AN ABSTRACT OF THE THESIS OF

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Title: Effect of Holland Personality Type Similarity and Family Ideology on Marital Satisfaction Among Dual-Career Spouses.

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The purpose of this study was to determine if Holland vocational personality type similarity and/or traditional/ egalitarian family ideology affected marital satisfaction among dual-career spouses.

The population for this study was Oregon State University graduate students and faculty, married to spouses who had career aspirations outside the home. Holland personality type (HPT) of respondents was determined by choice of graduate school major. The degree of similarity between the HPTs of the spouses was determined using the Holland hexagon model. Family ideology was assessed using the Traditional Family Ideology scale. Marital satisfaction was assessed using the Locke Marital Adjustment Test. A 2x3 ANOVA was

performed with marital satisfaction as the dependent variable. All tests were performed with α = .05 and a statistical power level of .80. Tukey's multiple comparisons test was used to determine which cell means were different. No statistical interaction was found. Chi-square was used to determine if mate selection was affected by HPT similarity.

This study found no difference in marital satisfaction (MS) between spouses married to mates of identical HPT as themselves, compared to spouses married to mates having dissimilar HPTs. However, those spouses married ot mates having an intermediate level of HPT similarity as themselves reported lower levels of marital satisfaction than either the identical HPT or dissimilar HPT group. The finding of low marital satisfaction among these couples was not consistent with expectations based upon the Holland theory. This finding may have been in part a function of the Artistic/Investigative type combination which predominated in this group, or a function fo respondent's level of self-esteem.

Family ideology did not affect MS in this study. While the number of marriages among spouses sharing identical HPTs did not exceed chance expectation, this finding may have been biased due to the predominantly Investigative environment of the University.

Effect of Holland Personality Type Similarity and
Family Ideology on Marital Satisfaction
Among Dual-Career Spouses

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I. INTRODUCTION

The purpose of this study was to determine if Holland
vocational personality type similarity or traditional/
egalitarian family ideology affected marital satisfaction
among dual-career spouses. Previously Dorset (1977) and
Mathis (1977) were unsuccessful in demonstrating that
Holland personality type affected marital satisfaction
generally. In view of this finding, the present study
sought to determine if the Holland theory might be more
applicable to dual-career marital satisfaction, where
vocational considerations may be more salient.

One variation of the traditional marital institution,
the dual-career marriage, is a response to change in our
society. The human potential movement, the emphasis on
education in an information era, the women's rights and
feminist movement, and the availability of pregnancy
planning and day-care facilities have all facilitated this
trend toward the dual-career marriage. Rapoport and
Rapoport (1971) stated that while other social

experiments, such as communal marriages, are on the decline, dual-career marriages are on the increase.

Rapoport and Rapoport (1971) stated that the integration of work-life and marital-life is crucial for the dual-career couple. However, while there exists a body of literature on factors inherent in marital satisfaction, as well as a body of literature on occupational satisfaction, there exists no theory capable of integrating the two.

Holland (1966) developed a theory which might have such a potential for integrating knowledge of occupational satisfaction with knowledge of marital satisfaction. Holland stated that there are six basic personality types with six corresponding types of environment. This theory holds that when one is in an environment that matches one's personality type, satisfaction is experienced. Holland (1973) also stated that when one is in an environment comprised of personality types similar to one's own, the shared perceptions, attitudes, and values would lead to satisfaction. Hogan, Hall, and Blank (1972) demonstrated that similarity of Holland personality type (HPT) does affect interpersonal attraction. Thus, Holland (1973) speculated that similarity of personality types might also affect husband-wife relationships.

The Holland theory could be used in the counseling process to explore personality differences among spouses of dual career marriages. Application of knowledge gained from this exploration of clients' HPT can lead to a better understanding of the interaction of their HPTs within their marriage. This knowledge and understanding can lead to a greater appreciation of the function of HPT within both work-life and marital-life.

Scope of the Problem

Winch (1974) stated that the functions of the family are economic, political, social/education, and religious. With pervasive changes in society come changes in the function of the family. The form of the family must change in order to meet the new functions imposed on it by society. Toffler's book Future Shock (1970) speculates about possible family forms of the future:

> Childless marriage, professional parenthood, post-retirement childrearing, corporate families, communes, geriatric group marriages, homosexual family units, polygamy--these then, are a few of the family forms and practices with which innovative minorities will experiment in the decades ahead (Toffler, 1970, p. 249).

In the 1970s, more than one-half of all married American women worked (Minariani and Zinkgraf, 1982). Interestingly, Parnes, Shea, Spitz, and Zeller (cited in

Rapoport & Rapoport, 1978) reported that three out of five American working wives stated that they would work even if they had enough money to live comfortably without working. However, while this marital form is increasing in popularity, it is not without problems. Ryslewicz and Thaler (1980) stated that there is significant spillover of occupational concerns into the marital relationship. Rapoport and Rapoport (1971) stated that little is known about the ways in which couples integrate their work and family lives.

Hill (1966) states that there exists the need to develop intermediate level theories capable of linking family concepts with personality concepts and concepts from other systems in society. A theory that could link our understanding of marital satisfaction to occupational considerations could benefit the counselor in facilitating the merging of work like and family life among dual-career couples.

John Holland (1973) suggests such a theory when he speculated that his vocational personality theory might also apply to marital relationships.

The Holland Model

Holland (1973) believed that personality is determined by heredity and early childhood experiences. Family, culture, and our uniquely inherited qualities influence the development of particular skills and competencies. Over the years these skills are reinforced through rewards gained in interaction with the environment. As we approach adult life, our career choices represent an expression of this process. We choose careers that present us with familiar challenges and that allow us to use our particular set of acquired competencies.

The following is a description of Holland's personality types:

1. <u>Realistic persons</u> prefer systematic use of tools, machines or animals.

2. <u>Investigative persons</u> prefer use of observation or symbols to investigate and understand physical, biological, or social phenomena.

3. <u>Artistic persons</u> prefer use of physical or verbal means to create art forms.

4. <u>Social persons</u> prefer interacting with others to inform, train, develop, cure, or enlighten.

5. <u>Enterprising persons</u> interact with others to gain organizational goals or attain economic gain.

6. Conventional persons prefer ordered systematic manipulation of data in attaining organization or economic goals (Holland, 1973, pp. 14-18).

Each personality type has a unique set of values, attitudes, competencies, as well as deficits. When we are in an environment that is congruent with our personality type, our preferences, skills, and competencies match the demands of the environment.

Holland Theory Applied to Marriage

The environment can be defined by the personality types of those inhabiting it, as well as the special tools and problems it possesses (Holland, 1973). Holland believes that vocational choice and subsequent occupational satisfaction is a function of the match between one's Holland personality type and the work environment. Within marriage, the personality of one spouse forms the marital environment for the other spouse. Hogan et al. (1972) demonstrated that similarity of vocational interests affects the interpersonal attraction ratings among students. The Holland theory would predict that similarity of HPT would not only affect initial interpersonal attraction, but shared values, perceptions

and interests would form the basis for subsequent marital satisfaction.

Similarity of personality in mate selection and marital satisfaction has been the basis of much early research. Marriage based upon psychological similarity has been termed psychological homogamy. Buttenwieser (1935) found a significant positive relationship between psychological similarity and marital stability. Burgess and Wallin (1944) also supported the concept of psychological homogamy. Thus, there exists a body of research to support Holland's speculation that HPT might affect husband-wife relationships.

Mathis (1977) tested the effect of HPT similarity on marital satisfaction (MS) among a population of seminary students and their spouses. Mathis was unable to support her hypothesis, attributing the lack of positive results to the extreme homogeneity of HPTs in her population. Dorset (1977) tested the effect of vocational interest similarity on MS among spouses. Dorset also failed to support her hypothesis but recommended replication of her study using a dual-career population where occupational considerations might be more salient.

Dorset also reasoned that among traditional family oriented spouses, shared interests might not be as significant as among egalitarian family oriented spouses

(Dorset, 1977, pp. 17-18). This present study has sought to build upon the findings and recommendations of the Mathis (1977) and Dorset (1977) studies.

Purpose of the Study

The purpose of this study was to test the application of the Holland vocational theory to the field of dual-career marital satisfaction, thus establishing a theory capable of integrating the marital satisfaction literature with the vocational satisfaction literature. Such a theory may be useful to the marital counselor in working with dual-career couples. The Holland theory might be used to explain the basis of individual differences among spouses, to facilitate understanding of how those differences function within the couple's work-life and marital-life, and to lead to more constructive resolution of marital conflict. Rapoport and Rapoport (1978) saw future research in marital satisfaction becoming more specialized and concerned with therapeutic goals. The application of Holland's theory to dual-career marital counseling may be helpful in this pursuit.

This study sought to build upon the findings and recommendations of the Dorset (1977) and Mathis (1977)

studies. The population for the current study was Oregon State University graudate students and faculty. This population represented all six of Holland's types and provided much more diversity than the Mathis (1977) population.

Dorset (1977) had reasoned that perhaps shared occupational interests would be more salient among dual-career couples. In particular one might expect shared perceptions and values to be more relevant to marital satisfaction (MS) among egalitarian spouses as contrasted to traditionally oriented spouses. Thus, the current study was limited to respondents whose spouse also had occupational aspirations and the effect of family ideology and its interaction with HPT similarity on MS was investigated.

Another technically compelling reason for this study was to test the application of Holland's theory with a stated statistical power level. Both Dorset and Mathis concluded that Holland personality type had no effect on marital satisfaction. However, the probability of falsely accepting the null hypothesis is known as beta (β) error. Statistical power is $1 - \beta$. Statistical power is the ability to detect a difference if it exists. Statistical power is directly proportional to sample size. Both the Mathis (1977) and Dorset (1977) studies had very small

cell sizes (17 and 9, respectively) and, thus, the reliability of their findings is questionable. The present study sought to set the statistical power level at .80, thus greatly increasing the probability of finding an effect of HPT on marital satisfaction (MS), if it exists.

Objectives of the Study

1. To adequately test the application of the Holland vocational theory to the field of marital relationships.

2. To determine the effect of HPT similarity on MS in a dual-career population.

3. To determine the effect of family ideology (FI) on MS within a dual-career population.

4. To determine the interactive effect of HPT similarity and FI on MS among a dual-career population.

5. To determine if HPT is a factor in mate selection.

Design

The population for this study was composed of Oregon State University graduate students and faculty whose spouses had career objectives outside the home. The sample

for this study was solicited from the OSU directory. One hundred and eighty graduate students and 168 faculty members participated by completing the research questionnaire (Appendix D).

Marital satisfaction (MS) was measured by the Locke Marital Adjustment Test (LMAT) 23-item version. Family ideology (FI) was assessed using the Traditional Family Ideology scale (TFI). Holland personality type (HPT) was determined from occupational training, or actual occupation, using The Occupations Finder (Holland, 1970). Similarity among spouses was determined, using the Holland hexagon model, where the relationship within and between types or environments can be ordered according to a hexagon model in which the distance between types of environments is inversely proportional to the theoretical relationship between them (Holland, 1973, p. 5).

This study was a 2 x 3 fixed block design (figure 2) where the dependent variable was MS and the two independent variables were FI and HPT similarity. A two-way analysis of variance procedure was used to test the main hypotheses. A Chi-square analysis was used to determine if the observed frequency of marriages within levels of similarity was significantly different from those expected by chance. All of the tests were performed with alpha levels of .05 and a statistical power level of .80.

Figure 1

Holland Hexagon Model

Realistic   Investigative

Conventional   Artistic

Enterprising   Social

Figure 2

The Design Matrix

Family Ideology	HPT Similarity Among Spouses		
	Identical	Similar	Dissimilar
Traditional			
Egalitarian			

Null Hypotheses

1.   Similarity of HPT does not affect the degree of MS among dual-career spouses.

$$H_o: \mu_i = \mu_s = \mu_d$$

where

> μ_i is the mean (LMAT) score of persons married to identical HPT spouses.

> μ_s is the mean (LMAT) score of persons married to similar HPT spouses.

> μ_d is the mean (LMAT) score of persons married to dissimilar HPT spouses.

2.   FI does not affect MS among dual-career spouses.

$$H_o: \mu_t = \mu_e$$

where

> μ_t is the mean (LMAT) score of traditional persons (top 1/2 TFI).

> μ_e is the mean (LMAT) score of egalitarian persons (bottom 1/2 TFI).

3. Similarity of HPT and FI do not interactively affect MS among dual-career spouses.

$$H_o: \mu_{ixt} = \mu_{sxt} = \mu_{dxt} = \mu_{ixe} = \mu_{sxe} = \mu_{dxe}$$

where

μ_{ixt} is the mean (LMAT) score of traditional persons married to identical HPT spouses.

μ_{sxt} is the mean (LMAT) score of traditional persons married to similar HPT spouses.

μ_{dxt} is the mean (LMAT) score of traditional persons married to dissimilar HPT spouses.

μ_{ixe} is the mean (LMAT) score of egalitarian persons married to identical HPT spouses.

μ_{sxe} is the mean (LMAT) score of egalitarian persons married to similar HPT spouses.

μ_{dxe} is the mean (LMAT) score of egalitarian persons married to dissimilar HPT spouses.

4. Holland personality type similarity does not affect mate selection among dual-career spouses.

H_o: $f_o(i)$ marriages = $f_e(i)$ marriages

and $f_o(s)$ marriages = $f_e(s)$ marriages

and $f_o(d)$ marriages = $f_e(d)$ marriages

where

$f_o(i)$ is the observed frequency of marriages among identical HPT spouses.

$f_e(i)$ is the expected frequency of marriages among identical HPT spouses.

$f_o(s)$ is the observed frequency of marriages among similar HPT spouses.

$f_e(s)$ is the expected frequency of marriages among similar HPT spouses.

$f_o(d)$ is the observed frequency of marriages among dissimilar HPT spouses.

$f_e(d)$ is the expected frequency of marraiges among dissimilar HPT spouses.

Definitions

Complementarity of needs: Spousal gratification through
    sharing of very different levels of the same need,
    i.e. high dominance and low dominance; or having
    very different needs, i.e. recognition need in one
    spouse-deference need in another.

Confidence level: The probability of correctly accepting
    the alternative hypothesis. $1 - \alpha$.

Dual-career marriage: Marriage between two persons both
    having occupational aspirations outside the home.

Eqalitarian family ideology: Tends to decentralize
    authority within the family and to maximize
    individual self-determination.

General systems theory: "the formulation and derivation of
    those principles which are valid for 'systems' in
    general" (Bertalanphy, 1974, p.32).

Heterogamy: Marriage among persons being dissimilar in
    some dimension, i.e. physical, socio-economic class,
    religion, etc.

Holland hexagon model: "The relationships within and
    between types can be ordered according to a hexagon
    model in which the distances between types are
    inversely proportional to the theoretical relation-
    ships between them" (Holland, 1973, p. 5).

Homogamy: Marriage between persons being similar to one
another in some respect.

Lifestyle: A disposition toward life that includes self-
concept, perception of environment, values,
achievement, reaction to stress, occupation, personal
traits.

Marital satisfction: Respondent's score on the LMAT which
is a self-report inventory measuring qualitative and
quantitative dimensions of the marital relationship.

Psychological variables: May include among others
personality factors, conscious and unconscious needs
and interpersonal relationship behaviors.

Statistical power: The probability of correctly accepting
the null hypothesis $(1 - \beta)$. The ability to detect a
difference among means if a difference in fact
exists.

Traditional family ideology: Emphasis on discipline in
child rearing, sharp dichotomization in sex roles.

II. REVIEW OF RELATED LITERATURE

"Birds of a feather flock together" is consistent with early mate selection literature which tended to support the concept of homogamy. This Greek word refers to marriage based upon some dimension of similarity. Mate selection based upon similarity is also referred to as assortive mating. The early literature in assortive mate selection focused on physical characteristics. Harris (1912) found significant similarity among spouses in: age, stature, hair color, and eye color. Later literature shifted to the investigation of social factors in mate selection. Burgess and Wallin (1943) demonstrated homogamy among couples with regard to: religious affiliation, family background, courtship behavior, concept of marriage and social participation. Society supports this process of homogamy with implicit and explicit bias against marrying outside one's socioeconomic, ethnic, or religious group (Winch, 1974). One tends to marry someone who resides within one's immediate vicinity. Society is structured such that we tend to reside in rather homogeneous communities, thus somewhat restricting our initial field of eligible mates (Winch, 1974). This is known as residential propinquity.

Psychological factors have also been demonstrated to affect our choice of a mate. Couples have been found to be similar to one another psychologically. Terman and Buttenwieser (1935) investigated the effect of psychological similarity on marital stability. Using 13 psychological variables, they compared inter-spouse correlations among 126 happiest couples, 215 least happy couples, and 109 divorced couples. While the correlations tended not to be different among these three groups, 38 of the 39 correlations were positive, thus supporting psychological homogamy. Burgess and Wallin (1944), using the Thurstone Neurotic Inventory, also supported psychological homogamy but found similarity of social factors more significant than similarity of either physical or psychological characteristics.

Dymond (1954) found marital happiness was associated with similarity among the perception of one's self and perception of one's spouse. Dymond reasoned that such similarity led to understanding which in turn led to happiness. Corsini (1956) supported the hypothesis that similarity of perceived self among spouses correlated with marital satisfaction, but did not support that marital happiness was a function of understanding one's mate, nor that understanding one's mate was a function of similarity. Similarity of perceived selves among spouses

seem to support the general homogamy principle, but in a manner not yet fully understood.

Cattell and Nesselroade (1967), using the Sixteen Personality Factors Test (16PF), found that stable marital couples had eight significant positive correlations, while unstable marital couples had only five significant correlations, with two of these being negative. These studies tend to support the concept of homogamy as it relates to similarity of socioeconomic, personality, and physical factors among spouses.

Complementarity

"Opposites attract." While Winch agreed with the basic premise that the field of eligibles was narrowed by homogamous socioeconomic variables, he sought to describe the process whereby the mate was chosen out of this homogamous grouping. In 1950 Winch interviewed 25 young married college graduates. Winch hypothesized that love was based upon need gratification. The couples who had complementary needs would be better able to meet each other's needs than those with similar needs. This study used clinical interviews and the Thematic Apperception Test to determine both the conscious and unsconscious needs of the couples. The most significant psychological

need dimensions were nurturance/receptivity and control/submission. Winch hypothesized that these dimensions were of special significance due to the developmental nature of the parent/child relationships in America (Winch, 1958). These findings were published originally in the 1954 and 1955 American Sociological Review.

A series of studies using the Edwards Personal Preference Schedule (EPPS) failed to replicate Winch's findings (Blazer, 1963; Bowerman & Day, 1956; Katz, Goldstein, & Krauss, 1960; Schallenberg & Bee, 1960). Winch (1974) criticized the validity of EPPS; however, he did acknowledge the criticism of Rosow (1957) that his theory did not set forth adequate criteria for determining which needs were to be considered complementary. Levinger (1964) clarified this concept of complementarity with the use of Schutz's Fundamental Interpersonal Relationship Orientation- Behavior (FIRO-B). In this test of Winch's hypothesis, desire for and desire to express inclusion, control, and affection were compared among spouses. Complementarity among spouses was supported.

Homogamy and Complementarity

Kerchoff and Davis (1962) attempted to use both the homogamy principle and the need complementarity principle in describing the mate selection process. Using the FIRO-B, they demonstrated that individuals first narrowed the field of eligibles on the basis of similarity of background. Then the field was again narrowed, based upon consensus of values. However, in the final stage, a mate was selected based upon complementarity of needs, not similarity. Subsequent replications of this study have failed (Levinger, Senn, & Jorgenson, 1970).

Goodman (1964), using the Index of Adjustment and Values, found that individuals who liked themselves tended to marry individuals similar to themselves, but individuals who did not like themselves tended to marry individuals who were dissimilar to themselves. In this study, need complementarity was only a significant factor among those couples who were low in self-esteem. Karp, Jackson, and Lester (1970) had a similar finding which demonstrated individuals chose mates that represented their real-self, except when real-self was discrepant from ideal-self. Karp et al. concluded that we tend to strive toward ideal-self fulfillment through mate selection.

Bermann (1974) in a study using roommates in a Nursing program found that need complementarity was predictive of relationship stability only when the needs were consistent with the role expectation of nurses. Bermann concluded that marital satisfaction might best be investigated as a relationship of psychological factors within a specific set of role expectancies held by the couple. The function of roles is also central to the Stimulus-Value-Role theory of Murstein (1970). Like the Filter theory of Kerchoff and Davis, this theory proposes a set of variables that have differential impact on the development of the relationship in a sequential manner. In the initial (Stimulus) stage, progress is associated with similarity of perceivable physical, social, and reputational attributes. In the second (Values) stage, progress is associated with similarity of values evidenced in attitude toward life, religion, politics, etc. However, in the final stage, progress was a function of either role complementarity or role similarity. Murstein uses the concept of role compatibility to explain this stage. Role compatibility is experienced to the extent that the role's of each spouse combine to support mutually determined goals. Thus an ideal spouse may be either similar to or complementary to oneself depending on the couple's goals. Hess and Hendel (1959) theorized that each individual

develops an image of themselves and their spouse. A spouse's congruence with this spouse-image is experienced as satisfying. The spouse-image is in part idealized, drawing upon cultural values, role expectations, and experiences in the family of origin. Thus, selection of a mate based upon perceived similarity may be a joint function of both perceived self, and one's idealized spouse image.

Mirianti and Zinkgraf (1982) compared dual-career spouses high in marital satisfaction to dual-career spouses low in marital satisfaction using the 16PF questionnaire. Spouses with high marital satisfaction tended to be more similar to their mates (homogamy) than did spouses who were low in marital satisfaction. In couples where marital satisfaction was low, spouses seemed to have picked mates they felt would complement their personalities.

Berscheid and Walster (1978) hypothesized that individuals seek a mate of equal value. Thus, one might choose a spouse of similar socioeconomic or physical attractiveness; or one might seek to trade the value of a possessed asset for a different asset of comparable value in a spouse. An example would be a beautiful young woman who marries an old but wealthy and powerful politician. She is making the equitable trade of her youth and beauty

for his wealth and power. This theory hypothesizes that some dual-career wives trade the value of their income as workers for power possessed by their husbands. As long as both perceive the situation to be equitable, satisfaction is maintained.

Current Trends in Marital Satisfaction Research

Hicks and Platt (1970) did a major review of the marital satisfaction literature of the 1960s. They found the following variables associated with marital satisfaction: higher occupational statuses, higher incomes, higher educational levels for husbands; husband-wife similarity in socioeconomic status, age, and religion, esteem for spouse, sexual enjoyment and companionship. Hick and Platt suggested that a marital companionship form was evolving that might differ in dynamics from the traditional marriage.

Spanier and Lewis (1980) reviewed the marital quality literature in the 1970s and noted a trend to more sophisticated multivariant analysis procedures in the attempt to construct more comprehensive theories.

The focus of the present study was to establish a comprehensive theory capable of integrating both work and marital aspects of life. Rapoport and Rapoport (1978)

thought future research would become more specialized and concerned with application of concepts to therapeutic goals. This study sought to apply the Holland vocational theory to the dual-career relationship in such a manner that it might prove useful within the counseling process.

Dual -Career Marital Satisfaction

Rapoport and Rapoport (1978) stated that the concept of dual-career family and subsequent research came about in the early 1960s. They divided the dual-career literature into three generations of research efforts. Research up until 1969 tended to focus on the changing sex roles within the family structure. Dual-career families were considered pioneers in society. The second generation of studies, from 1969 through 1973, tended to focus on formulating hypotheses about the functioning of such families, i.e., integration of work roles with family roles with its stresses and strains and varied outcomes. The use of multiple factors led to more complex investigations. The current third generation of research is targeted more at hypothesis testing than exploration. Studies today tend to be more specialized in their interests, for example, academic, political, feminist, and therapeutic.

Findings by Orden and Bradburn (1969) seem to dispell the belief that when wives work, marital satisfaction suffers. In their study, there was generally no significant difference in marital satisfaction among dual-career couples as compared to the traditional single-career couples. However, where the wife's work was an economic necessity, rather than a choice, the marital satisfaction was significantly lower for both husbands and wives. Women who choose to stay home are no happier than those who choose to work, or vice versa. Having a choice seems to be the crucial factor.

Rapoport and Rapoport (1974) have investigated the effects of symmetry on enjoyment. A symmetrical family was characterized as husbands working more in the home and wives working more out of the home than do husbands and wives in traditional families. Their study found that more activities were enjoyed by both spouses when the husband was family-oriented rather than work-oriented. Wives who were in favor of wives working and worked themselves were likely to enjoy more everyday activities than were traditional wives. Husbands of such wives were also more likely to enjoy everyday activities. This study demonstrated that spouses actually influenced each other's enjoyment of activities. If the husband enjoyed the

activity, then the wife was more likely to enjoy that activity, and vice versa.

Holahan and Gilbert (1979) investigated role conflict in dual-career marriages. They found career aspiration was negatively related to role conflict for males but positively related to role conflict for females. They explained this as a function of the societal expectations that:"A woman's place is in the home." However, with the exception of career aspiration, no other gender difference was found with regard to role conflict. They concluded that survivors in dual-career marriages develop egalitarian distribution of labor and that husbands support their wives' careers, and that this tends to diminish sex-role differences. Parenthood, however, complicated the lives of both husbands and wives and increased role conflict. They remarked:

> It is also reasonable that traditional sex role attitudes would be associated with high role conflict since they would be contrary to the flexibility of both partners with respect to role enactment in dual-career situations (Holahan and Gilbert, 1979, p. 465).

Burke and Weir (1976) compared single-career husbands' and wives' need patterns to dual-career husbands' and wives' need patterns using the FIRO-B Test. Dual-career spouses had significantly lower needs for affection, inclusion, and control that single-career spouses. Working wives were more assertive than were the

housewives, while the husbands of the working wives were less assertive than were husbands of housewives. They concluded that "Members of dual-career families were better suited to a collegial type of marriage relationship which would allow for separate identities and a sharing of power between the partners."

Bailyn (1970) contrasted conventional couples (career-oriented husband and family-oriented wife) with coordinated couples (family-oriented husband and career-oriented wife) and found that the pattern of marital satisfaction varied. With conventional couples marital satisfaction decreased with both increase in number of children and increase in husband's income. Bailyn hypothesized that as the number of children increase, the wife becomes more absorbed in domestic duties and as the husband becomes more successful, he too becomes more involved in his work, thus leading to polarization of the couple into different worlds. However, for the coordinated couple, marital satisfaction increases as husband's work satisfaction increased. Husbands in a coordinated marriage see work as important and satisfying but have opted to add a family emphasis. Bailyn concludes that finding ways for husbands to include a family orientation may be more relevant to the dual-career wife's

marital satisfaction than would further investigations of the problem of wives' integrating work and family.

Holland Theory

Holland (1973) believed that personality is developed in early childhood. The environment, heredity, and social/familial experiences influence the development of attitudes, values, interests. In turn these attitudes, values, and interests lead to preference for particular activities. One develops certain skills and competencies associated with these activities. These skills and competencies are then reinforced in turn by the environment as one increases their mastery.

> Each type is a product of a characteristic interaction between a variety of cultural and personal forces, including peers, parents, social class, culture, and physical environment. . . Out of this experience a person learns to prefer some activities as opposed to others. . . Finally, a person's interests and competencies create a particular personal disposition that leads him to think, perceive, and act in special ways (Holland, 1973, p. 2).

This personal disposition forms the basis for one's lifestyle, one's values, attitudes, and beliefs.

Holland Typology

Holland's theory is basically a typology. Holland (1966) wrote that human personality can be described in terms of six basic types. However, Holland's theory allows for more complexity and variability within personality than six types. Holland believes that while a person most resembles one of the six personality types, they may also resemble to a lesser degree several other personality types. Differentiation refers to how well a person may be described by a single personality type. For the purposes of this study differentiation was not accounted for due to the difficulty in then assessing congruence or similarity among types. The following is a description of Holland's personality types:

Realistic type:

> ...preference for activities that entail the explicit, ordered, or systematic manipulation of objects, tools, machines, animals, and to an aversion to educational or therapeutic activities. . . .the acquisition of manual, mechanical, agricultural, electrical, and technical competencies and to a deficit in social and educational competencies.

> . . .the realistic person is apt to show himself to be:

Asocial	Materialistic	Self-effacing
Conforming	Natural	Stable
Frank	Normal	Thrifty
Genuine	Persistent	Uninsightful
Masculine	Practical	Uninvolved

Investigative type

. . .preference for activities that entail the observational, symbolic, systematic, and creative investigation of physical, biological, and cultural phenomena in order to understand and control such phenomena; and to an aversion to persuasive, social, and repetitive activities. . . an acquisition of scientific and mathematical competencies and to a deficit in persuasive competencies.

. . .the investigative person is apt to show himself to be:

Analytical	Introspective	Rational
Cautious	Introverted	Reserved
Criticial	Methodical	Unassuming
Curious	Passive	Unpopular
Independent	Pessimistic	
Intellectual	Precise	

Artistic type

. . .preference for ambiguous, free, unsystematized activities that entail the manipulation of physical, verbal, or human materials to create art forms or products, and to an aversion to explicit, systematic, and ordered activities. . . .an acquisition of artistic competencies--language, art, music, drama, writing--and to a deficit in clerical or business system competencies.

. . .the artistic person is apt to show himself to be:

Complicated	Imaginative	Intuitive
Disorderly	Impractical	Nonconforming
Emotional	Impulsive	Original
Feminine	Independent	
Idealistic	Introspective	

Social type:

. . .preference for activities that entail the manipulation of others to inform, train, develop, cure, or enlighten; and an aversion to explicit, ordered, systematic activities involving materials, tools, or machines. . . .an acquisition of human relations competencies such as interpersonal and

educational competencies and to a deficit in manual and technical competencies.

. . .the social person is apt to show himself to be:

Ascendant	Helpful	Responsible
Cooperative	Idealistic	Sociable
Feminine	Insightful	Tactful
Friendly	Kind	Understanding
Generous	Persuasive	

Enterprising type:

. . .preference for activities that entail the manipulation of others to attain organizational goals or economic gain; and an aversion to observational, symbolic, and systematic activities. . .an acquisition of leadership, interpersonal, and persuasive competencies, and to a deficit in scientific competencies.

. . .the enterprising person is apt to show himself to be:

Acquisitive	Domineering	Optimistic
Adventurous	Energetic	Pleasure-seeking
Ambitious	Exhibitionistic	Self-confident
Argumentative	Flirtatious	Sociable
Dependent	Impulsive	Talkative

Conventional type:

. . .preference for activities that entail the explicit, ordered, systematic manipulation of data, such as keeping records, filing materials, reproducing materials, organizing written and numerical data according to a prescribed plan, operating business machines and data processing machines to attain organizational or economic goals; and to an aversion to ambiguous, free, exploratory, or unsystematized activities. . .an acquisition of clerical, computational, and business system competencies and to a deficit in artistic competencies.

. . .the conventional person is apt to show himself to be:

Conforming	Inhibited	Prudish
Conscientious	Obedient	Self-controlled
Defensive	Orderly	Unimaginative
Efficient	Persistent	
Inflexible	Practical	

(Holland, 1973, pp. 14-18)

Holland (1973) states that an individual's personality type can be estimated from the choice of one's vocation or field of training. This was the method used to determine Holland personality type in this study.

> To estimate a person's profile or personality pattern, we can use one of several methods: a person's scores on selected scales from interest and personality inventories, his choice of vocation or field of training, his work history or preemployment aspirations, or any combinations of these data (Holland, 1973, p. 3).

Congruence and Similarity

> Because different types have different interests, competencies, and dispositions, they tend to surround themselves with special people and materials and tend to seek out problems that are congruent with their interests, competencies, and outlook on the world. (Holland, 1973, p. 3)

We find satisfaction in using our special skills and competencies in meeting the special challenges of the environment. We are reinforced by the success of our performance in those environments that match our personality.

> Calculus. The relationship within and between types or environments can be ordered according to a hexagon model in which the distance between

types of environments is inversely proportional to the theoretical relationship between them. (Holland, 1973, p. 5)

One can measure the degree of congruence between a personality and environment type or the similarity between personality types using the hexagon model (figure 1). The validity of this spatial relationship (forming a hexagon) was substantiated by Cole, Whitney, and Holland (1971).

Holland Theory Applied to Marital Relationships

A person's behavior is determined by the interaction between his personality and the characteristics of his environment. Such outcomes include choice of vocation, job changes, vocational achievement, personal competence, and educational and social behavior (Holland, 1973, p. 4).

Holland's theory is meant to describe the entire personality, not just vocational aspects. As such, this theory is intended to predict and explain the behavior of an individual's interaction with the entire environment, not just the work setting. If Holland's theory is as comprehensive as he purports, it should describe any personality/environment interaction, including marriage.

Holland believed that choosing an environment that matched one's personality leads to satisfaction. We are able to exercise our special skills and competencies that coincide with the special challenges of the environment.

The environment is not only dominated by special tools and problems, but also by persons. The environment is in part defined by the persons who inhabit it.

> There are six kinds of environment: realistic, investigative, artistic, social, enterprising, and conventional. Each environment is dominated by a given type of personality, and each environment is typified by physical settings posing special problems and stresses. (Holland, 1973, p. 3)

Within the marital environment, the personality of one spouse forms the marital environment of the other spouse. Spouses with similar personalities share common interests, attitudes, and values. They find the relationship reinforces their lifestyle and experience satisfaction in utilizing the skills and competencies demanded by their spouses' personalities.

> In general, best friends shared major fields, or types were attracted to types. . . .More recently, Hogan, Hall, and Blank (1972) extended this similarity-attraction hypothesis to activities and vocational interests. . . .In short, the subjects liked those who most resembed them in interests. The subjects also believed that people with interests similar to their own would be "Enjoyable to work with," as well as "Well adjusted" (Holland, 1973, p. 55).

These research citings of Holland led him to make the recommendation to explore man-wife interactions using his model. This study sought to follow Holland's suggestion.

Mathis Study

Mathis (1977) hypothesized that congruence of vocational-personality type would affect marital satisfaction. Her study summarized the literature on marital satisfaction under the headings: sociological factors, social-psychological factors, and psychological factors.

This study attempted to use the Holland model as a unifying theory, to bring together isolated findings under a more general conceptual framework. Mathis reviewed Holland's theory of personality and vocational types as well as his developmental process theory. Related studies that pointed to the validity and reliability of Holland's typology were cited.

The sample for this study consisted of 80 male students and their wives at three conservative West Coast seminaries. Most seminarians were social types, as would be expected by their vocational choice, and most wives were also social types. Personality type was determined by the Vocational Personality Inventory and stated vocational choice. Marital satisfaction was assessed using the Locke Marital Adjustment Test (LMAT). This dependent measure was adjusted for social conformity by using the Marital Conventionality Form (Edmonds, 1967) as a covariant.

The main hypothesis, that vocational-personality type congruence would affect marital satisfaction, was not supported. However, LMAT scores were in the direction hypothesized. Dropping the social conformity covariant brought the scores closer to significance. Most results were in the expected direction but lacked sufficient strength to achieve statistical significance. Mathis stated:

> The homogeneity of the sample may well have been the reason for the main hypothesis and probably the secondary hypothesis as well, were not supported. . . . A better test of the main hypothesis is needed (Mathis, 1977, pp. 74-75).

Dorset Study

Dorset (1977) tested the hypothesis that congruence of vocational interests is related to marital satisfaction. Dorset stated that there is a need for individuals to find ways of integrating work and family life. Vocational interest is a way of life, affecting not only our choice of occupation but our leisure interests, preference for school subjects, and the people to whom we are attracted.

> Satisfaction and success result from a congruency of person and environment. People who possess the competencies required by the environment and who desire the rewards the environment yields are

expected to be more satisfied and involved. (Holland & Gottfredson, 1975, cited in Dorset, 1977, p. 5)

Following this reasoning, Dorset concluded that similarity of spouses' vocational interests would enhance the companionship aspect of marriage.

Dorset gave chronological review of literature which explored the effect of interests on marital relations. This body of literature generally supported the hypothesis that similarity of interests facilitates the development and maintenance of the marital bond. She reported that when Budd (1963) asked individuals what they had most gained from marriage their response was "companionship." Dorset also included an exhaustive review of the Locke Marital Adjustment Test literature.

Dorset's sample included 98 student volunteers from introductory psychology and sociology courses in the Extension Division of the University of Minnesota and their spouses. About half of the husbands had college degrees and about half of the wives had some college. In Dorset's sample, half the wives worked out of the home and half were homemakers. Most all the men worked, mostly in professional and managerial positions. The average age for male subjects was 38, for female subjects 35. The couples in this sample were characterized as traditional in their marital views. The Holland hexagon was used to assess

degree of congruence between husband's and wife's Strong-Campbell II (SCII) profiles. All analyses were conducted separately for husbands and wives. The main hypothesis was not supported. However, Dorset suggested the following:

> The lack of significant results tends to support the hypothesis suggested that similarity may not be relevant to traditional marriages. . ..Vocational interests similarities may only be relevant to marital relationship, such as the dual-career professional pair or the couple who works together, where the discussion of work is an integral part of the companionship aspect of the relationship. (Dorset, 1977, p. 84)

Dorset suggested that further research explore dual-career professional couples and possibly assess marital orientation using the Traditional Family Ideology scale (Levinson and Huffman, 1955).

The current study has restricted respondents to those involved in a dual-career marital relationship and used family ideology as a second independent variable.

III. METHODS AND PROCEDURES

The purpose of this study was to determine the effect
of Holland personality type similarity and family ideology
on marital satisfaction among dual-career spouses. The
population for this study was comprised of Oregon State
University graduate students and faculty. The Occupation
and Marital Questionnaire (Appendix D) consisted of the
Locke Marital Adjustment Test (LMAT), the Traditional
Family Ideology scale (TFI), demographic, educational and
occupational questions. Holland type for both respondent
and spouse was assessed, using the The Occupations Finder
(Holland, 1970). The degree of similarity of spouses'
personality types were determined using Holland's hexagon
model. A two-way analysis of variance was performed on the
data to test the main research hypotheses. Additional data
analyses were performed utilizing the demographic data.

Population Studied

The population in this study included 2,651 graduate
students and 1,352 faculty members at Oregon State
University (OSU) a large land grant college. The
University has twelve undergraduate and graduate Colleges
and Schools offering programs in science, technology,

professions, and liberal arts. At the graduate level, there is a strong emphasis in engineering, sciences, and agriculture. Use of Holland's procedure for analyzing the environment indicated that OSU is predominately Investigative type (40%), with the remaining five environmental types being rather equally represented (Appendix A). This would seem to represent a significantly more heterogeneous population than that involving the seminary students in the Mathis (1977) study.

Additional demographic information from the Graduate and Professional Student Association of OSU indicated that approximately half of the OSU graduate students were married, the median age being 28. Most had no children. Approximately two-thirds of the graduate student population were male. Roughly one-third of the graduate students did not work, about one-third worked less than 20 hours a week, and about one-third worked between 20-40 hours per week (Appendix B). Over 700 of these graduate students were foreign students, representing about eighty countries.

Sampling Procedure

Faculty and graduate respondents were selected from the OSU Directory 1982-1983. The names of OSU faculty and

graduate students were alphabetized within the directory. From the alphabetized list of faculty, every third professor was contacted by phone in his/her office and invited to participate in the study if they were married and their mate also had occupational aspirations outside the home. Of the faculty contacted, only three refused. Approximately twelve gave qualified responses (wanting to see the questionnaire first). The remainder (161) agreed to respond. If a faculty member was not married, married but wife had no career aspirations outside the home, or could not be reached by the third attempt, the name of the faculty member immediately following in the OSU Directory was substituted as an alternate. Extension faculty with no on-campus phone listing were systematically excluded due to the impracticality of reaching these individuals.

Graduate students were similarly selected from the OSU Directory. They were contacted at their home numbers in the evening and on weekends. A significant number of graduate students contacted were not married--roughly one-half being single--but most graduate students who were married to career-involved spouses agreed to participate in the study.

Faculty questionnaires were sent to OSU offices and returned through inter-campus mail to the OSU Survey Research Center. Graduate student questionnaires were

mailed to home addresses and returned via U.S. mail to the OSU Survey Research Center. Approximately two weeks following the initial mailing of the survey questionnaires, a follow-up card was sent to all respondents. This card (Appendix E) thanked respondents for their prompt responses and comments on the survey and reminded those who had failed to respond to do so immediately. Of the 168 faculty questionnaires and 180 graduate student questionnaires sent, 248 (71%) were returned to the Office of Survey Research. The target response rate for the study had been set at 70%.

Instruments

The assessment instruments included the Locke Marital Adjustment Test (23-item version), the Traditional Family Ideology scale (Levinson & Hoffman, 1955), and The Occupations Finder (Holland, 1970).

Marital Satisfaction

The 23-item Locke Marital Adjustment Test (LMAT) was used to assess marital satisfaction in this study. The LMAT was the assessment instrument used by both Mathis (1977) and Dorset (1977). The LMAT is the most frequently

used instrument for assessing marital satisfaction according to a literature survey by Edmonds, Withers, and Dibatista (1972).

The LMAT was developed by contrasting responses from 200 divorced couples with responses obtained from 200 couples judged to be happily married by relatives, friends, and acquaintances. These couples responded to questions that were taken from the Burgess-Cottell Marital Adjustment Test, the Terman Marital Happiness Test, and from questions devised by Locke (1951). Out of this study, Locke selected 23 items that correlated with his criterion group at or above r = .30. Locke and Wallace (1959) used fifteen of these items in a study to determine the validity and reliability of the LMAT. In that study, 48 married persons known to be having marital difficulty were contrasted with a control group. The mean of the troubled married group was 71.7, while the mean of the control group was 135.9. This was judged to be highly statistically significant. The split-half reliability in this study was r = .90.

The LMAT in this study used a weighted scoring system developed by Locke (1951) and Kimmel and van der Veen (1974). Factor analysis of this test was performed by Locke and Williamson (1958). In this study husbands' and wives' scores were combined and the factors of

significance were found to be: Companionship, Agreement, Emotional Adjustment, Wife Accommodation, and Euphoria. A later factor-analysis was performed by Kimmel and van der Veen (1974) which did not combine husband and wife responses. This study used the 23-item version and found four factors: Sexual Congeniality, Compatibility, Closeness, and an "Other" factor. For husbands, Sexual Congeniality and Closeness item sets combined. For wives, Compatibility and Closeness item sets combined. However, there was significant overlap of factor patterns among husbands and wives.

Family Ideology

The Traditional Family Ideology scale (TFI) developed by Levinson & Huffman (1955) was used in this study to determine family orientations. This instrument has 40 items that seek to determine both the institutional and psychological components of TFI. The major components of the TFI are: conventionalism, authoritarian submission, exaggerated masculinity and feminity, emphasis on discipline, and a moralistic rejection of implusive life (Levinson & Huffman, 1955).

In its development, the TFI was administered to 67 men and 42 women from varied social, economic, marital,

and occupational backgrounds. This sample had a mean of 33.3, with a standard deviation of 7.8. The split-half reliability was r = .84. Internal consistency was demonstrated by an item analysis. Validity was suggested by comparing the TFI to the Ethnocentrism (E) and Authoritarianism (F) scales. The TFI correlated with the E scale at r = .65 and with the F scale at r = .73. Levinson gives the following meaning to the extreme ends of this scale.

> The autocratic is represented by various forms of "traditional family ideology." This viewpoint involves hierarchial conception of the family relationships, emphasis on discipline in child-rearing, sharp dichotomization in sex roles, and the like. . . .The democratic orientation tends to decentralize authority within the family, to seek greater equality of husband-wife and parent-child relationships and to maximize individual self-deterination. (Levinson & Huffman, 1955, p. 251)

This study used the 12-item version of the TFI. This form was administered to and standardized on 507 students and nurses in the Boston area (Levinson & Huffman, 1955). The 12-item TFI had an overall mean of 32.6, with a SD of 10.7. Average correlations with E was r = .64 and F, r = .67. Retest reliability six weeks was r = .93 and the split-half reliability was r = .92. Average item discrimination value was 2.9. Since the mean, SD and correlations with the validation measures of E and F were approximately the same for the long and short form,

Levinson concluded that the 12-item and 40-item TFI scales were comparable.

Determination of Personality Types

Among the OSU graduate students and faculty, personality type was determined by stated choice of graduate major. Holland stated that choice of college major is one method of determining personality type, and this is somewhat similar to the vocational choice method used by Mathis. Holland (1973) stated that no one method of determining personality type is best.

From stated choice of graduate major, the personality type was determined with the aid of The Occupations Finder (Holland, 1970). In The Occupations Finder (Appendix F), occupations are classified according to their Holland type. Thus, if a respondent indicated electrical engineering as a graduate major, the respondent was classified as an Investigative type--the Holland type under which electrical engineering is listed in The Occupations Finder. The Holland type for business adminstration is Enterprising, so a respondent choosing a business administration graduate major would be so classified, and so forth.

Holland types for spouses were similarly determined by college major. If, however, a spouse had no college major, the current occupation of the spouse was used to determine Holland type. If the spouse had no current college major or current occupation but planned to resume occupational involvement in the future, the occupation to be resumed was used to determine spouse type. This was necessary for those spouses who had active careers but chose to suspend them temporarily (most often due to child care responsibilities). Poloma, Pendleton, and Garland (1981) state that the interrupted career pattern is the norm among dual-career women.

Similarity Among Spouse Types

The similarity among the six basic Holland personality types has been spatially depicted by the hexagon model (Holland, 1973). This spatial configuration has been validated (Holland et al., 1969). The physical distance between types corresponds to the degree of similarity between types (Holland, 1973). From figure 1, it is apparent that the degree of similarity of adjacent types is greater than the degree of similarity between types not adjacent to one another.

Those respondents whose HPT was identical to their spouses' were assigned to the identical level. Those respondents who had HPTs adjacent to their spouses' were assigned to the similar level. Those respondents whose HPT was neither identical to nor adjacent to that of their spouses' were assigned to the dissimilar level. Thus, based upon the HPT of the respondents and their spouses, the hexagon model was used to assign the respondents to one of three levels of personality similarity (figure 2).

Data Analysis

The LMAT scores of the respondents were sorted into three levels of HPT similarity (identical, similar and dissimilar). Those scoring in the top half of the sample on TFI were judged to be egalitarian in their family orientation, those in the bottom half traditional. The LMAT scores were thus assigned to one of the appropriate six blocks in the 2 x 3 fixed block design matrix (figure 2).

The main hypotheses were tested using a two-way analysis of variance procedure (figure 3).

Figure 3

Analysis of Variance

Source	df	SS	MS	F
Variable 1	2	A	A/2	MS_1/MS_E
Variable 2	1	B	B/1	MS_2/MS_E
Interaction	2	C	C/2	MS_I/MS_E
Error	N-6	D	D/N-6	
Total	N-1	E		

Assortive mating was tested using Chi-square procedure. Computations were performed by the OSU Computer Center, using the Statistical Program for the Social Sciences (SPSS). Consultation and computational costs were covered by an OSU unsponsored research grant (#838166).

Statement of Statistical Power

The statistical power level for the tests of the main hypotheses was set at .80. With an effect size of .40 and

the alpha level at .05, the minimum cell size in a 2 x 3 analysis of variance was 21 (Cohen, 1969, Appendix J).

The significant $\underline{F}$ ratio was examined, using Tukey's multiple comparisons test to determine which cell means attributed to the significance. Had statistical interaction existed, then both independent variables would have been graphed against the dependent variable to determine the nature of the interaction.

Figure 4

The Mathematical Model

$$Y_{ijk} = \mu + \alpha_i + \beta_j + \alpha\beta_{ij} + \epsilon_{ijk}$$

Where, μ is a fixed constant representing the mean

α_i is the differential (fixed) effect associated with Variable 1

β_j is the differential (fixed) effect associated with Variable 2

$\alpha\beta_{ij}$ is the differential (fixed) effect associated with the interaction of Variable 1 and Variable 2

ϵ_{ijk} is a random variable with a mean of zero and a variance of σ.

IV. ANALYSIS OF DATA

The effect of Holland personality type (HPT) similarity on marital satisfaction (MS) among dual-career spouses was tested using a two-way analysis of variance (2-way ANOVA) procedure. The first null hypothesis tested was that MS would not vary between level of HPT similarity. MS was found to be significantly different among the three levels of HPT similarity, $\underline{F}(2,242) = 2.98$, $\alpha = .05$ and $\beta = .20$ (table 1).

Table 1

Effect of Holland Personality Type Similarity

and Family Ideology on Marital Satisfaction

Source of Variance	SS	df	MS	F	p
FI	54.12	1	54.12	.26	.60
HPT	1230.85	2	615.42	2.98	.05
TFI X HPT					
Similarity	342.43	2	171.21	.83	.43
Error	49949.76	242	206.73		
Total	51558.65	247	208.73		

However, the difference in MS among spouses was not consistent with that predicted by the Holland theory. Among spouses of identical HPT , the cell mean was 113.87. Among spouses of similar HPT , the cell mean was 108.64. Among spouses of disssimilar HPT , the cell mean was 114.63 (table 2).

Table 2

Marital Satisfaction Among Identical,
Similar, and Dissimilar HPT Spouses

Variable	N	Mean	S.D.	Variance
Total	248	113.22	14.44	208.73
HPT Similarity				
Identical	96	113.87	13.92	193.86
Similar	46	108.64	17.16	294.57
Dissimilar	106	114.62	13.22	177.81

Thus, marital satisfaction among identical spouses was not different from marital satisfaction among dissimilar spouses. However, among similar spouses the

level of marital satisfaction was significantly less than that of either the identical or dissimilar spouses (table 2).

Holland's theory, "Birds of a feather flock together," would have predicted that the greater the similarity among spouses the greater the marital satisfaction. However, this was not the finding.

The effect of family ideology on marital satisfaction among dual-career spouses was also tested using the 2-way ANOVA. There was no significant difference in MS among the the egalitarian spouses (bottom 1/2 TFI) as contrasted with the traditional spouses (top 1/2 TFI); $F(1,242) = .26$ $p = .60$ (table 1). There was also no significant interaction between HPT similarity and TFI on marital satisfaction; $F(2,242) = .83$, $p = .43$, (table 1).

Table 3

Marital Satisfaction Among Traditional

and Eqalitarian Spouses

Source	N	Mean	S.D.	Variance
Total	248	113.22	14.44	208.73
Traditional	116	113.64	14.18	201.20
Identical	45	115.94	13.57	184.22
Similar	23	108.32	14.99	224.74
Dissimilar	48	114.04	13.98	195.57
Egalitarian	132	112.85	14.71	216.65
Identical	51	112.05	14.10	198.98
Similar	23	108.95	19.43	377.58
Dissimilar	58	115.10	12.87	165.78

Lastly, the application of Holland's theory to mate selection was tested using Chi-square. The observed frequency of marriages among the three levels of HPT similarity were compared to the frequency expected by chance. Among the sample drawn there were 96 couples having identical HPTs, there were 46 couples having

similar HPTs and there were 106 couples having dissimilar HPTs. These figures were contrasted with the chance expectations of 41 identical (1/6 $\underline{n}$), 83 similar (1/3 $\underline{n}$), and 124 dissimilar (1/2 $\underline{n}$). χ^2 = 91.17 significant at α = .05 (table 3). There was a far greater number of identical HPT spouses than would have been expected by chance. Also there were far fewer similar HPT spouses than would have been expected by chance. While Holland's theory was supported by the larger than expected number of identical spouses; the fewer than expected similar spouses was not consistant with the theory.

Co-variants

In order to test the effect of TFI and HPT on MS, it was first necessary to determine if any of the demographic variables co-varied with MS. However, no significant relationship was found between: respondent's age and MS $\underline{r}$ = -.05, $\underline{p}$ = .20, length of marriage and MS $\underline{r}$ = -.03, $\underline{p}$ = .27 (table 4), sex of respondent and marital satisfaction $\underline{F}$(1,244) = 1.09, $\underline{p}$ = .64 (table 5), nor respondent's status (graduate student/ faculty) and MS $\underline{F}$(1,246) = 1.14, $\underline{p}$ = .48 (table 6). Thus, the need to utilize analysis of co-variance techniques in this study was not supported for these variables.

Table 4

Correlations Between Marital Satisfaction,

Years of Marriage, and Age of Respondent

Correlates	N	r	p
LMAT x Years			
Married	247	-.03	.27
LMAT x Age	248	-.05	.20
Age x Years			
Married	247	.82	.001

Table 5

Marital Satisfaction of Males Compared to Females

Variable	N	Mean	S.D.	df	F	p
Males	186	113.26	14.31			
				244	1.09	.64
Females	60	112.62	14.96			

Table 6

Marital Satisfaction of Graduate Students

Compared with Faculty

Variable	N	Mean	S.D.	df	F	p
Graduate						
Students	129	113.30	14.91	246	1.14	.48
Faculty	119	113.14	13.98			

Statistical Power

Using Cohen's Power Tables (Cohen, 1969), it was determined that for a 2 x 3 ANOVA with α = .05 and effect size of .40 it was necessary to have a minimum cell size of 21 in order to insure a statistical power level of .80. In this study the actual cell sizes ranged from 58 down to 23. Thus, the statistical power level (probability of correctly accepting the null hypothesis) was assured. The confidence in correctly accepting the alternative hypothesis was 95%. For this study the probability of correctly choosing the null hypothesis and the probability of correctly choosing the alternative hypothesis were determined in advance (Appendix J).

Findings Related to the Questionnaire

Of the total 348 questionnaires sent out, 248 (71%) were completed and returned. This met the predetermined minimum response rate of 70%. Of the 248 completed questionnaires, 129 (52.4%) were graduate students' and 117 (47.9%) were faculty. The mean age of the graduate students was 31.0 and the mean age of the faculty respondents was 42.3 (table 7). There was more variability in age among the faculty with a standard deviation of 10.2 years, while the SD among the graduate students was 6.2 years. The mean age for graduate students' spouses was 30.2 years and the mean age among faculty spouses was 40.5 years (table 8).

Table 7

Age of Graduate Students and Faculty

Variable	N	Mean	S.D.	Variance
Total	248	36.46	10.09	101.93
Grad.Stud.	129	31.06	6.23	38.83
Faculty	119	42.31	10.24	104.96

Table 8

Age of Spouse Among Graduate Students and Faculty

Variable	N	Mean	S.D.	Variance
Total	248	35.17	9.66	93.36
Gr. Std. Spouse	129	30.27	6.46	41.79
Faculty Spouse	119	40.49	9.75	95.25

The average length of marriage among the graduate student respondents was X = 5.9, SD = 5.7, years; among faculty respondents the average length of marriage X = 15.6, SD = 10.9, years. Among the sample as a whole the average length of marriage was X = 10.5 years, SD = 9.8 years (table 9).

The sample for this study was largely male (75. 6%). Among the graduate student respondents 98 (71.3%) were male and among the faculty 94 (80.3%) were male. Only 60 (24.4%) of the total 246 respondents were female. There was a greater percentage of female graduate students (28.7%) than female faculty respondents (19.7%) (table 10). Two respondents failed to identify their sex.

Table 9

Years of Marriage Among Graduate Students and Faculty

Variable	N	Mean	S.D.	Variance
Total	247	10.57	9.89	97.97
Grad. Stud.	129	5.91	5.72	32.79
Faculty	118	15.66	10.95	120.08

Table 10

Sex of Graduate Student and Faculty

Sex	Total (%)	Grd.Stud. (%)	Faculty (%)
Male	186 (75.6)	98 (71.3)	94 (80.3)
Female	60 (24.4)	37 (28.7)	23 (19.7)

Table 11

Status of Respondent by Sex

Sex		Graduate Students	Faculty
Male	N(%)	92 (49.5%)	94 (50.5%)
Female	N(%)	37 (61.7%)	23 (38.3%)

Locke Marital Adjustment Test

The mean LMAT for this sample was $\overline{X}$ = 113.2, with a SD of 14.4. For male respondents the mean LMAT score was $\overline{X}$ = 113.2 and female respondents the mean was $\overline{X}$ = 112.6 (table 5). These means are consistant with Mathis' study among seminarian and their spouses. The difference between male respondents' LMAT scores and female respondents' LMAT scores was not statistically significant, $F(1,244)$ = 1.09, p = .64 (table 5). There was no significant relationship between respondent's age and LMAT, r = -.05, p = .20 (table 4). There was no significant relationship between the number of years respondent was married and LMAT, r = -.03, p = .27 (table 4).

Table 12

Distribution of Marital Satisfaction Scores Among Sample

N	248	Minimum	65.40
Mean	113.22	Maximum	132.00
S.D.	14.44	Kurtosis	1.23
Variance	208.73	Skewness	-1.22

Question #15 (Appendix D) asked respondents in which areas they were most in agreement with their spouse and in which areas were they least in agreement. Respondents indicated that they were most in agreement on friends and conventionality and they were in least agreement on amount of time that should be spent together, recreation, and demonstration of affection (Appendix G). On the global marital satisfaction question #17 the mean score was $\overline{X}$ = 12.0 within a range of 0-16.

Traditional Family Ideology

The mean TFI 12-item score in this study was $\overline{X}$ = 27.8. The standard deviation in this study was 10.2 (table

13). In comparison with Levinson and Huffman's initial study in 1955, $\overline{X}$ = 32.6, SD = 10.7, the sample in this study was decidedly less traditional. Using 40 as a neutral point, this sample was generally egalitarian.

Table 13

Distribution of TFI Scores

N	248	Mimimum	10.00
Mean	27.88	Maximum	65.83
S.D.	10.28	Kurtosis	.47
Variance	105.74	Skewness	.78

Those traditional statements the sample most agreed on were: "A woman whose children are all messy or rowdy is not doing a good job as a mother," and "The family is a sacred institution devinely ordained." The traditional statements that the sample was least in agreement on were: "Women who want to remove the word obey from the marriage service don't understand the role of wife," and "Women

should not be placed in a position of authority over men"
(Appendix H).

The median score on the TFI used to divide the
traditional (top 1/2) from the egalitarian (bottom 1/2)
was 26 (Appendix I).

Holland Personality Types

Among the 248 respondents in this study the
distribution of Holland personality types was: 151
Investigative (61.4%), 50 Social (20.3%), 21 Realistic
(8.5%), 15 Enterprising (6.5%), 7 Artistic (2.8%), and 2
Conventional (0.8%). All the Realistic types were male, as
were most of the Investigative types (80.8%) and
Enterprising types (86.7%). Social, Artistic, and
Conventional types were approximately half male and half
female (tables 14 and 15).

Among the spouses of the respondents the distribution
of HPTs was: 96 Social (39%), 75 Investigative (30.5%), 31
Artistic (12.6%), 23 Enterprising (9.3%), 14 Conventional
(5.7%), and 7 Realistic (2.8%). Among spouses only the
Realistic type was predominantly male. (table 15)

From the above data it is apparent that the most
frequent marriages represented in the sample were
Investigative males married to Social or Investigative

females. This lack of diversity among the combinations of spouses may suggest social or psychological processes in mate selection not addressed in Holland's theory.

Table 14

HPT by Sex of Respondent

Holland Type		Males	Females	Total
Realistic	N(%)	21 (11.3)	0 (0)	21 (8.5)
Investigative	N(%)	122 (65.6)	29 (48.3)	151 (61.4)
Artistic	N(%)	4 (2.2)	3 (5.0)	7 (2.8)
Social	N(%)	25 (13.4)	25 (41.7)	50 (20.3)
Enterprising	N(%)	13 (7.0)	2 (3.3)	15 (6.5)
Conventional	N(%)	1 (.5)	1 (1.7)	2 (.8)

Table 15

Sex of Respondent by HPT

Holland Type	Males (%)	Females (%)
Realistic	21 (100)	0 (0)
Investigative	122 (80.8)	29 (19.2)
Artistic	4 (57.1)	3 (42.9)
Social	25 (50.0)	25 (50.0)
Enterprising	13 (86.7)	2 (13.2)
Conventional	1 (50.0)	1 (50.0)

Table 16

HPT and Sex of Respondents' Spouses

Holland Type		Males	Females	Total
Realistic	N(%)	3 (1.6)	4 (6.7)	7 (2.8)
Investigative	N(%)	47 (25.3)	28 (46.7)	75 (30.5)
Artistic	N(%)	26 (14.0)	5 (8.3)	31 (12.6)
Social	N(%)	83 (44.6)	13 (21.7)	96 (39.0)
Enterprising	N(%)	16 (8.6)	7 (11.7)	23 (9.3)
Conventional	N(%)	11.(5.9)	3 (5.0)	14 (5.7)

Table 17

Sex of Spouse by HPT

Holland Type	Males (%)	Females (%)
Realistic	3 (42.9)	4 (57.1)
Investigative	47 (62.7)	28 (37.2)
Artistic	26 (83.9)	5 (16.1)
Social	83 (86.5)	13 (13.5)
Enterprising	16 (69.6)	7 (30.4)
Conventional	11 (78.6)	3 (21.4)

V: SUMMARY AND CONCLUSIONS

John Holland (1973) stated that both the world of work and the world of persons can be categorized into six basic   environmental/personality   types: Realistic, Enterprising,   Artistic,   Social,   Investigative,   and Conventional. Holland (1973) demonstrated that when an individual's personality type is congruent with his/her work environment   type   that person tends   to report vocational   satisfaction.   Hogen,   Hall   and   Blank   (1972) demonstrated that   similarity of Holland personality   type (HPT) also affects interpersonal attraction ratings. Thus, Holland (1973) speculated that HPT might also affect husband-wife relationships.

Applied to the dating relationship, the Hogen, Hall and Blank (1972) findings would suggest that couples of similar HPT would experience greater attraction and thus an   increased probability of mate selection. Within the marital relationship, the personality of one spouse forms the marital environment for the other spouse. The more similar the   HPT of the spouses,   the   greater the personality/environment congruence. Thus, the greater the expected marital satisfaction.

This application of Holland's personality theory to the field of marital satisfaction has been the topic of

two doctoral theses. Mathis (1977) tested the hypothesis that congruence of spouses' Holland personality type (HPT) would affect marital satisfaction (MS). Mathis (1977) used a sample of seminarians and their spouses, but found the sample too homogeneous. Most of the seminarians and their spouses were Social types, thus providing insufficient cell sizes to allow for reliable hypothesis testing.

Dorset (1977) sought to determine the effect of vocational interest similarity among spouses on MS using the Holland model. The findings failed to support the hypotheses. She suggested replication using a population of dual-career spouses, reasoning that vocational interests might be more salient among such couples.

The current study sought to build upon the findings and recommendations of these two studies and to test the effect of HPT similarity and family ideology (FI) among dual-career couples.

Hypotheses

The research hypotheses tested were:

1. HPT similarity among dual-career spouses will affect MS.

2. FI will affect MS among dual-career couples.

3. HPT and FI will have an interactive effect upon MS among dual-career spouses.

4. Similarity of HPT type among couples will be greater than expected by chance.

Population and Sampling

The population for this study was Oregon State University graduate students and faculty married to spouses who also had career aspirations. Phone contacts were made from an alphabetized listing of all OSU graduate students and faculty in order to establish marital status and willingness to participate. Of the 348 questionnaires mailed, 248 (71%) were completed and returned.

Instruments

The Locke Marital Adjustment Test (LMAT) was chosen as the dependent variable for this study for two reasons. Firstly, this study sought to build upon the findings and recommendations of the Dorset (1977) and Mathis (1977) studies, which both used the LMAT. Secondly, the LMAT is the most frequently used instrument for determining marital satisfaction (Edmonds, Whithers, and Diabetis, 1972), thus its use would maximize the relationship of

this study to the general body of knowledge on marital satisfaction.

The LMAT used 23 items which have been found to discriminate between divorced and happily married persons (Locke and Wallace, 1951). Locke and Wallace (1959) demonstrated the validity of 15 of these items by contrasting a group of troubled marrieds, $\bar{X}$ = 71.7, to a control group of maritally well-adjusted couples, $\bar{X}$ = 135.5. This proved to be a highly significant difference.

The independent variables for this study were the degree of Holland personality type (HPT) similarity among spouses, and family ideology (FI). HPT was determined among the OSU graduate students and faculty respondents by locating their stated graduate major within Holland's Occupations Finder (Holland, 1970, Appendix F). HPT among spouses was similarly determined by finding the spouses' stated college major (or actual occupation if college was not indicated) within the Holland Occupations Finder. Degree of HPT similarity between the spouses was determined by using the Holland hexagon model (Holland et al., 1969) which gives a graphic representation of the relationship of the six personality/environment types (figure 1). Three levels of similarity were established: identical HPT, similar HPT, and dissimilar HPT. The identical HPT level contained respondents whose HPTs were

identical to those of their spouses. The similar HPT level contained those individuals whose HPTS were adjacent to that of their spouses. The dissimilar HPT level consisted of those spouses whose HPTs were neither the same nor adjacent to that of their spouse along the hexagon.

Family ideology (FI) was suggested by Dorset(1977) as an additional variable. The current study sought to determine if FI had an effect or interaction with HPT in affecting MS among dual-career couples. The Traditional Family Ideology (TFI) scale by Levinson and Huffman (1955) was chosen. The TFI purports to measure both institutional and psychological components. This study used the short form TFI having 12 items. The 12-item form has a similar mean, $\bar{X}$ = 32.6, standard deviation = 10.7, and correlations with Ethnocentrism, r = .64 and Authoritarianism, r = .67 to the standard 40-item TFI. The split-half reliability for this form is r =.92 and the re-test reliability is r = .93 (Levinson and Huffman, 1955).

Those respondents scoring in the top half of the Traditional Family Ideology (TFI) scale were assigned to the traditional level. Those respondents in the bottom half of the TFI scale were assigned to the egalitarian level.

Statistical Procedures

The statistical tool used to test the effect of TFI and HPT on MS was a two-way analysis of variance. Since no demographic variables were significantly related to MS, no co-variant was necessary. The minimum cell size of 21 was sufficient to yield 95% confidence (α = .05) with a .80 statistical power level (Cohen, 1966). A chi-square analyis was used to determine if the observed frequency of marriages among the three levels of HPT similarity varied significantly from chance expectations, α = .05. Means and standard deviations were reported for the TFI items, demographics and selected LMAT questions.

Findings

The first research hypothesis sought to determine if there were differences in marital satisfaction (MS) among persons married to spouses having identical Holland personality type (HPT) compared to persons married to spouses of similar HPT compared to persons married to spouses of dissimilar HPT.

The levels of MS among these three groups were compared and found to be statistically significant at the .05 level. Tukey's Multiple Comparison Test revealed that

those persons married to spouses of similar HPTs reported less MS than those persons married to spouses of either identical or dissimilar HPTs. The levels of MS among persons married to spouses of identical HPTs were found to be no different from the levels of MS among persons married to spouses of dissimilar HPTs.

Holland (1966, 1973) stated that occupational satisfaction is a function of congruence between one's personality and one's environment. Applied to the marital environment, one would expect that the greater the level of HPT similarity between spouses, the greater the MS. Thus, the finding that persons married to spouses of identical HPTs reported no greater MS than persons married to spouses of dissimilar HPTs is inconsistent with the Holland theory.

The finding that persons married to similar HPT spouses reported lower MS than either persons married to identical HPT spouses or dissimilar HPT spouses is not consistent with either the Holland theory or any other theory reviewed. This similar HPT group contained persons who were married to spouses with HPTs adjacent to their own along the Holland hexagon. This group contained predominantly Investigative/Artistic type spouse combinations. Goodman's (1964) statement that persons of high self-esteem marry spouses like themselves, while

persons with low self-esteem marry spouses unlike themselves may have some relationship to the findings of this study among the similar HPT group.

The second research hypothesis tested sought to determine whether there was a difference in levels of MS between relatively traditional spouses compared to relatively egalitarian spouses. This study found no statistically significant difference in MS between the traditionally oriented spouses compared to the egalitarian oriented spouses at the .05 level. Thus, while dual-career spouses may be generally more egalitarian than single-career spouses (Burke and Weir, 1976), in this study, relatively traditional dual-career spouses reported no difference in MS compared to relatively egalitarian dual-career spouses.

The third research hypothesis tested sought to determine if HPT similarity and FI interacted to affect MS. This follows the suggestion of Dorset (1977) who reasoned that perhaps only among the more egalitarian marriages would HPT affect MS. However, this study found no statistically significant differences in MS among any of the six cell means in the 2x3 matrix. HPT similarity had no more effect on MS among egalitarian spouses than it did among traditional spouses. One might have expected that egalitarian persons married to identical HPT spouses

would have reported greater MS than egalitarian persons married to dissimilar HPT spouses, reasoning that shared vocational interests would enhance MS among egalitarian spouses. However, the findings did not support this.

The fourth research hypothesis in this study sought to determine if HPT was a factor in the mate selection process. This study found that the number of marriages among identical HPT spouses exceeded chance expectations at the .05 level. This is consistent with Hogan, Hall, and Blank (1972), who found that persons were attracted to individuals who resembled them in interests. However, among persons having similar HPTs (adjacent along the Holland hexagon), there were fewer marriages than expected by chance and these marriages tended to be lower in marital satisfaction.

Conclusions

The findings of this study failed to support the application of the Holland theory to the field of marital satisfaction (MS). It seems that the "Birds of a feather flock together" principle is more relevant to occupational satisfaction than to marital satisfaction. This study found that similarity of Holland personality type was a significant factor in mate selection. The number of

marriages among identical HPT spouses exceeded chance expectations at the .05 level. This finding is consistent with the theories of Kerchoff and Davis (1962) and Murstein (1970) that suggest that psychological similarity is a significant factor in early mate selection.

This study did not find that similarity of Holland personality type was a significant factor in marital satisfaction in a manner consistent with the Holland theory. The finding that identical HPT spouses reported the same level of MS as dissimilar HPT spouses is not consistent with the Holland theory, which would predict that the identical spouses would report greater MS than the dissimilar spouses. It would seem that among the dissimilar HPT spouses, HPT differences may have functioned in a complementary manner, thus being a source of marital satisfaction rather than a source of marital dissatisfaction as predicted by the Holland theory.

There is a body of literature that suggests that some persons select a mate precisely because they are different from themselves. Goodman (1964) found that persons who like themselves tended to marry persons with similar personalities. However, persons who did not like themselves tended to marry persons very different from themselves. Karp, Jackson, and Lester (1970) found that a person tended to choose a mate based upon his or her

ideal-self concept. Those who perceived their real-self as similar to their ideal-self chose a similar mate, while those who perceived their real-self to be less than their ideal-self chose a mate who would complement their real-self and thus move them closer. There exist several theories which would account for the finding that persons married to dissimilar HPT spouses reported as much MS as persons married to identical HPT spouses.

This study found no statistically significant differences in MS between the traditionally oriented spouses compared to the egalitarian oriented spouses at the .05 level. This finding is not consistent with the expectations based upon Burke and Weir (1976), who concluded that dual-career spouses were more flexible in their sharing of power and developed a more collegial relationship than single career spouses, or Holahan and Gilbert (1979), who found dual-career marriages to be more egalitarian in their distribution of labor.

With regard to the effect of family ideology on MS, Bailyn (1970) found that non-traditional wives married to traditional husbands reported significantly lower levels of MS than did any other combination of spouses. However, this study did not seek to determine if any particular combinations of FI between spouses affected MS. Additionally, there was a major problem with the

Traditional Family Ideology scale used to determine family ideology. As a group, the sample in this study was more egalitarian than the sample in the original 1955 standardization. This meant that most persons used the extreme (egalitarian) end of the scale on most questions. This left only a few questions accounting for most of the differences among TFI scores. It would be desirable to restandardize or possibly reconstruct the TFI scale for future use.

Even though this study failed to support the hypothesis that Holland personality type similarity among spouses affects marital satisfaction, the Holland theory and instruments based upon it can have application to the general process of conjoint marital counseling. The following is a suggestion of such an application.

The counselor could have each spouse silently respond to the Self-Directed Search (SDS) questionnaire (Holland, 1970), then proceed with the self-scoring procedure. Next, the counselor could request both spouses to again complete the SDS but this time as each believes the other spouse would respond to the SDS. Thus, each spouse would have an SDS representing perceived self and self as perceived by spouse. The counselor could then facilitate the sharing of these perceptions between the couple.

The counselor could focus on discrepancies between perceived self and self as perceived by spouse. This could possibly lead to a more accurate knowledge of self and spouse. The counselor could then question each spouse in regard to his/her feelings about these perceptions, thus adding an affective aspect to this cognitive process.

Following this discussion, the counselor can conjointly explore the determinates of each spouse's personality. Since Holland's theory states that personality is developed in interaction with the environment, the counselor can explore the impact of family of origin on the personality development of each spouse. What were the occupations of the parents? What were the parents' expectations for their children? What impact did siblings and extended family members have on their development? What persons or events do they identify as significant influences in their development? This historical perspective to the personality development of each spouse may bring new insight and understanding to the couple.

Lastly, the counselor can focus on how each spouse sees their personalities interacting within the marriage. How does each spouse see their personalities as similar, complementary, or conflicting and how does each feel these interactions affect his/her marital satisfaction? Here

again the counselor can facilitate the sharing and feedback process.

It is expected that through the knowledge and understanding gained in this application of the Holland theory to conjoint marital counseling, each spouse will come to a greater appreciation of his/her own personality and that of the other. Such understanding and appreciation of each other can lead to enhanced marital satisfaction.

Suggestions for Future Research

One of the findings of this study was that identical HPT spouses report equal levels of marital satisfaction as dissimilar HPT spouses. This finding cannot be explained based upon the Holland theory. However, Goodman (1964) found that persons low in self-esteem select mates they perceive to be different from themselves, while persons high in self-esteem select mates they perceive to be similar. Perhaps differences in levels of self-esteem between the identical HPT group as compared to the dissimilar HPT group could explain why both groups had equal levels of marital satisfaction despite the dissimilarity of personality, which according to Holland theory is not predictive of marital satisfaction.

The relationship between marital satisfaction and self-esteem could be explored by administering the LMAT and a test such as the Self-Esteem Questionnaire (Hoffmeister, 1971) to a sample of married persons. Through the use of regression analysis one could determine if a relationship between self-esteem and marital satisfaction exists. Perhaps marital relationships could be enhanced through personal self-esteem development.

The interaction of family ideology differences within dual-career marriage might be further investigated. While this study found no difference in marital satisfaction among traditional spouses as contrasted to egalitarian spouses, the effect of spouse congruence was not determined. In light of Bailyn's (1970) findings that family ideology differences between spouses can be a source of marital dissatisfaction, it would be useful to contrast MS among egalitarian/traditional couples with egalitarian/egalitarian and traditional/traditional couples.

Another potentially important variable not accounted for in this study was the number and age of the children in each family. This may be a significant factor in the family life cycle which could affect MS.

Lastly, it was interesting to note that on a percentage basis there were fewer female faculty members

than female graduate students. If this is generally true of universities, it might suggest that female graduate students are less likely than male graduate students to become faculty members. This may be a function of the interrupted career path women choose if they take time out for child-rearing. It would be interesting to compare the career development among professional women with children, to professional women without children, and professional men.

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APPENDICES

Appendix A

Student Majors at Oregon State University

End of 4th Week   OREGON STATE UNIVERSITY
Fall Term 1982-8   Office of the Registrar
October 22, 1982

DAILY REGISTRATION REPORT

This Term

SEX
Men. 9955
Women. 6788

CLASS
Freshman 3689
Sophomore. 3007
Junior 3083
Senior 4046
Graduate 2702
Special. 216

MAJOR
Agriculture. 1303
Business 2832
Education. 1046
Engineering. 3272
Forestry 607
Health & P.E. 408
Home Economics 760
College of Liberal Arts. 1973
Oceanography   81
Pharmacy 343
College of Science 3283
Unclassified 385
Univ. Explor. Studies Program. 374
Vet Medicine   76
(Graduate Students, included above by
majors 2702

MATRICULATION
New Students 4701
Old Returning Students 1262
Active Students. 10780

GRAND TOTAL. 16743

Appendix B

Graduate Student Demographics

O.S.U. GRADUATE STUDENT SAMPLE

1) full-time = 1378   part-time = 213

2) married = 729   seperated = 19   widowed = 6   no answer = 7
   single = 744   divorced = 69   other   = 29

3) age: 21-23 = 9.4% (cumulatives)   32-35 = 88%
          24-26 = 37%   36-38 = 93%
          27-29 = 63%   39+   = 94%
          30-32 = 80%

4) male = 1080   female = 507   no answer 16

5) unemployed = 389 employed =   1212   no answer = 2
   emplyed 20-40 hrs/ week   =   37%
   employed 20 hrs/week or less = 36%

6) number of dependents: 0 = 60%
                         1 = 18%
                         2 = 10%
                         3 = 6%
                         4 = 2%

Appendix C

Letter of Introduction

Dear fellow Graduate Student,

I would like to thank you for your willingness to participate in this study. As a Marriage and Family Counselor, I have for some time been interested in how occupational interests effect the marital relationship. For my Doctoral Thesis, I am exploring the application of a vocational interests theory to marital relations. Previous research suggests exploring this thesis with marriages in which both spouses desire occupational involvement outside the home. For purposes of this study, such involvement include educational/vocational training, volunteer and paid employment, and those who have chosen to take a temporary absence from active occupational involvement.

Your name was randomly selected from among all OSU graduate students. This questionnaire is strictly anonymous. There will be no means of identifying a respondent with his/her questionnaire. The Survey Research Center is assisting in the data collection process.

Please give only your response to each of the items. Some items will require your assessment of your spouse's satisfaction. Please respond to each item since only complete questionnaires may be used. Your participation is essential to insure a representative sample. Please place your completed questionnaire in its pre-addressed envelope and mail to the Survey Research Center, OSU. Postage has been pre-paid.

Sincere thanks,

Redacted for Privacy

Michael Gennette, Ph.D. Candidate
Counseling, OSU ext. 2311

Redacted for Privacy

Leslie Borg, M.A.
Research Assistant

Redacted for Privacy

Dr. Gerald Becker, Ed.D.
Director, OSU Counselor Education

Appendix D

Occupational and Marital Questionnaire

OCCUPATION AND MARITAL QUESTIONNAIRE

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

   _____ Years

2. Have you ever wished you had not married? (circle one number)
   1 FREQUENTLY
   2 OCCASIONALLY
   3 RARELY
   4 NEVER

3. If you had your life to live over again would you:
   1 MARRY THE SAME PERSON
   2 MARRY A DIFFERENT PERSON
   3 NOT MARRY AT ALL

4. Do you and your spouse engage in outside activities together?
   1 ALL OF THEM
   2 SOME OF THEM
   3 FEW OF THEM
   4 NONE OF THEM

5. In leisure time which do you prefer?
   1 BOTH YOU AND YOUR SPOUSE TO STAY AT HOME
   2 BOTH TO BE ON THE GO
   3 ONE TO BE ON THE GO AND THE OTHER TO STAY AT HOME

6. Do you and your mate generally talk things over?
   1 NEVER
   2 NOW AND THEN
   3 ALMOST ALWAYS
   4 ALWAYS

7. How often do you kiss your mate?
   1 EVERY DAY
   2 NOW AND THEN
   3 ALMOST NEVER

8. How many things satisfy you about your marriage?
   1 NOTHING
   2 ONE THING
   3 TWO THINGS
   4 THREE THINGS

9. When disagreements arise they generally result in:
   1 HUSBAND GIVING IN
   2 WIFE GIVING IN
   3 NEITHER GIVING IN
   4 AGREEMENT BY MUTUAL GIVE AND TAKE

10. Please circle the _letter_ of those items that you think have _caused_ serious difficulty in your marriage.

      a. Mate's attempt to control my spending
      b. Other difficulties over money
      c. Religious differences
      d. Different amusement interests
      e. Lack of mutual friends
      f. Constant bickering
      g. Interference of in-laws
      h. Lack of mutual affection (no longer in love)
      i. Unsatisfying sexual relationship
      j. Selfishness and lack of cooperation
      k. Adultery
      l. Desire to have children
      m. Sterility of husband or wife
      n. Venereal Disease
      o. Mate paid attention to (became familiar with) another person
      p. Desertion
      q. Non support
      r. Drunkenness
      s. Gambling
      t. Ill health
      u. Mate sent to jail
      v. Other reasons

11. Which is the total number of times that you left your mate or your mate left you?

    1 NO TIMES
    2 ONE OR MORE TIMES

12. How frequently do you and your mate get on each other's nerves around the house?

    1 NEVER
    2 OCCASIONALLY
    3 FREQUENTLY
    4 ALMOST ALWAYS
    5 ALWAYS

13. What are your feelings on sex relations between you and your mate?

    1 VERY ENJOYABLE
    2 ENJOYABLE
    3 TOLERABLE
    4 DISGUSTING
    5 VERY DISGUSTING

14. What are your mate's feelings on sex relations with you?

    1 VERY ENJOYABLE
    2 ENJOYABLE
    3 TOLERABLE
    4 DISGUSTING
    5 VERY DISGUSTING

15. State approximate extent of agreement or disagreement between you and your spouse on the following items: (circle one number for each)

Circle One Number For Each Item Below	Always Agree	Almost Always Agree	Occa- sionally Disagree	Fre- quently Disagree	Almost Always Disagree	Always Disagre
a. Handling family finances (Example: Installment buying)	6	5	4	3	2	1
b. Matters of recreation (Example: going to dances)	6	5	4	3	2	1
c. Demonstration of affection (Example: frequency of kissing)......	6	5	4	3	2	1
d. Friends (Example: dislike of mate's friends)	6	5	4	3	2	1
e. Intimate relations (Example: sex relations)	6	5	4	3	2	1
f. Ways of dealing with in-laws	6	5	4	3	2	1
g. The amount of time that should be spent together	6	5	4	3	2	1
h. Conventionality (Example: right, good or proper conduct) ...	6	5	4	3	2	1
i. Aims, goals, and thing believed to be important in life	6	5	4	3	2	1

16. Circle the number that represents the degree to which you agree or disagree with the following statements. (Circle one number for each item.)

	Strongly Agree			Neu- tral			Strongly Disagree
a. Some equality in marriage is a good thing, but by and large the husband ought to have the final say......	7	6	5	4	3	2	1
b. If children are told too much about sex, they are likely to go too far in experimenting with it..........	7	6	5	4	3	2	1
c. Women who want to remove the word obey from the marriage service don't understand the role of wife......	7	6	5	4	3	2	1
d. The most important qualities of being a man are determination and driving ambition....................	7	6	5	4	3	2	1
e. A child should never be allowed to talk back to his parents, or he will lose respect for them..........	7	6	5	4	3	2	1
f. Most men will not have respect for a woman if they have sexual relations before they are married...........	7	6	5	4	3	2	1
g. Women should not be placed in positions of authority over men....................................	7	6	5	4	3	2	1
h. The family is a sacred institution, devinely ordained...	7	6	5	4	3	2	1
i. A woman whose children are all messy or rowdy is not doing a good job as a mother....................	7	6	5	4	3	2	1
j. If a child is unusual in some way, his parents should encourage him to be more like other children....	7	6	5	4	3	2	1
k. Persons should feel a great love, gratitude, and respect for their parents.............................	7	6	5	4	3	2	1
l. Recent increases in crime and sex show we will have to crack down harder on young people if we are going to preserve our moral standards.................	7	6	5	4	3	2	1

17. On the scale below, circle the number which best describes the degree of happiness everything considered, of your marriage. The middle number "happy" representing the degree of happiness which most people get from marriage and the scale gradually ranges on one side to those few who are very happy in marriage and on the other to those few who are very unhappy in marriage.

7	6	5	4	3	2	1
Very Happy			Happy			Very Unhappy

18. In what field is your graduate training?
    (Be as specific as possible) _____

19. What is the highest level of education that your spouse has completed?
    1 11TH GRADE
    2 HIGH SCHOOL OR EQUIVALENT
    3 TECHNICAL OR VOCATIONAL SCHOOL (Specify: _____)

    4 SOME COLLEGE (Specify Major: _____)

    5 SOME GRADUATE WORK (Specify Major: _____)

    6 OTHER (Specify: _____)

20. Is your spouse currently a student?

    1 YES (Specify major: _____)
    2 NO

21. Is your spouse currently employed outside of the home, or doing volunteer work?

    1 YES (Specify kind of work: _____)
    2 NO

22. Has your spouse temporarily suspended employment with plans to pursue a career in the future?

    1 YES (Specify future career: _____)
    2 NO

23. What is you age?   24. What is your spouse's age?   25. What is your sex?

    _____YEARS   _____YEARS   1 MALE
                                                              2 FEMALE

26. Is there anything else you would like to say about the impact of occupations on marriage?

(Thank you)

Appendix E

Reminder Card

May 13, 1983

Dear OSU Graduate Student or Faculty Member;

I wish to thank all those who have returned their completed Occupation and Marital Questionnaire. Many have taken additional time to write comments and I would especially like to thank you for those. If you failed to receive your questionnaire or have misplace it, I would be most happy to send you another. Please leave your name and address for me with the Psychology Dept. 754-2311. If you have yet to return your questionnaire, I would ask you to do so at this time.

Most appreciatively yours,

Redacted for Privacy

Michael Gennette, Ph.D. Candidate
Counseling, OSU ext. 2311

Appendix F

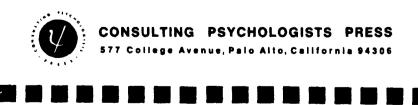The Occupations Finder

■ ■ ■ THE ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
■ ■ ■ ■ ■ OCCUPATIONS ■ ■ ■ ■ ■
■ ■ ■ ■ ■ ■ ■ ■ ■ FINDER ■ ■ ■

For Use with

The Self Directed Search

A Guide to Educational and Vocational Planning

by John L. Holland, Ph.D.

Appendix G

Agree/Disagree with Spouse Items

VARIABLE   Q15A

MEAN	4.198	STD ERR	.085	STD DEV	1.330
VARIANCE	1.769	KURTOSIS	-.887	SKEWNESS	-1.059
MINIMUM	2.000	MAXIMUM	5.000	SUM	1037.000
C.V. PCT	31.684	.95 C.I.	4.032	TO	4.365

VALID CASES   247   MISSING CASES   1

- -

VARIABLE   Q15B

MEAN	3.895	STD ERR	.024	STD DEV	.379
VARIANCE	.143	KURTOSIS	2.961	SKEWNESS	-1.191
MINIMUM	3.000	MAXIMUM	5.000	SUM	962.000
C.V. PCT	9.721	.95 C.I.	3.847	TO	3.942

VALID CASES   247   MISSING CASES   1

- -

VARIABLE   Q15C

MEAN	3.959	STD ERR	.046	STD DEV	.723
VARIANCE	.523	KURTOSIS	-1.076	SKEWNESS	.062
MINIMUM	3.000	MAXIMUM	5.000	SUM	970.000
C.V. PCT	18.265	.95 C.I.	3.868	TO	4.050

VALID CASES   245   MISSING CASES   3

- -

VARIABLE   Q15D

MEAN	4.488	STD ERR	.056	STD DEV	.875
VARIANCE	.765	KURTOSIS	-.742	SKEWNESS	-1.124
MINIMUM	3.000	MAXIMUM	5.000	SUM	1104.000
C.V. PCT	19.491	.95 C.I.	4.378	TO	4.598

VALID CASES   246   MISSING CASES   2

- -

VARIABLE   Q15E

MEAN	4.033	STD ERR	.080	STD DEV	1.250
VARIANCE	1.563	KURTOSIS	-1.120	SKEWNESS	-.789
MINIMUM	2.000	MAXIMUM	5.000	SUM	984.000
C.V. PCT	30.990	.95 C.I.	3.875	TO	4.190

VALID CASES   244   MISSING CASES   4

- -

VARIABLE   Q15F

MEAN	4.136	STD ERR	.085	STD DEV	1.310
VARIANCE	1.716	KURTOSIS	-1.099	SKEWNESS	-.910
MINIMUM	2.000	MAXIMUM	5.000	SUM	972.000
C.V. PCT	31.675	.95 C.I.	3.968	TO	4.305

VALID CASES   235   MISSING CASES   13

Appendix H

TFI Responses

- -

VARIABLE Q16A

MEAN	2.279	STD ERR	.114	STD DEV	1.789
VARIANCE	3.202	KURTOSIS	.504	SKEWNESS	1.323
MINIMUM	1.000	MAXIMUM	7.000	SUM	563.000
C.V. PCT	78.507	.95 C.I.	2.055	TO	2.504

VALID CASES   247   MISSING CASES   1

- -

VARIABLE Q16B

MEAN	2.206	STD ERR	.097	STD DEV	1.528
VARIANCE	2.334	KURTOSIS	1.411	SKEWNESS	1.434
MINIMUM	1.000	MAXIMUM	7.000	SUM	547.000
C.V. PCT	69.266	.95 C.I.	2.015	TO	2.397

VALID CASES   248   MISSING CASES   0

VARIABLE Q16C

MEAN	1.947	STD ERR	.098	STD DEV	1.527
VARIANCE	2.330	KURTOSIS	1.632	SKEWNESS	1.516
MINIMUM	1.000	MAXIMUM	7.000	SUM	475.000
C.V. PCT	78.419	.95 C.I.	1.754	TO	2.139

VALID CASES   244   MISSING CASES   4

- -

VARIABLE Q16D

MEAN	2.401	STD ERR	.100	STD DEV	1.579
VARIANCE	2.493	KURTOSIS	.254	SKEWNESS	1.055
MINIMUM	1.000	MAXIMUM	7.000	SUM	593.000
C.V. PCT	65.769	.95 C.I.	2.203	TO	2.599

VALID CASES   247   MISSING CASES   1

- -

VARIABLE Q16E

MEAN	3.028	STD ERR	.106	STD DEV	1.671
VARIANCE	2.792	KURTOSIS	-.527	SKEWNESS	.572
MINIMUM	1.000	MAXIMUM	7.000	SUM	748.000
C.V. PCT	55.175	.95 C.I.	2.819	TO	3.238

VALID CASES   247   MISSING CASES   1

- -

VARIABLE Q16F

MEAN	2.106	STD ERR	.096	STD DEV	1.495
VARIANCE	2.235	KURTOSIS	1.191	SKEWNESS	1.391
MINIMUM	1.000	MAXIMUM	7.000	SUM	516.000
C.V. PCT	70.977	.95 C.I.	1.918	TO	2.294

VALID CASES   245   MISSING CASES   3

- -

VARIABLE   Q16G

MEAN	1.966	STD ERR	.101	STD DEV	1.533
VARIANCE	2.507	KURTOSIS	2.590	SKEWNESS	1.748
MINIMUM	1.000	MAXIMUM	7.000	SUM	483.000
C.V. PCT	81.406	.95 C.I.	1.740	TO	2.162

VALID CASES   248   MISSING CASES   3

- -

VARIABLE   Q16H

MEAN	3.370	STD ERR	.136	STD DEV	2.134
VARIANCE	4.552	KURTOSIS	-1.218	SKEWNESS	.340
MINIMUM	1.000	MAXIMUM	7.000	SUM	829.000
C.V. PCT	63.314	.95 C.I.	3.102	TO	3.638

VALID CASES   246   MISSING CASES   2

- -

VARIABLE   Q16I

MEAN	3.597	STD ERR	.109	STD DEV	1.723
VARIANCE	2.970	KURTOSIS	-.392	SKEWNESS	.143
MINIMUM	1.000	MAXIMUM	7.000	SUM	892.000
C.V. PCT	47.917	.95 C.I.	3.381	TO	3.812

VALID CASES   248   MISSING CASES   0

Appendix I

Frequency Distribution of TFI

OCCUPATION MARITAL SURVEY

FILE   NONAME   (CREATION DATE = 83/03/25.)

TFI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	10.	3	1.2	1.2	1.2
	12.	1	.4	.4	1.6
	13.	4	1.6	1.6	3.2
	13.	3	1.2	1.2	4.4
	14.	6	2.4	2.4	6.9
	15.	6	2.4	2.4	9.3
	16.	4	1.6	1.6	10.9
	17.	4	1.6	1.6	12.5
	17.	1	.4	.4	12.9
	18.	9	3.6	3.6	16.5
	18.	6	3.2	3.2	19.6
	19.	5	2.0	2.0	21.8
	20.	9	3.6	3.6	25.4
	21.	7	2.8	2.8	29.2
	22.	6	2.4	2.4	30.6
	23.	14	5.6	5.6	36.3
	23.	5	2.0	2.0	38.3
	24.	1	.4	.4	38.7
	24.	8	3.2	3.2	41.9
	25.	1	.4	.4	42.3
	25.	9	3.6	3.6	45.0
	26.	2	.8	.8	46.8
	27.	19	7.7	7.7	54.4
	28.	7	2.8	2.8	57.3
	28.	7	2.8	2.8	60.1
	29.	6	2.4	2.4	62.5
	30.	9	3.6	3.6	66.1
	31.	7	2.8	2.8	69.0
	31.	1	.4	.4	69.4
	32.	9	3.6	3.6	73.0
	33.	5	2.0	2.0	75.0
	33.	1	.4	.4	75.4
	33.	2	.8	.8	76.2
	34.	6	2.4	2.4	78.6

Appendix J

Cohen's Power Tables

Table 8.4.4

n to detect f by F test at a = .05
for u = 1, 2, 3, 4

u = 1
f

Power	.05	.10	.15	.20	.25	.30	.35	.40	.50	.60	.70	.80
.10	84	22	10	6	5	4	3	3	2	--	--	--
.50	769	193	86	49	32	22	17	13	9	7	5	4
.70	1235	310	138	78	50	35	26	20	13	10	7	6
.80	1571	393	175	99	64	45	33	26	17	12	9	7
.90	2102	526	234	132	85	59	44	34	22	16	12	9
.95	2600	651	290	163	105	73	54	42	27	19	14	11
.99	3675	920	409	231	148	103	76	58	38	27	20	15

u = 2
f

Power	.05	.10	.15	.20	.25	.30	.35	.40	.50	.60	.70	.80
.10	84	22	10	6	5	4	3	3	2	--	--	--
.50	662	166	74	42	27	19	15	11	8	6	5	4
.70	1028	258	115	65	42	29	22	17	11	8	6	5
.80	1286	322	144	81	52	36	27	21	14	10	8	6
.90	1682	421	188	106	68	48	35	27	18	13	10	8
.95	2060	515	230	130	83	58	43	33	22	15	12	9
.99	2855	714	318	179	115	80	59	46	29	21	16	12

u = 3
f

Power	.05	.10	.15	.20	.25	.30	.35	.40	.50	.60	.70	.80
.10	79	21	10	6	4	3	3	2	2	--	--	--
.50	577	145	65	37	24	16	13	10	7	5	4	3
.70	881	221	99	56	36	25	19	15	10	7	6	5
.80	1096	274	123	69	45	31	23	18	12	9	7	5
.90	1415	354	158	89	58	40	30	23	15	11	8	7
.95	1718	430	192	108	70	49	36	28	18	13	10	8
.99	2353	589	262	148	95	66	49	38	24	17	13	10

u = 4
f

Power	.05	.10	.15	.20	.25	.30	.35	.40	.50	.60	.70	.80
.10	74	19	9	6	4	3	2	2	--	--	--	--
.50	514	129	58	33	21	15	11	9	6	5	4	3
.70	776	195	87	49	32	22	17	13	9	6	5	4
.80	956	240	107	61	39	27	20	16	10	8	6	5
.90	1231	309	138	78	50	35	26	20	13	10	7	6
.95	1486	372	166	94	60	42	31	24	16	11	9	7
.99	2021	506	225	127	82	57	42	33	21	15	11	9