FAMILY ENVIRONMENT AND YOUNG ADULTS' EVALUATIONS OF PARENTAL INFLUENCES IN CAREER DEVELOPMENT: AN EXPLORATORY STUDY

By

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Abstract

As an adjunct to the ongoing research of Young and Friesen (1986), this study explores the interrelatedness of family environment and young adults' evaluations of parental influences in children's career development. One hundred and fifty-six subjects, aged 18 to 25, completed demographic questionnaires and the Family Environment Scale (Moos & Moos, 1986). In addition, subjects were randomly assigned to complete one of four Q sorts to evaluate parental influences in children's career development. One of the resulting four subsamples ($\underline{n}$ = 41) was selected for factor analysis and qualitative analysis according to Q technique as described by Talbott (1971). Factor analysis of this subsample yielded four "person factors". Based on analysis of variance and chi-square analysis, socioeconomic status and gender differences between the person factors were found to be non-significant. As well, chi-square analysis revealed that family environment types (Billings & Moos, 1982) and person factors were unrelated. These findings were replicated using a second subsample of 39 subjects.

Although none of the variables were found to be significantly related, the qualitative analysis of the person factors led to the following conclusions:

1. The research methodology employed holds promise for further ecological research on career development, particularly because of its versatility in addressing both process and outcome variables.

2. Interactions between interpersonal variables and subjects' perspectives regarding the importance of these variables may deepen our understanding of (career) development.

3. Suggestions for future research are proposed. However, validation and clarification of the person factors is a necessary preliminary step.

4. Speculation is offered as to the long range benefits of this line of research to parents and career counsellors.

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Acknowledgement

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Chapter One: Introduction

In recent years the field of human development has experienced a heightened interest in the interrelatedness of the developing individual and the ecological context. Ecological study of human development involves, in part, scientific investigation of "the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives" (Bronfenbrenner, 1979, p. 21). This framework proposes that the individual both influences and is influenced by the environment. Interest in the ecological study of human development has been largely spurred by Bronfenbrenner (1979), and is now spreading to more specific aspects of human development such as social development (Patterson & Reid, 1984), cognitive development, and career development (e.g., Law, 1981; Schulenberg, Vondracek, & Crouter, 1984; Vondracek, Lerner, & Schulenberg, 1983; Young, 1984a, 1984b).

Applying ecological perspectives to the study of career development represents a fairly new and unique movement which holds promise for both theory development and career guidance and counselling. Potentially, the elements of the environment that could be considered important in career development are as varied as the environment itself. However, the greatest need for ecological research in relation to career development seems to be felt in response to the lack of interpersonal process variables that have been examined

(Friesen, 1984; Grotevant & Cooper, 1988; Schulenberg et al., 1984; Vondracek, et al., 1983; Young, Friesen, & Pearson, 1988). Whereas Bronfenbrenner (1979) emphasizes the ecological importance of interpersonal interactions at the moment-by-moment level in human development, most of the career development literature examines either intrapsychic factors or structural family factors that are out of the realm of interpersonal contact such as socioeconomic status, family size, birth order, and scholastic achievement. A need for research in career development at the interpersonal, or microsystem level (Bronfenbrenner, 1979) of the environment is clearly indicated.

At the microsystem level, career development takes place in the context of interpersonal relations, activities engaged in, and roles taken in institutions such as the work place, churches, schools, and the family. This research, as an extension of the ongoing research of Young and Friesen (1986), is concerned with the career development of children in the context of the family. Young and Friesen have explored what parents actually do to attempt to influence their children's careers and are currently exploring young adults' responses to these parental attempts. As an adjunct to this research, the question posed by the present research is: In what ways do young adults' evaluations of parental attempts to influence their careers vary as a function of the characteristics of the family environment?

The research questions and the procedures of the study are discussed in more detail in Chapter Three. What follows directly are a

few definitions that will orient the reader to the topic area. Following that is an overview of the literature of the influence of the family on career development and the rationale for the present research.

Definitions

Ecological Environment

According to Bronfenbrenner's (1979) theory of human development individuals are seen as being embedded in progressively larger environmental systems, one of which is the family. The family level of the environment, in which activities are engaged, roles are taken, and interpersonal relations are experienced, is called the microsystem. Activities are the tasks or operations in which the developing person or other people are seen to be engaged. A role is regarded as a set of behaviors and expectations associated with a position in society, such as that of mother, baby, teacher, friend, etc. Relations are defined by one person paying attention to or participating in the activities of another person in the same setting.

Molecular Versus Molar Activities

Behaviors that have only short-lived or minimal impact on and meaning for the developing person are molecular activities. In contrast, a molar activity involves a continuing process of acts (note plural form) that resist interruption because of the actor's desire to complete the purpose for which the acts are intended. A molar activity, then, "is an ongoing behavior possessing a momentum of its own and perceived as having meaning or intent by the participants in the

setting" (Bronfenbrenner, 1979, p. 45). The molar activities that are exhibited by others present in a situation "constitute the principal vehicle for the direct influence of the environment on the developing person (Bronfenbrenner, 1979, p. 45). Consequently, this research is concerned with molar rather than molecular activities.

Career Development

"Career development describes the lifelong behavioral processes and the influences upon them which lead to one's work values, choice of occupation(s), creation of a career pattern, decision-making style, role integration, self and career identity, educational literacy and related phenomena" (Herr & Cramer, 1984, p. 436).

Family Environment

Family environment, generally speaking, refers to the social climate that characterizes the family. Family environment is a multidimensional construct that is represented by the nature of interpersonal relationships among family members, the areas of personal growth emphasized in the family, and the basic organizational structure of the family (Moos, Insel, & Humphrey, 1974). Interpersonal relationships in the family may vary in terms of "the extent to which family members feel that they belong to and are proud of their family, the extent to which their is open expression within the family and the degree to which conflictual interactions are characteristic of the family" (Moos et al., 1974, p. 3). Areas of personal growth that are related to the family include the family's emphasis on

members developing autonomy and independence, on academic and competitive development, on intellectual and cultural development, on recreational activities, and on moral and/or religious development. The basic organizational structure of the family includes the degree to which predictable patterns (as opposed to spontaneity) such as orderliness in the home are valued, and the degree of control that is usually exerted by family members in relation to each other.

Career Influencing Events (CIEs)

Phase I of a research project by Young and Friesen (1986) employed a modification of Flanagan's (1954) critical incident technique "to elicit from parents descriptions of events and experiences that they employed to influence their children's career development" (Young et al., 1988, p. 31). These molar activities, which were used in the present research, have been coded, summarized, and transcribed to cards. Hereafter the incidents on the cards will be referred to as career influencing events (CIEs). The two sets of CIEs used in this study are listed in Appendix B.

More general application of the term is also possible. In this case, CIEs refer to the parental activities and roles experienced by children in relationship with their parents that are considered (by either the children or the parents) to be influential in the children's career development .

Intact Versus Disrupted Families/Marriages

Intact families are defined as those in which the parents are currently married or involved in a common-law relationship. Several possible marital situations constitute the criteria for a family to be classified as disrupted. These include situations where the parents are separated, divorced, remarried, or widowed. This method of classification has been employed in previous research (Slater, Stewart, & Linn, 1983).

Socioeconomic Status

"SES usually incorporates one or more of the following: paternal and maternal educational attainment, family income, and paternal (and sometimes maternal) occupational status" (Schulenberg et al., 1984, p. 130).

Chapter Two: The Influence of the Family on Career Development - An Overview of the Literature

It is intuitively obvious that the family plays a major role in human development, and, as many researchers have argued, in the specific area of career development. Research into the nature of this influence can be divided into two major areas: the influence of non-relational family factors, and the influence of relational factors on career development. Non-relational family influences include such variables as socioeconomic status, family size, birth order, and ethnic background. Relational family influences include such interpersonal variables as parental expectations and value transmission, parenting style, and the quality of the parent-child relationship. Research in the non-relational domain has been fairly extensive. However, studies that focus on the relational influences of the family on the career development of children are surprisingly limited.

Non-relational Factors

The vast majority of non-relational studies have focussed their attention on educational and occupational outcomes and the factors that mediate these outcomes. The status attainment literature, as it is called, has seen major contributions from authors such as Blau and Duncan (1967); Eder (1982); Haller (1982); Jordaan and Heyde (1979); Leibowitz (1977); Michael (1977); Portes (1982); Sewell, Haller, and Portes (1969); and Sewell and Hauser (1975).

The model employed in most non-relational studies can be described by one or more of the following equations:

1) $A = a_1X + eG + u_1$

2) $S = a_2X + b_2A + u_2$

3) $O = a_3X + b_3A + c_3S + u_3$

4) $Y = a_4X + b_4A + c_4S + dO + u_4$

(Leibowitz, 1977, p. 10),

where A is a measure of ability and is related to a set of family socioeconomic background variables X, genetic inheritance G, and a random term u1. The level of schooling attained, S, is a function of various background measures X, ability A, and a random term u2. Occupational status, O, is determined by background variables X, ability A, years of schooling S, and a random term u3. Income Y, is a function of X, A, S, O, and a random term u4 (Leibowitz, 1977).

In summary, the primary direct influences on eventual occupational status and income are personal characteristics such as schooling attainment, ability, and work experience. Some family background characteristics relate directly to income and occupational status, but their greatest influence is on schooling attainment and ability. Family variables combined with ability measures explain much of the variance in schooling attainment.

Several studies that employ within family methodology (i.e., studies using brothers) have indicated that common factors within families explain more of the variance in earnings than between family

factors such as parental education, occupation, and income (Leibowitz, 1977). Just what those common family factors are is not clear. Because of this, Leibowitz has concluded that "elements of the family environment [italics added] not crystallized in ability or schooling attainment may directly affect economic success - but the indices of family background we have been using do not measure all the relevant factors" (p. 21).

Clearly family environment plays a role in the career development of young people, and appears to be one of the "relevant factors" implicated by Leibowitz (1977). It is contended here that if the family environment is a probable influence on career outcomes, undoubtedly it also impacts (a) the interpersonal processes that parents and their children engage in around issues of career development, and (b) young adults' responses to these processes. The focus of this study is the relationship between family environment and young adults' evaluations of parental attempts to influence their children's career development.

Relational Factors

Parenting Style

Roe (Roe & Siegelman, 1964) was the first to suggest that relational factors may be important in influencing a child's career development. Roe proposed that differential child rearing practices lead children to either person or non-person oriented careers. She asserted that child rearing practices could be grouped into three major

categories and that each of these parenting styles had a different effect on the eventual career choices of children. She hypothesized that emotional concentration on the child (which includes being overprotective and/or being overdemanding) leads the child to choose a person-oriented career (i.e., careers that provide a high level of feedback and reward), that avoidance of the child (which includes rejecting and neglecting the child) leads the child to choose a non-person oriented career, and that acceptance of the child (i.e. encouraging independence and expressing warmth and love) leads the child to choose a career that balances person and non-person interests. Aside from a very few studies, however, little evidence has been generated in support of Roe's theory. Where support has been found, it has only been partial.

A case in point is a study by Green and Parker (1965). These researchers found that grade seven boys who reported warm, loving relationships with parents aspired to person oriented careers. Cold, rejecting relationships with parents were not related to career orientation. For girls, cold and rejecting parental styles were related to non-person oriented career aspirations, but career orientation was unrelated to warm and loving parental styles. Although these results provide partial support for Roe's (Roe & Siegelman, 1964) theory, the researchers concluded that the dichotomous person, non-person dependent variable does not take into account the range of interpersonal contact that is possible in most occupations.

Nonetheless, these results do seem to point to the influence of the parent-child relationship on children's career aspirations.

The Quality of the Parent-Child Relationship

Other research, using different dependent measures, indicates that the nature of interactions between parents and children may impact children's career development. Mortimer (1976), for example, found that "there are occupationally-related variations in the character of father-son relations and in the vocational socialization process" (p. 252). More specifically, Mortimer has shown that the eventual vocational attainments of boys are dependent upon the quality of the parent-child relationship. In particular, the congruence between father's and son's occupations (i.e., occupational transmission) is highest when the father-son relationship is close and when father's socioeconomic status is high. Whether similar conclusions can be drawn for girls is not known.

The quality of the parent-child relationship also appears to influence whether children eventually attain traditional or non-traditional gender-related occupations. Women who presently work in male dominated occupations are likely to have had mothers who were employed and/or close relationships with their fathers (Splete & Freeman-George, 1985). Males in non-traditional occupations, on the other hand, are more likely to have had working mothers, positive experiences with women who have influenced their career choices, and distant relationships with their fathers (Splete & Freeman-George).

Parental Support and Encouragement

Related to the quality of the parent-child relationship is parental support, which has been found to influence high school students' attitudes towards earnings and occupational aspirations (Goodale & Hall, 1976). Not surprisingly, Goodale and Hall also noted that boys received more parental support than girls. Similarly, Hauser (1971) has reported that children from families of higher SES tend to receive more parental encouragement for career related achievements than children from lower SES families, and that this relationship is stronger for males than females. However, it also appears that parental encouragement has a greater impact on girls than boys (Hauser, 1971).

In general, parental support and encouragement seem to be important influences on career development, but appear to have more impact on girls than boys. Marjoribanks (1985a), for example, examined adolescents' perceptions of 'supportiveness towards learning' of their families, teachers, and peers, and found that females academic aspirations tended to be influenced more by these ecological factors than males. Perhaps the less frequent support and encouragement that girls and children from lower SES families receive is seen as more valuable because of its novelty.

Parental Values

Another relational factor in the career development of children is parental values. Kohn (1969) reasoned that parental values guide

their behavior towards their children. In this regard, Kohn (1969) and Wright and Wright (1976) found that middle-class parents tend to value self-direction in their children whereas low SES parents value conformity in their children. These values are unquestionably related to career development, and no doubt to family environment as well.

Limitations of Relational and Non-Relational Research

Although many of the non-relational studies claim to explain an impressive proportion of the variance in educational and occupational attainment (e.g. Sewell and Hauser (1975) report that 42.6% of the variance could be explained by their model), this research has its limitations. First, it tends to be more descriptive of outcomes than explanatory of developmental processes (Friesen, 1984; Schulenberg et al., 1984). That is, although the process of educational and occupational attainment has been elucidated in structural terms, it is largely unclear what happens at an interpersonal level. Furthermore, we know nothing of the meaning such a process has to the individual. Pointing to this flaw, Bronfenbrenner (1979) asserts that the individual's construction of reality can only be inferred through an understanding of the activities, roles, and relations in which the person engages. These problems have been recognized by Schulenberg et al. (1984) who, in reviewing the status attainment literature, concluded that "while vocational outcomes are an integral component of vocational development, studying outcomes only offers little in terms of explanation" (p. 129).

A second limitation is that the career developmental process has been viewed primarily as an ontogenic process (Friesen, 1984) where contextual factors have been largely ignored and the interdependent nature of family interactions unrecognized (Schulenberg et al., 1984). Even when relational factors have been measured, the instruments often consist of only one or two items. These criticisms cannot be made categorically, however, since family size, sibling position, and the influence of significant others are contextual influences on the individual. In addition, socioeconomic status is an indicator of the social and economic position of the family in the broader social context (Bronfenbrenner, 1979). More accurately stated, then, the literature that examines the influence of the family on children's career development is limited by an overemphasis on sociological and structural influences, inadequate measurement of relational influences, and a lack of emphasis on interpersonal processes and interaction patterns (Young et al., 1988).

A third limitation of the literature is that many studies are outdated because they have not addressed the overarching sociocultural context over the course of history as it affects the family (Friesen, 1984; Schulenberg et al., 1984). Samples in the literature have been drawn, by and large, from intact traditional nuclear families. Over the past two decades, however, changes in the structure of the family have been dramatic. In addition to decreases in family size, we have seen increased rates of maternal employment thus

increasing the family's dependence on day care and similar child care facilities. Furthermore, more unmarried adolescents are becoming pregnant as are the number of these adolescents who choose to parent their children. Divorce and remarriage are occurring more frequently, and single parent families (usually headed by women) have become very common (Herr & Lear, 1984). Generalizability to the present is therefore highly questionable.

A final limitation pertains to gender bias in research methods. Very little of the research on the influence of the family on career development has included females. (In the overview of the literature given above, an effort was made to examine studies that did include women in their samples.) This failure to consider females' (as compared to males') vocational development has been noted by Friesen (1984) and Schulenberg et al. (1984). The problem of external validity is obvious when only half of the population is considered in research.

The present research attempts to reduce some of the methodological and conceptual flaws of the existing research on the influence of the family on career development. Rather than describing career outcomes solely as a function of structural features of the family, the present research examines the molar interactions of parents and their children, and how family climate influences young adults' evaluations of these interactions. The emphasis, therefore, is on descriptions of career developmental processes and the meaning of these processes in the eyes of young adults. Furthermore, contextual

factors (i.e., the characteristics of the family environment and the nature of CIEs) are an integral aspect of the research. By framing the research questions in terms of interpersonal processes within a social context it is hoped that the results will prove to be less affected by historical changes in family structure. Finally, since both genders have been included in the sample, the possibility that males and females may differ in their evaluations of career influencing events was also explored.

Research That Attempts to Move Beyond the Limitations

Family Environment/Family Social Climate

Very little research exists linking family system variables, such as family social climate, to career development. Consequently, a brief comment on the relationship between family environment variables and personal functioning will precede the discussion of the few attempts that have been made to link family social climate to career development.

Family environment, adolescent personality, and family types. Forman and Forman (1981), using the Highschool Personality Questionnaire, found that the characteristics of the family environment (using the FES) are related to various personality factors in adolescents. Some family environment characteristics appear to be associated with healthy personality characteristics while others are not. For instance, families that emphasize relationship dimensions produce adolescents who are relatively free from anxiety. "The open

acknowledgement and expression of conflict may have beneficial results as indicated by the self-assurance found in the children" (p. 166). These authors admit, however, that their study is limited by the fact that in examining the 10 independent subscales of the FES one may be mislead by the results, whereas looking at family type profiles would have provided data that more closely approximate reality. In this regard they state that since "no single family variable accounted for any major portion of variance.... [it would appear that] child behavior varies with total system functioning, more than with separate system factors" (p. 167).

Following this line of thought, a classification system based on Family Environment Scale profiles has been developed by Billings and Moos (1982, see Appendix E) who argue that

> the simultaneous consideration of several dimensions provides information beyond that obtained by the additive consideration of single dimensions. Typologies can organize information from several dimensions into a smaller number of configurations or, simply, family types. Each family type is seen as having implications for members' patterns of personal and social adaptation and health outcomes. (p. 27)

In their study, Billings and Moos (1982) found that individuals in family types characterized by high cohesion and low conflict tend to experience high personal functioning. On the other hand, members of

families that are characterized by high levels of organization and control tend to experience some dysfunction.

Issues of importance to the present research regarding the use of FES family type profiles are that (a) family types enable one to group families according to their environmental similarities for comparative purposes, (b) family types are more meaningful for interpretive purposes than individual subscales, (c) family type profiles are a closer approximation of reality than individual subscales, and (d) family types are related to individual functioning, and thus (undoubtedly) to career development processes.

Cohesion, adaptability and career development. Hesser (1984) is one of the few researchers who has attempted to link family system dynamics to career development. Based on the circumplex model developed by Olson, Sprenkle, and Russell (1979), Hesser made the following arguments: The two major dimensions of cohesion and adaptability describe family functioning. Extremes on either of these two dimensions (as measured by FACES (Olson, Bell, & Portner, 1978)) reflect poor family functioning while optimal functioning is achieved in the mid range. Hesser then hypothesized that, since a curvilinear relationship theoretically exists between family functioning and the two dimensions of family cohesion and adaptability, this same relationship should exist between family cohesion/adaptability and healthy career development.

The results indicated that, contrary to his hypotheses, the relationships between family system variables and career development variables were quite weak, and linear (rather than curvilinear). Hesser (1984) concluded that the results probably do not reflect the actual situation due to the poor reliability of the measures used. Additional analyses indicated that although the two dimensions of the FACES scale should, in theory, be uncorrelated, Hesser found that family adaptability and cohesion correlated at 0.43, suggesting that the construct validity of the FACES scale may be questionable. These results point to the necessity of using family social climate measures with higher degrees of reliability and validity (see the Instruments section below for reliability and validity information pertaining to the FES).

What is Known About How Parents Influence Their Children's Careers in Terms of Molar Activities

What do parents typically do? Using a modification of Flanagan's (1954) critical incident technique, Young and Friesen (1986), in Phase I of their research, interviewed 207 parents asking them in what ways they have attempted to influence the career development of their children. A total of 1,772 critical incidents were collected in this manner. After transcription of the interviews, the researchers developed a classification system specifically geared toward measurement of two microsystem events, namely activities and interpersonal relations (Bronfenbrenner, 1979). A subsample of 718

critical incidents were used to develop this coding system, and a second subsample of 837 critical incidents were used to confirm the categories (Young et al., 1988).

Highlights of the results indicated that, when parents acted independently of the child, the most common activity in which parents engaged was structures the environment. These activities involve the parent "changing or shaping the environment" (Young et al., 1988, p. 36) to facilitate the child's career development. Where parents were in face-to-face contact with their children, offering advice or suggestions was the most frequently occurring activity.

Sex differences were also apparent. Mothers and fathers differed significantly in the frequency of engaging in several of the activities. As well, parents appeared to differ in their interactions with boys and girls, and these differences seemed to favour boys. Having obtained these descriptive data, the obvious question is: What are the most valuable activities parents can engage in to facilitate their children's career development?

What are the qualities of good career influencing events? Herr and Lear (1984) have offered the following suggestions to parents and therapists who intend to facilitate children's career development. (Implicitly then, these are the postulated characteristics of valuable career influences.) With young children, it is beneficial to discuss their career values, to help them with career planning and expectations, to structure their environment in order to expose them to a wide variety

of career options, to communicate unbiased sex role expectations, and to facilitate their decision making emphasizing both independence and responsibility for one's choices. It is also valuable to encourage them to develop their own leisure interests, and to emphasize the importance of educational attainment.

Adolescents' career development can be facilitated by transmitting knowledge of educational and training alternatives, and by providing assistance in terms of locating sources of career information. Other valuable influences include encouraging them to become involved in volunteer or paid work experience, and reducing their anxiety about making the "right" career choice. Being aware of one's own expectations and any undue pressure one may be inadvertently exerting on adolescent children is also important.

In the same vein, Cochran (1985) has developed a set of workbooks called Helping Your Child Set a Career Direction: The Partners Program which are aimed at helping parents "facilitate a beginning foundation for [their children's] career development" (p. 1). Implicit, once again, is that the suggestions offered in the workbooks constitute good parental career interventions. Cochran asserts that it is beneficial to help children explore their interests, values and strengths in order to enhance their awareness of their career interests and capabilities, to help children reach a tentative career decision, and to help them plan a means of entering an occupation. Also important,

Cochran says, is a good working relationship with children in order to facilitate their efforts to launch a career.

How do children respond? Knowing what the experts think, we now must ask: What about the opinions of the recipients of this influence, the children themselves? How do children respond to the ways in which parents attempt to influence their career development? Phase II of the continuing research initiated by Young and Friesen (1986) -- of which the present study is an adjunct -- asks that very question.

Eighty of the 837 critical incidents that Young et al. (1988) used to confirm their coding system were selected on the basis of their representativeness of the categories. These 80 critical incidents (CIEs) were then summarized and transcribed to cards. Following that, the 80 cards were randomly divided into four sets of 20 cards each (Appendix B lists the cards from Set One and Set Two). Next, a sample of 156 young adults (aged 18-25) were randomly assigned to one of four groups of approximately 40 per group. Each of the four subsamples were then asked to Q sort the incidents, one set per subsample (i.e. 40 young adults ranked 20 incidents). Incidents were (first) ranked in terms of their value and (second) how likely it was that the subjects perceived that parents would engage in the activities. After each Q sort, subjects were asked to provide reasons for their selection of the three highest and lowest ranked incidents. Demographic information

and Family Environment Scale scores were also obtained from all of the young adults (see Appendix A and C).

These data are currently under analysis to determine which career influencing events are valued most and valued least by young adults, as well as how likely it is that parents would engage in the activities. These same data have been made available for the present research and have been used in the unique ways that follow.

Statement of the Problem

The primary purpose of this research is to address the question: Do young adults' evaluations of career influencing events vary as a function of the type of family social climate in which they are embedded?

Subproblems

In order to examine this question adequately, two preliminary questions must be addressed. First, given that young adults can be grouped into person factors (using factor analysis) according to the similarity of their evaluations of CIEs, what are the characteristics of these person factors? Specifically, for each person factor, what CIEs do young adults consider most and least valuable? Furthermore, since gender and SES are important variables in the career development literature, what are the characteristics of each of the person factors in terms of the proportion of males and females, and typical SES background?

A second preliminary question must also be addressed: What are the characteristics and demographic correlates of Billings and Moos' (1982) family environment types? This is an important question because the categorization procedure used in the present study differed slightly from Billings and Moos' procedure. Billings and Moos categorized families based on the mean of husband's and wife's FES subscale scores. In the present study, young adults were the only family members measured. For this reason, exploration of the characteristics of family environment types, where possible, is in order. In addition, it is hoped that this information will facilitate the qualitative exploration of the relationship between family environment types and young adults' evaluations of CIEs, which is the main purpose of this study.

Billings and Moos (1982) found that, of the eight family environment types, intellectual/cultural oriented families and conflict oriented families had the highest and the lowest SES respectively. This finding can be confirmed in the present study.

Further understanding of Billings and Moos' (1982) family environment types can be gained by investigating the following deductions: Due to the interpersonal turmoil that is likely to exist in conflict oriented and disorganized families, one would expect high proportions of marital disruption (i.e., separation, divorce) in these families. Conversely, since warm relationships should be the experience of support oriented families, one would expect high

proportions of intact marriages in these families. Finally, it would seem logical that young adults from independence oriented families would be more likely than young adults from other family types to be living away from their parents' residence.

The primary aim of this study, then, is to identify which family environment types are associated with the person factors mentioned above. For example, perhaps young adults who value CIEs where parents encourage independent decision making more than emotional closeness will be found to be from independence oriented families. And perhaps young adults from support oriented families will appear to value parental love and emotional support more than independent decision making.

In summary, this research addresses the following questions:

1. What are the characteristics of each person factor in terms of the career influencing events that are most and least valued for career development. And are these person factors related to either gender or socioeconomic status background?

2. What are the characteristics of Billings and Moos' (1982) family environment types in terms of socioeconomic status, the proportion of intact versus disrupted marriages, and the proportion of young adults living with their parents versus on their own?

3. Is there any relationship between person factors and family environment types (based on the proportions of young adults in each person-factor-by-family-environment-type cell)?

Chapter Three: Method

Participants

The sample was drawn by Young and Friesen (1986) and consisted of 156 volunteer young adults (68 males and 88 females). Subjects were between 18 and 25 years old (M = 21.2, SD = 2.3), and their mean background SES level, as measured by the 1981 Socioeconomic Index for Occupations in Canada (Blishen, Carroll, & Moore, 1987), was M = 53.3, SD = 17.6.

In the present research, two subsamples (n = 41 and n = 39) were randomly selected out of the total sample. With one exception, analyses of demographic data showed no significant differences between the two subsamples or between each of the subsamples and the total sample. Parents of subsample two (based on chi-square analysis) were found to have experienced fewer cases of marital disruption than parents of subsample one or parents of the total sample.

Young adults' participation was solicited by notices placed in two community colleges, a university, three government employment offices and a number of community centers. The notices indicated that volunteers were required to participate in a study of the influence of parents on young adults' career development. The sample represents all the persons who volunteered and could be present on the data gathering dates.

The young adult sample was intended to represent the population of potential volunteers for a project of this nature. However, the sample did appear to be biased in terms of the amount of education the young adults had completed. Fifty-one percent of the total sample reported completion of two or more years of post-secondary education, as compared to a B.C. lower mainland average of 24.6 percent (Census of Canada, 1986).

Instruments/Methodology

Q Methodology

Q methodology is based on the premise that "it is possible to study subjectivity in a manner that is objective, orderly, and scientific" (Dennis, 1986, p. 6; cf., Stephenson, 1980, 1984). Emphasis is placed on the uniqueness of the phenomenological experience of the individual and is therefore ideal for ecological studies of human development.

The Q technique involves collecting a sample of statements about the domain of interest, usually from interviews with the subjects being studied. In the case of this research, these statements consist of the career influencing events reported by parents in the Young and Friesen (1986) study that were summarized and transcribed to cards.

The next step in the Q technique involves subjects placing the cards in a limited number of piles along a meaningful continuum. Detailed instructions must be given to subjects at this point, since the procedure is quite complex and probably unfamiliar to most "test takers". In the case of this research, subjects were instructed to place

each CIE in one of seven piles -- representing the relative value of the CIEs for their own career development -- ranging from most valuable to least valuable. Subjects were asked to place a certain number of cards in each pile such that upon completion, the frequency distribution of cards in the seven piles would be approximately normal (see Appendix A). The instructions also included a definition of career development, on which subjects' evaluations were to be based: Career development was defined broadly to include not only the development of educational and occupational goals, but also planning and decision-making behaviors, as well as a sense of responsibility for one's goals.

Data analysis normally (and in the case of the present research) involves factor analysis, but of subjects rather than items. In this way, subjects, not items, load on the factors (which are called person factors). Following factor analysis, the person factors are qualitatively analyzed. In essence, a person factor can be understood to represent a common perspective among a group of individuals. Applying this concept to the present research, person factors reflect typical patterns of evaluations of CIEs among groups of young adults. For example, one group of young adults may tend to value CIEs involving scholastic achievement. We may call this perspective person factor I. Another group of young adults may favour CIEs that involve a close relationship with parents. This perspective may be labelled person factor II, and so on. "The factor analytic model -- in effect -- constructs

hypothetical types of persons based on the way the actual people... sorted the items" (Talbott, 1971, p. 15).

In addition to the unusual utility of Q methodology to explore phenomenological data, a further advantage is the reduction of many sources of error that normally threaten the validity of tests: "Problems with missing data, social desirability, 'undecided' responses, or response sets are virtually nonexistent, and the data tend to be highly reliable" (Dennis, 1986, p. 16).

A potential source of error inherent in the ranking procedure, however, is that subjects may have difficulty understanding and following the detailed and unfamiliar instructions that must be given. Failure to ensure comprehension of the instructions may result in invalid sorts (Dennis, 1986). If this does occur, though, it is likely that the subject's ranked profile will be missing items or contain duplicate items. In the few cases where this occurs, the subject can then be omitted from further analysis.

Family Environment Scale

Description. The Family Environment Scale (see Appendix C) consists of 10 subscales that measure the social-environmental climate of families. The 10 subscales (see appendix D) are said to measure three underlying domains as follows: the cohesion, expressiveness, and conflict subscales measure relationship dimensions; the independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and the moral-religious emphasis subscales

measure the personal growth dimension or goal orientation; and the organization and control subscales measure the systems maintenance dimension (Moos & Moos, 1986).

Reliability. Moos and Moos (1986) report FES internal consistency estimates based on a normative sample of 1,067 family members ranging from .61 (independence) to .78 (cohesion, intellectual-cultural orientation, and moral-religious emphasis). Two month test-retest reliability estimates (n = 47) range from .68 (independence) to .86 (cohesion).

Face validity. The FES appears to have good face validity in that it appears to measure what it claims to measure (by examination of the items). Although the 90-item scale is a bit lengthy, subjects are not likely to be disheartened because the test can usually be completed in about 15 minutes.

Content validity. Moos and Moos (1986) explain that the FES was constructed by sampling items from content domains derived from prior research and accompanying theory, as well as from structured interviews with families.

Construct validity. Vast amounts of research have been conducted using the FES. Moos and Moos (1986) claim high concurrent validity coefficients for all of the subscales (for example between Cohesion and other related measures such as dyadic adjustment (Spanier, 1976)). The use of trained raters have also yielded results indicating a high degree of concurrent validity. In terms of

discriminant validity, the results are acceptable, but not as strong as studies demonstrating concurrent validity.

The 1981 Socioeconomic Index for Occupations in Canada

The 1981 Socioeconomic Index for Occupations in Canada, developed by Blishen et al. (1987), was considered an ideal measure of socioeconomic status for the present research because it was well suited for the transformation of occupational titles to a single indicator of SES, and it was the most recent Canadian index of its kind. The index is "most applicable in situations where access to data is limited to occupational titles and where one desires a unidimensional, contextual indicator which locates individuals in the Canadian occupational hierarchy at a given point in time" (Blishen et al., 1987, p. 473). The index is based on the 1981 Census of Canada data for income and educational levels, and is calibrated to the 514 occupational categories listed in the Canadian Classification and Dictionary of Occupations (CCDO). SES scores on the index were calculated by a linear transformation of a combination of median income and educational level within a given occupation.

In the present research, however, family SES, not individual SES, was the desired information. Since both husband's and wife's occupational titles were obtained, family SES was assigned on the basis of the spouse whose SES score was higher.

Data Collection

It must be made clear that this research represents an extension of the research initiated in 1986 by Richard Young and John Friesen at the University of British Columbia. The purposes of the Young and Friesen (1986) research and their data collection procedures have been described in Chapter Two.

Although the use of data that were initially intended for another purpose is sometimes frowned upon, at least three questions were considered in deciding to use the pre-existing data.

First, consideration was given to the question of whether the research would lead to unique results. One unique feature of the present research as compared with the research of Young and Friesen (1986) is the postulate that young adults' evaluations of CIEs vary as a function of family environment types. Furthermore, Young and Friesen intend to analyze the CIEs in terms of their phase I coding system. In contrast, I have analyzed them anew since they may have taken on significantly different meaning in the process of summarization. (Recall that Young and Friesen (1986) developed their coding system using lengthy interview transcripts, not the summarized critical incidents that are shown in Appendix B.)

The second issue that was considered was whether the results would prove to be significant enough (in terms of theoretical progress or practical application) to warrant use of existing data. The

theoretical and practical significance of this research has been stressed in the preceding chapters.

Finally, consideration was given to whether the use of data intended for another purpose would produce a piece of research that is weak in methodological rigor. The limitations of the present research are discussed in a later chapter.

Data Analysis Procedures

1. One of the four randomized subsamples of young adults who completed the Q sort (question 3a of Appendix A) of CIEs (see Appendix B) in phase II of Young and Friesen's ongoing research was selected. For statistical reasons, selecting the largest subsample seemed most appropriate ($n = 41$). These subjects Q sorted Set One (Appendix B).

2. These subjects were then factor analyzed in terms of their Q profiles. The scree test was employed here to determine the number of person factors represented in the subsample. The person factor on which each subject loaded most strongly was determined on the basis of factor loadings greater than .50.[1]

3. The typical Q-ranked profile (factor array) for each person factor was then calculated. The procedure described by Talbott (1971) was employed here, as follows: Following factor analysis, a weight was calculated for each subject on the basis of their highest factor loadings.

Weights were calculated by

$$\text{weight} = \frac{r}{1 - r^2,}$$

where r equals the subject's factor loading. Weighted item scores for each person factor were then calculated by averaging the sum of each subject's weighting times his or her raw item score for a given item. Weighted item scores were then converted to z-scores. This was accomplished by first calculating the mean and standard deviation of the weighted item scores for each factor. The z-score of a given item for a given person factor is then calculated by subtracting the mean from the weighted item score and dividing by the standard deviation. Finally, factor arrays were arranged by ordering the z-scores and determining the items associated with the scores.

4. The factor arrays of each person factor were then qualitatively analyzed. Interpretation and comparison of the person factors required a very thorough and rigorous procedure, as follows:

First, for each person factor, the most valuable items (items with z-scores of 1.00 or more) were examined for common themes. Common themes were then identified for the least valuable items (items with z-scores of -1.00 or less). Next, themes were integrated and clarified by comparing the most and least valuable items. This first examination of the items resulted in initial factor interpretations.

Next, for each person factor, subjects' explanations for their placement of the items in the most and least valuable positions (see

questions 3b and 3c in Appendix A) were examined. This new information was compared to and integrated with the initial factor interpretations. These interpretations were then checked by examining the complete item arrays for each person factor.

Items that differentiated one person factor from any of the others were then identified. This was done by comparing z-scores for all 20 items on one factor with every other factor. When the difference between z-scores equalled 1.00 or greater, this item was considered an item that differentiated one person factor from another. Any new information gained by such comparisons was integrated into the factor interpretations.

Next, items that differentiated one person factor from the other three person factors were identified. Such items were identified on the basis of z-scores that were higher (or lower) for one person factor than all other person factors. Factor interpretations were again adjusted when necessary.

Finally, an impartial graduate student in counselling psychology who is familiar with Q methodology validated the interpretations of the person factors by critically examining the strength of the interpretive arguments.

5. The proportion of males and females represented on each person factor was then determined and submitted to chi-square analysis. Also, the typical SES background of the members of each person factor was determined.

6. The exploration of family environment types involved grouping the entire sample of 156 young adults into eight family environment types on the basis of their FES scores and the classification rules specified by Billings and Moos (1982) (see Appendix E). The expected frequencies of family environment types (based on the findings of Billings and Moos) were as follows. Independence oriented families were expected to make up 14.2% of the sample (n = 22); achievement oriented families, 11.2% of the sample (n = 17); structured moral/religious families, 17.6% of the sample (n = 27); unstructured moral/religious families, 6.0% of the sample (n = 9); intellectual/cultural oriented families, 13.1% of the sample (n = 20); support oriented families, 15.3% of the sample (n = 24); conflict oriented families, 5.2% of the sample (n = 8); and disorganized families, 7.5% of the sample (n = 12).

7. Mean FES subscale scores were obtained for each family environment type. From these, the salient features of family environment types were identified on the basis of subscale t-scores that were below 40 or above 60 (see Appendix F).

8. Using chi-square analyses, the characteristics of each family environment type were determined. Variables of interest (see Appendix A, demographic information) were the SES level of each family environment type, the proportion of intact (versus disrupted) families, and the proportion of young adults living with their parents (versus on their own).

9. Finally, for each person factor, the proportion of subjects from each of the family environment types was determined. The nature of this relationship was the primary focus of this research.

10. Steps 1 through 5 and step 9 were replicated with another random subsample of 39 young adults (those who Q sorted Set Two in Appendix B) in order to increase external validity.

Chapter Four: Results

Factor Analysis of Subjects

With the criterion eigenvalue set at 1.0, principal components analysis of the n = 41 subjects who Q sorted Set One revealed the existence of 11 person factors. This solution was submitted to a varimax rotation in order to achieve simple structure. It was decided, however, that this solution was inadequate for a number of reasons. First, it became clear in the qualitative interpretation of 11 factors that comparisons of the factors were complex and cumbersome, and tended to leave one feeling overloaded with information. It was believed that fewer person factors would be more parsimonious and qualitatively meaningful. Second, the scree test (see Figure 1) indicated that the slope of the eigenvalues by person factors curve seemed to level off after the fourth factor. Third, the cumulative proportion of variance explained by the first four factors was 60.0 percent and each person factor beyond the fourth accounted for, at most, only five additional percent of the variance. Fourth, the majority (63.4%) of the subjects who Q sorted Set One loaded on one of the first four person factors. Finally, statistical comparisons of person factors beyond the fourth one (in terms of the demographic and family environment variables) were not feasible because they consisted of only one or two subjects each (with the exception of person factor V, which consisted of three subjects).

Figure 1. Scree test showing that eigenvalues level off after the fourth factor.

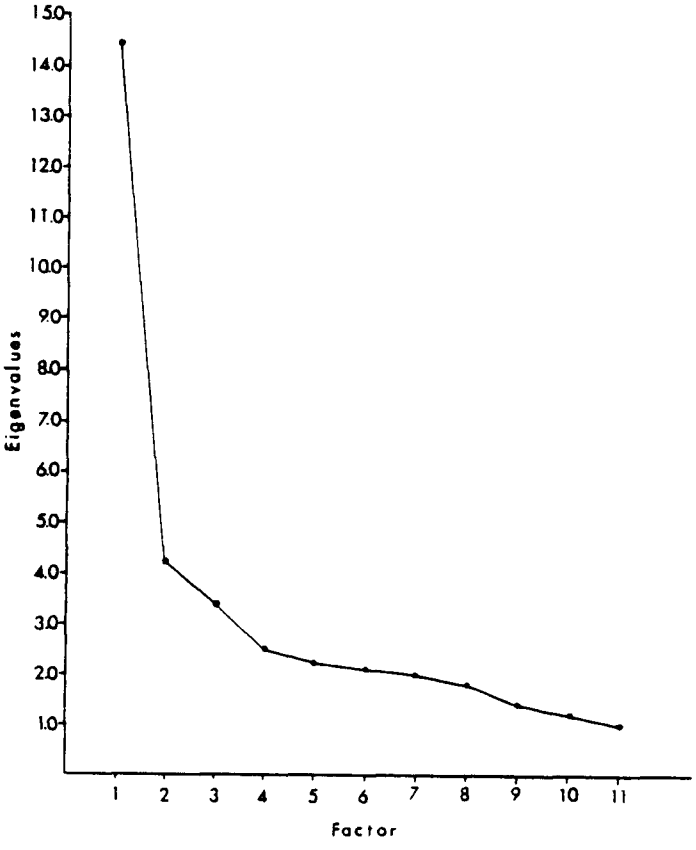


Table I shows the four factor solution including subjects' factor loadings and the cumulative proportion of variance explained by each factor. Factor membership was determined by factor loadings of .50 or greater (as suggested by W. Boldt, personal communication, February 24, 1989).[1] In general, this criterion proved adequate. Two subjects, however, had loadings of greater than .50 on more than one factor. In this case, factor membership was decided by the largest factor loading and caution was taken in using their comments for factor interpretation.

Table I

Factor Structure Resulting from Principal Components Analysis of Subjects' Q Profiles

	Person Factors			
Subject ID	I	II	III	IV
003[a]	.02	.09	.30	.08
006	-.01	.89	-.04	.12
011	-.01	.68	.48	.08
015	.12	.18	.68	-.11
020	.48	.61	-.12	.20
022[a]	.08	.12	.19	-.07
034[a]	-.01	.20	.51	-.05
041[a]	.30	-.05	.07	-.20
045	.76	.20	.12	.07
046	.30	.29	.62	-.18
047	.11	.06	.74	.07
048	.12	.76	.28	.29
050[a]	.20	.08	.06	-.05
057	.77	.24	.27	-.22
061[a]	.10	.30	.18	.05
064	.48	.53	.17	.00
065[a]	.31	.20	.09	-.01
069[a]	-.14	-.04	.13	.39
074	.21	.11	.84	.21
077	.35	.14	.65	-.01
078	.62	.05	.63	.08
085	.12	.20	.48	.69
089	.68	.02	.16	-.06
092[a]	.42	.39	.43	.14
101	.31	.58	.27	.10

(table continues)

Table I continued

Factor Structure Resulting from Principal Components Analysis of Subjects' Q Profiles

	Person Factors			
Subject ID	I	II	III	IV
104[a]	.17	-.01	.24	.02
108[a]	.26	.03	.23	-.21
110[a]	.41	.26	.16	-.00
116[a]	.27	.07	.15	.17
120	.57	.23	.54	.22
123[a]	.12	-.12	.15	.02
128	.31	-.05	.69	-.22
130	.30	.58	.24	.08
133	-.08	.26	.53	.25
137	.22	.06	-.23	.55
140	-.08	-.57	.17	.03
148	.20	.78	.18	-.25
150[a]	.11	.38	.15	.22
151	.56	.23	-.01	.03
153	.75	-.01	.26	.18
156	.01	.15	.02	.87
Cumulative Proportion of Variance	35%	46%	54%	60%

Note. n = 41

[a]These subjects were eliminated from further Q analysis because either their factor loadings did not reach the .50 criterion or they loaded more strongly on one of the factors beyond the fourth.

Person Factor Interpretations

Initial person factor interpretations were constructed from qualitative analysis of the Q items alone. These initial interpretations were then compared with subjects' explanations for their selection of the most and least valued items (i.e., their answers to questions 3b and 3c of Appendix A). The final interpretations presented below include quotations of subjects' comments in order to add clarity. Quotations of the Q items have been italicized in order to distinguish them from subjects' comments.

Person factor I: education, responsibility, and independence from parents. The most valuable CIEs, according to the six young adults who loaded on this factor, are items 47, 23, and 41. The least valuable CIEs are items 14, 20, 12, and 69 (see Table II).

Qualitative analysis of this person factor suggests that, for these young adults, the most important dimensions of career development are personal responsibility, independence from parents, and a good education.

The most prominent themes that emerge suggest that independence and personal responsibility are very important to this type of person. There is much evidence in support of this point. For instance, item 47 reads, "Parents expect their children (age 10 or 11) to assume responsibility for some household chores when both parents are employed."[2] Reflecting on this item, one subject commented, "[I] learned very valuable responsibilities that make me independent..."

Table II

Value of Items According to Young Adults Who Loaded on Person Factor I

Z-score	Item
	Most Valuable Items[a]
1.86	47. Parents expect their children (age 10 or 11) to assume responsibility for some household chores when both parents are employed.
1.27	23. Parent provides child with lessons in budgeting to teach responsibility with money.
1.08	41. Parent advises teenager to stay in school to increase future earning potential and occupational flexibility.
	Least Valuable Items[b]
-1.18	14. At teenager's request, parent employs child during the holidays at his/her place of work.
-1.26	20. Parent acts as buffer between child and other parent by involving child in joint project with self.
-1.53	12. Parent becomes a cub leader when child is enrolled in cubs.
-2.19	69. When teenager is upset about having too much homework, parent divides the work with the child and does half of it.

[a]Items with z-scores of 1.00 or higher. [b]Items with z-scores of -1.00 or lower.

Also highly valuable to the young adults on this person factor is item 23. It states, "Parent provides child with lessons in budgeting to teach responsibility with money."[2] Here again, learning to manage life's responsibilities is central.

The items ranked as least valuable are also indicative of these people's desire for independence and responsibility. Item 69 relates how "when [a] teenager is upset about having too much homework, [the] parent divides the work with [the] child and does half of it."[3] Referring to this item, one subject remarked, "You should learn to cope with your work load or adjust it, but not by letting parents do the homework." Another subject added that the "parent is getting too involved in [the] child's homework, which isn't going to help [the] child do things on his/her own." The same concern to develop the child's independence and responsibility is expressed by another subject: "Parents should never do child's homework. Otherwise, child will depend on parents for doing it next time."

Another item ranked low in importance (item 20) says, "Parent acts as buffer between child and other parent by involving child in joint project with self." This item seems to demonstrate how these young people believe it is important to take responsibility in their relationships. One subject commented that the parent who acted as a buffer was not helpful "because the child... isn't taking responsibility."

In large part, these people's desire for independence seems to be expressed in their need to do things apart from their parents. For example, item 12 reads, "Parent becomes a cub leader when child is enrolled in cubs."[3] To these people, this kind of parental involvement thwarts the development of independence. As one subject remarked, "Parents should give chances for one to learn to be independent."

Another commented that the "child should be encouraged to become independent." Still another concluded that a "child needs to do activities on his/her own to build independence."

Item 14, considered not at all valuable to these people, further demonstrates the observations noted so far, particularly how their parents should encourage independence. Item 14 states, "At teenager's request, parent employs child during the holidays at his/her place of work."[3] In response to this item, one subject wrote, "Parent should tell child it's better to find own work..." Another subject commented, "The child should be encouraged to look beyond the family for work to build up own confidence."

The qualitative data also suggest that this type of person places a high value on education. Learning and high educational achievement seem to be important to them. This is apparently why item 41 was ranked among the most valuable items: It states, "Parent advises teenager to stay in school to increase future earning potential and occupational flexibility." One subject noted that this item emphasizes "the benefits of schooling [and] education." Another subject revealed that, "[my parents] always stressed [the] importance of education and getting good grades. Therefore, now [I] always strive for top marks." Regarding the least valuable items, one subject wrote, "These activities are not valuable because they do not help me learn anything."

In summary, the major themes that emerged seem to indicate that, in order to experience optimal career development, these people

feel they need to be well educated, independent from their parents, and responsible. One subject's comment -- "these activities teach you the importance of education and self-reliance or independence" -- comes very close to capturing the essence of the perspective of those loading on person factor I.

Person factor II: education, personal responsibility, and wise parental guidance.[4] According to the nine young adults who loaded on this factor, items 41, 65, 86, and 80 are the most valuable CIEs and items 101 and 42 are the least valuable CIEs (see Table III).

The thinking of these young adults, based on the predominant themes that emerged out of the items and subjects' comments, can be summed up as follows: It seems they believe that if their parents guide them wisely, they will be enabled to develop personal responsibility and be encouraged to continue with their education. To the degree that these conditions are met, they reason, the chances that they will be able to find employment and be successful in their careers are improved.

In terms of the value of higher education, one subject expressed some regret about quitting early: "Parental intervention in an immature decision to quit school could have been very helpful..." This subject was reflecting on the highly valued item 41, which states, "Parent advises teenager to stay in school to increase future earning potential and occupational flexibility."[2] Another subject was glad about

having received such advice: "By advising me of the 'real' world and opportunities with and without an education, I learned the difference

Table III

Value of Items According to Young Adults Who Loaded on Person Factor II

Z-score	Item
	Most Valuable Items[a]
2.24	41. Parent advises teenager to stay in school to increase future earning potential and occupational flexibility.
1.22	65. Parent stops reminding child about paper route responsibilities, deciding child should deal with the consequences of forgetfulness.
1.16	86. Parent pushes teenager to cope with difficult school work and checks that this is Okay with the child.
1.10	80. Parents involve teenager in career counselling program and discuss school issues with their child.
	Least Valuable Items[b]
-1.80	101. Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner regardless of race or appearance and stresses the importance of love.
-2.03	42. Parent advises 10-year-old to be smart about fighting and not do it on the school grounds.

[a]Items with z-scores of 1.00 or higher. [b]Items with z-scores of -1.00 or lower.

through the eyes of my parent." Item 86 expresses the importance of education as well: "Parent pushes teenager to cope with difficult school work..."[2] One subject's comment reflects these people's concern for persistence in education as an important aspect of future career success: "These items [sic] have caused me to stay in school and to look to the future, though the present work load may be difficult to handle."

The development of personal responsibility appears to be another essential to career development, which, according to these people, seems to imply the awareness that one's present actions have future consequences. Item 65 (among the most valuable items) illustrates this interpretation: "Parent stops reminding child about paper route responsibilities, deciding child should deal with the consequences of forgetfulness." Reflecting on this item, one subject wrote, "[I would be] taking responsibility for my own actions." Another subject recounts how "after a parent stopped nagging I learnt the hard way responsibility [sic]." One other subject commented that, "#65 encourages the development of responsibility in children."

With a good education and the sense that one's actions have future consequences, according to these young adults, comes greater ease in finding work, higher income, and greater occupational flexibility. As one subject noted, "My parents have encouraged me to stay in school to better myself [with] a higher income and better work flexibility." Another subject argued that the top ranking items

reflected "the push for education, to promote job placement and stable lifestyle."

Achievement of these goals appears to be largely due to the wise influence of their parents. Wise parental guidance seems to include exposing children to information about the work world, encouraging responsibility (which may mean either refraining from nagging, or pushing the child, depending on the situation), and allowing them to make their own career decisions. Commenting on the most valuable items, one subject remarked, "[these items] are the most valuable because I think I need some guidance in deciding what I [would] like to do with my life. I mean guidance, not my father's decision."

To delineate these people's notion of wise parenting further, the qualitative data suggest that there are at least two ways that parents can provide their children with information about the work world. One of the best ways is to involve them in some form of career counselling as in item 80: "Parents involve teenager in career counselling program and discuss school issues with their child."[2] One subject regretted never having had such an opportunity: "#80 is very important - should be stressed - wasn't in my family."

Another way of providing career related information is by discussing it directly. One subject wrote, "Parental intervention... could have been very helpful in terms of providing a mature perspective..." Another subject made a similar comment: "By advising me of the 'real' world... I learned... through the eyes of my parent." It is

interesting to note that discussion of the work world (items 80 and 41) seems to be appreciated more than actual exposure to the parent's place of work (as in item 39, z = 0.21, and item 14, z = -0.36).

In terms of encouraging these young people to be responsible, it appears that their parents need to be wise in deciding whether to refrain from nagging or to try to motivate them. It seems that if the child does not care much about his or her responsibilities, nagging and reminders should be avoided. For example, in the highly valued item 65 (cited above), a parent stops reminding a forgetful child about the responsibilities of a paper route. On the other hand, if the child cares about his or her responsibilities (such as educational responsibilities), but is simply discouraged, a little push to persevere might be greatly appreciated. This seems to be the case in the highly valued item 86: "Parent pushes teenager to cope with difficult school work..."[2] Of course knowing when to push and when to refrain may at times be difficult to discern, so it may be appropriate to simply ask the child. For instance, the parent in item 86 "...checks that [pushing] is Okay with the child." When the parent acts judiciously, these young people are likely to be grateful.

The one area that these young people seem to want their parents to avoid (in terms of its value for career development) is their personal relationships. This area is not likely to be seen as important because these people tend to believe that relationships are not directly relevant to choosing a career, acquiring job skills, or finding

employment. Both item 101 and item 42 (the least valuable items) describe a parent discussing relationships with the child. Item 101 states, "Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner... and stresses the importance of love."[3] Item 42 reads, "Parent advises 10-year-old to be smart about fighting and not do it on the school grounds." Regarding these items, one subject explained, "Teaching a child about relationships will not directly help in career development." Another subject wrote, "Fighting and marriage are not job skills."

Worthy of mention is the fact that these young adults ranked items 12, 20, 42, and 101 (each are in some way related to interpersonal relationships) even lower than item 69 in which a parent takes over half of the child's homework responsibilities. In fact, item 69 received a higher score ($z = -0.54$) from these young adults than the young adults on any of the three other person factors. Apparently parental involvement in these young adults' relationships is even less valuable for their career development than parental interference with their school responsibilities.

In distinguishing person factor II from person factor I (see Table VI for further comparisons), it is important to note how the meaning of personal responsibility seems to differ for these two groups. For the young adults on person factor I, personal responsibility seems to imply management of life's daily affairs such as household chores and financial matters. For subjects on person factor II, however, personal

responsibility seems to focus on the awareness that present actions have future consequences.

In summary, the major themes that emerged for these people suggest that they place a high degree of importance on education and personal responsibility for their career development. What they appreciate from their parents appears to be information about the world of work and carefully directed encouragement to be responsible. These people do not seem to value information, advice, or discussion about interpersonal relationships because relationships are believed to be only indirectly related to one's career development.

As a footnote, the one subject who loaded negatively on this factor seems to differ from the others in two primary ways. The first and most salient difference is this person's apparent rejection of any form of parental influence or guidance: "This [career] decision was made entirely by me and parental influences were not at all considered."

The second major difference appears to be this person's perception of the value of interpersonal relationships in career development. For example, item 101, item 20, and item 42 deal with various aspects of interpersonal relationships and were each ranked highly.

Person factor III: personal and parental responsibility. Items 65, 76, and 47 are considered the most valuable CIEs according

to the eight young adults who loaded on person factor III. The least valuable CIEs are items 78, 20, 42, and 69 (see Table IV).

Table IV

Value of Items According to Young Adults Who Loaded on Person Factor III

Z-score	Item
	Most Valuable Items[a]
1.52	65. Parent stops reminding child about paper route responsibilities, deciding child should deal with the consequences of forgetfulness.
1.31	76. Parent, upset about child's poor report card, suggests a study schedule to help teenager improve grades and remain active in sports.
1.13	47. Parents expect their children (age 10 or 11) to assume responsibility for some household chores when both parents are employed.
	Least Valuable Items[b]
-1.07	78. Parent not only talks to 19-year-old about the importance of university education but goes back to school to set an example.
-1.16	20. Parent acts as buffer between child and other parent by involving child in joint project with self.
-2.11	42. Parent advises 10-year-old to be smart about fighting and not do it on the school grounds.
-2.16	69. When teenager is upset about having too much homework, parent divides the work with child and does half of it.

[a]Items with z-scores of 1.00 or higher. [b]Items with z-scores of -1.00 or lower.

Qualitative analysis of these items and the comments given by these subjects revealed a prominent emphasis on the importance of responsibility for career development. These young adults seem to believe that the development of a sense of personal responsibility, even more than education, is the main focus of healthy career development. As well, they seem to be equally concerned that their parents act responsibly towards them.

To these people, personal responsibility apparently constitutes being capable of handling life's daily tasks (e.g., household chores and homework), making one's own decisions (e.g., whether or not to follow through on commitments, and deciding upon educational goals), and maintaining healthy interpersonal relationships.

Their desire to handle everyday tasks is reflected in the highly valued item 47 in which the parents expect the child to assume responsibility for some household chores. Two subjects reiterated their desire to develop this kind of responsibility: "...these activities teach the child (me) responsibility", and "47 would teach responsibility."

Because these subjects want to be responsible themselves, they expect their parents to act responsibly as well. Parents who act responsibly have many qualities. First, they offer their children possible solutions to problems. For instance, in item 76, the parent "upset about child's poor report card, suggests a study schedule to help teenager improve grades and remain active in sports."[2] One subject's comment about this item read, "parents help in a responsible way."

Another subject called it, "constructive advice." Another said, "76 shows a constructive way of dealing with problems." Ideally, when parents offer possible solutions to problems, they are (in the words of one subject) "...helping the child to help him or her self".

Another characteristic of responsible parents, in the eyes of these young adults, is their ability to work together as a harmonious parental team. In item 20 (among the least valuable items), one parent protects the child from the other parent (who is presumably in conflict with the child). Item 20 therefore indicates a lack of parental unity. Comments on this item include: "No parent should have to be a buffer for another parent", "20 lets the child hide behind the parent either physically or emotionally. This does not help the child to become an independent, self-reliant person", and "Parents [should] both be supportive [and] work together to help [the] child. He/she shouldn't need to be protected from the other".

The qualitative data also suggest that these young adults believe responsible parenting includes resisting the temptation to rescue children from the natural consequences of their behavior. Implicitly, the parent's actions should reflect the attitude of valuing the child's self direction. Item 65 states, "Parent stops reminding child about paper route responsibilities, deciding child should deal with the consequences of forgetfulness."[2] Several subjects explained why this item was considered so valuable: "...decisions are made by the child", "parents help in a responsible way rather than telling or ordering the

child", "I would have benefitted from... learning to deal with the consequences", and "allowing child freedom of choice." One subject pointed out the centrality of the parent-should-refrain-so-that-child-can-experience-consequences dynamic: "The parent who allows [a] child to experience the consequences of their actions or inactions is building some fundamental motivations for building blocks."

It follows that these subjects react very negatively to item 69 in which the parent takes responsibility for the child's affairs by doing half of the child's homework. Subjects' comments were many: "...taking responsibility from a child sets a poor example for children and makes them helpless", "dividing homework and doing half isn't teaching the child anything about responsibility", "it doesn't help the child learn if his homework is done for him", and "helping a child by doing the work for them is harmful in the long run".

In addition, it seems that this type of person does not want his or her parents to take responsibility for setting educational goals. In item 78, the parent's behavior was apparently construed by these young adults as pressuring the child to get a university education. The item states, "Parent not only talks to 19-year-old about the importance of university education but goes back to school to set an example."[3]

Parental advice about how and where to fight (as in item 42[3]) also illustrates what responsible parents should not do. Subjects' comments included the following: "Bad advice", "Parents must always teach their children to be humane and just", "#42 is teaching the wrong

lesson. It should be don't fight, not don't fight on the school grounds [italics added]", and "violence shouldn't be encouraged anywhere".

Instead, it appears that these people want their parents to facilitate their sense of responsibility in relationships. For example, in item 101[2] (which received a score of z = 0.83), the parent gives the teenager freedom to make an independent decision regarding a marital partner. The importance of being responsible in relationships is a value that is shared with the subjects who loaded on person factor I and contrasts with the views of the people who loaded on person factors II and IV (see Table VI for further comparisons). The latter two types of people react negatively to parental involvement in their social lives.

Person factor I is similar to person factor III in that both types of young adults place a great deal of importance on personal responsibility. For both types of people this implies managing daily tasks in life and maintaining healthy relationships. Young adults on person factor III add to this conception of responsibility the necessity of making one's own decisions. This view of responsibility contrasts with that of the young adults who loaded on person factor II. The latter subjects tend to define responsibility as an acceptance of the fact that one's present actions have future consequences.

In addition, it appears that the young adults who loaded on this factor, factor III, place less emphasis on the intrinsic value of education than do the subjects who loaded on factors I and II. Those

loading on factor III tend to view personal responsibility as more widely applicable to career development than education. This may explain why items that focus on the value of education, such as item 41 ($z = -0.07$) and in particular item 78 ($z = -1.07$), are de-emphasized in their importance for career development.

In summary, the values of the subjects who loaded on person factor III (in terms of career influencing events) are best described as follows. For these subjects, personal responsibility seems to be the most important factor in their career development. It is therefore not surprising that the most valuable way their parents can facilitate these young adults' career development is by acting responsibly towards them. To these young adults, responsible parenting involves a number of attitudes and actions: offering possible solutions to problems, acting as a harmonious parenting team, refraining from rescuing children from the consequences of the children's behavior, refraining from taking on the children's own responsibilities (e.g., homework), valuing self direction in the children (e.g., allowing them to set educational goals), and encouraging the child's sense of responsibility in relationships.

Person factor IV: self-reliance and parental modeling. The three subjects who loaded on this factor consider items 82, 78, and 39 to be the most valuable CIEs while items 101, 69, and 63 are considered the least valuable (see Table V).

Table V

Value of Items According to Young Adults Who Loaded on Person Factor IV

Z-score	Item
	Most Valuable Items[a]
1.73	82. Parent makes a point of doing jobs around the house that are not typical for parent's sex, to teach teenager the importance of self-reliance.
1.64	78. Parent not only talks to 19-year-old about the importance of university education but goes back to school to set an example.
1.43	39. Parent takes child to own place of work to teach child about the job and stresses the importance of education.
	Least Valuable Items[b]
-1.39	101. Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner regardless of race or appearance and stresses the importance of love.
-1.40	69. When teenager is upset about having too much homework, parent divides the work with child and does half of it.
-1.94	63. Parent encourages "stay-at-home" teenager to go to a dance to be with other youngsters and have fun.

[a]Items with z-scores of 1.00 or higher. [b]Items with z-scores of -1.00 or lower.

These items, and the comments of the young adults who loaded on this person factor suggest that these subjects place a strong emphasis on the development of self-reliance as an important aspect of career development. What they seem to value most from their parents

is modeling. Parental examples of educational achievement and freedom from the confines of traditional gender roles are seen by these young people as highly valuable to their own career development.

To illustrate these attitudes in more detail, let us first focus on the degree of importance these people place on becoming self-reliant and moving beyond traditional gender roles. In item 82, the "parent makes a point of doing jobs around the house that are not typical for the parent's sex, to teach [a] teenager the importance of self-reliance."[2] Regarding this item, one subject wrote, "[the parent behavior] would give me role models to two important concepts: self-reliance and freedom from traditional male and female role confines." Another subject seemed impressed by the fact that his/her "foster mother ran the farm in all capacities."

Because these people are seeking to rely on themselves, they do not appreciate parents who do things for them, even if the task is not easy. Item 69, which these people consider not at all valuable, describes a parent who does half of a teenager's homework. In explaining why this incident is not helpful for career development, one subject said, "69 would have taught me the 'dreadful dependency'". Another wrote, "[lots of homework] is an opportunity for extra learning". Extra learning, in turn, could be seen as a means to greater self-reliance.

Parents of these young adults can influence their children's career development most effectively by modeling the behaviors they

wish to see imitated by their children. When parents model desirable behavior, they are demonstrating that they are capable of practicing what they preach. Acting upon one's beliefs in this way requires self-reliance. Therefore, when parent's model the behavior they commend to their children, they are also modeling self-reliance. Referring to the three most valuable items, one subject wrote, "[the] parents set good examples and stressed the importance of self-reliance for success".

Forms of parental influence other than modeling, such as advice or discussion, may not be strong enough influences according to these people. One subject, commenting on the least valuable items 63 and 101, stated that the "parent's influence isn't strong enough and not really in the right direction". This subject's comment also seems to stress the importance of appropriate parental influence. It would appear that non-traditional gender roles (item 82), education (item 78), and everyday work experiences (item 39) are very appropriate areas of parental modeling.

These subjects' low evaluations of items 101 and 63 seem to indicate that the most inappropriate area for parents to attempt to influence these people is their social life. One subject wrote, "101 has no value to me". Item 101 reads, "Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner..." Another subject's comment illustrates the way in which these people may ignore parental attempts to influence their social lives: "[My mother] didn't want [me] 'roaming around in

teenager's cars'. If she could only see me now!" This subject was reacting to item 63 which states, "Parent encourages 'stay-at-home' teenager to go to a dance to be with other youngsters and have fun."[3] Interestingly, encouragement to have fun in social activities (item 63, z = -1.94) is even less valuable than advice about how and where to fight (item 42, z = -0.99), possibly because the former implies a more serious deficit in self-reliance on the part of the child. In fighting, a child has at least stood up for him or herself, but needing encouragement to have fun with peers could imply a real lack of self confidence and self-reliance. This contrasts with the young adults on person factor II who place less value on fighting than dancing, probably because fighting, to them, is even less relevant to career development and more irresponsible than dancing.

Item 12[2] (which received a score of z = 0.70) exemplifies the tension that can occur between the two values of parental modeling and parental non-involvement in social affairs. It reads, "Parent becomes a cub leader when child is enrolled in cubs." Here the parent, as a cub leader, is a strong role model which explains why this item received a fairly high score. However, the item's value is attenuated probably because the cub group is largely a social domain for the child, an area that these people want their parents to avoid.

In comparing person factor IV with person factor II (see Table VI for further comparisons) it seems that the latter would prefer to discuss career information with their parents while the former would

much prefer parental modeling in real life settings. For example, person factor IV ranked item 41 the lowest and person factor II the highest of all four person factors. Item 41 reads, "Parent advises teenager to stay in school to increase future earning potential and occupational flexibility." People on person factor II appreciate this type of influence because it is a verbal encouragement in the area of education, which is very important to these people. Subjects on person factor IV, however, respond most favorably to modeling. Thus, they would prefer to see a parent return to school themselves (as in item 78) rather than simply being told that higher education is important.

In summary, what the young adults who loaded on person factor IV seem to consider highly beneficial to their career development is self-reliance and freedom from the confines of sex role stereotypes. Their parents are likely to have a positive influence on them through personal example because advice and/or discussion without action is not convincing. Preaching alone may fall on deaf ears. Parental modeling is especially valued in areas of non-traditional gender roles, education, and the work world. These people do not appreciate parental attempts to influence their social lives.

Comparative Summary of Person Factor Interpretations

Table VI provides a comparative summary of the four person factors. This table is intended only to facilitate comparison of the

Table VI

Comparative Summary of the Person Factors

Comparative Topic Areas	Person Factor I	II	III	IV
	Personal characteristics considered important to career development			
Meaning of Personal Responsibility	Managing life's tasks	Awareness that present actions have future consequences	Managing life's tasks and making own decisions	-
View of Self-Reliance	An outcome of accepting personal responsibility	-	-	Self-sufficiency, congruence of words and actions, assertion, and self confidence
Meaning of Independence	Parents and children engage in activities in separate settings	-	Self direction	-
View of Education	Learning, high achievement, institutional training are important	Learning, institutional training are important	Less important than responsibility	Importance of education should be modeled by parents

(table continues)

Table VI continued

Comparative Summary of the Person Factors

Comparative Topic Areas	Person Factor I	II	III	IV
	Parental influences considered important to career development			
Means of Exposing Child to Work World	-	Career counselling, discussion more valuable than actual exposure	-	Direct exposure through parental modeling
Means of Encouraging Responsibility	Expect child to manage life's tasks	Refrain from nagging or push child depending on child's interests	Through responsible parenting	Strictly through modeling
How/Where to Allow Independence	Encourage experiences beyond parental contact	In career decisions	Allow consequences, value self direction	Model self-reliance, especially non-traditional gender roles
Means of Facilitating Child's Problem Solving	Allow child to cope independently	If resolution is important to child, push child to cope	Offer possible solutions	-
Type/Level of Involvement in Child's Relationships	Expect child to take responsibility for own relationships	Avoid involvement altogether	Help child develop responsibility for own relationships	Avoid involvement altogether

Note. Dashes indicate that the subjects who loaded on the person factor expressed no clear opinion about the topic area in question.

person factors. A more rigorous analysis is found in the person factor interpretations (above).

For the purposes of clarity, the four perspectives have been broken down into various categories which have been called comparative topic areas. These topic areas are then divided into those that the young adults apply to themselves, and those that apply to their parents. This division of topic areas is somewhat artificial because, as subjects' comments often reveal, these two areas are inseparable. In any case, this division is identified by the two table spanners which read "Personal characteristics considered important to career development" and "Parental influences considered important to career development."

As can be seen from the table, young adults seem to consider at least four topic areas in terms of what they themselves should cultivate for the sake of their career development. The connotations of each topic area seem to vary for the different perspectives. As well, the degree of concern with each area seems to vary (some person factors are not at all concerned with certain areas). The four topic areas are personal responsibility, self-reliance, independence, and education. When the young adults consider what they appreciate in terms of parental influences, five topic areas were identified: the way in which their parents expose them to the work world, how their parents encourage them to be responsible, how and in what situations their parents allow them to be independent, whether and how their parents

should facilitate their problem solving, and whether and how their parents should be involved in their relationships.

Demographic Correlates of Person Factors

Exploration of the person factors also involved determining the characteristics of the person factors in terms of the proportion of males and females, and typical SES background of each factor. The results of chi-square analysis showed that no significant relationships exist between subjects' gender and their membership on the person factors, $\chi^2(3, n = 26) = 1.82$, $p = .61$. In addition, an analysis of variance demonstrated that the person factors could not be differentiated on the basis of SES, $F(3, 20) = 0.31$, $p = .82$.

Family Environment Types

Categorization of young adults into family environment types and exploration of these types were preliminary steps to determining their relationship with the person factors. On the basis of the procedure described in Appendix E, 96.2 percent of the sample ($N = 150$) fell into one of the eight family environment categories. Five subjects (3.2% of the sample) could not be classified, and one subject did not complete the FES.

As can be seen in Table VII, analyses of variance on all subscales of the FES revealed that family environment types are highly distinguishable from one another at the $p<.001$ or the $p<.002$ level of significance. The distinctive characteristics of each of the family environment types are described in Appendix F. The

descriptions in the appendix are based on FES subscale standard scores of above 60.0 and below 40.0. In addition, demographic

Table VII

Analyses of Variance for Family Environment Types on FES Subscales

Subscale	SS	df	MS	F
Cohesion	25765.04	8	3220.63	10.70**
Error	43930.36	146	300.89	
Expressiveness	11284.26	8	1410.53	7.38**
Error	27896.81	146	191.07	
Conflict	10429.86	8	1303.73	8.47**
Error	22484.85	146	154.01	
Independence	14225.41	8	1778.18	21.48**
Error	12087.43	146	82.79	
A.O.	13069.31	8	1633.66	16.69**
Error	14292.11	146	97.89	
I.C.O.	15135.46	8	1891.93	12.22**
Error	22595.64	146	154.76	
A.R.O.	6699.78	8	837.47	6.45**
Error	18945.80	146	129.77	
M.R.E.	9340.62	8	1167.58	9.80**
Error	17393.77	146	119.14	
Organization	4056.96	8	507.12	3.34*
Error	22191.92	146	152.00	
Control	7930.84	8	991.35	6.50**
Error	22259.87	146	152.46	

Note. A.O. = Achievement Orientation; I.C.O. = Intellectual-Cultural Orientation; A.R.O. = Active Recreational Orientation; M.R.E. = Moral-Religious Emphasis.

*$p<.002$. **$p<.001$.

correlates have been identified where appropriate. If desired, a more detailed understanding of the family environment types can be gained by referring to Appendix D which lists subscale descriptions.

Relationship Between Person Factors and Family Environment Types

Table VIII shows the apparent non-relationship between person factor membership and family environment type. Chi-square analysis confirmed the non-significance of the relationship, $\chi^2(21, \underline{n} = 26) = 26.24$, $\underline{p} = .20$.

Because of the exploratory nature of this research, the possibility that person factors were related to individual FES subscales was also examined. This examination proceeded on the grounds that family environment types may have been too gross a categorization while the more specific subscales of the FES may have shown a more refined relationship to person factors. In fact, analyses of variance indicated that no significant relationships exist between person factor membership and any of the 10 FES subscales.

Table VIII

Frequency of Young Adults From the Various Family Environment Types According to Their Person Factor Membership

		Family Environment Type[a]							
Person Factor	n[b]	I.O.	A.O.	S.M.R.	U.M.R.	I.C.O.	S.O.	C.O.	Dis.
I	6[c]	2	1	-	-	1	1	-	-
II	9	1	3	1	-	2	1	1	-
III	8	4	-	-	1	3	-	-	-
IV	3	-	1	-	-	-	-	2	-

Note. Dashes indicate no subjects in the cell.

[a]Abbreviations for Family Environment Types: I.O. = Independence Oriented Families, A.O. = Achievement Oriented Families, S.M.R. = Structured Moral Religious Families, U.M.R. = Unstructured Moral Religious Families, I.C.O. = Intellectual-Cultural Oriented Families, S.O. = Support Oriented Families, C.O. = Conflict Oriented Families, Dis. = Disorganized Families. [b]Total number of subjects who loaded 0.50 or greater on the person factor. [c]One subject who loaded on person factor I could not be classified into any of Billings and Moos' (1982) family environment types.

Replication

A second subsample of n = 39 was used to replicate the factor analysis, the factor interpretations, and the relationships between person factors, gender, SES, and family environment type. With this set of Q items (Set Two), factor analysis with the scree test as a criterion cutoff produced a five factor solution. The interpretations of the factors also differed considerably, since the Q items were different. Nonetheless, the non-significant relationships between the Set One person factors and the other variables of interest were also found to be non-significant on Set Two.

Chapter Five: Discussion

Summary of Results

Heeding repeated calls for research to examine career development from an ecological perspective (e.g., Friesen, 1984; Schulenberg et al., 1984; Vondracek, Lerner, & Schulenberg, 1986; Young, 1984a, 1984b), the primary purpose of this research was to determine whether young adults' evaluations of career influencing events vary as a function of the type of family social climate in which they are embedded. However, the present research detected no such relationship.

Two preliminary steps were taken before arriving at this result. One was to qualitatively analyze the person factors obtained through factor analysis of the Q sort data, and to identify gender and SES correlates of these person factors, if any. The second preliminary step was to explore the characteristics of family environment types, and to identify SES, marital intactness/disruption, and place of residence correlates, if any. None of the demographic variables showed a statistically significant relationship to either the person factors or the family environment types. However, the qualitative analysis of the person factors lead to some fruitful results.

Description of the Person Factors

Person factor I was entitled Education, Responsibility, and Independence from Parents. As the title suggests, for these young adults, the most important dimensions of career development appear

to be a good education, personal responsibility, and independence from parents. To these people, a good education, in addition to ample institutional training, encompasses high achievement and the process of learning. Personal responsibility seems to imply the ability to manage life's daily affairs such as household chores, financial matters, and interpersonal relationships. Independence, in their eyes, seems to denote the importance of engaging in activities apart from their parents.

Person factor II was labelled Education, Personal Responsibility, and Wise Parental Guidance. Education, according to these young adults, seems to imply learning and institutional training. Personal responsibility seems to focus on the awareness that present actions have future consequences.

Wise parental guidance, as defined by these young adults, seems to include a number of dimensions. One dimension is exposing these young people to information about the work world either by involving them in some form of career counselling or by discussing the issue directly. Another dimension is encouraging them to follow through with commitments, but only if the task in question is important to them (e.g., educational tasks). It seems that if these people do not care about the task in question, parental "encouragement" is likely to be construed as nagging. Making career decisions and management of personal relationships seemed to emerge as two areas that parents of these young adults are wise to avoid.

Person factor III was entitled, Personal and Parental Responsibility. Qualitative analysis of this person factor revealed a prominent emphasis on the importance of personal responsibility, even above education. To these people, personal responsibility apparently constitutes being capable of handling life's daily tasks (e.g., household chores and homework), making one's own decisions (e.g., whether or not to follow through on commitments, and deciding upon educational goals), and maintaining healthy interpersonal relationships.

Parents of these young adults, it appears, should themselves demonstrate personal responsibility. To these subjects, responsible parenting seems to involve a number of attitudes and actions: offering possible solutions to problems, acting as a harmonious parenting team, refraining from rescuing children from the consequences of their behavior, refraining from taking on the children's own responsibilities (e.g., homework), valuing self direction in the children (e.g., allowing them to set educational goals), and encouraging the child's sense of responsibility in relationships.

Self-Reliance and Parental Modeling was the title given to Person factor IV. The qualitative analysis of this person factor suggests that these subjects place a strong emphasis on the development of self-reliance and freedom from the confines of sex role stereotypes as important aspects of career development. What they seem to value most from their parents is modeling, particularly in the areas of non-traditional gender roles, education, and the work world.

Their parents are likely to have a more positive influence on these people through personal example than through advice and/or discussion because the latter is not as convincing. The most inappropriate area for parents to attempt to influence these people appears to be the young adult's social life.

Family Environment Types

One of the subsidiary purposes of the present research was to explore the characteristics of each of the eight family environment types obtained by using Billings and Moos' (1982) categorization procedure (see Appendix E). These characteristics are detailed in Appendix F.

Although the concept of family environment is a useful one for the ecological study of human development (Bronfenbrenner, 1979) and career development (Hesser, 1984; Schulenberg et al., 1984), further research into the meaning and correlates of Billings and Moos' family environment types seems advisable for a number of reasons. The interested reader is directed to Appendix G for this discussion.

Person Factors and Family Environment Types

These results lead us to explore the primary purpose of this research, which was to determine whether young adults' evaluations of career influencing events vary as a function of the type of family social climate in which they are embedded. Although the chances of Type II error were fairly high (see the limitations section below), the results indicated that such a relationship, if it exists in reality, is certainly not

obvious. Examination of the relationship between person factors and individual subscales of the FES also yielded a null result. Replication of these results using the subsample of young adults who Q sorted Set Two (see Appendix B) reduces the chance of Type II error somewhat.

Implications of the Results

In light of Bronfenbrenner's (1979) ecological theory of human development and later applications of this theory to career development (Friesen, 1984; Vondracek et al., 1986; Young, 1984a), the apparent non-relationship between the person factors and family environment types is somewhat of a surprise. A fundamental assumption of these theorists is the interrelatedness of the environment and the developing person. For example, Bronfenbrenner has said,

> The developing person is viewed not merely as a tabula rasa on which the environment makes its impact, but as a growing, dynamic entity that progressively moves into and restructures the milieu in which it resides.... Since the environment also exerts its influence, requiring a process of mutual accommodation, the interaction between person and environment is viewed as two-directional. (pp. 21-22)

What, then, are we to make of the apparent non-relationship between family social climate and the person factors?

Satisfaction in the Family Environment

One possible explanation relates to that which the Family Environment Scale (Moos & Moos, 1986) measures. In its present form, the FES measures individuals' perceptions of the degree of presence or absence of 10 dimensions of the family environment. It cannot measure subjects' satisfaction with the family environment in which they are embedded. It seems quite possible, therefore, that young adults' evaluations of CIEs may be related to the level of satisfaction they feel towards the various dimensions of their family environment, but not to their perceptions of the characteristics of that environment.

To illustrate the way in which differential levels of satisfaction may radically alter the interpretation of FES scores, let us assume that two families have obtained the same high score on the cohesion subscale. Members of one family may feel trapped or enmeshed while members of the other cohesive family may feel very deeply connected to one another at an emotional level. Although these two families have obtained the same score on cohesion, one family considers high cohesion a deficit while the other considers it a benefit. Now let us also assume that the two young adults from whom we have obtained FES scores loaded on different person factors. This would not be surprising because the first subject, who feels trapped in the midst of his/her highly cohesive family, would be inclined to place importance on CIEs that emphasize independence from parents (as on person factor I). The other subject, because he or she is satisfied with high family cohesion,

may have loaded on person factor II, where appropriate parental involvement is considered important. The same argument applies to family environment types, but would be unnecessarily complex for illustrative purposes.

An avenue of research worth exploring, then, is the measurement of subjects' satisfaction with the various dimensions of the family environment in which they are embedded. It may then be worthwhile to re-examine the relationship between evaluations of CIEs and these new measures of satisfaction.

It is beyond the scope of this paper to suggest specific methods of measuring satisfaction with one's family environment.[5] Perhaps the FES could be adapted for this purpose. In any case, such a venture could be valuable to ecological studies of development (whether career development or other areas of human development).

Implications for Theories of Career Development

Perhaps one of the most important outcomes of the present research is the identification of the various person factors, which represent distinct perspectives regarding the importance of CIEs. This accomplishment represents a significant contribution to the ecological study of career development. As Vondracek et al. (1986) have pointed out, "very little is empirically known about the molar activities that children engage in, alone or with others, which may be important to their career development" (p. 50). This research, as an adjunct to the work of Young and Friesen (1986); and Young et al. (1988), not only

identifies common molar activities that young adults (alone or with their parents) engage in, but also identifies what molar activities are considered valuable to career development.

Another important outcome of the present research is related to the focus of the ecological perspective: that of the dynamic interaction between the developing person and the environment (Bronfenbrenner, 1979; Young, 1984a; etc.). In this light, a particularly interesting finding emerges with respect to the person factors: Young adults' views about the value of various parental influences seem to be inseparably linked to the personal characteristics that they consider important for their career development. This link between ideals for self and ideals for parental activities is true of all four person factors. A clear example of the relatedness of these two areas is seen in person factor I. These young adults see a great deal of value in exposing themselves to situations where their parents are not present. Naturally, therefore, they appreciate parental encouragement to do just that. Although this finding may seem somewhat rudimentary, it begins to address one of the primary tasks of ecological career development theory and research: "to specify the nature of the person's embeddedness in the career environment..." (Young, 1984a, p. 154).

Furthermore, the present results have shown that not all young adults consider the same career influencing events valuable. In fact, there are at least four distinct types of young adults in terms of their evaluations of CIEs (i.e., person factors). Although these types appear

to be unrelated to gender, SES background, and family environment, the fact that several distinct types were identified leads to some interesting observations.

One such observation relates to one of Bronfenbrenner's (1979) hypotheses regarding human development: "The developmental impact of a dyad increases as a direct function of the level of reciprocity, mutuality of positive feeling, and a gradual shift of balance of power in favor of the developing person" (p. 59). Bronfenbrenner's hypothesis is directed to the main effects of these interpersonal variables. In light of the four different types of young adults identified in the present study, however, it seems likely that young adults will vary in the degree of importance they place on parent-self reciprocity, mutuality of positive feeling, and shift of power. For example, young adults on person factor I tend to value participation in activities in settings apart from their parents. Young adults on person factor II, however, tend to value more direct influence from their parents. It appears, then, that the latter young adults appreciate more parent-self reciprocity than the former. Highlighting the possible interactions between these interpersonal variables (e.g., reciprocity) and the developing person's preferences may deepen our understanding of developmental processes.

For instance, adjusting Bronfenbrenner's hypothesis to account for these preferences may enable us to clarify how development (in this case, career development) can be optimized. Vondracek et al. (1986) have suggested that an optimal condition for career development may

exist when the discrepancy between actual and ideal self is minimal. Similarly, applying this concept to parent-young adult relations, it seems reasonable to suggest that career development will be optimized when young adults actually experience what they consider to be ideal. In other words, for young adults who tend not to value reciprocity, it seems probable that the career developmental benefit of CIEs will decrease as reciprocity increases. On the other hand, for young adults who value reciprocity, the experience of reciprocity in CIEs should facilitate their career development.

Considering this reasoning, a revision of Bronfenbrenner's (1979) hypothesis, as applied to the career development of young adults could take the following form: The career developmental impact of career influencing events (recall the definition given in the introductory chapter) increases as a direct function of the congruence between actual and ideal levels of reciprocity, mutuality of positive feeling, and a gradual shift of balance of power in favor of the young adult. In this hypothesis, the concept of congruence not only describes the nature of possible interactions between actual and ideal interpersonal processes, but also specifies how career development may be optimized.

Implications for Parents and Counsellors

The identification of the four distinct person factors may also add to the literature that is geared more towards offering practical suggestions to parents and counsellors who intend to facilitate

children's career development. In Herr and Lear's (1984) article, for example, the authors offer a number of suggestions that range from simply discussing career aspirations to jointly interviewing people who are working in occupations of interest to the child. The only distinction these authors make -- with respect to what methods of influence are best for whom -- is the distinction between young children and adolescents. But again, assuming that career development can be optimally facilitated when significant others act in accord with what the developing person considers valuable, not all young adults should be treated in the same manner. It is hoped that future research will validate and clarify the person factors so that eventually, we will be in a better position to specify "what treatment [or molar activity], by whom [i.e. counsellors, parents], is most effective for this individual with that specific problem [in this case career development issues], and under what set of circumstances?" (Paul, 1967, p. 111).

Pending such validation and clarification, career counsellors may eventually benefit from this information. Career counsellors (particularly those offering services at the college level) may benefit on both a conceptual and practical level. Although rather speculative at this point, career counsellors may eventually be able to integrate their understanding of young adults' opinions regarding the value of CIEs into client assessment. Assessment could then conceivably lead to intervention if, for example, the degree of congruence between valued CIEs and those actually experienced was unsatisfactory to the client.

As well, either the client or the family could be the recipient of the counsellor's intervention: "Based on the assumption that people are reciprocally related to their contexts... one can intervene with the family to affect the individual... and, in turn, intervene with the individual to affect... the family" (Vondracek et al., 1983, p. 191).

Validation and clarification of the four person factors may also benefit parents. Vondracek et al. (1983) have envisioned the possibility that ecological research into career development could bring forth the possibility of modifying "parent socialization practices even before parents become parents in order to prevent undesired vocational role developments or to optimize valued ones" (p. 193). Although we are far from the dream of Vondracek et al., the present research sheds a glimmer of light in that direction. Assuming that an optimal situation exists when parental influences are congruent with children's ideals, it is logical that parents should determine what kinds of CIEs are considered valuable by their children and attempt to act within those bounds.

Further research may also be of benefit to programs and strategies aimed at facilitating parents' attempts to influence their children's career development. For instance, in Cochran's (1985) Partner's Program, parents and adolescents jointly engage in structured career planning exercises. Research into this program indicates that, in general, the program is effective "in fostering the career development of... children" (Palmer and Cochran, 1987, p. 1).

However, future investigation of the program's utility for the various types of young adults (as identified by their opinions of the value of CIEs) may show that the program is more facilitative for certain types of young adults than for others. In fact, on the basis of the present findings (pending further validation), it may be hypothesized that young adults who load on person factor II will appreciate the Partner's Program more than young adults on the other three person factors.

Limitations of the Study

Ethnicity

Ethnicity was not measured in the present study though it is known to be a factor that influences career aspirations (Grotevant & Cooper, 1988; Marjoribanks, 1985b) and outcomes (Portes, 1982). For example, Portes found that the status attainment of Cuban immigrants to Miami could not be adequately explained by the traditional status attainment models (e.g. Sewell & Hauser, 1975). No doubt, ethnicity, has an influence on young adults' evaluations of CIEs. Nevertheless, on the basis of sampling theory, we may assume that ethno-cultural background has been controlled as best as possible under the circumstances. If possible, measurement of ethnicity should be incorporated into future research of this kind.

Sequence Effects

The present research involved the use of only two pages of the five page questionnaire (the demographic information page and the penultimate page of Appendix A) as well as the Family Environment

Scale (Appendix C). However, every subject was asked to complete all five pages of the questionnaire in addition to the FES. Because the questionnaire was completed in an invariant sequence it seems safe to assume that subjects would tend to be more careful and more contemplative in the initial pages of the questionnaire as compared to the latter ones. It is advisable to control this potential source of error in future research.

Factor Analysis and Size of Q Sample

For studies that employ factor analytic procedures, Crocker and Algina (1986) recommend a minimum sample size of 100 examinees. This recommendation applies to factor analysis of Q sort data in a slightly different way because in Q methodology, subjects, not items, are factor analyzed. (To accomplish this, the data file is rotated so that subjects are listed in the columns and Q items in the rows.) Thus, the sample size in question is not the number of examinees, but the number of items in each Q set. In the present research, the number of items in each Q set is 20.

Some researchers may not consider this small a sample adequate for Q methodology. For instance, Kerlinger (1973) has suggested that "for statistical stability and reliability, the number [of Q items] should probably be not less than 60 (40 or 50 in some rare cases)" (p. 584). It is true that, to the extent that the range of all possible CIEs was not represented in the sample of Q items, the present factor solution may be unstable. However, Rinn (1961) has

asserted that sample biases are reduced by selecting a representative sample from a parent population of Q items. Stephenson (1980) has gone so far as to say that "any practical size of Q sample... could [upon replication] reach much the same factor structure" (p. 883).

In the case of the present research, extremely thorough and stringent procedures were used to select a highly representative sample of 80 items out of a parent population of 837 CIEs (Young & Friesen, 1986). From these 80 items, 20 were randomly selected for the final sample (Set One, see Appendix B). Because the domain of CIEs represented by the 80 items is so broad, the 20 item sets seem to exhibit certain qualitative differences. Obviously, use of all 80 items would have been ideal, and a larger Q sample is recommended for future research. Unfortunately, this was impossible since the data had been collected prior to the conception of the present research.

Size of Subject Sample

A sample of 41 subjects for the purposes of Q analysis is not likely to be disputed as inadequate. As Brown (1980) has stated, "A P set [i.e., a sample] of 40 to 60 persons is more than adequate" (p. 260). However, since the present research has attempted to relate person factors to external variables, the number of subjects in each cell has been inadequate in many instances. For example, chi-square analysis of the person factor by family environment type matrix may have yielded a non-significant relationship due to Type II error, although the chances of this error have been reduced slightly by replication with

the second subsample. Given the fact that the samples were broken down into eight family environment types, a sample size of 160 subjects or more per Q set would have been ideal. Nevertheless, as can be seen by the near random distribution in Table VIII, it is apparent that even if a relationship between family environment types and person factors does exist in reality, it is certainly not clear cut. In any case, for future research that is directed at determining relationships between person factors and other external variables, a much larger sample is recommended.

Recommendations

A number of suggestions for future research have been provided throughout this chapter. A few additional recommendations are given below.

One such recommendation relates to the likelihood that, in sorting the Q items, subjects may have been guided more by their implicit theories of career development than by the definition of career development given in the instructions. In future research of this kind, interpretation of the person factors may be facilitated by determining in advance what each subject's conception of career development is, and to what end their career development is headed. For instance, one subject's primary career aim may be to land a job whose salary will pay for the basic necessities of living, for weekend ventures, and for recreational pursuits. Another subjects' career development may be guided by a deep sense of purpose, such as the hope to reduce world

hunger. This kind of information could deepen our understanding of the person factors considerably.

Another methodological issue that requires consideration is the level of abstraction of the item content. It is possible that the highly specific and concrete content of the items used in the present study may have been distracting to subjects. For example, item 101 states, "Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner regardless of race or appearance and stresses the importance of love." Decisions about the importance of items such as this one may have been made on the basis of potentially distracting aspects of the content (e.g., the parent's cultural background) rather than on more abstract principles governing career development. This does seem unlikely, however, since subjects' explanations for their selection of the most and least important items (see Appendix A, questions 3b and 3c) seemed to integrate the specific content of the items with more abstract principles (e.g., "Child needs to do activities on his/her own to build independence," and "Dividing homework and doing half isn't teaching the child anything about responsibility").

Nevertheless, it would be interesting to determine whether the results of the Q analysis would differ if the items were written at a higher level of abstraction. For example, item 101 could read, "Parent allows teenager autonomy in interpersonal relationships and stresses that love is more important than racial or other differences." A further

concern about items written at this level of abstraction, however, is that they may be less meaningful because they lack the innuendo and the contextually based authenticity of the more specific and concrete items. Comparative research on the merits of concrete versus abstract content of the Q items would yield more definitive answers to these questions and concerns.

A final area of concern revolves around the question of whether young adults are mature enough to know what kinds of parental influences are valuable to their career development. Is it not possible that parents, who have many more years of experience in their own career development, would have a more accurate view of what is important to their children's career development than the children themselves? A preliminary step in addressing this question would be to compare the perspectives of young adults with the perspectives of their own parents regarding the importance of CIEs. If their opinions differ, another problem emerges: how to determine whose opinions are better. Some objective criteria regarding optimal career development outcomes would appear to be necessary. These are difficult, but important questions that will demand resolution if this line of research is pursued.

Summary and Conclusions

As Schulenberg et al. (1984) have pointed out, most of the literature on family influences on career development has examined non-relational factors. The focus of the non-relational literature has

largely been on the influence of structural and sociological features of the family such as SES, family size, and birth order (e.g., Blau & Duncan, 1967), as well as intrapersonal factors such as genetic inheritance, intellectual ability, and scholastic achievement (e.g., Sewell et al., 1969; Sewell & Hauser, 1975).

The less abundant literature that examines relational family influences on career development has covered topics such as parenting style (Roe & Siegelman, 1964), the quality of the parent-child relationship (e.g., Mortimer, 1976; Splete & Freeman-George, 1985), parental support and encouragement (e.g., Goodale & Hall, 1976; Hauser, 1971), and parental values (e.g., Kohn, 1969; Wright & Wright, 1976). Grotevant and Cooper (1988) have criticized this literature for its tendency to assume that parental influences are unilateral (i.e., from parent to child) rather than mutually transforming over time.

Another point of criticism that applies to both the non-relational and the relational literature on the influence of the family on career development is its focus on career outcomes to the neglect of career developmental processes (Friesen, 1984; Schulenberg et al., 1984). Grotevant & Cooper (1988), in their review of the literature, express the same concern: that although "much evidence exists that parents influence their children's career development,... the processes by which this occurs are not well specified" (p. 238).

A promising recent trend in the literature, however, posits that career development is best understood from an ecological perspective. This approach emphasizes the need to conceptualize career development as a process involving the dynamic interaction between the developing individual and the multi-leveled context in which he or she is embedded (Grotevant & Cooper, 1988; Schulenberg et al., 1984; Vondracek et al., 1986; Young, 1984a, 1984b). The present research, which aligns itself with this emerging trend, has explored young adults' evaluations of parental molar activities and the embeddedness of these evaluations within the family environmental context.

The research methodology employed in the present study -- Q technique using items that describe molar events in the microsystem, and exploration of the relationships between the resulting person factors and other theoretically meaningful variables -- holds promise for further ecological research, particularly because of its versatility in addressing both process and outcome variables and their relation to career development. The theoretically relevant variables in the present research have included primarily the perspectives of young adults regarding the importance of CIEs, and family environment type (Billings & Moos, 1982), as well as several demographic variables. But of course, many other variables may be of interest for further ecological study of career development. Ethnicity, for instance, is an indicator of a level of the ecological environment beyond the microsystem (i.e., the

macrosystem (Bronfenbrenner, 1979)) in which career development takes place.

Although the present research provides a map for useful methods of research, this particular study does have its limitations. Due to the small size of the Q sample, validation and clarification of the person factors is recommended using larger sets of Q items. In addition, future research that seeks to relate person factors to external variables should employ larger samples of subjects, proportionate with the number of variables and levels of variables explored (McKeown & Thomas, 1988).

In spite of these weaknesses, the findings of the present research have fairly significant implications for future ecological research of career development. The fact that several distinct perspectives regarding the importance of CIEs were identified demonstrates that ecological theorists and researchers may benefit from the awareness that interactions among interpersonal variables, not just main effects, are probable. Validation and clarification of the person factors, along with identification of these interactions, may yield information that is useful to counsellors and parents.

Another interesting result in the present study was that no relationship was detected between young adults' evaluations of CIEs and the family environment type in which they are embedded. This finding led to the discussion of the possibility that subjects' evaluations

of CIEs may be related to their level of satisfaction with the various dimensions of the family environment in which they are embedded.

Finally, a theme that emerged repeatedly, and one that deserves the attention of future research, was the notion of congruence between individuals' ideals regarding CIEs and their actual experience of CIEs in the family. It was proposed that settings in which congruence is experienced are likely to be optimal for career development. Irwin and Vaughn (1988) reiterate the need for research along these lines: "Future research will need to address the types of supportive environments that foster optimal psychosocial [or career] development during adolescence, with particular attention paid to community and interpersonal relationships" (p. 13S).

Footnotes

[1]A criterion factor loading of .30 is not uncommon, and some studies involving Q methodology have set this criterion as low as .23 (Rinn, 1961). However, due to the small sample of 20 Q items used in the present study, the criterion was set at .50 in recognition of the possibility that factor loadings may have been inflated.

[2]This item was ranked higher by the young adults who loaded on this person factor than by the young adults on any of the other three person factors.

[3]This item was ranked lower by the young adults who loaded on this person factor than by the young adults on any of the other three person factors.

[4]This person factor was validated in an interview with a (now) 26-year-old woman who loaded .58 on this factor. No changes in the original interpretation were necessary aside from modifications in the intensity of only a few statements.

[5]Olson and Wilson (1985) have developed a scale designed to measure family satisfaction. However, this scale is unidimensional and would therefore not be useful in determining the relationship between evaluations of CIEs and satisfaction with various dimensions of the family environment.

References

Billings, A. G., & Moos, R. (1982). Family environments and adaptation: A clinically applicable typology. American Journal of Family Therapy, 10, 26-38.

Blau, P. M., & Duncan, O. D. (1967). The American occupational structure. New York: Wiley.

Blishen, B. R., Carroll, W. K., & Moore, C. (1987). The 1981 socioeconomic index for occupations in Canada. Canadian Review of Sociology & Anthropology, 24(4), 465-488.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge: Harvard University Press.

Brown, S. R. (1980). Political subjectivity: Applications of Q methodology in political science. New Haven: Yale University Press.

Census of Canada. (1986). 1986 census data for Vancouver metropolitan area: Part I and part II. (Published under the authority of the Minister of Supply and Services Canada). Vol 95-167 and 95-168.

Cochran, L. (1985). Helping your child set a career direction: The partners program: Vol. 1. Parent career guidance manual. Vancouver, B.C.: Buchanan-Kells.

Crocker, L., & Algina, J. (1986). Introduction to classical and modern test theory. New York: Holt, Rinehart and Winston.

Dennis, K. E. (1986). Q methodology: Relevance and application to nursing research. Advances in Nursing Science, 8(3), 6-17.

Eder, D. (1982). Family background and ability group assignment. In R. M. Hauser, D. Mechanic, A. O. Haller, & T. S. Hauser (Eds.), Social structure and behavior: Essays in honor of William Hamilton Sewell. New York: Academic Press.

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

Forman,S. G., & Forman, B. D. (1981). Family environment and its relation to adolescent personality factors. Journal of Personality Assessment, 45(2), 163-167.

Friesen, J. D. (1984, August). The role of the family in vocational development. Paper presented at the IRTAC conference, University of Aarhus, Denmark.

Goodale, J. G., & Hall, D. T. (1976). Inheriting a career: The influence of sex, values, and parents. Journal of Vocational Behavior, 8, 19-30.

Green, L. B., & Parker, H. J. (1965). Parental influence upon adolescents' occupational choice: A test of an aspect of Roe's theory. Journal of Counseling Psychology, 12(4), 379-383.

Grotevant, H. D., & Cooper, C. R. (1988). The role of family experience in career exploration: A life-span perspective. In P. B. Baltes, D. L. Featherman, & R. M. Lerner (Eds.), Life-span development and behavior. Hillsdale, NJ: Lawrence Erlbaum Associates.

Haller, A. O. (1982). Reflections on the social psychology of status attainment. In R. M. Hauser, D. Mechanic, A. O. Haller, & T. S. Hauser (Eds.), Social structure and behavior: Essays in honor of William Hamilton Sewell. New York: Academic Press.

Hauser, R. M. (1971). Socioeconomic background and educational performance. Washington, DC: Rose Monograph Series, American Sociological Association.

Herr, E. L., & Cramer, S. H. (1984). Career guidance and counseling through the life span: Systematic approaches (2nd ed.). Boston: Little, Brown & Company.

Herr, E. L., & Lear, P. B. (1984). The family as an influence on career development. In S. H. Cramer (Ed.), The family therapy collections: Vol. 10. Perspectives on work and the family (pp. 1-15). Rockville, MD: Aspen Systems Corp.

Hesser, A. (1984, March). Adolescent career development and the family system. Paper presented at the Annual Convention of the American Association for Counselling and Development, Houston, Texas.

Holland, J. L. (1973). Making vocational choices: A theory of careers. Englewood Cliffs, NJ: Prentice-Hall.

Irwin, C. E., Jr., & Vaughn, E. (1988). Psychosocial context of adolescent development. Journal of Adolescent Health Care, 9, 11S-19S.

Jordaan, J. P., & Heyde, M. B. (1979). Vocational maturity during the high school years. New York: Teachers College Press.

Kerlinger, F. N. (1973). Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart and Winston.

Kohn, M. L. (1969). Class and conformity. Homewood, IL: Dorsey Press.

Law, B. (1981). Community interaction: A 'mid-range' focus for theories of career development in young adults. British Journal of Guidance and Counselling, 9(2), 142-158.

Leibowitz, A. (1977). Family background and economic success: A review of the evidence. In P. Taubman (Ed.), Kinometrics: Determinants of socioeconomic success within and between families. Amsterdam: North-Holland Publishing.

Marjoribanks, K. (1985a). Ecological correlates of adolescents' aspirations: Gender-related differences. Contemporary Educational Psychology, 10(4), 329-341.

Marjoribanks, K. (1985b). School attitudes and adolescents' aspirations: Ethnic group differences. International Journal of Psychology, 20(3), 277-289.

McKeown, B., & Thomas, J., (1988). Q methodology. In J. L. Sullivan & R. G. Niemi (Eds.), Quantitative applications in the social sciences: Vol. 66. Beverly Hills: Sage Publications.

Michael, R. T. (1977). Family background and achievement: A comment. In P. Taubman (Ed.), Kinometrics: Determinants of socioeconomic success within and between families. Amsterdam: North-Holland.

Moos, R. H., & Moos, B. S. (1986). Family Environment Scale Manual (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

Moos, R. H., Insel, P. M., & Humphrey, B. (1974). Preliminary manual for Family Environment Scale, Work Environment Scale, Group Environment Scale. Palo Alto, CA: Consulting Psychologists Press.

Mortimer, J. T. (1976). Social class, work and the family: Some implications of the father's occupation for familial relationships and son's career decisions. Journal of Marriage and the Family, 38(1), 241-256.

Olson, D. H., Bell, R., and Portner, J. (1978). FACES: Family Adaptability and Cohesion Evaluation Scales. St. Paul, MN: University of Minnesota.

Olson, D. H., & Wilson, M. (1985). Family satisfaction. In D. H. Olson, H. I. McCubbin, H. Barnes, A. Larsen, M. Muxen, M. Wilson (Eds.), Family inventories. St. Paul, MN: University of Minnesota.

Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex model of marital and family systems:I. Cohesion and adaptability dimensions, family types, and clinical applications. Family Process, 18(1), 3-27.

Palmer, S., & Cochran, L. (1987). Parents as agents of career development. Journal of Counseling Psychology, 34(3), 1-6.

Patterson, G. R., & Reid, J. B. (1984). Social interactional processes within the family: The study of the moment-by-moment family transactions in which human social development is embedded. Journal of Applied Developmental Psychology, 5, 237-262.

Paul, G. L. (1967). Strategy of outcome research in psychotherapy. Journal of Consulting Psychology, 31(2), 109-118.

Portes, A. (1982). Immigrants' attainment: An analysis of occupation and earnings among Cuban exiles in the United States. In R. M. Hauser, D. Mechanic, A. O. Haller, & T. S. Hauser (Eds.), Social structure and behavior: Essays in honor of William Hamilton Sewell. New York: Academic Press.

Rinn, J. L. (1961). Q methodology: An application to group phenomena. Educational and Psychological Measurement, 21(2), 315-329.

Roe, A., & Siegelman, M. (1964). The origin of interests. Washington, DC: American Personnel and Guidance Association.

Schulenberg, J. E., Vondracek, F. W., & Crouter, A. C. (1984). The influence of the family on vocational development. Journal of Marriage and the Family, 46(1), 129-143.

Sewell, W. H., & Hauser, R. M. (1975). Education, occupation, and earnings: Achievement in the early career. New York: Academic Press.

Sewell, W. H., Haller, A. O., & Portes, A. (1969) The educational and early occupational attainment process. American Sociological Review, 34, 82-92.

Slater, E. J., Stewart, K. J., & Linn, M. W. (1983). The effects of family disruption on adolescent males and females. Adolescence, 18(72), 931-942.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

Splete, H., & Freeman-George, A. (1985). Family influences on the career development of young adults. Journal of Career Development, 12(2), 55-64.

Stephenson, W. (1980). Newton's fifth rule and Q methodology: Application to educational psychology. American Psychologist, 35(10), 882-889.

Stephenson, W. (1984). Perspectives on Q methodology: Statements of problems. Operant Subjectivity, 7(4), 110-114.

Talbott, A. D. (1971, February). Q technique and it methodology: A brief introduction and consideration. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (1983). The concept of development in vocational theory and intervention. Journal of Vocational Behavior, 23, 179-202.

Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (1986). Career development: A life-span developmental approach. Hillsdale, NJ: Lawrence Erlbaum Associates.

Wright, J. D., & Wright, S. R. (1976). Social class and parental values for children: a partial replication and extension of the Kohn thesis. American Sociological Review, 41(6), 527-537.

Young, R. A. (1984a). Toward an ecology of career development. Canadian Counsellor, 18(4), 152-159.

Young, R. A. (1984b). Vocation as relationship. Counseling and Values, 28, 169-178.

Young, R. A., & Friesen, J. D. (1986). Parental interventions in the career development of children (Report of research, SSHRC Grant No. 498-84-0009). Vancouver: University of British Columbia.

Young, R. A., Friesen, J. D., & Pearson, H. M. (1988). Activities and interpersonal relations as dimensions of parental behavior in the career development of adolescents. Youth & Society, 20(1), 29-45.

Appendix A

The Questionnaire

PARENTAL INTERVENTIONS QUESTIONNAIRE

YOUNG ADULT FORM

DEMOGRAPHIC INFORMATION

Age: _____

Sex: Male___ Female___

Highest grade in school, college, or university completed:_____

Are you now attending school, college, or university as:

Full time student:_____

Part time student:_____

Not attending now:_____

Are you now employed? Yes___ No___

If yes, what is your present

occupation?_____

Are you now living in your parents home? Yes___ No___

Father's occupation:_____

Mother's occupation:_____

What occupation or career would you like to have

when you finish all your schooling

and training_____

INCIDENT SORTS

1. How valuable do you think these activities would be in the career development of young people?

1a) Write down the numbers of the incidents you placed in each category.

Most Valuable	A	B	C	D	E	F	G	Least Valuable
	#	#	#	#	#	#	#	
		#	#	#	#	#		
			#	#	#			
			#	#	#			
				#				
				#				

1b) Look at the three incidents you chose as the most valuable (those in A and B). What is it about these three activities that make them valuable to young people's career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

1c) Look at the three incidents you chose as the least valuable (those in F and G). What is it about these three activities that make them less valuable to the career development of young people? Explain your reasons in a sentence or two.

_____

_____

_____

_____

2. How likely do you think it is that parents would use these activities with young people to foster career development?

2a) Write down the numbers of the incidents you placed in each category.

Most Likely	A	B	C	D	E	F	G	Least Likely
	#	#	#	#	#	#	#	
		#	#	#	#	#		
			#	#	#			
			#	#	#			
				#				
				#				

2b) Look at the three incidents you chose as the most likely (those in A and B). What is it about these three activities that make it likely that parents would use them with young people to help foster career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

2c) Look at the three incidents you chose as the least likely (those in F and G). What is it about these activities that make it less likely that parents would use them with young people to foster career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

ITEM SORTS

3. How valuable have these activities been to you personally during your own career development?

3a) Write down the numbers of the items you placed in each category.

Most Valuable	A	B	C	D	E	F	G	Least Valuable
	#	#	#	#	#	#	#	
		#	#	#	#	#		
			#	#	#			
			#	#	#			
				#				
				#				

3b) Look at the three items you chose as the most valuable (those in A and B). What is it about these three activities that make them valuable to you when you think of being helped with your career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

3c) Look at the three incidents you chose as the least valuable (those in F and G). What is it about these three activities that make them less valuable to you when you think of being helped with your career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

4. How likely is it that your parents would have engaged in these activities when helping with your own career development?

4a) Write down the number of the items you placed in each category.

Most Likely	A	B	C	D	E	F	G	Least Likely
	#	#	#	#	#	#	#	
		#	#	#	#	#		
			#	#	#			
			#	#	#			
				#				
				#				

4b) Look at the three incidents you chose as the most likely (those in A and B). What is it about these three activities that makes it likely that your parents would have engaged in them with you to help your career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

4c) Look at the three items you chose as the least likely (those in F and G). What is it about these three items that makes it less likely that your parents would have engaged in them with you to help your career development? Explain your reasons in a sentence or two.

_____

_____

_____

_____

THANK YOU FOR YOUR HELP

Appendix B

Career Influencing Events

Career Influencing Events*: Set One

(Sorted by n = 41 Young Adults)

12. Parent becomes a cub leader when child is enrolled in cubs.

14. At teenager's request, parent employs child during holidays at his/her place of work.

20. Parent acts as buffer between child and other parent by involving child in joint project with self.

23. Parent provides child with lessons in budgeting to teach responsibility with money.

30. Parents involve children in school board meeting as part of an effort to petition for the maintenance of an enrichment program.

39. Parent takes child to own place of work to teach child about the job and stress the importance of education.

41. Parent advises teenager to stay in school to increase future earning potential and occupational flexibility.

42. Parent advises 10-year-old to be smart about fighting and not do it on the school grounds.

47. Parents expect their children (age 10 or 11) to assume responsibility for some household chores when both parents are employed.

63. Parent encourages "stay-at-home" teenager to go to a dance to be with other youngsters and have fun.

65. Parent stops reminding child about paper route responsibilities, deciding child should deal with the consequences of forgetfulness.

69. When teenager is upset about having too much homework, parent divides the work with child and does half of it.

72. Anticipating teenager's school graduation, parent provides child with a list of trades and professions to consider.

76. Parent, upset about child's poor report card, suggests a study schedule to help teenager improve grades and remain active in sports.

78. Parent not only talks to 19-year-old about the importance of university education but goes back to school to set an example.

80. Parents involve teenager in career counselling program and discuss school issues with their child.

82. Parent makes a point of doing jobs around the house that are not typical for parent's sex, to teach teenager the importance of self-reliance.

86. Parent pushes teenager to cope with difficult school work and checks that this is Okay with the child.

100. Parent, angry with 13-year-old for lying, listens to child's side of the story before reprimanding the child.

101. Parent, who comes from a country where marriages were arranged, gives teenager the freedom to choose any marriage partner regardless of race or appearance and stresses the importance of love.

*These career influencing events were transcribed to cards. They represent summaries of career-related critical incidents reported by parents in Young and Friesen (1986).

Career Influencing Events*: Set Two

(Sorted by n = 39 Young Adults)

1. Parent allows 12-year-old to decide whether or not to keep a paper route.

16. Parent spends time playing different sports with his child depending upon the season.

24. Having paid for a course that teenager did not take full advantage of, parent insists that the child earns the money for the second course.

26. Parent finally accepts teenager's decision to quit girl guides, recognizing that adolescents need more autonomy.

28. Parent enquires about careers in the armed forces for teenager who has shown some interest in this area.

32. Parents purchase saxophone and provide music lessons for their 10-year-old who wants to play in the school band.

37. Parent encourages children to read by allowing them to keep the lights on for 1/2 hour after bedtime if they are reading.

45. Father organizes family meetings to maintain a good family atmosphere and to teach children how meetings are conducted.

51. Parent tells teenager that not being able to cope with a babysitting job was no reflection of the child's abilities -- the situation was just too difficult.

52. Parent teaches 8-year-old to make deposits and withdrawals at the bank as part of life skills development.

57. Parent is careful to follow through on promise to eldest child when she helps out by minding younger children.

58. Parent makes 12-year-old wait at the police station for several hours after the child is caught shoplifting.

62. Parent encourages and helps 10-year-old who wants to be a scientist to persist with math.

68. Parent of a high school student does child's school projects in spite of the teenager's lack of interest.

75. Parent takes 13-year-old for a psychological assessment after attending a conference on gifted underachievers.

81. Parent encourages teenager to see that women can distinguish themselves and become famous.

85. Parent urges teenager to choose a job that will bring personal satisfaction.

87. Parent talks to child about racism stressing the importance of love and getting the child to imagine what it would feel like to be called a derogatory name.

90. Parent of 19-year-old tells child not to make promises that won't be kept and stresses the importance of being forthright with parents.

97. Parent employs 11-year-old on Saturdays at own place of work to teach the child how to manage earnings.

*These career influencing events were transcribed to cards. They represent summaries of career-related critical incidents reported by parents in Young and Friesen (1986).

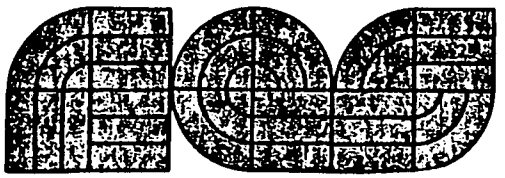
Appendix C

Family Environment Scale

FAMILY ENVIRONMENT SCALE

FORM R

RUDOLF H. MOOS



INSTRUCTIONS

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheets. If you think the statement is *True* or mostly *True* of your family, make an X in the box labeled T (true). If you think the statement is *False* or mostly *False* of your family, make an X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is *true* for most members. Mark F if the statement is *false* for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to *you*. So *do not* try to figure out how other members see your family, but *do* give us your general impression of your family for each statement.

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1. Family members really help and support one another.
2. Family members often keep their feelings to themselves.
3. We fight a lot in our family.
4. We don't do things on our own very often in our family.
5. We feel it is important to be the best at whatever you do.
6. We often talk about political and social problems.
7. We spend most weekends and evenings at home.
8. Family members attend church, synagogue, or Sunday School fairly often.
9. Activities in our family are pretty carefully planned.
10. Family members are rarely ordered around.
11. We often seem to be killing time at home.
12. We say anything we want to around home.
13. Family members rarely become openly angry.
14. In our family, we are strongly encouraged to be independent.
15. Getting ahead in life is very important in our family.
16. We rarely go to lectures, plays or concerts.
17. Friends often come over for dinner or to visit.
18. We don't say prayers in our family.
19. We are generally very neat and orderly.
20. There are very few rules to follow in our family.
21. We put a lot of energy into what we do at home.
22. It's hard to "blow off steam" at home without upsetting somebody.
23. Family members sometimes get so angry they throw things.
24. We think things out for ourselves in our family.
25. How much money a person makes is not very important to us.
26. Learning about new and different things is very important in our family.
27. Noboby in our family is active in sports, Little League, bowling, etc.
28. We often talk about the religious meaning of Christmas, Passover, or other holidays.
29. It's often hard to find things when you need them in our household.
30. There is one family member who makes most of the decisions.
31. There is a feeling of togetherness in our family.
32. We tell each other about our personal problems.
33. Family members hardly ever lose their tempers.
34. We come and go as we want to in our family.
35. We believe in competition and "may the best man win."

36. We are not that interested in cultural activities.
37. We often go to movies, sports events, camping, etc.
38. We don't believe in heaven or hell.
39. Being on time is very important in our family.
40. There are set ways of doing things at home.
41. We rarely volunteer when something has to be done at home.
42. If we feel like doing something on the spur of the moment we often just pick up and go.
43. Family members often criticize each other.
44. There is very little privacy in our family.
45. We always strive to do things just a little better the next time.
46. We rarely have intellectual discussions.
47. Everyone in our family has a hobby or two.
48. Family members have strict ideas about what is right and wrong.
49. People change their minds often in our family.
50. There is a strong emphasis on following rules in our family.
51. Family members really back each other up.
52. Someone usually gets upset if you complain in our family.
53. Family members sometimes hit each other.
54. Family members almost always rely on themselves when a problem comes up.
55. Family members rarely worry about job promotions, school grades, etc.
56. Someone in our family plays a musical instrument.
57. Family members are not very involved in recreational activities outside work or school.
58. We believe there are some things you just have to take on faith.
59. Family members make sure their rooms are neat.
60. Everyone has an equal say in family decisions.
61. There is very little group spirit in our family.
62. Money and paying bills is openly talked about in our family.
63. If there's a disagreement in our family, we try hard to smooth things over and keep the peace.
64. Family members strongly encourage each other to stand up for their rights.
65. In our family, we don't try that hard to succeed.
66. Family members often go to the library.
67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).
68. In our family each person has different ideas about what is right and wrong.
69. Each person's duties are clearly defined in our family.
70. We can do whatever we want to in our family.
71. We really get along well with each other.
72. We are usually careful about what we say to each other.
73. Family members often try to one-up or out-do each other.
74. It's hard to be by yourself without hurting someone's feelings in our household.
75. "Work before play" is the rule in our family.
76. Watching T.V. is more important than reading in our family.
77. Family members go out a lot.
78. The Bible is a very important book in our home.
79. Money is not handled very carefully in our family.
80. Rules are pretty inflexible in our household.
81. There is plenty of time and attention for everyone in our family.
82. There are a lot of spontaneous discussions in our family.
83. In our family, we believe you don't ever get anywhere by raising your voice.
84. We are not really encouraged to speak up for ourselves in our family.
85. Family members are often compared with others as to how well they are doing at work or school.
86. Family members really like music, art and literature.
87. Our main form of entertainment is watching T.V. or listening to the radio.
88. Family members believe that if you sin you will be punished.
89. Dishes are usually done immediately after eating.
90. You can't get away with much in our family.

Appendix D

Family Environment Scale Subscale Descriptions

Family Environment Scale Subscale Descriptions (Moos & Moos, 1986).

1. Cohesion: the degree of commitment, help, and support members provide for one another

2. Expressiveness: the extent to which family members are encouraged to act openly and to express their feelings directly

3. Conflict: the amount of openly expressed anger, aggression, and conflict among family members

4. Independence: the extent to which family members are assertive, are self-sufficient, and make their own decisions

5. Achievement Orientation: the extent to which activities (such as school and work) are cast into an achievement-oriented or competitive framework

6. Intellectual-Cultural Orientation: the degree of interest in political, social, intellectual, and cultural activities

7. Active-Recreational Orientation: the extent of participation in social and recreational activities

8. Moral-Religious Emphasis: the degree of emphasis on ethical and religious issues and values

9. Organization: the degree of importance of clear organization and structure in planning family activities and responsibilities

10. Control: the extent to which set rules and procedures are used to run family life

Appendix E

Procedures for Hierarchical Classification of Family Types

Procedures for Hierarchical Classification of Family Types (adapted from Billings & Moos (1982)).

1. Independence-oriented families: independence ≥ 60* and independence ≥ achievement, intellectual/cultural and moral/religious subscales.

2. Achievement-oriented families: achievement ≥ 60 and achievement ≥ intellectual/cultural and moral/religious subscales.

3. Structured moral/religious families: moral/religious ≥ 60 and moral/religious ≥ intellectual/cultural orientation and organization > 50.

4. Unstructured moral/religious families moral/religious ≥ 60 and moral/religious ≥ intellectual/cultural and organization ≤ 50.

5. Intellectual/cultural-oriented families: intellectual/cultural ≥ 60.

6. Support-oriented families: cohesion or expressiveness ≥ 60 and either cohesion or expressiveness ≥ conflict.

7. Conflict-oriented families: conflict ≥ 60.

8. Disorganized families: organization ≤ 50.

*Subscale scores are given in T-score values.

Appendix F

Descriptions of Family Environment Types

Descriptions of Family Environment Types

Independence Oriented Families

Young adults from independence oriented families made up the largest proportion of the sample (n = 42, 26.9%). The most salient feature of these families, as expected, is a prominent emphasis on independence (M = 65.6, SD = 4.0). In addition, these families received a low score on the control subscale (M = 39.9, SD = 11.1).

It was anticipated that more young adults from independence oriented families would report living on their own than with their parents. This did appear to be the trend, (68.3% reported living on their own and 31.7% reported living with their parents). However, comparisons of family types on this discrete variable using chi-square analysis revealed no significant differences $\chi^2(8, N = 154) = 6.11$, p .64.

Achievement Oriented Families

The 36 young adults (23.1% of the sample) from achievement oriented families obtained a high mean score on the achievement subscale (M = 66.7, SD = 4.9). Also worthy of note are the relatively low scores on cohesion (M = 35.1, SD = 21.3) and expressiveness (M = 37.0, SD = 12.6) that were obtained by the young adults representing these families.

Moral Religious Families

The families of 19 young adults were classified as either structured moral religious families (n = 10, 6.4% of the sample) or unstructured moral religious families (n = 9, 5.8% of the sample). As

one would expect, the most salient features of these family types are their high scores on the moral-religious emphasis subscale (M = 66.0, SD = 3.9; and M = 67.6, SD = 4.6 respectively).

Although it was thought that parents in support oriented families would be the most likely to have intact marriages, the marriages of parents in structured and unstructured moral religious families were more likely to fit this description. Young adults from 90.0 percent of structured moral religious families and 88.9 percent of unstructured moral religious families reported that their parents' marriages were intact. These proportions, although higher than any other family type, did not differ significantly from other family types, $\chi^2(8, N = 152) = 7.17$, $p = .52$.

Structured Moral Religious Families

None of the FES subscale scores for this family type were above 60.0 or below 40.0, although their scores on organization (M = 59.9, SD = 6.4) and conflict (M = 40.9, SD = 8.0) approach the upper and lower cutoff values respectively.

Unstructured Moral Religious Families

Besides their high score on moral-religious emphasis, these families obtained low scores on cohesion (M = 30.0. SD = 22.7), expressiveness (M = 37.9, SD = 16.9), and intellectual-cultural orientation (M = 37.3, SD = 14.0). Furthermore, their score on organization approached the lower cutoff (M = 40.6, SD = 7.2) while

their score on control approached the upper cutoff (M = 59.8, SD = 12.6).

Intellectual-Cultural Oriented Families

Young adults from these families (n = 22, 14.1% of the sample) scored higher than any other family type on intellectual-cultural orientation (M = 67.3, SD = 3.1). These families are also characterized by their high score on the active-recreational orientation subscale (M = 61.0, SD = 8.8).

Support Oriented Families

Only 8 subjects (5.1% of the sample) were classified as belonging to support oriented families. Surprisingly, none of the ten FES subscale scores for this family type reached the criteria used thus far in the descriptions. The most extreme score for this family type was that obtained on expressiveness (M = 58.4, SD = 7.3).

Conflict Oriented Families

Fifteen young adults (9.6% of the sample) were classified as members of conflict oriented families. The most salient features of these families are their extremely low score on cohesion (M = 16.8, SD = 17.4) and their very high score on conflict (M = 71.8, SD = 5.5). Other prominent features are their low scores on expressiveness (M = 36.0, SD = 12.0) and intellectual-cultural orientation (M = 34.7, SD = 11.2).

It was reasoned in Chapter Three that marital disruption (i.e., separation or divorce of the parents) would be more common in these families than the other family types due to their frequent and intense

experience of conflict. Although no statistical differences between family types were identified, $\chi^2(8,N = 152) = 7.17$, $p = .52$, a large proportion of parents in conflict oriented families (46.7%) had experienced marital disruption.

Disorganized Families

The families of 8 subjects (5.1% of the sample) were classified as disorganized families. The distinctive characteristics of this family type include a low score on cohesion ($M = 36.4$, $SD = 16.2$), expressiveness ($M = 35.1$, $SD = 10.2$), and intellectual-cultural orientation ($M = 39.9$, $SD = 11.4$). These characteristics are very similar to conflict oriented families. However, Tukey post hoc comparisons revealed that conflict oriented families score significantly higher than disorganized families on the conflict subscale ($p<.05$).

No significant differences in SES between any of the family types were identified, $F(8,131) = 1.79$, $p=.08$.

Appendix G

Discussion of Family Environment Types

Discussion of Family Environment Types

As compared to the findings of Billings and Moos (1982), differences were found in the proportions of young adults falling into each family environment type. More subjects from the present sample were from independence oriented and achievement oriented families, and fewer were from structured moral religious and support oriented families.

There are two possible reasons for these differences. The first possibility is that Billings and Moos' (1982) method of averaging FES scores of members of the same family may have resulted in scores that differ substantially from the scores of young adults taken alone. This, however, seems unlikely since (for any given family environment type) the mean FES scores reported by Billings and Moos bear remarkable correspondence to the scores found in the present study.

A better explanation for these differences, then, is simply that the sample characteristics differ between the two studies. The present research was conducted on a younger sample within a narrower age range (18 to 25 year olds) than that of Billings and Moos (1982), who studied parents from a random sample of San Francisco Bay families.

This implies, of course, that perceptions of the family environment vary depending on the age of the family members who complete the FES. In fact, Moos and Moos (1986), in studying differential perceptions of family environment, concluded that "there [are] small but systematic differences in how parents and adolescent

children [see] their families" (p. 10). It seems necessary, therefore, to establish family environment type norms for various age groups, or at least, for various family roles (e.g., parents and children).

Another indication that norming studies should be conducted is that, unlike the findings of Billings and Moos (1982), no statistically significant relationships between family environment types and demographic variables were detected. More specifically, it was not possible to distinguish family environment types on the basis of SES, marital intactness/disruption of parents, and young adults' place of residence. Again, this may have been the case because of sample differences. Another possibility is that demographic correlates that exist in reality were not detected by the present research. The chances of Type II error here are fairly high since as few as eight subjects were categorized into a given family environment type.

It is also possible that some of the correlates reported by Billings and Moos (1982) -- particularly their indices of individual functioning -- are invalid. Close examination of the Billings and Moos study reveals little in the way of efforts to validate these indices. Therefore, as well as norming studies, more rigorous testing of the correlates of family environment types is in order.

All of this confusion implies that caution is in order when categorizing families on the basis of Billings and Moos' (1982) procedure. This is true for family therapists as well as researchers. Since norms are not available, family therapists would be wise to use

FES family environment types only as a springboard for discussion and not for assessment purposes. While individual FES subscales are useful for assessment (because they are well researched) categorization of families into family environment types is only likely to be misleading.