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Needs and successes in achievement and affiliation as partial determinants of career-orientation.

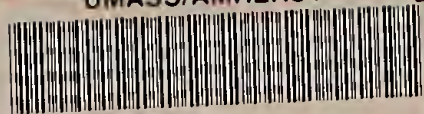
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NEEDS AND SUCCESSES IN ACHIEVEMENT AND AFFILIATION
AS PARTIAL DETERMINANTS OF CAREER-ORIENTATION

A Thesis Presented .

By

MARY ANNE SEDNEY

Submitted to the Graduate School of the
University of Massachusetts in partial
fulfillment of the requirements for the degree of

MASTER OF SCIENCE

April 1974

Psychology

NEEDS AND SUCCESSES IN ACHIEVEMENT AND AFFILIATION

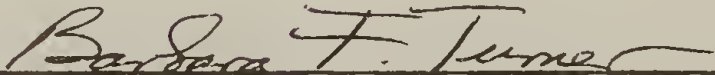
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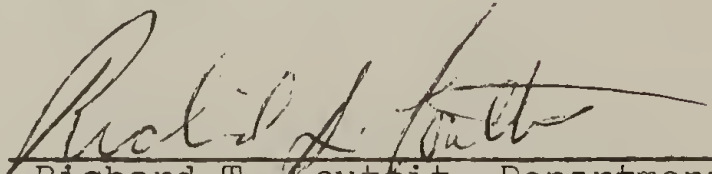
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CHAPTER I

INTRODUCTION

STATEMENT OF THE PROBLEM

The purpose of this study was to examine the relationship of college senior women's career-orientation (C-O) to needs and successes in achievement and affiliation. In selecting these variables, the assumptions of an "enrichment" model for development of C-O (i.e., women orient themselves toward a career because of positive experiences they've had outside the traditional female role and exposure to occupational role models) rather than those of a "deviance" or "compensatory" model (i.e., women orient themselves toward a career only after they have failed to attain the affiliative success that is "normal" and expected for females) were accepted.

A second purpose was to compare antecedents of high C-O in females with those in males. If it could be demonstrated that males develop C-O in a manner similar to females, this could be regarded as evidence for the "normalcy" of such a process in women, since a male standard is often used in the psychology literature (e.g., the literature on need achievement). Further, the idea of variation among males on a C-O dimension seemed intriguing.

MODELS FOR DEVELOPMENT OF C-O

Almquist and Angrist (1970) used the terms "deviance" and "compensatory" models in order to compare such existing models with their own "enrichment" model. In a deviance model, the emphasis is on the way in which women with a C-O deviate from the traditional ("normal") female role. Lewis (1968) exemplified this view in his description of girls planning a career as frustrated, dissatisfied, and less well-adjusted than those content to become housewives.

Data presented by Almquist and Angrist did not support a deviance hypothesis, as their C-O women shared backgrounds that included broadening and enriching experiences such as exposure to important occupational role models (teachers and other adult women with careers as well as working mothers) and experience with a variety of part-time and summer jobs; in general, non-career women were from less "enriched" backgrounds. Almquist and Angrist's enrichment view emphasized role models and other positive influences rather than negative personality development.

Although the present study was not intended to examine secular trends in interpretation of C-O, it is interesting to note that changes have occurred. As more women have entered the work force, it has been increasingly difficult to interpret C-O development as "deviant". To do so would soon result in the label "neurotic" being affixed to the majority of women. Thus, as Helson (1972) noted, women with a high C-O

have been viewed more positively in recent research than they were in the 1950's. The enrichment model has enjoyed recent popularity.

Many variables are associated with the enrichment model and the present study proposed to examine four of these: need for achievement, need for affiliation, success in achievement, and success in affiliation. These variables are of particular importance because of the tendency in some of the literature to view affiliation as central to women, but not to men.

If one assumes that affiliative needs are always the dominant ones for women (Bardwick, 1971), strong independent achievement strivings before establishment of a long-term intimate heterosexual relationship may be interpreted as rooted in failure to meet the core affiliative requirements. The compensatory model would further assume that need achievement is not a primary need for women.

If, however, one were to recognize a great deal of variability in the distribution of needs for achievement and affiliation among both women and men, the way would be left open to consider achievement variables as important primary determinants of C-O in women.

The present study sought to test the notion that high C-O, as well as low C-O, are rooted in positive aspects of people's experiences. It was hypothesized that women with a high C-O and men with a low C-O (those who break from their

traditional roles) are responding to their particular needs (for achievement and affiliation, respectively) and the successes they've had in meeting these needs. Similarly, women with a low C-O and men with a high C-O (traditional role-followers) are also following their needs (for affiliation and achievement, respectively) and past successes.

C-O individuals were defined as those expecting to devote a substantial portion of their time and energy to a career through most of their adult lives; those with a low C-O (or, high family-orientation, F-O) expect to devote a large portion of their time to, and derive a large portion of their satisfaction from, family relationships.

As a woman with a high C-O, I will tend in this literature review to focus on female "role-breakers." This is not due only to personal interests, because, although there is some suggestion that men are becoming less achievement-oriented (Horner, 1972), little research has been done using such men. There does exist, however, a body of descriptive literature on C-O in women that served as a basis for the formulations and hypotheses which follow. Therefore, an explanation of women's choices of career- or family-orientations will be offered first. This analysis will then be extended to include men and their career/family expectations.

ANTECEDENTS OF C-O

Needs for Achievement and Affiliation

The term "need for achievement" was originally used by Murray to describe one of 15 biosocial needs (Hall and Lindzey, 1970). McClelland (1951) developed a measure for it and described it as a relatively stable personality disposition to strive for success in any situation where standards of excellence exist. In the traditional sex-role pattern, such a striving for success is generally associated with men, while a striving for affiliation is associated with women; men are expected to center their lives on achievement in a career while women are supposed to focus their energies on affiliation with a husband and, later, children. Murray described need for affiliation as a motive to

draw near and enjoyably cooperate or reciprocate with an allied other; to please and win affection of a cathected object; to adhere and remain loyal to a friend (in Hall and Lindzey, 1970, p. 176).

Obviously, C-O women do not choose to devote all of their lives to affiliation and this is apparent in their scores on scales that measure various motivations. Tyler (1964) used the Edwards Personal Preference Schedule (EPPS), a device that assesses the strength of 15 needs, and found that grade school and high school girls who scored high on the career scales of the Strong Vocational Interest Blank (SVIB) also scored significantly higher on need for achievement than did girls who scored high on the non-career scales of the SVIB. Further, the non-career girls scored higher

than the career girls on need for succorance¹, which follows the traditional female pattern of focusing on relationships with people rather than upon independent achievement.

In addition, Hoyt and Kennedy (1958) found that C-O girls scored significantly higher on the achievement, endurance, and intraception scales of the EPPS than the homemaking-oriented (H-O)² girls; H-O girls scored higher on needs for heterosexuality and succorance.

These results suggest that C-O and F-O women differ in the personal importance they assign to particular needs: C-O women experience greater needs in the achievement realm while F-O women have greater needs for heterosexual affiliation and succorance. It could well be that the strengths of various needs explain some of the variance between groups.

HYPOTHESIS 1: Women high in need achievement tend to

¹In developing hypotheses about need affiliation, it was assumed that needs for succorance and heterosexuality fall into the general class of "affiliative needs" because they do involve a need for people. The possibility that this assumption was faulty will be discussed in Chapter IV. Attempts to use items concerning need heterosexuality to test the hypothesis concerning need affiliation will be discussed in Chapters II and III.

²The terms homemaking-orientation (H-O) and family-orientation (F-O) will be used interchangeably in this paper, largely to facilitate subsequent extension of the ideas to include men: it is more appropriate to talk of a man oriented toward a family than toward a home. Despite the different terms, it seems that the measures for H-O and F-O are similar in their focus on the percentage of time one expects to devote to family and children. To make explanation of the methods and data of this study clear, the term low C-O will usually be used to indicate H-O or F-O.

have high career-orientation.

HYPOTHESIS 2: Women high in need affiliation tend to have low career-orientation.

Academic Achievement Experiences

In summarizing a sizeable literature comparing aptitudes and achievement of C-O and F-O women, Astin, Suniewick and Dweck (1971) reported that women with C-O tended to be high achievers and to score high on test measures of need achievement. They had a history of more academic accomplishments and, in most studies, scored higher on aptitude measures than F-O women.

HYPOTHESIS 3: Women with a great deal of academic success tend to have high career-orientation.

Affiliative Experiences

Gump (1972) examined the extent to which psychological well-being accompanies the traditional or more modern view of sex-roles (i.e., views that fulfillment for a woman rests outside her role of wife and mother; that pursuits outside these roles are necessary for self-realization) among college women. She found that women traditional in sex-role attitudes did not differ from women more modern in sex-role attitudes in terms of reported happiness or in the number of relationships with men. Differences in ego-strength were associated with plans for marriage and career; college senior wo-

men highest in ego-strength were actively pursuing both objectives. Gump suggested that ego-strength may be negatively correlated with actual adoption of the traditional female sex-role. Although modern sex-role attitudes are not the same as actual career-orientation, it has been shown that women with a C-O tend to have more modern sex-role attitudes than their H-O counterparts (Turner, 1972). Lipman-Blumen (1972) also offered evidence linking these variables; she found that women with a modern view of the female role have high educational goals and were more likely to satisfy their achievement needs through their own efforts than were women who held a traditional view. This suggests that, until contradictory evidence is found, Gump's results for women with progressive attitudes about sex-roles may be extended to those who actually expect to devote a large portion of their efforts to a career (C-O).

Classifying women as Role Innovators (those intending to enter traditionally masculine professions such as law, medicine, or physics) or Traditionals (those planning to enter careers which currently include at least 50% women: e.g., social work, education), Tangri (1972) found that Role Innovators had a greater career commitment; yet they also had as many romantic and friendship relationships with men as did Traditionals.

Cartwright (1972) reported that female medical students, as a group, are effective persons with a strong desire to use

their capabilities and to be helpful to others. These women reported motives for entering medicine which were highly similar to those reported by males. Interest and encouragement from others was found to be a central determinant of the decision to enter medicine for both sexes, with interest in the subject matter and altruism being strong secondary motives. The most marked sex-differences involved interests in prestige and income; more men than women mentioned economic reasons for entering medicine.

The studies mentioned above are concerned with women who were occupied in career preparation rather than actual career involvement. Gysbers, Johnston and Gust (1968) found evidence suggestive of "well-being" among women engaged in careers. One of their findings was that C-O women were more apt than H-O women to describe themselves as at least moderately attractive in physical appearance. Since Secord and Jourard (1953) as well as Kurtz (1971) have shown that feelings about one's body correlate significantly with feelings about one's self, this evidence appears to support the affirmation, consistent with the enrichment model of C-O, that (despite their "role-breaker" status) C-O women have positive feelings about certain aspects of themselves.

The bulk of the evidence from these recent studies supports the notion that C-O women are at least as well-adjusted as F-O women in terms of happiness and positive feelings about themselves. Such evidence tends to refute the compen-

satory model for explaining career choice and suggests that it may be profitable to look for "healthy" explanations for C-O in women.

However, while C-O women may be as happy as F-O women, the evidence suggests that the C-O women have affiliated with men less. For example, while Gysbers et al. described C-O women as "healthy", they did find that C-O women were more apt to be single, while H-O women were more social and conventional.

Helson (1972) interpreted such data showing differences in affiliation between C-O and H-O women as evidence that the former are simply "late-developers" socially. She added that males as well as females who plan to go on to get higher degrees after college often fit this category. The process of earning the higher degrees that many professions demand would tend to eliminate young people with a history of spending a large part of their time in social activities.

Heterosexual, rather than within-sex, affiliation³ was the focus in the present study because it is the standard expected of women in the traditional model of appropriate feminine behavior. Because the time commitment that develop-

³Although the behavioral focus in the present study was heterosexual affiliation, the "motivational" focus (need affiliation) was related to more general relationships with people. It was assumed that women focus the largest portion of their affiliative needs on the opposite sex. Chapter IV discusses this more completely.

ment toward a career takes tends to rule out people who date a lot, the following hypothesis is offered.

HYPOTHESIS 4: Women with a great deal of heterosexual affiliative success tend to have low career-orientation.

Needs and Successes in Achievement and Affiliation

A simple reinforcement model would predict that one would follow one's successes; if a certain behavior has been reinforced there is a greater possibility that a similar behavior will be emitted. In other words, success in a particular realm will result in further striving in that realm. Such a statement is based on evidence reported by Atkinson (1964) that there is a rise in level of aspiration following success at a (similar) task and a corresponding lowering of level of aspiration following failure at a (similar) task.

However, a subjective judgment of "success" or "failure" in an activity is partly a function of the degree to which that activity is relevant to the person. The most relevant "success" or "failure" would concern some need that is felt. Thus, a woman pursuing a career may very well be content if she has a strong need for achievement and no equally strong need for affiliation, no matter what her affiliative experiences. Viewed in this light, her pursuit of a career may have emerged from past successes in achievement coupled with a high need for achievement; neither success nor failure in affiliation serve importantly to motivate her because affili-

ation is not among her primary needs. On the other hand, it may be that a woman with a F-O may experience her primary need in the affiliative realm; success or failure in achievement have little bearing on her decision because her need for achievement is low.

The present study looked at the expectations of college seniors to pursue a C-O or F-O, in light of their presently reported needs and their reinforcement histories vis a vis these needs.

HYPOTHESIS 5a: Although high need achievement is associated with high career-orientation in women, the addition of academic success as an intervening variable strengthens that association.

HYPOTHESIS 5b: Although high need affiliation is associated with low career-orientation in women, the addition of heterosexual affiliative success strengthens that association.

C-O FOR MALES

Perhaps as a result of current social roles, a career seems to be more important to the average man than to the average woman. However, within the male group, as well as within the female group, individual differences abound. Informal observations of the present investigator's friends suggested that, for some men, family is more important than career. Although the literature reviewed here makes no men-

tion of male variability on a C-O dimension, it was deemed interesting to ascertain the applicability of such a conceptualization for men.

Without a doubt, men may experience varying degrees of needs for achievement and affiliation and successes in achievement and affiliation. The process of C-O development suggested by the hypotheses above would seem to operate regardless of sex. There is nothing in the reasoning that underlies these predictions that precludes their application to men. Therefore, a sixth hypothesis, largely exploratory because of the lack of evidence in this field for men, is added. It is suggested that the process of C-O development, given the variables studied herein, is similar for females and males.

HYPOTHESIS 6: The above hypotheses apply to males as well as to females.

THEORETICAL CONSIDERATIONS

The hypotheses offered here are more closely linked with a learning model than with a dynamic one. Subjects were viewed as simply responding to past successes that have been reinforcing because of their relevance to a felt need; success in something that one does not prize is not reinforcing. A dynamic model would have stressed the struggles of the organism to achieve an organized whole, making choices based on a need for equilibrium.

These hypotheses were based upon an enrichment model of

C-O development. It was assumed that achievement, as well as affiliative, strivings and successes can be healthy for women. These assumptions run counter to those of a compensatory model, that all healthy women have a need for affiliation that predominates.

COMBINED EFFECTS OF ANTECEDENT VARIABLES ON WOMEN'S C-O: PATH ANALYSIS

Until this point the discussion has concerned the effects of achievement and affiliative variables as though they operated independently of each other and of other variables. Reality, however, is a bit more complex and, in an effort to fit achievement and affiliative variables into a more comprehensive schema, they were also examined in relation to other variables.

The method of path analysis (Duncan, 1966) is a means for validating a proposed causal scheme. To perform this technique, however, it is necessary to first construct a path using all the variables that are thought to have had a causal influence on the end variable (in this case, C-O). The "end" variable must be regarded as completely determined by some combination of variables in the system. Only after these variables have been temporally ordered and sequentially arranged, in what one proposes as a logical order, can the causal path be evaluated.

Therefore, major variables suggested by the literature

(that were available to this researcher) on C-O development were combined in a causal path that could be evaluated. The variables considered as antecedents of C-O were: parental social class, mother's employment history, need achievement, sex-role attitudes, need affiliation, physical attractiveness, academic success, and heterosexual affiliative success. Hypotheses using these variables were derived. The causal path was developed for women only, since the sample size of males available was too small to perform a path analysis for them.

A frequently-cited antecedent of C-O in women is parental social class. In their review of the literature on career determinants among women, Astin, Suniewick and Dweck (1971) concluded that parents of high educational and occupational level tend to exert a positive influence on daughters' educational and career plans.

A second important antecedent of women's C-O is mother's employment history. Astin et al. concluded that working mothers, or ones with an occupational orientation, tend to influence daughters in the direction of occupational planning and commitment. Ginzberg (1966) reported that 30% of the outstanding female graduate students at Columbia University during the late 1940's had mothers who worked at some time since the daughter's birth. Almquist and Angrist (1970) also reported data demonstrating a strong association between maternal employment and female students' life style choices.

Those to whom a career was salient were more likely to have had a working mother than those to whom a career was not salient. Turner's (1972) study is one of the few reported instances in which maternal employment was not empirically linked with daughter's C-O; this finding is largely unexplained but could perhaps be attributed to the fact that she examined data for blacks and whites separately. The maternal employment-daughter's C-O relationship was evident when the races were combined.

Maternal employment has also been linked with need achievement. In still another review of the literature on female achievement orientation, Stein and Bailey (1973) concluded that achievement-oriented females are frequently stimulated by a mother who engages in a career. This would suggest that the effect of maternal employment on C-O is, in part, exerted through encouragement of need achievement.

Social learning theory (Bandura, 1969, 1971) would explain the influence of maternal employment in terms of observational learning. The child (observer) learns appropriate behaviors from a significant model, in this case the mother. Such information may be "coded" and retained as attitudes. Lipman-Blumen (1972) and Alper (1973) did find that mother's work history was reflected in statements the daughter made about appropriate female role behaviors. In other words, maternal employment may also affect C-O through the formation of "modern" (as contrasted with "traditional") sex-role attitudes.

Therefore, the causal path implied is that maternal employment leads to increased need achievement and "modern" sex-role attitudes which, in turn, facilitate C-O. It is further postulated that the effect of parental occupational prestige on C-O is exerted in a similar way: through the modeling of, and reinforcement for, need achievement, and through encouragement of more "modern" sex-role attitudes.

Adding the achievement and affiliative variables discussed earlier to this path for the development of C-O suggests other relationships: need achievement, need affiliation, academic success, and affiliative success are all antecedents of C-O, while need achievement and need affiliation tend also to facilitate academic success and affiliative success, respectively.

It is also suggested that physical attractiveness is a determinant of heterosexual affiliative success; in general, it would seem that attractive girls will date more than unattractive girls. It is hypothesized that physical attractiveness is linked indirectly with F-O through its positive effects on dating frequency.

It has frequently been thought (Bardwick, 1971; Stein and Bailey, 1973) that dating is a major way that women meet their need for achievement. Theoretically, any mode of success toward which a person can strive is rooted, in part, in need achievement, and dating is an acceptable female achievement. Because dating and need for achievement are theoretic-

ally linked, it is hypothesized that need achievement is one determinant of heterosexual affiliative success. This possibility was not considered in the earlier hypotheses (where academic success, but not affiliative success, was postulated as an expression of need achievement) because, in the author's opinion, traditional measures of need achievement do not tap a general achievement orientation but, instead, emphasize scholastic and career achievement interests. However, in deference to the literature, and because path analysis detects some relationships that are not delineated by other methods, a need achievement link to dating is postulated in the causal path here.

Another way in which need achievement may be influencing C-O is through "modern" sex-role attitudes. A woman who wishes to succeed by some objective standard might be more likely to develop attitudes that consider independent female achievement important and practical, so that she can carry out her achievement goals. Consistency of attitudes and career expectations is desirable because the woman with such consistency experiences less conflict. A high career-orientation combined with traditional, "homemaker" attitudes would tend to produce a conflict situation; it is perhaps in this combination that one finds "neurotic" women and those experiencing fear of success. However, it is predicted that, in general, a tendency to bring one's disparate attitudes into congruence with each other results in "modern" sex-role atti-

tudes developing from high need achievement.

Combining these predictions results in the causal path for development of women's C-O shown in Figure 1.

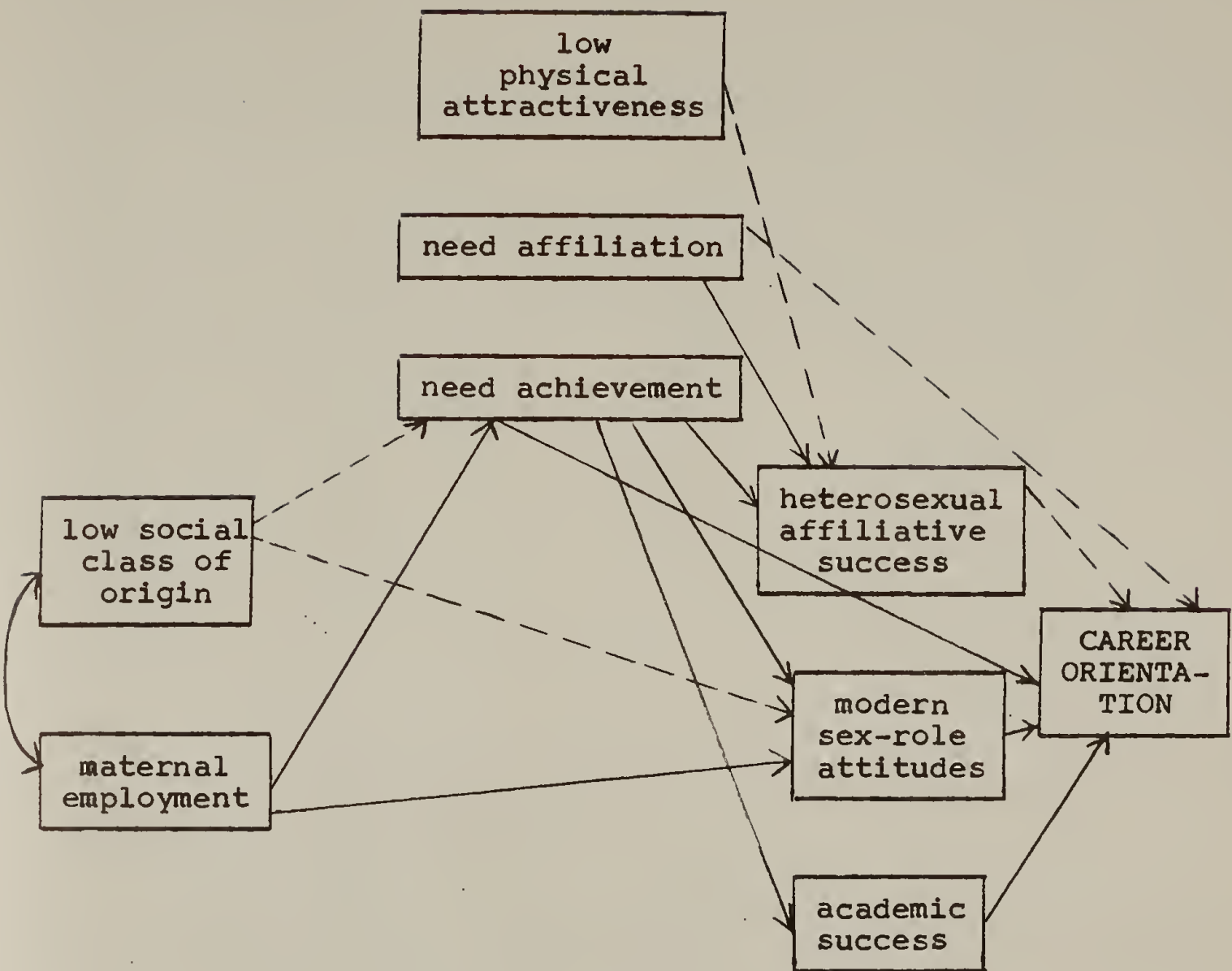
Figure 1 about here

DESCRIPTION OF Ss HIGH AND LOW IN C-O

An additional goal of this study was to examine other variables that may be relevant to compensatory or enrichment interpretations of C-O development. Self-evaluations and self- and interviewer-ratings of physical attractiveness were selected to provide descriptive measures for Ss with different levels of C-O.

A number of researchers, including Bardwick (1971) and Clifford (1971) have noted that females tends to express more dissatisfaction with themselves and, in general, to have lower self-esteem than do males.

This is not surprising in light of the data presented by Broverman et al. (1972), verifying the relatively low social desirability placed on characteristics judged feminine. What does happen to female "role-breakers"? Since they have apparently rejected some of the low-desirability feminine characteristics, perhaps they have higher self-esteem than do their role-following sisters. However, these role-breakers are



Straight unbroken lines indicate hypothesized positive causal relationships; straight broken lines indicate hypothesized negative causal relationships. The curved arrow makes a proposed relationship with no causality presumed.

Figure 1. Proposed Causal Schema for Relationships of Antecedent Variables to Career-orientation, Arranged for the Purpose of a Path Analysis

running counter to society's expectations for women and thus conceivably experience negative reactions from others; such responses from others might tend to decrease self-esteem. For purposes of these analyses, it was assumed that self-esteem develops, in part, as a consequence of life experiences. Because, with the methods used here, self-esteem as it operates as a cause of C-O cannot be separated from self-esteem as it operates as an effect of C-O, no formal predictions were made. Thus, for exploratory purposes only, self-esteem of female "role-breakers" and "role-followers" was compared.

What happens to male "role-breakers"? By de-emphasizing the importance of a single-minded pursuit of a career, are they considered less "masculine" and, in turn, lose the benefits of the positive value that is granted to that which is male? The self-esteem of C-O and F-O men were compared, with no formal predictions about the outcome.

C H A P T E R I I

METHOD

SUBJECTS

Subjects were part of a larger longitudinal study of the effects of race and sex on development of achievement orientation. The sample was made up of 120 white subjects who entered the University of Massachusetts at Amherst in 1969. They were interviewed in the spring of 1973 (Time 4). There were 93 females and 27 males. All the females had been interviewed once previously in either 1970 (Time 2) or 1972 (Time 3). In addition, questionnaire data collected in the summer of 1969 (Time 1), just before their entrance to the University, were available for all Ss. Nineteen of the 27 males had also been previously interviewed at Time 2 but, because of withdrawals from the University, it was necessary to select eight males who had never been interviewed but who had questionnaire data available.

Each S was individually interviewed during the spring of what was, for most of them, senior year. All Ss were paid \$1.75 for participation in the interview, which lasted about one and one-half hours and occurred in the S's home. To enhance rapport, Ss and interviewers were matched by sex.

Interviewers were faculty, graduate students and undergraduates, most working for course credit or money.

INTERVIEW

The Time 4 interview covered a broad range of topics, including: demographic background, personality measures, self-ratings in such areas as self-esteem, and various measures relating to career expectations. Only those parts of the interview used for the present analyses are described below.

INSTRUMENTS

Independent Variables

Edwards Personal Preference Schedule. The Need Achievement (nAch) and Need Affiliation (nAff) scales of the Edwards Personal Preference Schedule (EPPS) (1959) were used to assess need achievement and need affiliation. The traditional measures for need achievement and need affiliation are the projective ones developed by McClelland (1951) using responses to TAT cards. However, difficulties have been encountered using these measures with females (Veroff, Wilcox and Atkinson, 1953; Entwisle, 1972) and it is doubtful whether they are valid for a female sample. The EPPS has been used in several past studies of C-O and F-O in women.

The full EPPS (developed to measure the strength of 15 needs) consists of 225 pairs of statements concerning preferences for certain activities, people, and goals. A statement representing each need is paired with a statement representing each of the other needs twice. Ss are asked to choose

the one member of each pair that "better describes what you like or how you feel." The forced-choice format of the EPPS was designed to control for social desirability. Responses representing a preference for each of the needs are combined to yield a separate score for each need.

The 55 pairs of statements that include nAch and nAff items were selected for use in this study. These items are listed in Appendix A. This scale was self-administered. Scores for each scale can range from 0 (low need) to 28 (high need).

The Pearson Product-moment correlation coefficient between nAch and nAff was $-.26$ ($p < .007$) for females ($n = 92$) and $.06$ for males ($n = 27$). A high negative correlation is consistent with past findings (Edwards, 1959).

Need Achievement. For this sample, scores on the nAch scale ranged from 5 to 26, with a mean of 14.6 for females ($n = 92$) and 13.9 for males ($n = 27$). This difference is not statistically significant. EPPS data were not available for one S and she was excluded from analyses using this measure.

Need Affiliation. The range on the nAff scale was from 5 to 26 also; the mean score was 16.1 for females ($n = 92$) and 15.3 for males ($n = 27$). This difference is not statistically significant.

Questions arose as to whether the nAff scale tapped between-sex friendships; upon inspection, most items seemed to refer to within-sex friendships. Thus, in an effort to obtain a measure for need for heterosexual affiliation, the four

items included in the nAch and nAff scales that Edwards also scored for need for heterosexuality (nSex) were scored and analyzed separately. These four items appear in Appendix B.

Each response was scored as either a two (high need) or one (low need). The intercorrelations of the items making up the nSex scale are presented in Table 1. When the items were combined for each S, scores ranged from 4 (low need) to 8 (high need). The mean for females was 5.2, which was significantly lower ($t = -2.39$; $p < .02$) than that for males (6.0).

Table 1 about here

Dependent Variable

Career/family-orientation. In order to differentiate Ss who expected to devote a substantial portion of their time to, and derive a large part of their satisfaction from, a career throughout adulthood (high career, low family) from those who expect to devote their adult time to, and derive their satisfaction from, family relationships (low career, high family), a Career/Family-Orientation Scale (CFOS) was devised. One criterion for this self-administered scale was that it yield comparable scores for females and males, to facilitate female-male comparisons on this variable.

Table 1

Intercorrelations of Items in the Need
for Heterosexuality Scale

	Item 1	Item 2	Item 3	Item 4
Item 1	--	.21	.32	.37
Item 2	--	--	.46	.42
Item 3	--	--	--	.38
Item 4	--	--	--	--

n = 119

The questions were adapted from Rossi (1965a) and Bailyn (1970). Ss ranked the two activities from which they expected to derive the most satisfaction in their lives, and to which they expected to devote the most time. The five choices available as responses included: career, family relationships, and various community and recreational activities (Appendix C).

Both first and second choices were ascertained because females, in particular, do have an array of choices open to them and can reasonably expect to devote a large portion of their energy to more than one activity.⁴

The percentage of male and female Ss choosing each option for the Satisfaction and Time questions are presented in Table 2. One of the male Ss did not respond to either question and one female did not give a second choice for the Time question. Therefore, analyses using these items are based on the responses of 26 males and 92 females.

Table 2 about here

⁴See Bailyn (1965) for a discussion of the different points at which choices are open to men and women. Most men have a narrow career entrance option but then broad career selection possibilities; women, on the other hand, have broad career entrance options but somewhat narrow career selection possibilities.

Table 2

Percentage of Ss Responding to Each Choice
for the Time and Satisfaction Questions

Options	Satisfaction				Time			
	females		males		females		males	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
1	6.5 (6)	29.0 (27)	38.5 (10)	34.6 (9)	3.2 (3)	21.5 (20)	11.5 (3)	23.1 (6)
2	32.3 (30)	47.3 (44)	30.8 (8)	42.3 (11)	31.2 (29)	57.0 (53)	73.9 (19)	19.2 (5)
3	61.3 (57)	18.3 (17)	26.9 (7)	19.2 (5)	65.6 (61)	14.0 (13)	15.4 (4)	50.0 (13)
4	0 (0)	3.2 (3)	3.8 (1)	0 (0)	0 (0)	6.5 (6)	0 (0)	7.7 (2)
5	0 (0)	2.2 (2)	0 (0)	3.8 (1)	0 (0)	0 (0)	0 (0)	0 (0)
Total	100 (93)	100 (93)	100 (26)	100 (26)	100 (93)	100 (92)	100 (26)	100 (26)

Numbers in parentheses indicate raw frequencies.

Code for "options":

- 1 = leisure-time recreational activities;
- 2 = career or occupation;
- 3 = family relationships;
- 4 = volunteer participation in community organizations;
- 5 = volunteer participation in local, national, or international political activities or organizations.

It is notable that, while females displayed roughly the same distribution of responses to the Time question as to the Satisfaction question (approximately one-third chose career and two-thirds chose family first on both items), males do not exhibit such consistency. While 73.9% (19) of the males expect to devote the most time to career, only 30.8% (8) expect to derive their chief satisfaction from this source. There is a sizeable increase (from 11.5% to 38.5%; from 3 to 10) from Time to Satisfaction in the percentage of men who rank leisure-time recreational activities first.

Points were assigned to various patterns of first-second choices for each question so that, in general, the highest scores represent career as the first choice and anything other than family as the second choice; the lowest scores represent a pattern of responses such that career did not appear as first or second choice for either question. The following formula was used to compute separate scores for the Time and Satisfaction questions:

- 5 = career first, other than family second
- 4 = career first, family second
- 3 = other than family first, career second
- 2 = family first, career second
- 1 = career neither first nor second

Scores for the Satisfaction question were correlated with those for the Time question, with the resulting Pearson Product-moment correlation of .73 ($n = 92$; $p < .000$) for females and .37 ($n = 26$; $p < .03$) for males.

In order to include behavioral (time to be spent) and motivational (satisfaction anticipated) elements in the scale for Career/Family-Orientation, scores for the Time and Satisfaction questions were combined to yield a single score, Career/Family-Orientation Score. Scores on CFOS ranged from two to ten, with the low scores indicating low C-O and the high scores indicating high C-O. Table 3 displays the number and percentage of Ss, by sex, who obtained each of the possible scores. For females, the mean was 5.3; while the mean for males was 6.5; males had a significantly higher CFOS ($t = -2.46$; $p < .02$) than did women.

 Table 3 about here

Ss scoring 10 never mentioned family as a source of satisfaction or a consumer of their time. They, along with those scoring 9, felt that career or occupation would provide their chief satisfaction as well as take up the most time. If Ss scoring 8 are grouped with those scoring 9 or 10, it can be said of this "high career" group that they felt that family relationships would not be first in either their satisfaction or their actual time.

At the other end of the scale, Ss scoring two, three, or four were those who never indicated that their careers would

Table 3

Frequency and Percentage of Ss Obtaining Each Possible
Score for Career-Family-Orientation

CFOS	Females	Males
2	8.7 (8)	7.7 (2)
3	13.1 (12)	0 (0)
4	36.9 (34)	11.5 (3)
5	1.1 (1)	15.4 (4)
6	16.3 (15)	11.5 (3)
7	0 (0)	7.7 (2)
8	6.5 (6)	26.9 (7)
9	3.3 (3)	11.5 (3)
10	14.0 (13)	7.9 (2)
Total	100 (92)	100 (26)

Numbers in parentheses indicate frequencies.

occupy most of their time or offer them their chief satisfaction. All Ss scoring 2 named family. The large number of Ss scoring four reflect, in the majority of these cases, a pattern in which family was ranked first and career second for both time to be spent and satisfaction anticipated.

It is more difficult to attach such interpretive phrases to scores of five to seven. In general, responses of Ss in this range to the Time question were different from their responses to the Satisfaction question, indicating possible conflict. This will be discussed in more detail in Chapter III.

Construct validity of CFOS. In order to assess the construct validity of CFOS, the responses of very high (eight to ten) and very low (two or three) female CFOS scorers to questions tapping degree of career commitment were compared. One question asked women how much time they planned to work outside the home during different periods of their lives.

While all the women planned to work full-time before their children were born, 10% of the low-career and 50% of the high-career women planned to work full-time while their youngest child was under three years of age. These percentages increased to 35% of the low-career and 86.4% of the high-career women who intended to work when their youngest child was between 6 and 12 years of age. By the time their youngest child entered high school, only 65% of the low-career women ($n = 20$) were planning to work full-time outside

the home while all but one of the high-career women ($n = 21$) intended to work full-time. This last difference is significant ($\chi^2 = 30.0$; $p < .001$).

A related question asked female Ss which situation they expected for themselves on an eight-point scale ranging from "housewife only" through "part-time work" to "not married, career only." For the 92 Ss, the CFOS was positively related to responses on this eight-point scale ($r = .45$; $p < .001$).

Career commitment is conceptually linked with ambition and career importance; females' CFOS was related to these measures. Their CFOS was significantly related to self-ratings of ambition ($r = .20$; $p < .03$); self-ratings of occupational competitiveness ($r = .25$; $p < .01$); statements about their desire to "reach the top" in their chosen field ($r = .33$; $p < .001$); and self-ratings of favorability toward pursuing a "career" ($r = .34$; $p < .001$). Females high in CFO also tended to choose prestigious occupations (correlation of CFOS with prestige of expected occupation was $.26$; $p < .007$) and anticipated receiving an advanced degree (correlation of CFOS with degree expected was $.20$; $p < .03$).

Not only were high CFO women more interested in careers than low C-O women; the high CFO women also expected to marry later (correlation of CFOS with expected date for marriage was $.29$; $p < .003$) and have smaller families (correlation of CFOS with number of children planned was $-.41$; $p < .001$) than low CFO women.

In summary, women high in CFOS rated themselves as ambitious and occupationally competitive. They felt favorable about a career and said it was important to them to reach the top of their field. They expected to marry later and have fewer children than low CFO scorers. In general, unlike low CFO scorers, high CFO scorers expected to work outside the home through most of their adult lives, even during their children's preschool years.

Thus, it seems that the Career/Family-Orientation Scale used in this study has indeed tapped the concept of career-orientation in women; the scale demonstrated an appropriate level of construct validity, as well as face validity.

Assessing the construct validity of CFOS for males was somewhat more difficult. High and low career men did not differ in planned family size or anticipated time of marriage. All the low CFOS men ($n = 5$) planned no more than two children while almost all of the high CFOS men ($n = 12$) expected similarly small families. Most of the high CFOS men planned to marry no earlier than three years after college while all the low CFOS men anticipated a similar delay before marriage.

Although CFOS was found to be linked with ambition and career importance among female Ss, this was not the case for males. CFOS among males was not significantly correlated with self-rating of ambition; self-rating of occupational competitiveness; statement about their desire to "reach the top" in their chosen fields; and self-ratings of their feel-

ings about a career. Nor were males' CFOS related to prestige of expected occupation or academic degree expected. A χ^2 test of independence showed males' CFOS to be independent of their stated desire to have a career.

These results cast into doubt the construct validity of CFOS for males; this scale did not tap males' career commitment as it did females'. Yet the high CFO men did indicate that they expected to devote more time to and derive more satisfaction from their careers than from family or other activities.

To test the hypothesis that high male CFOS scorers were simply conventional and thus responded to the Time/Satisfaction questions in a conventional way, CFOS was compared to measures related to conventionality.

This conventionality hypothesis would have received support from strong positive associations of CFOS with traditional sex-role attitudes and expectations for a wife who stays at home. None of these relationships were significant for men; relationships with the sex-role attitude items were in the expected direction, but the link with their expectations for their wives was in the opposite direction to that predicted. There was a tendency for men high in CFOS to anticipate a wife with a high C-O.

Thus, CFOS did not seem to measure career-orientation or conventionality in men. The small size of the male sample made further interpretive analyses impossible. Since the

meaning of CFOS, the dependent measure, for males was unclear, it was decided to eliminate males from the major analyses. Any significant results could not have been interpreted since the dependent measure lacked construct validity for males.

Intervening Variables

Although it was originally predicted that nAch and nAff would be linked with career- and family-orientations, respectively, it was also predicted that the addition of intervening variables would strengthen the need achievement-career and need affiliation-family links. Academic success and heterosexual affiliative success were hypothesized as the intervening variables.

Academic success. Subject's report of college grade-point average (GPA) was used as the indicator of academic achievement. Averages were collapsed into a 6-point scale: 1 = below 2.50, and 6 = 3.5 and above. The mean was 3.6 for females (n = 93) and 3.0 for males (n = 27). This difference was not statistically significant.

It had been proposed that academic success be measured by high school percentile rank in class and college board scores (Scholastic Aptitude Test). However, these data were not collected during the interview and could not be obtained from University files as planned.

It was possible to obtain the high school data for 23 of

the Ss and, for these Ss, these data were correlated with GPA. The correlation between high school percentile rank in class and college GPA was .51 ($p < .02$). College board scores correlated .29 ($p < .20$) with college GPA. These relationships, particularly for high school rank in class, were considered satisfactory and, therefore, college GPA was used as the indicator of academic success (Acadsuc) for all Ss.

Heterosexual affiliative success. Six self-administered questions tapped current romantic involvement and dating history in high school and college, including frequency and intensity. These questions are listed in Appendix D. They were each coded so that a high score indicated heterosexual affiliative success (frequent dating, early dating, early steady, and a greater degree of current romantic attachment). Table 4 gives the mean scores for each question. Scores were then standardized (fitted to a normal distribution with a mean of 0 and standard deviation of 1.0) separately for each item. Five Ss did not respond to all the dating questions and their scores are not included in the analysis for the question to which they did not respond.

Table 4 about here

As a first step in deriving an overall measure of suc-

Table 4

Means and Standard Deviations for Each
Affiliative Success Item

Item	Females		Males	
	mean	s.d.	mean	s.d.
Marital status (scale 1-5)	2.7	1.1	2.5	1.1
Start to date (scale 1-11)	6.3	1.5	6.3	2.0
Start to go steady (scale 1-11)	4.3	2.5	4.2	2.3
Frequency high school dating (scale 2-10)	5.1	2.5	5.7	2.6
Frequency college dating (scale 2-10)	6.7	2.2	5.9	2.6
Frequency dating since 9/72 (scale 2-10)	6.7	2.5	7.0	2.7

Coding:

Marital Status:

1 = single, not dating; 2 = single and dating, no romantic involvement; 3 = involved romantically with someone; 4 = engaged; 5 = married

Age for starting to date and starting to go steady:

1 = never did; 2 = 20 or older; 3 = age 19; 4 = age 18; 5 = age 17; 6 = age 16; 7 = age 15; 8 = age 14; 9 = age 13; 10 = age 12; 11 = age 11 or younger

Frequency of dating:

2 = rarely or never; 3 = few times a year; 4 = several times a year; 5 = once a month; 6 = few times a month; 7 = once a week; 8 = twice a week; 9 = three or more times a week; 10 = married by then.

cess in affiliation, responses to the six items were inter-correlated. These intercorrelations ranged from a low of .21 to a high of .67, as shown in Table 5. The intercorrelations indicated that it would be feasible to combine these scores into a single measure.

Table 5 about here

Scores for the six items were combined additively and, to avoid negative scores, a constant of 10 was added to each S's score. The corrected and uncorrected correlations of each item with the total score are reported in Table 6. The total Heterosexual Affiliative Success (Affsuc) scores ranged from a low of .11 to a high of 17.84. If an S did not respond to one of the six items, her or his total score was not computed and was excluded from any analysis using the total score. The mean for both females (n = 91) and males (n = 24) was 10.0.

Table 6 about here

Table 5

Intercorrelations of Standardized Items Combined
to Form a Success in Affiliation Score

Affiliative Success Item	Marital status	Start date	Start steady	High school dating	Coll. dating	Dating since 9/72
marital status	--	.22**	.21**	.32***	.41***	.67***
start date		--	.61***	.51***	.25**	.21**
start steady			--	.53***	.43***	.30***
high school dating				--	.43***	.39***
college dating					--	.55***
dating since 9/72						--

*p < .05

**p < .01

***p < .001

Table 6

Corrected and Uncorrected Correlations of Each
Standardized Affsuc Item with Total Affsuc Score

Affsuc Item	Correlation	
	Corrected	Uncorrected
marital status	.52	.68
start date	.43	.66
start steady	.57	.72
high school dating	.62	.75
college dating	.59	.73
dating since 9/72	.59	.73

Each of the corrected correlations is significant with $p < .001$; each of the uncorrected correlations is significant with $p < .000$.

Additional Interview Questions Used for Path Analysis

In the course of the interview, Ss responded to other questions, some of which were used for the path analysis. A description of these items follows.

Sex-role attitudes. Two self-administered measures of sex-role attitudes, Women's Role and Women's Place in Society, were also used. The Women's Role questionnaire (Appendix E) consisted of six statements about sex-role behavior, such as: "Except in emergencies, the physical care of children should be very largely the mother's rather than the father's job." Ss indicated their reactions to these statements on a 7-point scale, ranging from strong agreement to strong disagreement. Responses were coded and combined additively so that total scores could range from 6 (modern sex-role attitudes) to 42 (traditional sex-role attitudes). The mean for females (12.40) indicated a significantly more modern attitude than for males (17.63; $p < .006$).

A second questionnaire, Women's Place in Society (Appendix F), asked Ss to indicate either agreement or disagreement with each of 26 statements concerning sex-role behavior, such as: "If a woman makes more money than her husband, the marriage is headed for trouble." Responses were coded so that scores could range from 1 (traditional sex-role attitudes) to 26 (modern sex-role attitudes). Again, females responded with significantly more modern attitudes (means, respectively, 22.02, 19.70; $p < .04$).

Parental social class. Prestige of father's occupation was used as an indicator of parental social class. This was measured using a modified version of the Warner Scale (Warner et al., 1949); scores ranged from 1 (high prestige) to 9 (low prestige). The mean for females was 3.31 and, for males, 3.44. This difference was not significant.

Maternal employment history. Ss were asked the extent of their mother's employment when they were 0 to 5, and 6 to 10 years old. These periods were chosen because of the supposed importance of early socialization in personality development. When scores on these items were combined, the total Maternal Employment score ranged from 2 (mother never worked) to 8 (mother worked full-time during the years 0-10). The mean for females was 4.67 and, for males, 4.15. This difference was not significant.

Measures Used for Descriptive Analyses

The hypotheses outlined above were concerned with antecedents of career-orientation; the focus was on prediction. Another line of analyses was used to examine the characteristics of Ss with differing levels of C-O; the focus was on description. For this second line of analyses, self-evaluative measures and physical attractiveness were related to CFOS.

Semantic Differential for "I am." Ss were asked to rate the concept "I am" on 15 bi-polar adjective dimensions.

The dimensions were selected from the list of Osgood et al. (1957) of traits that have high loadings on the common factors of evaluation, activity, and potency. The dimensions were: quick-slow, happy-sad, responsible-irresponsible, useful-useless, healthy-sick, trustworthy-untrustworthy, changing-unchanging, calm-excited, good-bad, giving-taking, strong-weak, reliable-unreliable, warm-cold, smart-dumb, active-passive (the first item of each pair represents a positive view of self). For each pair there were 6 points between the poles. For half the items the positive pole was presented first and, for the remainder, the negative pole was presented first.

Items were coded along a six-point scale with 6 representing a positive view of self and 1 representing a negative view of self. Intercorrelations of the semantic differential items were reported in Appendix G. Scores for the 15 dimensions were combined; thus the total semantic differential (SD) score could range from 15 (negative view of self) to 90 (positive view of self). The mean score for females was 75.6 and, for males, 74.7. This difference was not significant.

Self-esteem measure. This measure was adapted from a scale designed by Crain and Weisman, 1972. Ss were requested to rate themselves as "above average, about average, or below average" on the following 13 qualities: able or competent, ambitious, as a conversationalist, as a daughter/son, asser-

tive, attractive to the opposite sex, competitive occupationally, competitive socially, dominant, helpful to others, independent, intelligent, and willingness to work hard.

For each item, an "above average" response was coded one, "about average" two, and "below average" three. Inter-correlations for the self-esteem items are reported in Appendix H. Scores for the 13 items were combined; total scores could range from 13 (positive view of self) to 39 (negative view of self). The mean score on this Self-esteem (S-E) measure was 22.7 for females and 23.2 for males. This difference was not significant.

Physical attractiveness. Both Ss and interviewers rated Ss for physical attractiveness. Ss were asked to compare themselves to most people of their own sex, age, and education and rate themselves on a 5-point scale, ranging from "much more physically attractive than most" (1) to "much less physically attractive than most" (5). The mean score for females was 2.8 and, for males, 2.5. This difference was not significant.

Interviewers surreptitiously rated each S on the same scale before the interview began (to avoid being influenced by S's interview responses and "personality"). Their average rating for females (3.0) was lower than that for males (2.6). This difference was statistically significant ($t = 2.42$; $p < .02$).

Correlation between self- and interviewer-ratings of

physical attractiveness was .38 ($n = 120$; $p < .001$).

DATA ANALYSIS

The analyses for Hypotheses 1 to 4 were one-way analyses of variance, performed separately for females and males. To test Hypothesis 5, a procedure for causal inference, using zero and partial correlation analysis as suggested by Blalock (1964) and Rehberg et al. (1970) was used. Hypothesis 6 was tested by comparing results for females and males on the previous hypotheses.

A procedure of path analysis, described by Duncan (1966) and Rehberg et al., was used to evaluate the causal model proposed. To perform the procedure one first orders the variables in a sequential path, postulating that certain variables occurring temporally before others have caused the latter variable. The path coefficients derived are the standardized regression coefficients (beta) obtained from a multiple regression equation where only those factors seen as causes are held constant. The beta coefficient enables one to estimate the relative magnitude of indirect as well as direct effects of several variables on another variable.

Prediction of some variable is not an issue in this procedure; it is simply a way to assess the tenability of a proposed causal scheme. This method is not intended to deduce causal relationships from the values of the correlation coefficients. In cases in which the causal relations are un-

certain, the method can be used to find the logical consequences of any particular hypothesis in regard to them. The purpose of path analysis is to determine whether a proposed set of interpretations is consistent throughout.

Rehberg et al. noted the assumptions underlying this procedure:

1. The system is recursive, that is, systems involving instantaneous reciprocal action of variables are excluded.
2. The variables outside the system, i.e., residual variables, are uncorrelated with any of the immediate determinants of the dependent variable to which they pertain.

C H A P T E R I I I

RESULTS

The results of tests of the six Hypotheses delineated in Chapter I will be discussed in turn. Next will come the results of the path analysis, followed by the descriptive analyses. As explained in Chapter II, the results for males are not reported, due to the lack of construct validity associated with male CFOS. Results of tests of the major hypotheses for males are summarized in Appendix I.

MAJOR ANALYSES

Hypothesis 1

In order to test the hypothesis that high Need Achievement leads to high C-O, Ss were divided into three groups according to their nAch scores. Before breaking down the groups, data for females and males were combined to facilitate proposed between-sex comparisons. Divisions were made so that, across all Ss, there would be approximately equal n's within groups. It was sometimes necessary to adjust a cut-off point slightly so that a minimal number (5) of Ss remained in each group within the sexes.

Mean CFOS and standard deviations for each group are reported in Table 7. According to a one-way analysis of variance (anova)⁵, nAch was not significantly related to CFOS

for females, although there was a tendency ($F = 2.97$; $p < .06$) for low nAch women to have low CFO scores.

Table 7 about here

Hypothesis 2

Ss were also divided into three groups according to their Need Affiliation scores, as a first step in testing the hypothesis that high nAff leads to low CFO. Again, data for both sexes were combined so that each nAff group had approximately equal n's, across sexes, while a minimal n (5) in groups within the sexes was maintained.

The mean CFOS and standard deviations for each nAff group are reported in Table 8. Anova indicated no significant differences in CFO for nAff groups for females.

Table 8 about here

⁵Except where indicated otherwise, all analyses were performed using the Statistical Package for the Social Sciences (Nie, Bent and Hull, 1970). Work was performed through a grant from the University Computing Center, University of Massachusetts at Amherst.

Table 7
Means and Standard Deviations of CFOS
for Each Female nAch Group

<u>n</u> Ach Group	CFO Scores		
	mean	s.d.	n
Low (5-12)	4.47	2.44	34
Medium (13-15)	5.85	2.56	20
High (16-26)	5.76	2.52	37

A high CFO score indicates a high degree of career-orientation.

Table 8

Means and Standard Deviations of CFOS
for Each Female nAff Group

<u>n</u> Aff Group	CFO Scores		
	mean	s.d.	n
Low (5-14)	5.17	2.78	29
Medium (15-17)	5.26	2.70	27
High (18-26)	5.42	2.30	35

A high CFO score indicates high career-orientation.

Scores on a second measure of affiliative needs, nSex, served as a basis for dividing Ss into two groups. Divisions were made such that each nSex group had approximately equal n's across sexes and a minimal n (5) in groups within the sexes.

Means and standard deviations of CFOS for both of these groups are in Table 9. Females high and low in nSex did not have significantly different CFOS, according to the independent t-tests performed.

Table 9 about here

Hypothesis 3

Ss were divided into three groups according to their GPA in order to test the hypothesis that academic success leads to high C-O. The criterion for divisions was that each group have approximately equal n's across sexes while maintaining a minimal n for each group within each sex.

Means and standard deviations of CFOS for each Acadsuc group are in Table 10. Differences in CFOS among Acadsuc groups were not statistically significant for females, according to the one-way analysis of variance performed.

Table 9

Means and Standard Deviations of CFOS
for Females High and Low in nSex

<u>n</u> Sex Group	CFO Scorers		
	mean	s.d.	n
Low (4-5)	5.38	2.46	61
High (6-8)	5.13	2.73	91

A high CFO score indicates high career-orientation.

Table 10 about here

Hypothesis 4

To test the salience of heterosexual affiliative success as an antecedent of low C-O, Ss were divided into three groups according to scores on the Affiliative Success measure described above. Again, the criterion for division was that each group have approximately equal n's across sexes while maintaining a minimal n for each group within each sex.

Means and standard deviations of CFOS for each group are reported in Table 11. As scores for Affsuc decreased for females their CFO increased; one-way anova indicated a significant linear difference in C-O among Affsuc groups ($F = 5.17$; $p < .008$).

Table 11 about here

The female high Affsuc group scored significantly lower in C-O than both the low ($t = 3.37$; $p < .002$) and medium Affsuc groups ($t = 2.68$; $p < .01$). Differences between the other groups were not significant.

Table 10

Means and Standard Deviations of CFOS
for Each Female Acadsuc Group

Acadsuc Group	CFO Score		n
	mean	s.d.	
Low (1-2)	5.05	2.95	20
Medium (3-4)	5.37	2.50	51
High (5-6)	5.50	2.33	20

A high CFO score indicates high career-orientation.

Table 11

Means and Standard Deviations of CFOS
for Each Female Affsuc Group

Affsuc Group	CFO Score		
	mean	s.d.	n
Low (0-8.25)	6.11	2.41	27
Medium (8.26-12.25)	5.90	2.99	31
High (12.26-18.00)	4.26	1.60	30

A high CFO score indicates high career-orientation.

Hypothesis 5

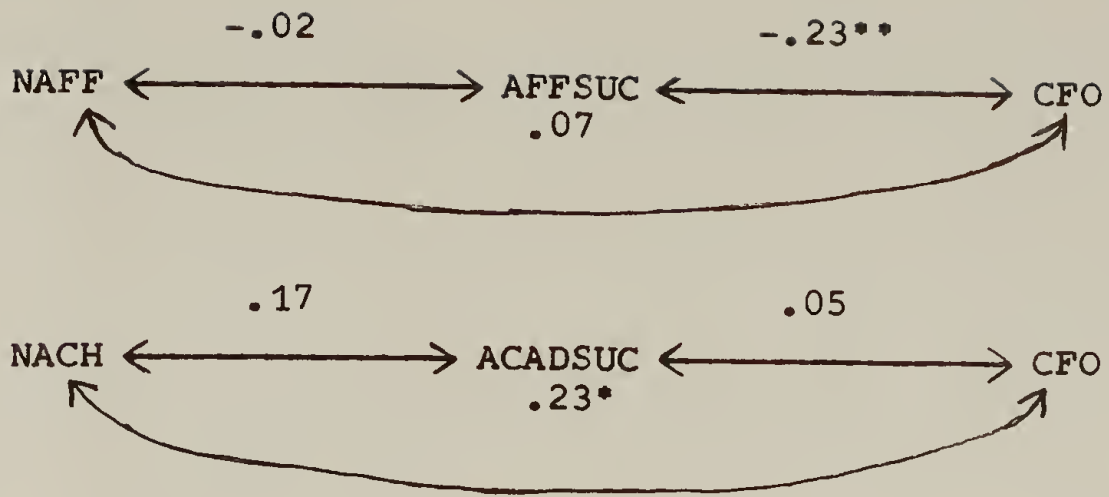
The Simon-Blalock procedure (Blalock, 1964) was used to examine the intervening variable status of academic and affiliative success, according to Hypothesis 5. This procedure assumes that, in a "valid" temporal sequence, the correlations between variables separated by one or more intervening variables will be less than the correlations between variables that operate directly upon one another. Further, controlling for intervening variables should produce a partial correlation between the "end" variables (i.e., the variables first and last in the sequence) that is lower than the zero-order correlation of the "end" variables.

Figure 2 represents the data. In no cases were the highest correlations between adjacent variables. Thus, the data do not meet the first criterion of the procedure and this hypothesis, that Acadsuc and Affsuc were intervening between the end variables, was not confirmed.

Figure 2 about here

Hypothesis 6

As explained in Chapter II, results of the analyses for males were not reported, because the construct validity of CFOS could not be established. Thus, this hypothesis, that C-O develops by the same process in females and males, could



* $p < .05$
** $p < .01$

Figure 2. Intercorrelations of Affiliative and Achievement Needs and Successes and CFO for Females

not be tested; it was unreasonable to compare female and male results using a measure that apparently had very different meanings for the sexes.

PATH ANALYSIS FOR PROPOSED CAUSAL MODEL

The procedure of path analysis was used to test the proposed causal model for C-O development in women. As a first step in this procedure, a correlation matrix (Table 12) for every pair of variables in the model was constructed.

Table 12 about here

Using these data, the path coefficients were calculated. The path coefficients, the numerical figures to be attached to each "path," are the standardized regression coefficients (beta) obtained from a multiple regression equation where only those factors seen as causes are held constant. The path model for females is presented in Figure 3.

Figure 3 about here

Any interpretations of these paths must be done while

Table 12

Correlation Coefficient Matrix for Females

Variable	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	Y
X ₁	--	.07	.14	-.02	-.11	.05	.06	-.08	.07
X ₂		--	.06	-.01	-.04	-.10	-.18	.00	.09
X ₃			--	.07	.08	-.39	-.01	-.03	.08
X ₄				--	-.26	-.02	.01	-.03	.07
X ₅					--	-.09	.23	.16	.22
X ₆						--	.00	.03	-.23
X ₇							--	.16	.23
X ₈								--	.05
Y									--

Variables:

- X₁ = low social class of origin
 X₂ = maternal employment
 X₃ = low physical attractiveness
 X₄ = need affiliation
 X₅ = need achievement
 X₆ = heterosexual affiliative success
 X₇ = modern sex-role attitudes
 X₈ = academic success
 Y = career-orientation

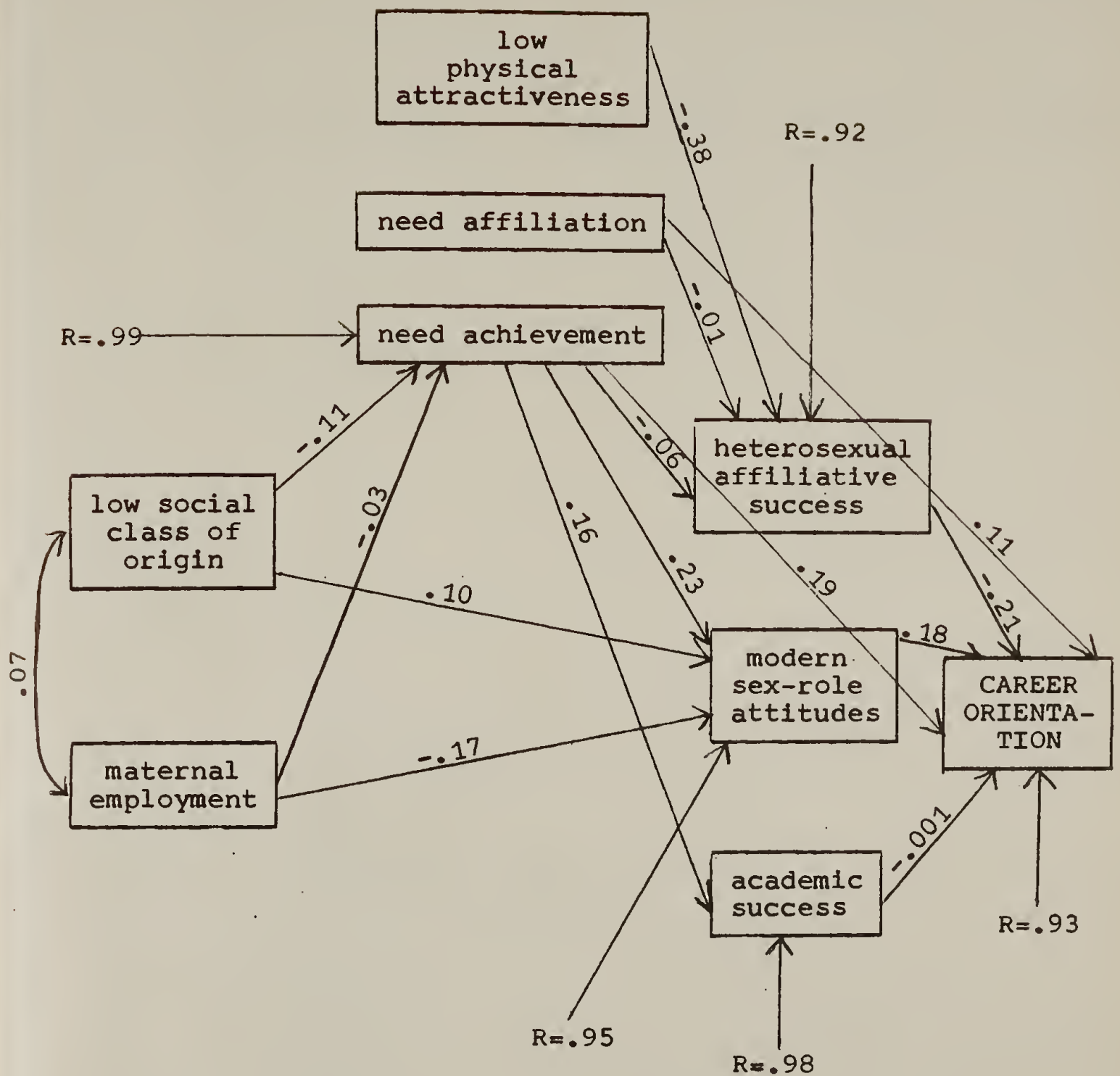


Figure 3. Path Diagram of Relationships of Antecedent Variables with Career-Orientation for Females

keeping the large size of the residuals in mind. None of the residuals dropped below .92; thus, an extremely large part of the variance in explaining these variables was not accounted for by this model. An equation using the regression coefficients did predict CFO significantly for females ($F = 2.74$; $df = 5$; $p < .05$).

An examination of the proposed direct determinants of CFO reveals low Affsuc (.21), high nAch (.19), and modern sex-role attitudes (.18) played approximately equal parts in causing CFO. High nAff (.11) was another influence, although it had been predicted that high CFO would be associated with low nAff. Academic success apparently played no important role⁶ in determining CFO.

Within this model, the largest antecedent of Affsuc was physical attractiveness (-.38). It is interesting to note that, compared to other variables, neither nAch nor nAff influenced females' Affsuc.

Modern sex-role attitudes were determined chiefly by high nAch (.23), as predicted. While social class of origin

⁶In this analysis, beta coefficients of .10 and less were disregarded. This rule is rather arbitrary. The most important task in a path analysis is to compare relative strengths of the beta coefficients within the closed system proposed. Discussion of these paths is simplified, however, by disregarding extremely small paths. Knoke (1972) suggested .07 as a limit, but, because of the relatively small sample size (compared to sociological studies), a more conservative rule of .10 was applied here.

had no discernable effect on sex-role attitudes, maternal employment history did ($-.17$). However, this effect was in the direction opposite to that predicted: a non-working mother seemed to be related to modern sex-role attitudes in these college women.

nAch had a facilitating effect on Acadsuc ($.16$).

Among the variables considered, only high social class of origin ($.11$) played a part in determining nAch for females.

It is relevant to note that social class of origin (as measured by father's occupational prestige) and maternal employment were independent.

DESCRIPTION OF FEMALE CFOS GROUPS

As an additional test of the enrichment and compensatory models for C-O, Ss with different degrees of C-O were compared on two sets of self-evaluative measures, one tapping S-E and the other self-ratings on heterogeneous adjective dimensions; and self- and interviewer-ratings of physical attractiveness. The purpose here was to better describe the characteristics associated with different levels of CFOS; self-evaluation was regarded as a consequence of C-O.

Female Ss were divided into four groups according to scores on CFOS. Those scoring 2 or 3 were placed in the first group, labeled the "Homemakers" ($n = 20$). Most of these women rated family first for both Time to be spent and

Satisfaction expected; very few mentioned career, even as a second choice. They were clearly homemaking-oriented. Those scoring 4 were called the "New Traditionalists" ($n = 34$); all members of this group rated family first and career second for both Time and Satisfaction. They seem to take part in an increasingly popular pattern for women in which family and home are valued most but an outside career is also an important aspect of life. The third group, labeled the "Inbetweens" ($n = 17$), scored 5 to 7. Members of this group reversed their choices for first and second choices for Time and Satisfaction; about half ranked family first, career second for Time, and career first, family second for Satisfaction, while the other half chose the reverse pattern. Ss with high (8 to 10) CFO scores fell into the "Career First" ($n = 22$) group. These women rated career first for both Time and Satisfaction. Two-thirds (15) of this group did not mention family as a choice at all. They were strongly career-oriented.

For the sake of brevity, and because the interest throughout this study has been chiefly in people at the extremes of the CFOS, the female "Inbetweens" were excluded from these additional analyses. The patterning of their CFOS was difficult to interpret because they reversed their Time and Satisfaction choices. In some ways they seem career-oriented and, in others, family-oriented. The inclusion of these Ss would have necessitated a much more extensive analysis; they need to be studied as a separate group before

comparing them with women whose expectations regarding time and satisfaction show more congruence.

Self-evaluation

Semantic differential for "I am". Means and standard deviations of Ss ratings of "I am" (SD) are presented in Table 13. A one-way anova did not indicate significant SD differences for CFOS groups.

Table 13 about here

Because the adjectives making up this scale are heterogeneous in the dimensions they tapped, and possible differences between groups may have been masked in the combined semantic differential scores, responses of each CFOS group to the individual SD items were also compared. Females differed on the adjective warm ($F = 3.93$; $p < .02$) only; the New Traditionalists considered themselves significantly warmer than either the Homemakers ($t = -2.13$; $p < .04$) or the Career First Group ($t = 2.37$; $p < .02$). The groups did not differ significantly on any of the other adjectives, as can be seen in Table 14.

Table 14 about here

Table 13

Means and Standard Deviations of Semantic Differential
Score for Female CFO Groups

CFO Group	Semantic Differential Score		
	mean	s.d.	n
Homemakers (2,3)	74.90	5.94	20
New Traditionalists (4)	76.75	5.11	33
Career First (8-10)	77.18	5.48	22

A high semantic differential score indicates a positive rating of self.

Table 14

Means and Tests of Significance for Each Semantic
Differential Item by Female CFO Group

Adjectives	Group Semantic Differential Means			F
	Homemakers	New Traditionalists	Career First	
Quick	4.75	4.91	5.09	n.s.
Happy	4.90	5.38	4.91	n.s.
Responsible	5.30	5.52	5.45	n.s.
Useful	5.15	5.23	5.31	n.s.
Healthy	5.45	5.62	5.50	n.s.
Trustworthy	5.80	5.88	5.95	n.s.
Changing	5.10	4.97	5.32	n.s.
Calm	3.35	3.50	3.95	n.s.
Good	5.10	5.32	5.27	n.s.
Giving	5.10	5.00	5.05	n.s.
Strong	4.75	4.56	4.82	n.s.
Reliable	5.35	5.71	5.63	n.s.
Warm	5.15	5.53	5.05	*
Smart	5.30	5.03	5.05	n.s.
Active	4.20	4.65	4.82	n.s.

* $p < .05$

n.s. = non-significant

A high score indicates a rating of self as "very much like" the adjective named; this represents a positive view of self.

Self-esteem measure. Means and standard deviations of self-esteem (S-E) scores for each CFOS group are presented in Table 15. Differences among female CFOS groups on S-E did not reach statistical significance.

Table 15 about here

Again, in an effort to uncover any differences within items that may have been masked by the combined scores, results for individual S-E items were analyzed separately. Females differed on their ratings of self as a daughter ($F = 4.71$; $p < .01$); as competitive occupationally ($F = 6.21$; $p < .003$); and as dominant ($F = 7.08$; $p < .002$). First, comparisons revealed that the Career First women rated themselves significantly lower as a daughter than either the Homemakers ($t = -2.08$; $p < .05$) or the New Traditionalists ($t = -2.66$; $p < .01$). The Career First women rated themselves as significantly more dominant than both the Homemakers ($t = 2.85$; $p < .007$) and the New Traditionalists ($t = 3.26$; $p < .002$). The Homemakers considered themselves significantly less occupationally competitive than both the New Traditionalists ($t = -2.95$; $p < .005$) or the Career First group ($t = 3.34$; $p < .002$). None of the other between-group comparisons were significant for females, nor did the CFO groups differ signi-

Table 15

Means and Standard Deviations of Self-esteem
Score for Female CFO Groups

CFO Group	Self-esteem Score		
	mean	s.d.	n
Homemakers (2,3)	24.05	3.56	20
New Traditionalists (4)	23.32	3.10	34
Career First (8-10)	21.77	3.60	22

A low S-E score indicates high self-esteem.

ficantly on any of the other adjectives, as shown in Table 16.

Table 16 about here

Physical attractiveness. Means and standard deviations of self- and interviewer-ratings of Ss' physical attractiveness by CFO groups appear in Table 17. Comparisons across CFO groups for each of these measures did not reveal any significant differences for females.

Table 17 about here

DESCRIPTION OF MALE CFOS GROUPS

In an effort to better understand how men were responding to the CFOS, men high (8-10; $n = 12$), medium (5-7; $n = 9$), and low (2-4; $n = 5$) in CFOS⁷ were compared on the descriptive measures used.

⁷In an effort to discover some consistency within male career scores, an attempt was also made to assign the males to three groups, according to their first choice on the Satisfaction question. However, such a division resulted in only two of the Ss changing groups, so the analyses are presented according to groupings made on the basis of total CFOS.

Table 16

Means and Tests of Significance for Each
Self-esteem Scale Item by Female CFO Group

Adjectives	Group Self-esteem Means			F
	Homemakers	New Traditionalists	Career First	
Able	1.45	1.47	1.41	n.s.
Ambitious	1.95	1.74	1.59	n.s.
Conversation- alist	2.05	1.94	1.86	n.s.
Daughter/Son	1.55	1.44	1.95	**
Assertive	2.25	2.21	1.91	n.s.
Attractive	1.95	1.94	2.09	n.s.
Competitive Oc- cupationally	2.40	1.76	1.64	**
Competitive So- cially	2.30	2.18	2.14	n.s.
Dominant	2.25	2.29	1.59	**
Helpful	1.45	1.50	1.50	n.s.
Independent	1.35	1.71	1.36	n.s.
Intelligent	1.50	1.65	1.68	n.s.
Hard-working	1.60	1.41	1.32	n.s.

**p < .01

n.s. = non-significant

Low score indicates a positive rating of self; a view of self as "above average" in that quality.

Table 17

Means and Standard Deviations of Self and
Interviewer Rating of Physical Attractiveness
for Female CFO Groups

CFO Group	Physical Attractiveness				
	self-rating		n	interv.-rating	
	mean	s.d.		mean	s.d.
Homemakers (2,3)	2.95	.69	30	3.00	.97
New Traditionalists (4)	2.76	.65	34	2.94	.85
Career First (8-10)	3.04	.58	22	3.18	1.00

A low score indicates above-average physical attractiveness.

According to one-way anovas, these groups did not differ in overall self-evaluations on the semantic differential and self-esteem measures. When these men were compared on the individual items making up the scales, they differed only on the adjective healthy ($F = 4.82$; $p < .02$) and ratings of self as attractive to the opposite sex ($F = 8.97$; $p < .001$). The high CFO group rated themselves as significantly more attractive than both the low CFO group ($t = 3.14$; $p < .01$) and the middle CFO group ($t = 3.92$; $p < .002$). None of the other between-group differences in these ratings were significant.

There was no significant difference across male CFOS groups in interviewer-rating of physical attractiveness. But, self-ratings of attractiveness became more positive as male CFO scores increased ($F = 3.68$; $p < .04$). None of the between-group comparisons were significant, however.

Table 18 presents mean scores for the statistically significant descriptive variables, by male CFOS group.

Table 18 about here

Table 18

Mean Scores on Descriptive Measures
for Males High, Medium and Low in CFOS

Measure	low CFOS (2-4) N = 5	medium CFOS (5-7) N = 9	high CFOS (8-10) N = 12
Semantic Differential*	75.00	74.67	73.75
Healthy*	4.60	5.88	5.75
Self-esteem**	23.00	24.00	23.00
Attractive to the opposite sex**	2.20	2.00	1.42
Physical Attractiveness			
Self-rating**	3.40	2.44	2.27
Interviewer-rating**	2.40	2.78	2.54

*A high score on this measure indicates a positive rating of self.

**A low score on this measure indicates a positive rating of self.

C H A P T E R I V

DISCUSSION

CONCLUSIONS

Major Hypotheses

The analyses of variance results indicated that females who, in general, dated most frequently during high school and college had a significantly lower CFO score than those who dated less. The predictions regarding the effects of Need Achievement, Need Affiliation, and college grades on C-O were not confirmed for women. Nor was the effect of Need for Heterosexuality (a measure more specific to a desire to affiliate with the opposite sex) on C-O significant. The six specific hypotheses will be discussed in sequence, but a synthesizing discussion of the interrelationships of all the variables will be withheld until results of the Path Analysis have also been presented.

The major hypotheses were not tested for men, but there is a separate section (p. 93) discussing C-O in men.

Hypothesis 1. There were no sex differences in nAch scores; it appears that nAch is a trait that varies as much in females as in males.

Overall, nAch did not differentiate CFO scores for females (contrary to the prediction), although there was a tendency for those low in nAch to score low in CFO. This finding is contrary to other reports in the literature for women

(Tyler, 1964; Hoyt and Kennedy, 1958), although results of other analyses of these data did reveal an effect. The weakness of the nAch effect might be an artifact of the sample; the base rate of nAch in women graduating from college might tend to be high since many with a lower nAch have probably not reached this level of achievement.

Hypothesis 2. There were no differences between females and males in nAff score. This, together with the finding of no sex differences in nAch, contradicted the stereotype (articulated by Bardwick, 1971) that males are primarily oriented toward achievement while females are motivated by affiliative needs. Females as well as males seemed to vary on these dimensions.

There is no reason to suspect this sample is different from other college students; the mean nAch and nAff scores in this group did not deviate more than two raw score points from the normative data for college students reported by Edwards (1959).

Neither nAff nor nSex discriminated CFO scores for women, contrary to the prediction. It appears that women with a low C-O are not motivated in their "homemaking-orientation" by a need to be with people or even with men in particular.

The significant negative correlation between nAch and nAff is surprising in view of the fact that the EPPS is presented as a measure of independent needs. It appears though that, in constructing the scale, Edward's standard for "inde-

pendence" was not stringent. For 1500 college students, he reported a larger negative correlation ($-.33$) than that found here between nAch and nAff, yet he still considered these scales independent. Thus, while it seems that nAch and nAff were not independent, this was not unique to this sample.

Hypothesis 3. College GPA did not discriminate CFO scores for women, although it had been predicted that it would. This, too, could be an artifact of the sample. College seniors have a high base rate of intellectual ability (the average GPA for females and males was approximately 3.00 ("B")) and thus need not forsake a career and any advanced education required because of lack of ability.

Tyler (1964) found that, while there were no differences in mean achievement scores for career and non-career high school girls, the career group did not include anyone low in ability measures. Eckland (1965) found college graduation itself to be the dominant factor in occupational achievement.

It is also possible that GPA is not the best measure of academic achievement. Special talents in one's field of interest may be better measured by an examination of frequencies of recognition for art work, research, or writing. GPA is an indicator of achievement over all courses taken in college and perhaps distinction in one field would be a more appropriate criterion when discussing the influence of abilities on C-O.

Kroll et al. (1970) noted that a person's construction of

her/his achievement and of the world-of-work are very important; it is not only objective standards of success that influence career decisions. Thus, to one person, a "B" average may be construed as congruent with the person's construction of a certain position-at-work and, therefore, important for career-development. To another person, however, college grades might not meet her/his idea of requirements for a certain position and, therefore, be relatively unimportant in career planning.

Hypothesis 4. This hypothesis concerned the relationship of heterosexual affiliative success and C-O.

The Affsuc means represented composites of six measures of dating. Thus, it is useful to discuss the means for individual items to gain some understanding of what constitutes relative "affiliative success."

The average woman in this sample began dating around the age of 16 and first went steady at 18. She retrospectively reported that she dated about once a month in high school. This increased to almost once a week in college and remained at this frequency during her senior year in college. The average woman described herself as currently romantically involved with one person.

The average man also started dating at 16 and first went steady at 18. In high school and college he dated a few times a month. During the senior year in college he increased his dating to once a week. He described himself as

currently midway between "dating, not romantically involved" and "involved romantically" with one person.

Success in heterosexual affiliation did discriminate CFO scores for women. A high frequency of dating, as measured by Affsuc, was associated with low C-O. As predicted, low C-O women were following the path of their past success (affiliation).

It appears that much of the difference for females was accounted for by the high Affsuc group. It was this group that scored significantly lower in CFO than either of the other groups. Thus, women who expected to devote their lives to a family dated more than other women, according to the overall Affsuc measure. It appears that the "other" or "person" orientation of women with a low C-O (or, in other words, high F-O) has been in evidence throughout their adolescence. Women who did not spend as much time dating evidenced a tendency to combine other activities with a family. The possibility that some of the differences in dating frequency may be explained as results of differences in C-O will be examined in the discussion of the Path Analysis.

It is clear that females were consistent in their conventionality or non-conventionality. Non-traditional (high C-O) women were non-traditional in their dating patterns (low dating frequency) while traditional women (low C-O) followed the expected path in dating (high dating frequency) as well.

Hypothesis 5. The intervening variable status of Affsuc

and Acadsuc was not confirmed. This seems reasonable when one considers that only one of the other preceding hypotheses was supported. In postulating a specific effect among three variables, it was assumed that at least two of the relationships would be statistically significant; this was not the case. In the affiliative realm, only the relationship between success and CFO was statistically significant. NAff had an important effect on neither success nor CFO; thus it was impossible to use the construct of an intervening variable in explaining the "effect" of NAff upon CFO; there was no effect to explain. In the achievement realm, a similar result occurred. For females, only NAch was related significantly to CFO. It was impossible to use Acadsuc to explain this NAch-CFO relationship, for Acadsuc was related to neither NAch nor CFO.

The assumption underlying this hypothesis, that achievements (in academics or affiliation) are important to a person only to the extent that they meet existing needs, was not supported. If one accepts for the moment an assumption that all the measures used were equally valid, it appears that different processes operate in the achievement and affiliative realms. A "need" is the most important determinant of an achievement-orientation, while relative "success" is the most important determinant of an affiliation-orientation. Such a conclusion must be tentatively stated, however, because of the biased nature of this sample (achievement-ori-

ented, highly achieving, most having achieved some measure of heterosexual adjustment).

It appears, then, that among the five variables considered in this analysis, only Affsuc and nAch were important correlates of CFO for women. Interrelationships of these variables will be discussed further under "Path Analysis."

Hypothesis 6. Results of tests of the preceding five hypotheses were not presented for males because it was impossible to ascertain the meaning of the CFOS for males. Thus it was not possible to compare results for females and males. The only conclusion that can be made is that the CFOS used had different meaning for females and males.

Causal Model for Development of C-O in Women

When path analysis was used to evaluate the causal model proposed for women, it was apparent that most of the variance in the measure of career-family orientation was unaccounted for. This occurred despite the fact that a combination of nAch, nAff, Affsuc, Acadsuc, and sex-role attitudes was sufficient, by standards of statistical significance, to qualify as a prediction equation for CFO for women. Thus, any interpretation is made with the realization that many other factors were operating. A person's C-O is the product of personality characteristics, background factors, interactions with people, experiences, and abilities that were not measured.

Throughout this discussion of path analysis it is important to also remember that all the variables mentioned were assumed to be antecedents of C-O. There is no place in a path analytic framework for conceptualizing reciprocal action of variables; thus, in this discussion, it is necessary to assume that modern sex-role attitudes preceeded C-O but that C-O did not affect Ss' statements about such attitudes. Such an assumption was especially problematic in this study because these "historical" variables that "preceeded" C-O were all measured at the same point in time, along with C-O. With the limitations of these assumptions in mind, the results can be discussed.

Among the variables measured, the strongest of the factors that were postulated as immediately preceding C-O in women were high nAch, modern sex-role attitudes, and low overall dating frequencies (as measured by Affsuc). A high need for affiliation was also a factor, while college grades were not.

The association of nAch and modern sex-role attitudes with high C-O is similar to other findings in the literature (Tyler, 1964; Hoyt and Kennedy, 1958; Lipman-Blumen, 1972) and reveals "consistency"; a woman with achievement strivings and opinions about the value of non-stereotypic roles for women would be likely to plan a life that includes a career.

Also consistent with the results of other studies is the relationship of low overall dating frequencies with C-O, as

Gysbers et al. (1968) found women with a C-O more likely to be single. It is important to remember that this "low success" is only relative. For example, although the "most successful" female CFO group (the Homemakers) dated about once a week during their senior year in college, the "least successful" group of women (Career First) still reported dating a few times a month during this period. Thus, even low affiliative success involves affiliation with the opposite sex. It might be appropriate to speak in terms of different frequencies of dating, rather than success (or lack of success) in heterosexual affiliation.

The role that nAff had in predicting C-O was contrary to that predicted; it had been anticipated that women would develop C-O, in part, because of low nAff but, here, high nAff facilitated high C-O. The prediction had been based on the concept of heterosexual affiliation, of the type that results in marriage, and the literature upon which it was based used measures of need for succorance and heterosexuality. An examination of the nAff scale reveals its focus on a more general "interest in friends." Thus, it seems that one reason some women choose a career is because of the opportunities it offers for being with people; viewed in this light, it may be that a woman who enjoys groups of people will not choose to spend her days in the isolation of her home.

The lack of effect of Acadsuc on C-O may well have been due to the selective nature of the sample, as discussed ear-

lier; it is difficult to think of anyone who is graduating from college as not having succeeded in academic work.

An examination of the proposed determinants of high dating frequencies for females reveals that physical attractiveness played the largest role. Attractive females were more likely to date frequently. Thus, the effect of physical attractiveness on C-O was indirect as there is no direct relationship between these two variables. Despite the view that dating is a way for some women to fulfill their achievement strivings (Veroff, 1969; Crandall, 1963), this was not the case in this analysis, for nAch apparently was unrelated to dating frequency. These women have chosen other ways to meet their need for achievement. Curiously enough, need affiliation did not affect dating frequency either. This could be a reflection of the concept measured by this scale, a general interest in friends rather than a striving toward heterosexual affiliation.

Among females, the strongest of the proposed determinants of modern sex-role attitudes was nAch, according to this path analysis: women high in nAch tended to develop sex-role attitudes that enabled them to pursue a course of achievement apart from traditional female achievement through the family. Despite the opinion in much of the literature (Nye and Hoffman, 1963; Stein and Bailey, 1973), that a working mother encourages C-O in her daughter, in part, because of the non-traditional model she offers, traditional sex-role attitudes

seemed to have been an effect of a working mother for these women. It is possible that this relationship was due to a large number of mothers dissatisfied with their work, or fathers with negative attitudes, or even daughters who would have preferred mothers who stayed at home. Further exploration of this factor would be necessary; it is not possible to reach any definite conclusions on the basis of the data used.

Social class seemed to have little effect on sex-role attitudes in women, their attitudes in this area seemed to be due to other, more general causes than social class factors. Perhaps this could have been due also to the homogeneous nature of the sample.

For females, nAch seems to have had a positive effect on college grades. This is true despite the low variability of grades among such a highly-achieving group. In this framework it was assumed that nAch occurred before college grades; in actuality nAch was measured after Ss had nearly finished college. Further analyses would be necessary to determine the tenability of postulating grades as a determinant of nAch; it may well be that either pattern is possible.

Given the assumptions of the path procedure, the overall results of this path analysis could be summarized in the following way: for females, high social class of origin resulted in high nAch; a mother who did not work led to the development of modern sex-role attitudes and, through these attitudes, to a high C-O; a high nAff affected C-O directly in a

positive way; average or below-average attractiveness resulted in low dating frequencies which, in turn, led to C-O.

This model is clearly incomplete. For example, according to the path coefficients, maternal employment would seem to have a negative effect on C-O in women; however, the correlation between the two was positive, though low. There must be other variables entering in that have not been measured. One test of the adequacy of a path model is whether the simple correlation coefficients can be reconstructed, using only the path coefficients. It is not useful even to attempt this here, for the direction of the relationships is not always consistent. The causal relationships discussed above, therefore, are only more or less important within the closed system of the model proposed. They might not be important if other variables had been used.

Another problem in interpreting these results is that all measures were gathered at the same point in time, despite the fact that some were viewed as "historical factors" in the analysis. It is quite likely that someone who, in one part of the interview, said that career was to be the chief consumer of her time and the chief source of her satisfaction would, in the interests of consistency, give positive responses to the need achievement and modern sex-role attitudes items. This could be a particularly strong factor for high C-O women. They have decided to take on a non-traditional role and thus, might well feel the necessity of convincing

others that, yes, they are going to put a lot of their energy into the independent achievement aspects of their lives.

This analysis was also based on the possibly faulty assumption that C-O is only an effect of certain variables which were affected by other variables. There is no place in such an analysis for the possibility that C-O is a decision that preceded some of the "personality" and "attitudinal" factors measured. For example, a woman may have developed modern sex-role attitudes to enable her to meet her high C-O.

Even the more "behavioral" measures (dating frequencies) in the analysis may not only be conceived of as causes but also effects of C-O. The measures of dating included the period from high school through the end of college. It is unclear when career-family plans are formed but it would be safe to say that, for many, decisions were made sometime before the end of the senior year in college. Thus, C-O could have influenced recent dating frequencies just as, for women, it has led to decisions to defer marriage and limit family size. An examination of the correlations of dating frequencies during different periods (Table 17) and of mean dating frequencies for each group during these periods (Appendix J) bears this out. The correlations between affiliative success items and current C-O increased over time. Thus, the dating-CFO correlation for women in high school was not significant while that between recent dating and CFO was the strongest ($r = -.30$; $p < .002$). Perhaps, by the end of col-

lege, women have already begun to carry out their career or family orientations. Thus, it is possible to imagine the behavior of a woman with a low C-O who has not formulated any career plans. To her, dating assumes even more importance as she realizes the necessity of attaching herself to a man as soon as possible. For a woman with a F-O, the search for a husband is necessary to fulfill her plans, while for the women with a high C-O, a husband might even be an impediment to her career plans at this time, as she must work to create an important place in the working world for herself. Without the "push" for marriage, dating assumes less importance at the same time that achievement activities are assuming more importance.

Table 19 about here

Such ancillary analyses make it clear that C-O can be viewed as a determinant, as well as an effect, of needs, attitudes, and behaviors. Clearly, a model for C-O development can only be adequately developed with longitudinal data. Unless such data is used, one's interpretations are hindered by questions about directionality of effects.

Table 19

Correlations of Individual Affiliative Success
Items with CFOS for Females

Affiliative Success Item	r	p
First Date	.03	n.s.
First Went Steady	-.11	n.s.
High School Dating Frequency	-.14	n.s.
College Dating Frequency	-.19	*
Recent Dating Frequency (Senior Year)	-.30	**

* $p < .05$

** $p < .01$

Description of Female CFOS Groups

Female CFO groups did not differ in self- or interviewer-ratings of physical attractiveness, nor did they differ on the degree to which they positively evaluated themselves on the Semantic Differential and Self-esteem scales. Within the scales there were some significant differences, notably on the dimensions warmth, dominance, occupational competitiveness, and as a daughter.

It was the New Traditionalists (women scoring 4 on CFOS) who considered themselves significantly "warmer" than either the Homemaker (those scoring 2 or 3 on CFOS) or Career First (those scoring 8-10 on CFOS) women. The Career women rated themselves as significantly more dominant and significantly less satisfactory as a daughter than either the New Traditionalists or Homemakers, while the Homemakers rated themselves as significantly less competitive occupationally than either of the other two groups. The base rates must be kept in mind when discussing the warmth dimension: the groups of women each considered themselves, on the average, as slightly above "medium warm" on a scale ranging from "warm" to "cold"; they shared a "warm" concept of themselves that is simply not as warm as the New Traditionalists. On the average, the New Traditionalists and Homemakers considered themselves as below average in dominance, while the Career First women rated themselves above average on this dimension. Dominance is, of course, an important trait to women who hope to succeed in

the world outside the home. The Career First women also considered themselves as more average in terms of their roles as daughters than the other two groups, who rated themselves above average. This may be a reflection of the non-traditional role the Career-First women were planning; they apparently were not planning to settle down soon with a family, the usual mark of a good daughter, and thus may have been more alienated from their parents, whose expectations were not being met. Both the New Traditionalists and Career First groups rated themselves as above average in occupational competitiveness, while the Homemakers as a group felt below average on this dimension. This is quite reasonable for a group of women who did not mention career as a consumer of their time or source of their satisfaction.

It is interesting to note the "on the fence" quality of the self-concepts of the New Traditionalists. On only one dimension (warmth) were they different than both of the other two groups. On some qualities (dominant, daughter) they were similar to the Homemakers while, on others (occupational competitiveness), they sided with the Career First group. They may have been reflecting the ethic that, to engage in a career free of criticism a woman must succeed in both while combining qualities necessary to both. These women seemed to be trying to do that: they ranked family as their first interest, yet endorsed a career; they were competitive, yet not dominant; throughout both their roles they were extremely

warm and always the good daughter. They may be attempting the "superwoman" solution (Holmstrom, 1972; Stein and Bailey, 1973) to the problem of being a woman and wanting some outside success by combining the roles of career, wife, and mother.

The women did not differ in either self- or other-perceived physical attractiveness. All three groups considered themselves slightly to the positive side of average while the interviewers considered them slightly more average.

In general, despite what some other researchers (Bardwick, 1971; Clifford, 1971) have concluded, females in this sample did not feel less positive about themselves than did males. Overall self-esteem scores did not differentiate between "role-breaking" or "role-following" women (high C-O, low C-O, respectively). The question that was raised about self-esteem originated in interest in the effects of following a non-traditional role on self-esteem, particularly when that role included elements positively valued by others. Such delineation does not seem appropriate; the measures used did not reveal a relationship between C-O and overall self-esteem.

The differences on some of the specific self-evaluative items, however, suggest that C-O may be, in part, a consequence of certain self-evaluations. Kroll et al. (1970) and Putnam and Hansen (1972) suggested that one seeks an occupation to implement a concept of self. They presented career

development as a sequence of successive approximations whereby one attempts to match a view of self with a view of positions-at-work until a satisfactory level of congruency is attained. This could explain the findings that Career First women considered themselves more dominant and New Traditionalists viewed themselves as warmer; in part, they could have developed their level of CFO in order to make expression of their self-concept most appropriate.

Career-orientation for Males

Studies of C-O in women rarely mention how this C-O compares to C-O in males; it is apparently assumed that, by nature of the male role in this culture, men have a C-O and only women differ on this dimension. It is true that the majority of men will devote a lot of time to work outside the family, yet they may well differ in the relative importance they attach to family and work.

For example, one may spend the first 15 years of his career moving frequently from one part of the country to another, as his employer decrees that willingness to transfer locale is a prerequisite for advancement in the corporation. He may realize this is disruptive to his family as they are constantly asked to pull up roots but, to him, his career is of first importance. Another man may not reach the top of his field because he has refused transfers, extra-hours, and business trips, as a result of a strong commitment

to his family.

One purpose of this study was to measure strength of career-family orientation in men and compare its development to that in women. Thus, it was necessary to devise a scale applicable to both men and women, in hopes of measuring the same construct for both. The extent to which this goal was met will be discussed now.

One finding of this study was that career-orientation cannot be measured for men in the same way that it is measured for women. Although men gave a variety of responses to the Time/Satisfaction questions, their total scores on this measure were not related to other career or family items. Apparently, the only significant relationships with males' CFOS were overall dating frequencies (Appendix I; men high in CFOS tended to date more), self but not interviewer perceived physical attractiveness (men high in CFOS considered themselves more attractive), and ratings of self as "healthy" (men high in CFOS rated themselves healthier). CFOS did not differentiate males on nAch, nAff, college grades, ambition, interest in a career, prestige of expected occupation, degree expected, or family plans.

A high CFO score was indicative of a response in keeping with a traditional male role: career rather than family was emphasized in both Time and Satisfaction. This, together with the relationship of high CFO with frequent dating and rating of self as physically attractive suggested that these

men were following a conventional route for male success. The picture is of a good-looking man-about-town who is not averse to the idea of acquiring a wife and children in a few years. In this hypothetical picture of conventionality, the family exists as another measure of his success, rather than as satisfying in itself. If he followed the route for male success according to this hypothesis, his job would be his work and the family would be his wife's work; this interplay of roles would be rewarding for both. However, male CFO score was not related to traditional sex-role attitudes, nor was it related significantly to expectations for wife's working. While not entirely adequate, these were the only measures available for testing a "conventionality" hypothesis. As in all the attempts to establish the meaning of this CFOS for males, the researcher was hindered by the small sample size (26 males responded to the question) and the lack of measures intended to be relevant particularly to males. The focus in this study was females and questions were frequently selected with them in mind; the males did not often respond similarly to these questions.

Komarovsky (1973) found that college males' attitudes about sex-roles were filled with ambivalences and inconsistencies. She suggested that such inconsistencies were not a source of high stress for these males because their future roles do not require an immediate realistic confrontation. College women are apparently much clearer than men in their

ideas about careers, for many have already had to make a decision to commit themselves to a career; a family role has been assumed for them but a possible career, if relevant, is probably already being considered in concrete terms. Most college males, on the other hand, have not been forced to make a definite choice about the interplay of career and family roles in their lives; career has been taken for granted and family is not yet a real issue.

Inconsistency was apparent in this sample, particularly in regards to responses to the various achievement and career items. These men did not seem to give consistent "high career motivation" responses; in general, those who expected career to be the focus of their lives were not particularly ambitious, interested in a career, or searching for a prestigious occupation.

If there were more male Ss and a wider variety of data available for them, the conventionality hypothesis could be tested further and, perhaps, a discriminant or regression analysis could be performed. Unfortunately, the only conclusion that can be made is that career-orientation is much more complex in males than one would expect. College senior women are apparently clearer and more consistent in statements about their career and family expectations than men are.

Compensatory vs. Enrichment Models

One interest in this study was to examine compensatory

and enrichment interpretations of the development of C-O in women. The interpretations were consistent with the enrichment model in associating strong nAch and modern sex-role attitudes with high C-O for women. The relationship of lower overall dating frequencies with high C-O was interpreted as a possible effect, rather than a cause of C-O. Physical attractiveness had no direct effect on C-O and was related only through its facilitating effect on dating frequencies. There was also some suggestion that career-oriented women may be motivated by a need for affiliation, a desire to associate with people, as well as a need for achievement. Thus, Lewis' (1968) view that a career is a "frustration outlet" for women was not supported.

It seems that the compensatory model is mistaken in the assumption that a need for heterosexual affiliation is the primary one for women. Bardwick's (1971) opinion, that women can't really build independent lives for themselves until they have settled into marriage and motherhood, is weakened by the finding that a need for achievement and career plans are important factors in the lives of some college women, many of whom are deferring marriage and motherhood. The compensatory model is weakened as soon as one begins to view nAch, rather than only nAff, as a primary "normal" motivating force. Taken by itself, nAff did not emerge as a significant predictor of F-O; there is even a suggestion that it plays a role in developing C-O. NAch does seem, however, to

play a much larger part in the decisions and plans of these women.

It is interesting to evaluate these models in Bakan's (1966) terms of "agency" and "communion" and the values he places on them. According to Bakan, these terms characterize two fundamental modalities in the existence of living forms: agency is concerned with the existence of the organism as an individual and is manifested in self-protection, self-assertion, and self-expansion, while communion represents the participation of the individual in some larger organism and is manifested in the sense of being at one with other organisms. As explained by Carlson (1971), both are necessary qualities within any organism; either quality alone or in relatively large quantities is destructive. Among other things, Bakan associates the qualities with a variety of sex differences, viewing agency as a male principle and communion as a female principle.

Sandra Bem (1972) discussed concepts of masculinity and femininity and reached a conclusion favoring an integrative model consistent with Bakan's. According to her, the ideal is an individual who combines aspects of masculinity and femininity; an "androgynous" individual, one who has no sex-typed image to maintain, can remain sensitive to the changing constraints of the situation and engage in whatever behavior seems most effective at the moment, regardless of its stereotype as appropriate for one sex or the other. Block (1973),

too, examines the costs, to men and women alike, of the prevailing definitions of masculinity and femininity, and advocates the integration of agency and communion to create a broadening of experience, a more "human" condition.

It seems that, in this segment of the literature, there is a call for the devaluing of rigid sex-role stereotypes in return for a search for ways of combining that which is "agentic" and "communal" in a single individual.

The compensatory model is apparently based on stereotypic assumptions: unlike men, women are thought to be guided primarily by a need to affiliate with others, and strivings for independent achievement are primary motives for men but not for women. Out of such an assumption can develop the notion that women who choose to achieve independently before they affiliate must be doing so out of a "frustrated" need for affiliation, since simple need for achievement should not be important to young women. In short, the compensatory model assumes that young women are limited to affiliation. It accepts already outdated stereotypic sex-role behaviors as "natural" and fosters them.

The enrichment model considers not only what is typical but also what is different. The emphasis is upon opening options; in its ideal, a person's future is not determined by sex-role requirements, but by choices growing out of a wide range of skills, interests, and exposure to various models and situations. Decisions are more frequently a function

of individual characteristics than of role-determined characteristics.

It appears that, in its ideal, the compensatory model defines "masculine" as agentic and "feminine" as communal, while the enrichment model bridges these polarities and favors a balance in any one person.

Bakan states clearly that "unmitigated agency" is the source of evil while implying that "unmitigated communion" rules out the possibility of individual survival. The model apparently most consistent with these values in the enrichment model.

IMPLICATIONS

It remains a possibility that many women are adjusting their goals downward because of limitations in our current social environment. In the 15 or 20 interviews I conducted, I was struck by the number of women who "expected" a less time-consuming career than they "preferred" because of the lack of good, reliable child-care arrangements. They also believed that young children are harmed by a mother who is absent during working hours, the last stereotype remaining in many cases. In part they were right because there is presently no existing structure of good day care facilities available in most communities. Legislation and support for such facilities, of the type vetoed by President Nixon in 1971, should be a national priority. Dissemination of the

research findings that the effects of maternal employment on children are not necessarily negative (Stolz, 1960; Nye and Hoffman, 1963) and that maternal overprotection is often harmful (Levy, 1943) are also necessary. Women must realize that twenty-four-hour-a-day mothering by one person is not necessarily the best situation for children.

Not only material but also emotional support is necessary. Gump (1972) noted that a supportive male is very important to women planning a career. Positive attitudes, as well as help, from family and friends can go a long way toward making a career-orientation more feasible for more women.

In a 1964 commentary, Erikson expressed the opinion that women can't really formulate an identity until they know whom they will marry and for whom they will make a home. Although she did not accept such current realities as necessity, Rossi (1965b) observed that young women were not taking the time in late adolescence to evolve a value system of their own and a sense of direction toward an individual goal; marrying early, they were adapting to the goals of their husbands at the expense of their own intellectual and emotional growth. Although these authors may have been correct in their assessment of the "modal" woman at the time, the findings of the present study suggest that many women are behaving differently today. They are choosing to evaluate their own needs and ways of meeting these independently before committing themselves to an "other-oriented" lifestyle.

Finally, it is hoped that, in moving toward such "agentic" values as independent achievement, women will be able to retain many of the "communal" values that have been part of their traditional role. To the extent that they make this feasible, they will be moving toward androgyny, toward less role-specific and more situation-specific behaviors. They will also be making the world outside the home more person-oriented and, in the end, more human.

SUMMARY

The goal of this study was to examine the relationship of Need Achievement, Need Affiliation, success in achievement (college grades), and success in affiliation (dating frequencies) to career-orientation for female and male college seniors. Physical attractiveness and self-concept were also compared for those with differing degrees of C-O. To delineate, as well as test, some implications about causality growing from compensatory and enrichment models for C-O development, the effect of a number of variables on women's C-O was evaluated with a path analysis procedure.

Data from the 93 white female and 27 white male Ss were collected during individual interviews. Ss' responses to questions concerning the anticipated chief consumers of their time and the anticipated chief sources of their satisfaction in adulthood were the basis of the scale for Career/Family-Orientation (CFO) devised. The nAch and nAff scales of the EPPS, questions about the extent of dating during adolescence and young adulthood, college GPA, self- and interviewer-ratings of physical attractiveness, and a semantic differential for "I am" and self-ratings on a number of adjectives served as the measures of nAch, nAff, affiliative success, academic success, and self-evaluation (including physical attractiveness), respectively.

Neither nAch, nAff, or Acadsuc discriminated CFO scores for females, contrary to the predictions. This may have been due in part to the homogeneous nature of the sample. Affsuc was related to CFO for females; women high in Affsuc tended to develop a low C-O.

According to the path analysis, the chief determinants of C-O in women were low dating frequencies, high nAch, modern sex-role attitudes, and high nAff. It was concluded that these variables may have been effects, as well as causes, of C-O.

Female CFO groups did not differ in self-esteem, semantic differential ratings of "I am," or self- and interviewer-ratings of physical attractiveness. Group differences in women's ratings on several of the specific self-evaluative traits (dominant, competitive occupationally, as a daughter, and warm) were also discussed.

Tests of the major hypotheses were not reported for males because it was not possible to establish construct validity for the CFO scale used. The hypothesis that the measure was actually tapping conventionality was considered but could not be supported with these data. Variables relating to conventionality were lacking; this, together with the small male sample size make any conclusions about C-O in males impossible to evaluate.

Results were interpreted according to the enrichment model for C-O development in women. Some women, even in young

adulthood, are often motivated by a high need for achievement, modern sex-role attitudes, and perhaps high need for affiliation, to pursue a career. While high C-O women were dating less than other women in late college this appears to be a fairly recent phenomenon, an effect, rather than a cause, of C-O. C-O may also affect other affiliative (marriage and children) behaviors and attitudes about achievement and sex-roles.

The meaning and value of the compensatory and enrichment models were discussed in terms of sex-role stereotypes and Bakan's terms of "agency" and "communion". Some implications of these results were discussed.

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APPENDIX A

Questions from the Edwards Personal Preference Schedule tapping Need Achievement (*) and Need Affiliation (#).

This questionnaire consists of a number of pairs of statements about things that you may or may not like; about ways in which you may or may not feel. Read each pair of statements and pick out the one statement that better describes what you like or how you feel. You may like both 1 and 2. In this case, you would have to choose between the two and you should choose the one that you like better. If you dislike both 1 and 2, then you should choose the one that you dislike less.

Your choice, in each instance, should be in terms of what you like and how you feel at the present time, and not in terms of what you think you should like or how you think you should feel. This is not a test. There are no right or wrong answers. Your choices should be a description of your own personal likes and feelings.

Make a choice for every pair of statements; do not skip any. Mark your answers on the separate answer sheet; check to be sure you are marking the same item number as the item you are reading.

- 1) 1. Any written work that I do I like to have precise, neat, and well organized.
*2. I would like to be a recognized authority in some job, profession, or field of specialization.
- 2) *1. I like to be successful in things undertaken.
#2. I like to form new friendships.
- 3) *1. I like to be able to do things better than other people can.
2. I like to eat in new and strange restaurants.
- 4) 1. I like to travel and to see the country.
*2. I like to accomplish tasks that others recognize as requiring skill and effort.
- 5) *1. I would like to be a recognized authority in some job, profession, or field of specialization.
2. I like to have my work organized and planned before beginning it.
- 6) *1. I like to accomplish tasks that others recognize as requiring skill and effort.
2. I like to be able to come and go as I want to.

- 7) 1. I like to argue for my point of view when it is attacked by others.
#2. I like to write letters to my friends.
- 8) *1. I like to be able to do things better than other people can.
2. I like to tell amusing stories and jokes at parties.
- 9) *1. I like to do my very best in whatever I undertake.
2. I like to help other people who are less fortunate than I am.
- 10) 1. I like to attack points of view that are contrary to mine.
#2. I like to write letters to my friends.
- 11) 1. Any written work that I do I like to have precise, neat, and well organized.
#2. I like to make as many friends as I can.
- 12) 1. I like to read newspaper accounts of murders and other forms of violence.
*2. I would like to write a great novel or play.
- 13) #1. I like to share things with my friends.
2. I like to make a plan before starting in to do something difficult.
- 14) 1. I like to go out with attractive persons of the opposite sex.
#2. I like to make as many friends as I can.
- 15) *1. I would like to accomplish something of great significance.
2. I like to kiss attractive persons of the opposite sex.
- 16) 1. I like to do new and different things.
#2. I like to form new friendships.
- 17) 1. I like to be able to come and go as I want to.
*2. I like to be able to say that I have done a difficult job well.
- 18) *1. I like to be able to say that I have done a difficult job well.
2. I like to work hard at any job I undertake.
- 19) 1. I like to help my friends when they are in trouble.
*2. I like to do my very best in whatever I undertake.

- 20) *1. I would like to write a great novel or play.
2. I like to attack points of view that are contrary to mine.
- 21) #1. I like to form new friendships.
2. I like my friends to help me when I am in trouble.
- 22) #1. I like to do things for my friends.
2. When I have some assignment to do, I like to start in and keep working on it until it is completed.
- 23) *1. I like to be successful in things undertaken.
#2. I like to form new friendships.
- 24) 1. I like to analyze my own motives and feelings.
#2. I like to make as many friends as I can.
- 25) 1. I like to help my friends when they are in trouble.
*2. I like to do my very best in whatever I undertake.
- 26) 1. When I have some assignment to do, I like to start in and keep working on it until it is completed.
#2. I like to participate in groups in which the members have warm and friendly feelings toward one another.
- 27) 1. I like to go out with attractive persons of the opposite sex.
*2. I like to be successful in things undertaken.
- 28) #1. I like to be loyal to my friends.
*2. I like to do my very best in whatever I undertake.
- 29) 1. I like to find out what great men have thought about various problems in which I am interested.
*2. I would like to accomplish something of great significance.
- 30) 1. I like to tell amusing stories and jokes at parties.
#2. I like to write letters to my friends.
- 31) 1. I like to work hard at any job I undertake.
*2. I would like to accomplish something of great significance.
- 32) *1. I would like to be a recognized authority in some job, profession, or field of specialization.
2. I feel guilty whenever I have done something I know is wrong.
- 33) *1. I like to accomplish tasks that others recognize as requiring skill and effort.
2. I like my friends to encourage me when I meet with failure.

- 34) #1. I like to do things for my friends.
2. When planning something, I like to get suggestions from other people whose opinions I respect.
- 35) 1. I like to be one of the leaders in the organizations and groups to which I belong.
*2. I like to be able to do things better than other people can.
- 36) #1. I like to be loyal to my friends.
2. I like to go out with attractive persons of the opposite sex.
- 37) #1. I like to write letters to my friends.
2. I like to read newspaper accounts of murders and other forms of violence.
- 38) 1. I like to observe how another individual feels in a given situation.
*2. I like to be able to say that I have done a difficult job well.
- 39) #1. I like to meet new people.
2. Any written work that I do I like to have precise, neat, and well organized.
- 40) 1. I like to help my friends when they are in trouble.
#2. I like to be loyal to my friends.
- 41) *1. I like to do my very best in whatever I undertake.
2. I like to help other people who are less fortunate than I am.
- 42) #1. I like to do things with my friends rather than by myself.
2. I like to experiment and to try new things.
- 43) #1. I like to have strong attachments with my friends.
2. I like to say things that are regarded as witty and clever by other people.
- 44) 1. I like my friends to encourage me when I meet with failure.
*2. I like to be successful in things undertaken.
- 45) #1. I like to participate in groups in which the members have warm and friendly feelings toward one another.
2. I like to help my friends when they are in trouble.

- 46) *1. I like to solve puzzles and problems that other people have difficulty with.
2. I like to judge people by why they do something -- not by what they actually do.
- 47) 1. I like to be able to come and go as I want to.
#2. I like to share things with my friends.
- 48) #1. I like to do things with my friends rather than by myself.
2. I like to say what I think about things.
- 49) 1. I feel guilty whenever I have done something I know is wrong.
#2. I like to have strong attachments with my friends.
- 50) #1. I like to share things with my friends.
2. I like to analyze my own motives and feelings.
- 51) #1. I like to do things with my friends rather than by myself.
2. I like to argue for my point of view when it is attacked by others.
- 52) #1. I like to participate in groups in which the members have warm and friendly feelings toward one another.
2. I feel guilty whenever I have done something I know is wrong.
- 53) *1. I would like to write a great novel or play.
2. When serving on a committee, I like to be appointed or elected chairman.
- 54) 1. I like to tell amusing stories and jokes at parties.
*2. I would like to write a great novel or play.
- 55) 1. I like to follow instructions and to do what is expected of me.
#2. I like to have strong attachments with my friends.

APPENDIX B

Questions from the nAch and nAff scales of the EPPS that were also scored for Need for Heterosexuality (*).

- 14) *1. I like to go out with attractive persons of the opposite sex.
2. I like to make as many friends as I can.
- 15) 1. I would like to accomplish something of great significance.
*2. I like to kiss attractive persons of the opposite sex.
- 27) *1. I like to go out with attractive persons of the opposite sex.
2. I like to be successful in things undertaken.
- 36) 1. I like to be loyal to my friends.
*2. I like to go out with attractive persons of the opposite sex.

APPENDIX C

Measure for Career/Family Orientation

Which of the following do you expect to give you the most satisfaction in your life:

	Most Satisfaction (circle one)	Next most Satisfaction (circle one)
1. leisure-time recreational activities	1	1
2. your career or occupation	2	2
3. your family relationships	3	3
4. volunteer participation in community organizations (e.g., hospital, schools, library, social welfare)	4	4
5. volunteer participation in local, national, or international political activities or organizations	5	5

Which of the following do you expect to spend the most time at in your life:

	Most Satisfaction (circle one)	Next most Satisfaction (circle one)
1. leisure-time recreational activities	1	1
2. your career or occupation	2	2
3. your family relationships	3	3
4. volunteer participation in community organizations (e.g., hospital, schools, library, social welfare)	4	4
5. volunteer participation in local, national, or international political activities or organizations	5	5

APPENDIX D

Questions used for Affiliative Success measure. Numbers in parentheses indicate the number of points assigned to responses; a high score was regarded as "success."

1. What is your marital status? Are you:

- | | |
|---|-----|
| 1. single, not dating | (1) |
| 2. single and dating, no romantic involvement | (2) |
| 3. involved romantically with someone | (3) |
| 4. engaged | (4) |
| 5. married | (5) |

2-3. How old were you when you started to date (not casual get-togethers, but a pre-arranged social engagement with a boy)? How old were you when you first went steady?

- | | |
|------------------|------|
| 1. 11 or younger | (11) |
| 2. 12 | (10) |
| 3. 13 | (9) |
| 4. 14 | (8) |
| 5. 15 | (7) |
| 6. 16 | (6) |
| 7. 17 | (5) |
| 8. 18 | (4) |
| 9. 19 | (3) |
| 10. 20 or older | (2) |
| 11. never did | (1) |

4-6. How often did you go out on dates during each of the time periods listed below? (If you got married during one of the time periods below, answer in terms of your dating before your marriage.)

	Last 2 years in high school	First 2 years in college	Since 9/72	
I was married by then	1	1	1	(10)
Rarely or never	2	2	2	(2)
A few times a year	3	3	3	(3)
Several times a year	4	4	4	(4)
Once a month	5	5	5	(5)
A few times a month	6	6	6	(6)
Once a week	7	7	7	(7)
Twice a week	8	8	8	(8)
Three or more times a week	9	9	9	(9)

APPENDIX E

Women's Role Questionnaire

Now,

We are interested in your reaction to the following statements about the woman's role. There are no right or wrong answers. Please indicate your agreement or disagreement with each of the following statements by circling the number that comes closest to your feelings: (+3) strong agreement; (+2) moderate agreement; (+1) slight agreement; (0) neutral; (-1) slight disagreement; (-2) moderate disagreement; (-3) strong disagreement.

7. Except in emergencies, the physical care of children should be very largely the mother's rather than the father's job.

+3 +2 +1 0 -1 -2 -3 (9)

8. Except in special cases or situations, the wife should do all the cooking and housecleaning, and the husband should provide the financial income.

+3 +2 +1 0 -1 -2 -3 (10)

9. Except in cases of great financial need, mothers with preschool or young school-age children should not work outside the home.

+3 +2 +1 0 -1 -2 -3 (11)

10. It is not as necessary for women as for men to go to college and/or graduate school.

+3 +2 +1 0 -1 -2 -3 (12)

11. If a wife goes to school or works for reasons other than actual financial necessity, she should not expect her husband to share in the household tasks.

+3 +2 +1 0 -1 -2 -3 (13)

12. Married women, particularly if they have children, should not expect to have any kind of a career.

+3 +2 +1 0 -1 -2 -3 (14)

(15,16)

APPENDIX F

Women's Place in Society Questionnaire

Now, I'd like to talk about women's place in society. For each of the following statements, decide whether you generally agree or generally disagree.

	<u>Agree</u>	<u>Disagree</u>	
13. A man can make long-range plans for his life, but a woman has to take things as they come.	1	2	(25)
14. A single woman who gets an advanced degree will have a hard time finding a husband.	1	2	(26)
15. It doesn't pay for a woman to turn in a better job performance than the men she works with because they will resent her for it.	1	2	(27)
16. It is as important for a married woman to help her husband get ahead in his career as to have a career herself.	1	2	(28)
17. A woman who enters a field made up mostly of men will be seen as masculine.	1	2	(29)
18. If a young woman wants to marry, she should be careful not to sound too intellectual on a date	1	2	(30)
19. A married woman can make long-range plans for her own career independent of her husband's plans for his.	1	2	(31)
20. One of the most important things to a happy marriage is for the man to be somewhat more intelligent than the woman.	1	2	(32)
21. It is as important for a woman to marry a man with a really good job as to have such a good job herself.	1	2	(33)

	<u>Agree</u>	<u>Disagree</u>	
22. Even if a woman has the ability and the interest she should not choose an occupation that would be difficult to combine with child-rearing.	1	2	(34)
23. It is only fair for women to be paid less than men who do the same work because the man will be the bread winner.	1	2	(35)
24. If a woman makes more money than her husband, the marriage is headed for trouble.	1	2	(36)
25. It is a fact of life that women can work only when their family duties permit.	1	2	(37)
26. Husbands and wives should take turns caring for young children.	1	2	(38)
27. A woman's true happiness lies in being a wife and mother.	1	2	(39)
28. The husband of a career woman must be ready to make his career decisions jointly with her.	1	2	(40)
29. Women can make their greatest contribution in fields allied with their natural interests -- caring for others, helping, and teaching.	1	2	(41)
30. A pre-school child is likely to suffer emotional damage if his mother works.	1	2	(42)
31. Parents should encourage just as much independence in their daughters as in their sons.	1	2	(43)
32. If a woman is attracted to a man she should feel free to ask him for a date.	1	2	(44)
33. Women should feel free to initiate sexual activity.	1	2	(45)

	<u>Agree</u>	<u>Disagree</u>	
34. Pre-marital sexual relations often equip men and women for more stable and happier marriages.	1	2	(46)
35. Women do not enjoy sex as much as men.	1	2	(47)
36. Women should not engage in either pre-marital or extramarital intercourse, but men may.	1	2	(48)
37. Pre-marital sexual relations are permissible for either sex.	1	2	(49)
38. Men but not women may engage in pre-marital sex relations, but neither extramarital	1	2	(50)
39. A man's true happiness lies in being a husband and father.	1	2	(51)

(52, 53)

APPENDIX G

Intercorrelations of the Ratings of "I am"
on the Semantic Differential

Adjec- tives	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	18	42	36	17	03	14	-14	19	09	29	26	27	30	48	38
2	--	12	24	17	26	-09	00	20	-08	27	00	39	01	19	20
3		--	56	13	13	08	-15	25	05	13	33	09	12	27	27
4			--	05	17	14	-07	34	14	10	27	24	24	24	28
5				--	17	00	08	20	-05	33	02	13	05	11	19
6					--	07	06	45	08	06	17	07	26	-01	23
7						--	-14	12	24	09	30	17	20	14	22
8							--	13	-04	13	01	-09	02	-12	17
9								--	20	16	28	26	32	02	39
10									--	09	30	17	10	12	20
11										--	14	30	25	39	35
12											--	12	16	21	38
13												--	20	38	27
14													--	11	31
15														--	34
16															--

Decimal points have been left out. N = 120.

Code:

- | | |
|-----------------|------------------|
| 1 = quick | 9 = good |
| 2 = happy | 10 = giving |
| 3 = responsible | 11 = strong |
| 4 = useful | 12 = reliable |
| 5 = healthy | 13 = warm |
| 6 = trustworthy | 14 = smart |
| 7 = changing | 15 = active |
| 8 = calm | 16 = total score |

APPENDIX H

Intercorrelations of the Self-esteem Items

Adjectives	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	--	31	26	-04	15	20	15	09	21	16	24	52	14	55
2		--	22	-20	27	-07	39	04	16	14	06	28	41	55
3			--	09	36	28	07	29	31	06	09	23	03	57
4				--	00	09	-11	09	-16	06	-23	06	-29	08
5					--	17	23	18	54	08	12	-01	16	54
6						--	-01	24	-01	01	-02	26	-07	25
7							--	16	24	15	-03	09	11	36
8								--	08	01	-01	10	-10	40
9									--	15	23	05	07	51
10										--	06	16	16	26
11											--	12	20	33
12												--	18	46
13													--	26
14														--

Decimal points have been left out. N = 120.

Code:

- 1 = able
- 2 = ambitious
- 3 = as a conversationalist
- 4 = as a daughter/son
- 5 = assertive
- 6 = attractive to the opposite sex
- 7 = competitive occupationally
- 8 = competitive socially
- 9 = dominant
- 10 = helpful
- 11 = independent
- 12 = intelligent
- 13 = hard-working
- 14 = total score

APPENDIX I

Summary of Results of Major Analyses of Males.

CFOS was the Dependent Variable

Independent Variable	F	p
Need Achievement	1.70	n.s.
Need Affiliation	.73	n.s.
Academic Success (GPA)	.64	n.s.
Affiliative Success	3.50	.05 (As CFOS increased, Affsuc in- creased.)

APPENDIX J

Means of Individual Affsuc Measures by Female CFOS Groups

Measure	Home- makers (N=20)	New Tra- dition- alists (N=34)	Inbe- tweens (N=16)	Career First (N=22)	F	p
Start to date	6.50	6.21	5.94	6.60	.77	n.s.
Start steady	4.75	4.65	3.56	4.18	.91	n.s.
Date high school	5.10	5.80	4.31	4.73	1.64	n.s.
Date college	7.32	6.89	6.63	5.95	1.64	n.s.
Date since 9/72	7.37	7.50	6.20	5.68	3.55	*
Marital status	2.75	3.06	2.50	2.27	2.83	*

*p < .05

Coding:

Age for starting to date and starting to go steady:

1 = never did; 2 = 20 or older; 3 = age 19; 4 = age 18;
5 = age 17; 6 = age 16; 7 = age 15; 8 = age 14; 9 = age
13; 10 = age 12; 11 = age 11 or younger.

Frequency of dating in high school, college, and since 9/72:

2 = rarely or never; 3 = few times a year; 4 = several
times a year; 5 = once a month; 6 = few times a month;
7 = once a week; 8 = twice a week; 9 = three or more
times a week; 10 = married by then.

Marital status:

1 = single, not dating; 2 = single and dating, no roman-
tic involvement; 3 = involved romantically with someone;
4 = engaged; 5 = married.

