision.

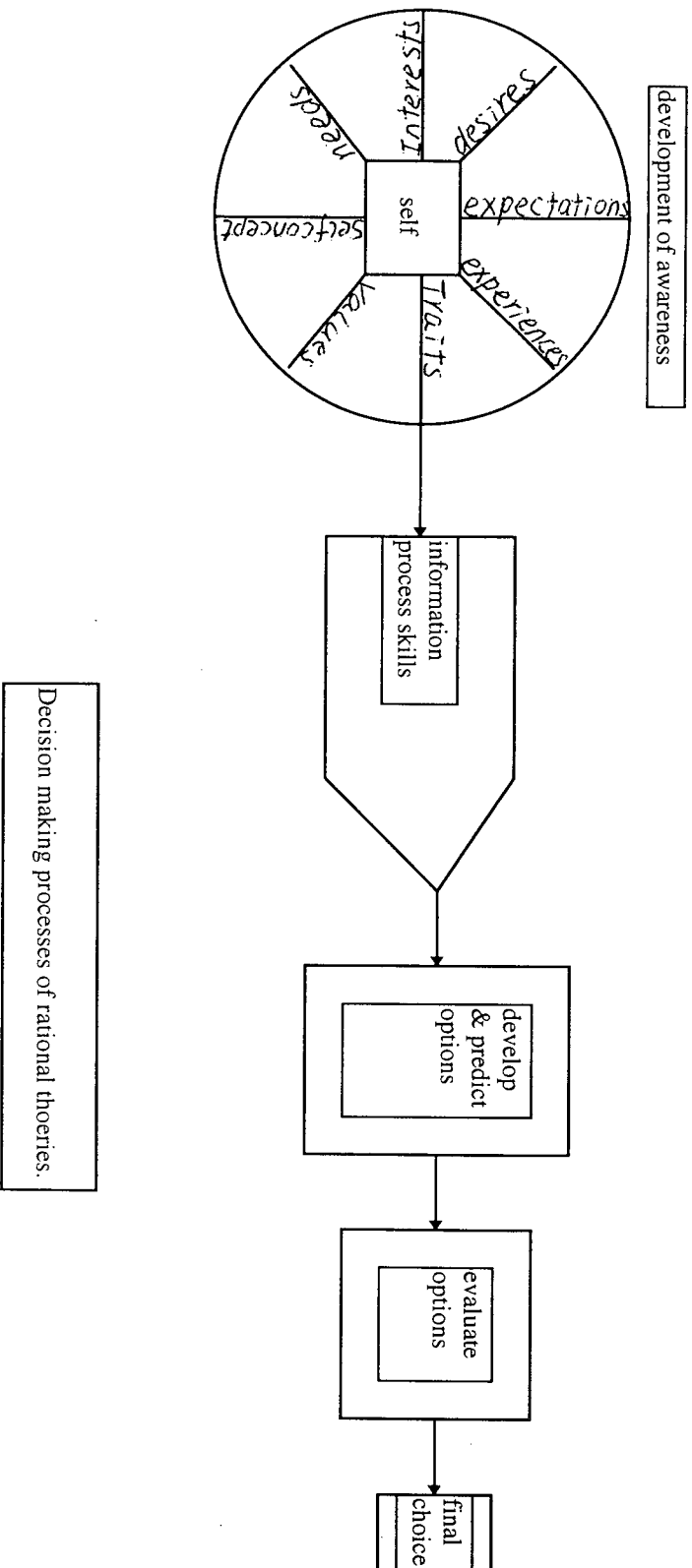development of awareness

self

interests
desires
expectations
experiences
Traits
values
self concept
needs

information process skills

develop & predict options

evaluate options

final choice

Figure 4

Decision making processes of rational thoeries.

Personal changes lead to a change of occupation. In other words, with self-knowledge, and information-processing skills, individuals choose occupations from many possible options. The chosen occupation will provide an appropriate opportunity for the personal self to develop and grow. Above or around individuals there are few social trends or political factors that dominate personal development or personal decisions. People themselves are selectors, occupations are to be selected. Meanwhile, knowledge of the external world and the mastery of information-processing skills help lead to an appropriate career decision. Obviously, the development of internal motivation and independence for career choices is greatly encouraged and personal competence, personal needs, values, unique talents, etc. are highly validated.

The career decision making pattern found in the present research (see Figure 5) revealed that the government and society functioned as a starting point. Individuals maneuvered toward their career choices. The career information system was closed or absent. The occupational option was in the control of the government. The precondition for people's career choices was that government opened one or a few limited occupational options for the sake of its own interests and social needs. Within such a structure, the process started with individuals' passively setting up their occupational choice which correspond with that available option. A change of government policy and social needs led to a change in people's occupational choices. Rather than developing interests, values, and qualifications from their internal self, people were expected to value work which was consistent with the requirements of those very limited occupational options. As a result, meeting political and socially desirable needs covered 70% of the factors which led to career choices of these participants. It was not a process of matching personal characteristics and personal intrinsic values with occupational options. Rather it was a process of submitting the personal self to the requirements of limited occupational options offered by the

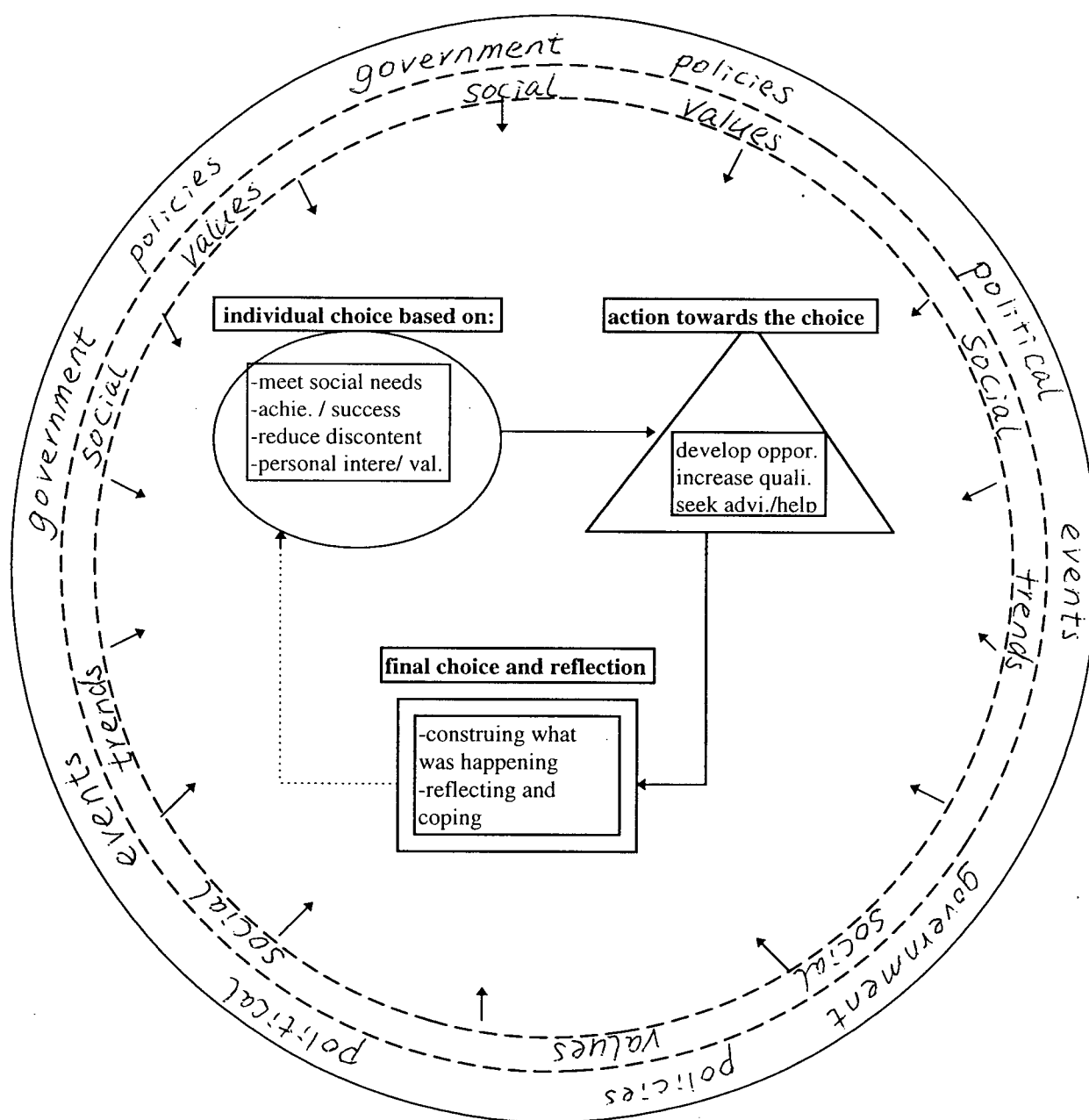Career decision making process of the participants in China.

Figure 5.

government, meeting the needs and requirements of limited occupational options offered by the government and the society. At this point, the occupational option was the selector, whereas individuals were the ones to be selected.

Since the occupational option was overt, preset, limited, singular and socially determined, instead of developing any other occupational options as presented in the North American theoretical models, this group of people were only attracted to and acted towards that single option. Usually with a very strong commitment to the choice, they maneuvered, disciplined themselves, and sought help from significant others. Not until the stage of reflection on outcomes could these people consider their internal feelings, needs, or personal experiences. To this end, it was a process which was ordered from social to individual, from external to internal.

The political ideology and the Chinese culture contribute to this decision making pattern, since personal self development is not encouraged either culturally or ideologically. The embeddedness of the individual self within the state was greatly emphasized. A child in China was born into a family and placed in a network of interrelated persons. The self does not develop in a process of gradual separation and individuation, as is often conceptualized in Western psychological theories. In his article, Dien (1983) used the words, "big me and little me" to conceptualize a Chinese perspective on self. A "little me" maintains its interdependency within the context of the "big me" (the family, the state, and the world), throughout one's life span. This view of selfhood is found in the dominant philosophical traditions of Taoism and Confucianism as well as the present-day socialist ideology. Therefore, the intrinsic qualities which are emphasized in these North American career decision making models remain undeveloped or hybridized with external social values.

In addition, these rational theoretical models have been developed from research on white North American males, who have reasonable freedom, and are supposed to have access to different opportunities and options for their career choices. Actually these models are mostly fantasy for participants in the current research. The fact was that they were tremendously deprived of freedom in their career lives, and kept struggling and maneuvering in the web of political organization which covers all Chinese society and penetrates deep into its fabric (Schurmann, 1968). The rational, logistical, independent, and information-processing style of career decision making described in the North American theoretical models was largely absent.

Finally, because of their historical experiences and their deeply-rooted cultural background, when in Canada, these people went through different transition stages, but their perspectives, understanding and problem solving styles remained largely unchanged. It is not surprising to find that participants in this study relied upon a similar decision making pattern in Canada as that in China (see Figure 6). They were still used to committing themselves to some specific choice and persistently acting towards it. While they really appreciated the new society which allows them to totally free themselves from external factors and gain maximum personal satisfaction, they were strongly confronted by the lack of guaranteed job positions and independent career choice style. In China, there were very few occupational choices, but they were observable. People themselves were not encouraged to search for occupational options. Usually they relied on the government to assign them jobs, which were guaranteed and permanent. They were hardly challenged by the threat of unemployment. Such a system, on the one hand, trained them to persistently commit themselves to a specific choice with an unswerving attitude. On the other hand, it made these people develop a dependent and directed career decision making style. Therefore, it is understandable that participants in this study reported that

set up personal goals

-choose to stay in
Canada;
-build up one's
career life in
Canada.

action towards the goals

-efforts
-adjust
-seek
help

realiz.goals/reflect.

-construing what
was happerning
-coping with the
consequences

| developing aware-
ness of self and the
new culture | developing alternative
career options before
goal setting |

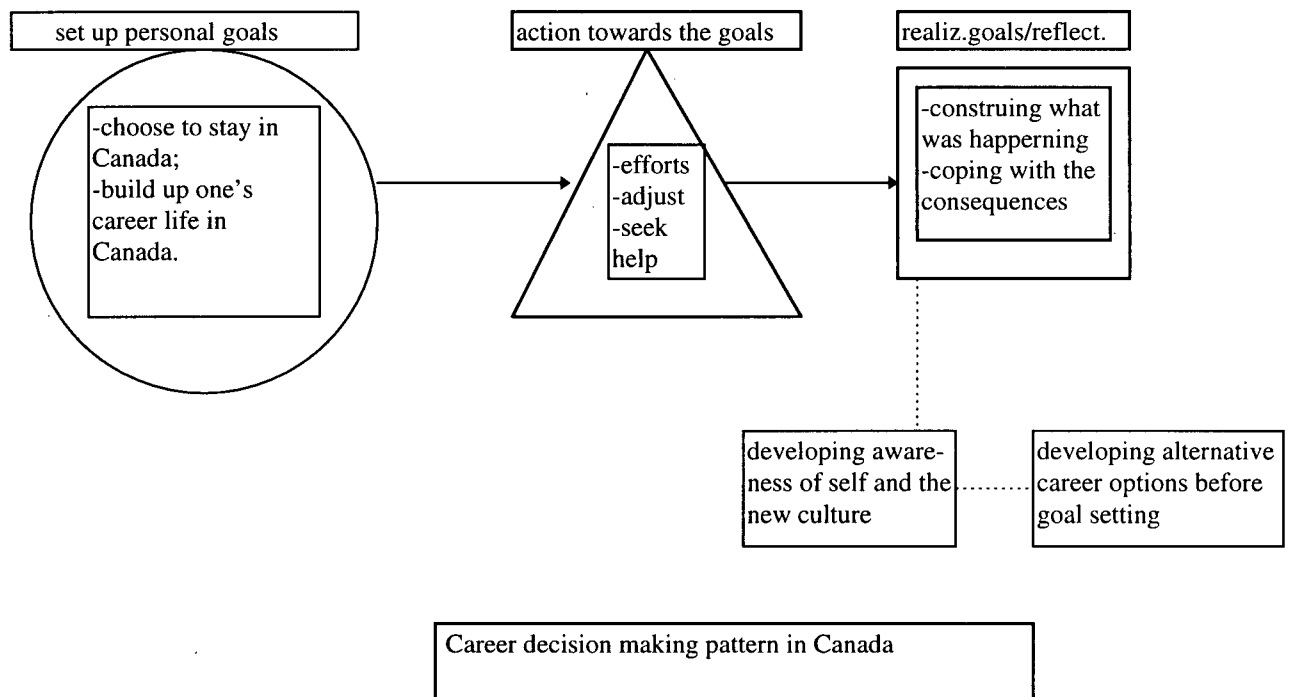| Career decision making pattern in Canada |
|---|

Figure 6

they felt insecure, pressured and lost to face the challenge of developing occupational options and making career choices for themselves in Canada. In addition, as new immigrants, they felt overburdened by economic concerns, language problems and cultural conflicts. These facts also confined them to a limited decision making process.

Obviously, the social learning theory and the interactive model of career decision making account for some of the experiences these people had in their career decision making processes, since the importance of determining contexts involved in career decision making has been clearly stressed in these two models.

Practical Implications

The study has several practical implications. The common pattern of career decision making process that emerged from participants' critical incidents can be considered as a reference framework for career counsellors to understand career decision making activities of Chinese people in general and people from the Mainland China in particular. It provides career counsellors with more detailed information about these people's career development background, career decision making pattern, and the concerns, focuses and emotions that were involved in the decision making processes.

With this particular pattern of career decision making, those people who have a similar background to that of the participants in this study may face various career issues in Canada. They may have difficulties in setting their career choices, because in Canada there is no obvious social trend or directed career option that orients or guides them in their career choices. They may find it difficult to develop occupational options and make a final choice independently. As some participants reported, too many choices meant no choice for them. They may not be able

to develop an appropriate plan or action to fulfill their career choices if they are not quite familiar with the information system in Canada, or if they are short of information processing skills that are needed in this society. Those who have made their career choices and able to realize their goals may still be confronted or challenged if they finally realize that their personal characteristics, their personal needs and interests, and even their cultural background are not validated or appreciated in a specific work environment. Such career decision making issues may also become prominent within the Chinese society given the tremendous economic development and the sweeping change of occupational system and job market in China. In reviewing the career decision making pattern and possible decision making issues this group of people face, it seems there is a need for a correspondent counselling model.

Counselling Approaches

1. Understanding specific issues of individuals

Key issues and critical concerns need to be assessed before any counselling approach is efficiently adopted. Individuals may have different problems in correspondence with different decision making stages. They may be lost at setting up career choices, or may get stuck at the action stage, or they may be challenged by an inappropriate decision. It therefore supports the idea of considering career decision making from within the context of the individual's total life. From this perspective, the person's life history and the set of circumstances with which the decision making process is taking place are relevant in the practice of career counselling. For this purpose, listening and probing skills are greatly needed at the beginning counselling sessions with a trusting relationship between the counsellor and client.

2. Education-oriented counselling

Educational counselling could be offered to help this group of people understand career concepts and career development in a Western society, such as Canada. This would be beneficial to those who feel lost and have difficulties in setting up career choices or make career decisions independently. As new immigrants, they may sense something different about career decisions in Canada than in China, but they might still be used to searching for a social trend or social needs for their career decisions, or relying on others to give them career direction. The issues to be addressed by education include individual preferences, career exploration, information processing and decision making skills, etc. Most importantly, clients need to be aware of the different counselling aims of the two societies. In the Chinese society, the counselling aim is to help clients "function as expected in one's proper social role". Whereas in Canada, it is to help them find meaning for the autonomous self (Dien, 1983).

3. Adjustment to the new culture

At this point, it is suggested that cross-cultural counselling models and transition models be used to help these new immigrants with their process of acculturation, as might be expected to be a necessary step for these people to make a sound career decision in Canadian society. Sue (1981) described a five-stage model, named the Minority Identity Development Model, for acculturation. The five stages he discussed are conformity, dissonance, resistance and immersion, introspection, and synergistic articulation and awareness. The model could be used as a framework for counsellors to understand these people's adaptation issues, and help them adjust better to the new culture. In addition, several reviewed transition models could also be

used to help these people understand their career transition issues and experiences. Awareness of career transitions would help people to develop a reliable base for their career decisions.

4. Improvement of career decision making skills

1). Development of self-awareness

Amundson (1995) pointed out that the nature of determination of the contextual factors is moderated by level of self-awareness as well as by a sense of agency. Persons with high level of self-awareness and personal agency are in a better position to respond proactively to external circumstances and exert more control over long-term effects. First of all, the concept of personal self needs to be discussed and identified within the counselling sessions. A big gap between the Chinese and Canadian cultures is evident from the perspective of personal value systems, which play a key role in career decision making. In Canada, the structure of personal self focuses on internal personality attributes, such as personal values, needs, interests, and self-concepts, etc. Such psychological dynamic structures are sometimes considered different in the Chinese culture. They are more likely understood within an interpersonal relationship by the Chinese. For a Chinese person, achievements and success may mean that a person becomes a winner through competition with others. Personal needs and values tend to focus on recognition and admiration by social groups, by authority and by significant others. Since they moved to Canada, some of the participants began to develop self-awareness or an increase in the sense of self identity, it most likely highlights "big self", that is, the self as a Chinese. Intrinsic self-knowledge was hardly stressed while these people were making their career decisions. They often did not even realize the necessity for the knowledge of themselves until they felt trapped, stuck and frustrated with their new life direction. It is important for counsellors to help them to be more aware of their

internal personality attributes as well as their cultural background, as is the foundation for a good career decision in that it will help them prevent the negative consequences that usually happened in the third phase of these people's career decision making pattern. In addition, counsellors need to be cautioned that direct exploration of these people's personal values, interests and needs may not be appropriate during initial counselling sessions. Intrinsic values and self concepts need to be gradually developed and explored through long term counselling sessions if clients are willing.

2.) Development of information processing skills

Counsellors are also expected to help develop information process skills for these new immigrants. Several participants in this study showed a concern about access to more complete, comprehensive and updated information for career decisions. The findings of this research suggests that participants in this study tended to limit themselves to their Chinese counterparts or close friends for information collection. They also had the tendency to only focus on those pieces of information which they need to realize their established goals. Because of the high awareness of their Chinese culture background, some of them tended to isolate themselves from the mainstream information system and dwell only within the Chinese community for this purpose. It would be worthwhile if counsellors could spend time helping these new immigrants develop information processing skills and personal competence within a broader context in counselling sessions.

3) Strategies for occupational options and choices.

Strategies for developing occupational alternatives are also needed. Participants in this research reported a great concern about their economic situation as new immigrants. This tended

to narrow their thinking in developing job alternatives. It is suggested that counsellors help these people make long term as well as short term plans for their career choices. For the short term plan, their basic needs and cultural limits might be stressed when they develop their occupational options. This may help them reduce feelings of uncertainty, insecurity and pressures as new immigrants. For the long term plan, counsellors may help these people gradually recognize and validate their higher level needs, encourage them to explore career options broadly. To this end, self-confidence and assertiveness need to be developed for them to present themselves for more career options.

In addition, it is suggested that Gelatt's (1989) model of positive uncertainty: a new decision-making framework for counselling be utilized to help these people develop effective attitude for decision making. Amundson's interactive career decision making model is also recommended for this purpose. Using this model may help decision makers develop strategies for framing and reframing options and choices.

This research also supports the idea that more structured, directed counselling approaches, and career guidance could be used with these new immigrants from Mainland China, as they tend to put emphasis on solving concrete problems if they decide to seek help from professionals. It further agrees with the idea that counsellors should avoid approaches that emphasize communication, interpersonal feelings, and emotional conversations. The notion of letting out emotions as part of the therapeutic process is inconsistent with the Chinese notion of self-control. They may feel also that this approach is irrelevant to solving their problems. More often, what they expect from professional helpers is prescribed advice for solving their problems. Furthermore, they are culturally advised to think about the future rather than dwell upon the past.

Career decision making is part of a larger process concerned with shaping a more worthwhile life. Other significant changes are likely to be intertwined with these new immigrants' career changes. This was the case for every one of the participants. This finding supports the practice of broadening the focus of career counselling beyond the bounds of the occupation domain.

Finally, lack of knowledge of Chinese culture is detrimental; however, even with this knowledge, its application and relevance cannot always be assumed because of differences among Chinese people, especially, among Chinese people from Taiwan, Hong Kong and Mainland China. There exist different cultural values between Mainland China and Taiwan and Hong Kong, in addition to their different socio-political structures. For instance, the value of family piety has been heavily discussed as a typical culture entity in many literature researches about Chinese. Presumably, such traditional value is more likely retained by the Chinese people from Taiwan and Hong kong. There is little evidence in this research that supports the value of family piety as far as career decision making is concerned. As a matter of fact, for the participants in this study, family values and preferences tend to be changeable in correspondence with social values.

Research Implications

Given the population that represents a highly selected group of college-educated professionals and the small number of sample in this study, future research could continue investigating career decision making patterns of Chinese immigrants with a larger sample and with a population that is beyond the college domain. Such research will help understand to what

extent the career decision making pattern found in this study is consistent with that of all the Chinese immigrants from Mainland China, and if possible, with that of immigrants from Taiwan and Hong Kong.

A similar pattern was found in this research regarding participants' career decision making activities both in Mainland China and Canada. This pattern does not resemble any of the rational North American theoretical models reviewed in this study. This might be due to the fact that all the participants are new immigrants or would-be immigrants in Canada. Their perspectives and thinking are still more or less kept within the bounds of their previous life experiences and their original cultural beliefs. It is strongly suggested that future research focus on those Chinese immigrants who have been in North America for over five to ten years so as to see if there is a different pattern involved in their career decision making process and further investigate to what extent that potential pattern would be similar to or different from the well-known North American models regarding career decisions.

In terms of research methodology, the Critical Incident Design used in the present research could be used for the future research, however, with some modifications. For instance, during the data collection, the researcher could put out more specific questions to help participants keep to the relevant topic and elaborate it in much more detail. This will prevent, hopefully to a great degree, variation in the number and in the extent of specificity of the decision making activities reported.

Some other areas that are related to career decision making could also be the focus for future research involving Chinese immigrants, such as self identity.

Future research could also focus on the topic of developing theoretical career decision making models that could cover the issues Chinese immigrants might experience during their

career decision making. Counselling approaches need to continue to be studied and developed to

help these people effectively.

Conclusion

This study attempted to provide a frame of reference regarding the process of career

decision making of Chinese adults in Canada. This information is important because with

increasing number of immigrants from China to Canada, career decision making issues become

increasingly critical to the individuals, and to the society. Counsellors working with this

minority group of people could have an appreciation of the knowledge about these people's

career decision making issues. They could be informed with further information upon which to

develop programs to deal with career decision making issues that may challenge people from

China.

Twenty participants who were from Mainland China in recent years, and who were

mainly involved in the academic field were interviewed with the Critical Incident Techniques.

The tape recorded personal protocols were translated and transcribed and coded onto rating

sheets with various headings. The Critical Incident Techniques were continually used to analyze

and categorize the data. Finally, two similar patterns were developed from the categories, that

represent the participants' career decision making processes in China and in Canada. Another

two categories, separated from, and independent of the common patterns, were also identified,

which showed some additional part involved in these people's career decision making activities in

Canada.

A comparison of the literature with the research results indicated that the career decision

making pattern that was found in the research did not fit to the rational career decision making

theories and models reviewed in this research. The results reflected that these people's career

decision making processes were strongly influenced by external factors, cultural structures and

personal perceptions of the world. To this end, the social learning theory, and the interactive model of career decision making are partially compatible to these people's career decision making experiences. The research would be concluded with the idea that career decision making involving Chinese people is not a process of choosing one career over another out of people's internal qualities, rather it was a process of integrating external factors and social values into their career choices and decisions.

Finally, implications of career counselling were explored to help Chinese immigrants who might be challenged by career decision making issues. Future research related to career issues of this group of people were also suggested.

Reference

Adams, J.L. (1980). Conceptual blockbusting: A guide to better ideas. San Francisco: W. H. Freeman and Company.

Amundson, N. E. (1995). An interactive model of career decision making. Journal of Employment Counselling, 32, 11-21.

Bachhuber, T. D., & Harwood, R. K. (1978). Directions: A guide to career planning. Boston: Houghton Mifflin Company.

Behn, R. D., & Vaupel, J. W. (1976). Analytical thinking for busy decision makers: Thinking about uncertainty. Durham, N.C.: Duke University Institute of Policy Sciences and Public Affairs.

Borgen, W. A., & Amundson, N. E. (1987). The dynamics of unemployment. Journal of Counselling and Development, 66, 180-184.

Bordin, E. S. (1963). An articulated framework for vocational development. Journal of Counselling Psychology, 10, 107-116.

Brammer, L.M. (1979). The helping relationship: Process and skills. Englewood Cliffs, N.J.: Prentice-Hall.

Brayfield, A. H. (1961). Vocational counselling today. In E. G. Willianson (Ed), Vocational counselling--A reappraisal in honor of Donal G. Paterson, Minneapolis: Univer.of Minn. Press, 22-59.

Brenner, M., Brown, J., & Canter, D. (1985). The research interview uses and approaches. Academic Press.

Bridges, W. (1980). Transitions. Reading, Mass: Addison-Wesley.

Bridges, W. (1988). Surviving corporate transition. New York: Doubleday.

Brim, O. G., Glass, D. C., Lavin, D. E., & Goodman, N. (1962). Personality and decision processes: Studies in social psychology of thinking. Stanford University Press.

Burns, M. (1976). The book of think. Boston: Little, Brown and Company.

Carkhuff, R. R., & Anthony, W. A. (1979). The skills of helping: An introduction to counselling skills. Amherst, Mass.: Human Resource Development Press.

Cochran, L. (1991). Life-shaping decisions. Peter Lang Publishing, Inc., New York.

Cochran, L. (1993). Cited in the lecture of career course.

Cormier, M., & Cormier, L. S. (1979). Interviewing strategies for helpers: A guide to assessment, treatment and evaluation. Monterey, Cal.: Brooks/Cole.

Dessler, G. (1982). Organization and management. Reston, VA.:Reston Publishing company, Inc.

Dian, D.S. (1983). Brief communications: big me and little me: a Chinese perspective on self. Psychiatry, 46, 281-286.

Epperley, J.R., et al. (1977). Emphasis: Decision. Salt Lake City: Olympus Publishing Company.

Fels, R., Buckles, S., & Johnson, W. (1979). Casebook of economic problems and policies: Practice in thinking. St. Paul, Minn.: West Publishing Company.

Fitzgerald, L. F., & Crites, J. O. (1980). Toward a career psychology of women: What do we know? what do we need to know? Journal of Counselling Psychology, 27, 44-62.

Flanagan, J. G. (1954). The Critical incident technique. Psychological Bulletin, 51, 327-358.

Gati, I. (1986). Making career decisions--A sequential elimination approach. Journal of Counselling Psychology, 33, 408-417.

Gelatt, H. B. (1962). Decision-making: A conceptual frame of reference for counselling. Journal of Counselling Psychology, 9, 240-245.

Gelatt, H.B. (1989). Positive uncertainty: A new decision-making framework for counseling. Journal of Counselling Psychology, 36, 252-256.

Ginzberg, E., Ginsberg, S. W., Axelrod, S., & Herna, J. L. (1951). Occupational choice: An approach to a general theory. New York: Columbia Univer. Press.

Glaser, B. & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine.

Glover, J. A. (1980). Becoming a more creative person. Englewood Cliffs: Prentice-Hall.

Gonyea, G. G. (1963). Job perceptions in relation to vocational preference. Journal of Counselling Psychology, 10, 21-26.

Harren, V. A. (1979). A model of career decision making for college students. Journal of Vocational Behavior, 14, 119-133.

Hayes, J. R. (1981). The complete problem solver. Philadelphia: the Franklin Institute.

Heppner, (1978). A review of the problem-solving literature and its relationship to the counselling process. Journal of Counselling Psychology, 25, 366-375.

Hewer, V. H. (1963). What do theories of vocational choice mean to a counsellor? Journal of Counselling Psychology, 10, 118-125.

Hill, P. H., Edau, H. A., Chechile, R. A., Crochetiere, W. J., Kellerman, B. L., Ounjan, D., Pauker, S. G., Pauker, S. P., & Rubin, J. Z. (1979). Making decisions: A multidisciplinary introduction.

Hilton, T. L. (1962). Career decision-making. Journal of Counselling Psychology, 19, 291-298.

Holland, J. L. (1959). A theory of vocational choice. Journal of Counselling Psychology, 6, 35-44.

Hopson, B., & Adams, J. (1976). Towards an understanding of transition dynamics. In J. Adams, J. Hayes, & B. Hopson (Eds.), Transition: Understanding & managing personal change (pp.3-25). London: Martin Robertson & Co.

Hurst, J. B., Weiss, S. J., & Lesage, J. (1981). Case study analysis and follow-up action. The Social Studies, 72, 229-236.

Janis, I., & Mann, L. (1977). Decision making. New York: Free Press.

Jepsen, D. A. (1984). The developmental perspective on vocational behavior: A review of theory and research. In S. D. Brown & R. W. Lent (Eds.), Handbook of counselling psychology (pp. 178-212). New York: Wiley.

Katz, M. (1963). Decisions and values: A rationale for secondary school guidance. New York: College Entrance Examination Board.

Katz, M. (1966). A model of guidance for career decision making. Vocational Guidance Quarterly, 15, 2-10.

Koberg, D., & Bagnall, J. (1976). The universal traveler: A soft-systems guide to: Creativity, problem-solving and the process of reaching goals. Los Altos, Cal.: William Kaufmann, Inc.

Krumboltz, J. D., Mitchell, A. M., & Jones, G. B. (1976). A social learning theory of career selection. The Counselling Psychologist, 6, 71-80.

LaBrecque, M. (1980). On making sounder judgements. Psychology Todaty, 14, 33-42.

Leong, F. T. L. (1991). Career development attributes and occupational values of Asian American and White American college students. The Career Development Quarterly, 39, 221-229.

Louis, M. R. (1980). Surprise and sense making: What newcomers experience in entering unfamiliar organizational settings. Administrative Science Quarterly, 25, 226-251.

Marpel, F. A. (1977). Shared decision making. Beverly Hills: Sage Publishing.

McCaskey, M. B. (1977). Goals and direction in personal planning. Academy of Management Review, 454-464.

Montgomery, H., & Svenson, O. (1989). Process and Structure in Human Decision Making. John Wiley & Son.

Nicholson, N. (1987). A theory of work role transitions. Administrative Science Quarterly, 29, 172-191.

O'Hare, M. M. (1987). Career decision-making models: Espoused theory versus theory-in-use. Journal of Counselling and Development, 65, 301-303.

Osipow, S. H. (1983). Theories of career development. NJ: Prentice-Hall Englewood Cliffs.

Parkes, C. M. (1971). Psycho-social transitions: A field for study. Social Science and Medicine, 5, 101-115.

Patton, B. R., & Giffin, K. (1973). Problem-solving group interaction. New York:Harper and Row Publishers.

Roe, A. (1956). The psychology of occupations. New York: Wiley.

Roe, A. (1957). Early determinants of vocational choice. Journal of Counselling Psychology, 4, 212-217.

Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. The counselling Psychologist, 9, 2-18.

Schlossberg, N. K. (1984). Counselling adults in transition. New York: Springer.

Schurmann, L. (1968). Ideology and organization in communist China. University of California Press.

Simon, H. A. (1980). Problem solving and education. In D. T. Tuma and F. Reif (eds). Problem solving and education: Issues in teaching and research. Lawrence Erlbaum Associates, 81-97.

Smith, H. (1961). Psychology of adjustment. New York: McGraw-Hill.

Sue, D.W. (1981). Counselling the culturally different. New York: Wiley.

Super, D. E. (1957). The psychology of careers. New York: Harper.

Super, D. E., & Bohn, M. J. (1971). Occupational psychology. London: Tavistock.

Tiedeman, D. V., & O'Hara, R. P. (1963). Career development: Choice and adjustment. New York: College Entrance Examination Board.

Trice, H. M., & Morand, D. A. (1989). Rites of passage in work careers. In M. B. Authur, D. T. Hall, & B. S. Lawrence (Eds.), Handbook of career theory, (pp. 397-416). London: Cambridge University Press.

Young, R. A. (1992). The intentions of parents in influencing the career development of their children. The Career Development Quarterly, 40, 199-207.

Zunker, V. (1990). Career counselling: Applied concepts of life planning. Pacific Grove, Ca: Brooks/Cole.