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**Parental antecedents of instrumentality, expressiveness, and
gender role preferences**

Arditti, Joyce Anne, Ph.D.

The University of North Carolina at Greensboro, 1988

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PARENTAL ANTECEDENTS OF INSTRUMENTALITY,
EXPRESSIVENESS, AND GENDER
ROLE PREFERENCES

by

Joyce A. Arditti

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Approved by

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APPROVAL PAGE

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This study explores the relationships between parenting behavior of mothers and fathers and self-report measures of college students' instrumentality, expressiveness, and gender role preferences. A nonrecursive model is proposed based on the assumption that gender role phenomena are interrelated. Data were collected from a sample of 215 college students. Analysis was done with two stage least squares and simultaneous equations which is an extension of linear multiple regression. Results indicated that higher levels of maternal control were associated with lower levels of students' expressiveness and more traditional gender role preferences. Furthermore, a bidirectional path between students' instrumentality and expressiveness and a path from instrumentality to gender role preferences were revealed. Positive levels of instrumentality were associated with greater levels of expressiveness and vice versa while greater instrumentality was associated with more modern gender role preferences. Results also suggest that earlier studies utilizing univariate techniques seem overly simplistic and inflate the importance of general parental socialization practices in the face of the information gained by utilizing simultaneous equations.

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CHAPTER I

INTRODUCTION

In considering the role of parental socialization in the development of gender role in children, previous research tends to deal with only pieces of the larger puzzle. Most studies focusing on this question often simply identify predictors or antecedents of androgyny or sex role identity and fail to comprehensively investigate the connections between parent behaviors and gender role phenomena more broadly defined. The overall goal of the present study is to develop and test a theoretically-based model of the relationship among gender differentiating traits and gender role preferences of college-age students and the earlier parenting behavior of their mothers and fathers.

Throughout the late 60's and early 70's sex role research dominated the family studies field. Though considered by some to be "trendy" due to the social climate and the women's movement, the importance of studying sex role phenomena should not be underestimated. Gender has far reaching implications in terms of molding one's life experience, preferences, activities and self-concept. Some argue that gender is the most powerful stratifier in a given society and that other important variables such as race or class actually "flow through" gender to influence people's lives (O'Kelly & Carney, 1986). We also know that in considering child characteristics which are

believed to shape parental interaction, gender is considered the most influential child effect in determining the kind of treatment children will receive by their parents (Belsky, Lerner, & Spanier, 1984). Thus sex role research still has an important place in the 80's, only now, rather than just asking simplistic research questions, sex role researchers are faced with the tasks of making methodological refinements and developing theoretical models. The abstract nature of the constructs studied in sex role research often make them difficult to operationalize and validate. Therefore, it is crucial that sex role researchers undertake research which is conceptually clear and offers a theoretical base from which to analyze findings and make predictions. With those issues in mind, the specific objectives of this study were: (1) to assess the relationships between parenting behavior of mothers and fathers and college students' trait descriptions, that is, the degree to which they view themselves as possessing instrumental and expressive characteristics, after controlling for other relevant variables which may also influence their level of instrumentality or expressiveness; (2) to assess the relationship between the parenting behavior of mothers and fathers and college students' gender role preferences, the degree to which they support and espouse certain ideas and behaviors as appropriate for individuals in certain family roles, after controlling for other potential influences on the development of gender role preferences; (3) to investigate the relationships among college students' trait descriptions (instrumental/expressive) and gender role preferences as separate but

theoretically related constructs; and (4) to explore the measurement properties of instruments measuring the constructs of instrumentality, expressiveness, gender role preferences, and parenting behaviors.

Background of the Study

Both social learning and psychoanalytic theory emphasize the primariness of parents as socializing agents in the development of sex roles in children (Huston, 1983). Efforts to determine parents' influence on their children have often focused on the issue of whether parents treat boys and girls differently (Huston, 1983; Maccoby & Jacklin, 1974). These differences in treatment are thought to lead eventually to sex-typed differences in personality characteristics and behaviors. Other studies have attempted to link parents' behavior with indices of offsprings' "sex role identity" (Kelly & Worell, 1976; Orlofsky, 1979, 1981). Many of these studies were exploratory in nature and focused on identifying antecedents of psychological androgyny, assumed to be by many the most desirable sex role outcome. Currently, however, researchers and theorists have begun to question such assumptions. Perhaps one of the topics of most controversy within the area of sex roles today involves the definition and measurement of the construct "sex role identity" (Spence, 1984). Actually, little agreement exists regarding what to even call this concept, i.e., sex role identity, gender role identity, gender identity, sex role orientation, etc. Therefore, it comes as no surprise the construct of sex role identity is surrounded by methodological

and theoretical confusion. This definitional ambiguity has important implications in the measurement of sex role constructs and the generalizability of results. It is necessary to clearly define the sex role constructs of interest here in order to have a solid foundation from which to build a theoretical model.

Notions of masculinity and femininity are most commonly used in conceptualizing sex role identity. There is currently much disagreement within the literature as to whether masculinity and femininity are meaningful, discriminable sex role dimensions. Spence (1984) vehemently argues this point in concluding that categorizations made on the basis of self-report trait measures (like the Bem Sex Role Inventory) lack theoretical validity. In general, masculinity involves a cluster of "instrumental" traits, characterized by achievement, independence, assertiveness and success in the public sphere. Femininity involves a cluster of "expressive" characteristics such as nurturance, warmth, attachment, and other relationship oriented qualities. Thus, instrumental and expressive traits have typically been used as surrogates for such general constructs as masculinity-femininity and sex-role identity.

Historically, until the last decade masculinity and femininity have been defined as bipolar ends of a single continuum; either a person was masculine or feminine but never had qualities of both. Although males and females are often still characterized as masculine and feminine, respectively, it was suggested in the early 1970's that masculinity and femininity, rather than representing opposite ends of

a continuum, can be viewed as independent dimensions so that some individuals may manifest high levels of both masculine and feminine characteristics (Bem, 1974; Constantinople, 1973; Spence, Helmreich, & Stapp, 1975). Bem (1974) refers to this sex-role outcome as "psychological androgyny" and argues that such an orientation, as compared to traditional sex-typing, is associated with greater behavioral flexibility and a more positive level of self-esteem (Bem, 1975).

During the early 1970's, Spence, Helmreich and Stapp (1974) had a similar model to Bem's using the PAQ, a personality attributes inventory. The models were comparable in that it was possible for individuals to score high on both masculine and feminine dimensions. Spence has recently abandoned this line of thinking and reformulated her ideas. She believes that since so much confusion surrounds the concepts of masculinity and femininity, they are not theoretically relevant (Spence, 1984). At best the former terms have limited empirical meaning, being used as labels to identify specific objects, events or qualities that in a given culture are perceived as more closely associated with males or with females. Spence suggests that masculinity and femininity can be described by appealing to the concept of gender identity. She defines gender identity as a fundamental existential sense of one's maleness or femaleness; an acceptance of one's gender on a psychological level that parallels and complements an awareness and acceptance of one's biological sex. Wallston (1981) also notes the implicit bias in concepts such as masculinity, femininity and androgyny in that people tend to attach implicit meanings to

these terms, i.e., masculine is "male," feminine is "female," and androgyny is "the optimal balance for all." She articulates a need to transcend the boundaries of these terms and focus more on broader concepts such as agency and communion. With these arguments in mind, the most conservative strategy to adopt would be to describe the Bem Sex Role Inventory (BSRI) as simply a measure of gender-differentiating instrumental and expressive traits. This approach avoids the implicit bias of sex-role terminology and is empirically accurate. Extensive explorations of the BSRI's factor structure indicate consistent factor structure across studies. Typically, the BSRI has been shown to be composed of two major factors encompassing dominance/poise/instrumental activity and empathy/nurturance/interpersonal sensitivity (Lubinski, 1983; Powell, 1979; Richardson, Merrified, Jacobsen, Evanoski, Hobish, & Goldstein, 1980).

It is also important to acknowledge the multidimensional nature of sex role phenomena (Cook, 1985). In the past, sex role outcomes have been treated as unidimensional. For example, self-report trait descriptions have previously been dealt with as encompassing all of one's "gender role"; that is, all that needed to be known was whether one saw themselves as masculine, feminine or androgynous. Spence (1984) calls for a "multifactorial" model of gender related phenomena which considers more than the degree to which individuals report characteristics associated with their gender. It is important to explore the interconnections between levels of instrumentality and expressiveness, and sex role attitudes, in order to have a more

complete picture of the place of gender roles in peoples' lives. Thus, in addition to considering instrumental and expressive personality (trait descriptions), the present study explored the linkage between personality and behavioral preferences within the framework of one model. While specific traits may shape certain preferences, it is also possible that changes in one's preferences may in turn shape changes in the trait descriptions one uses for oneself. It is unclear as to the direction of this influence; thus a nonrecursive model was used allowing for the possibility of a reciprocal relationship.

Following Scanzoni and Fox (1980), gender role preferences are believed to exist on a continuum, one pole of which represents preferences (desires or tastes) for role specialization according to traditional patterns, i.e., women attending to care of the home, husband, and children, men attending to paid work. The other pole represents preferences for role interchangeability according to more modern patterns, that is, both men and women sharing paid work, housework, and childcare. These preferences, whether traditional or modern, are believed to be associated with observable behavior in the work and home.

The links between parents' behavior and their children's trait descriptions and preferences needs to be further explored. Most studies have looked at only selected pieces of this puzzle. It is clear that individuals' traits, i.e., the degree to which they perceive themselves as instrumental and/or expressive, and their preferences for

who should perform what familial role both collectively tap something about gender roles and thus both need to be investigated. Studies have tended only to look at one or the other. This study examines all three broad constructs: (a) how parents behaved toward their children (as perceived and reported by those children later), (b) how instrumental and expressive those children perceive themselves to be, and (c) what children view as appropriate gender role behavior in a selected parental role.

CHAPTER II

REVIEW OF LITERATURE

This review of literature encompasses research pertaining to parent socialization patterns and various sex role outcomes in children. As mentioned earlier, often these outcomes are labeled as masculinity, femininity, or androgyny. However, some studies simply investigate children's level of instrumentality which is also of relevance to this study. Literature pertaining to linkages between socialization and gender role preferences is also considered.

Socialization theories tend to differ regarding the contribution of intrinsic and extrinsic factors to patterns of sex role behavior and also in the particular mechanism by which these factors are believed to have their effects. However, most theories of socialization do assign a significant and far reaching role to parental behavior in shaping children's gender role development (Huston, 1983). Spence and Helmreich (1978) identify two lines of research which considers the impact of parental variables on children's sex role attitudes or behaviors. In one, researchers identify salient aspects of child-rearing behaviors and relate them via correlations to characteristics or behaviors of the child. The paths of influence are generally not clearly spelled out but they are assumed to be multiple. Parents are believed to affect children by direct tuition (i.e., rewarding or discouraging certain behaviors) or by serving as models

from whom children can gain certain information regarding appropriate behavior. Parents can also affect children indirectly by establishing an atmosphere that creates the conditions which facilitate or inhibit the development and expression of certain characteristics.

A second line of research encompasses a number of investigations which attempt to examine parent-child linkages by surveying a wide variety of parental child-rearing behaviors and attitudes. These studies, rather than being confined to the examination of a single parental variable as some of the past research (see Martin, 1975), focuses on broader patterns of behavior. Frequently, data reduction techniques are employed to identify major dimensions of child-rearing behavior and the relationships between various constellations of these parent behaviors and the characteristics of the child. Baumrind's research in the 70's, although not directly related to sex role outcomes, is a good example of this kind of approach. Generally, these clusters of parenting behaviors are further reduced to two basic dimensions: acceptance-rejection (or warmth-hostility) and permissiveness-restrictiveness (autonomy-control) (Spence & Helmreich, 1978).

Although considerable attention has been paid in the past to parent variables and sex role development, a majority of the studies relate to the degree to which differential treatment by parents may contribute to subsequent sex differences between males and females. However, in contrast, the literature on the development of masculine and feminine personality attributes, when these are

conceptualized as independent dimensions, rather than one single continuum, is quite scant. Spence and Helmreich (1978) cite several reasons for this. First, masculine and feminine sex roles are often used as umbrella terms to describe all the internal characteristics and overt behavior patterns presumed to distinguish males and females. This practice leads us to search for a single theoretical or empirical model to account for all gender-related phenomena. Second, until recently, most measures of masculinity and femininity have been set up as bipolar. Third, differences in masculinity and femininity scales make it difficult to generalize across studies. Research having some bearing on the acquisition of instrumental and expressive attributes (usually labeled masculine and feminine, respectively) is relevant to the present study.

Kelly and Worell (1976) assessed parental behaviors related to masculinity, femininity and androgyny among college students using the PRF ANDRO scale (Berzins, Welling, & Wetter, 1975) as a measure of sex role identity. The Parent Behavior Form (Worell & Worell, 1974), a questionnaire divided into 13 subscales describing clusters of parent behaviors, was used to measure parental behaviors from the perspective of the offspring. Using the median split method, students were categorized on their masculinity and femininity scores into four groups: masculine, feminine, androgynous and undifferentiated. They reported that among males, measures of warmth differentiate between sex role categories. In general, masculine and undifferentiated males described cool, unaffectionate relationships with their parents. Feminine-typed

males reported warmth and involvement with the mother and androgynous males reported high levels of involvement and affection from both mother and father. With regard to cognitive variables, undifferentiated males reported an absence of cognitive and intellectual involvement with their parents compared with their sex-typed and androgynous counterparts.

Findings specific to women indicated that intellectual or achievement encouragement, as well as consistency of discipline, were most related to gender role identity. Masculine-typed women described their parents, especially the fathers, as encouraging, and as rewarding their achievement-oriented, intellectually competent, and self-reliant qualities. Androgynous women report greater maternal reinforcement for curiosity than did any other group. Relative to masculine women, androgynous women report greater maternal involvement and less paternal permissiveness. Undifferentiated women reported the least intellectual or achievement encouragement of any kind (Kelly & Worell, 1976).

Although Kelly and Worell (1976) discussed their findings in terms of both modeling and reinforcement practices of the parents, they directly assessed only the reinforcement practices of the parents. Orlofsky (1979), in an attempt to expand their design, examined parental modeling influences as well as reinforcement antecedents of masculine, feminine, androgynous and undifferentiated gender role orientations. Two hundred and twenty-eight college men and women were tested using self- and parent-versions of the Bem Sex Role Inventory

and the Parent Behavior Form. The parents' sex role scores were used as a measure from which to gauge perceived parental sex-role similarity and, therefore, parental modeling influences for the sex role groups. Parental reinforcement practices were assessed by the Parent Behavior Form. As in the Kelly and Worell (1976) study, there were differences among the gender identity categories on several of the parent behavior scales. Results for males indicated that the influence of the father's behavior seems to far outweigh the mother's influence on their gender identity development. The most striking findings were obtained for feminine-typed males. Relative to other categories, especially highly masculine males, feminine males were highest in father and mother rejection and lowest in father acceptance, involvement, and egalitarianism. They also reported less cognitive/intellectual encouragement than masculine and androgynous males. Along with androgynous males, they reported greater strictness in father's discipline than did the low femininity categories. This high maternal rejection failed to support Kelly and Worell's (1976) finding that feminine typing in males is associated with maternal warmth. Androgynous males reported the highest level of paternal warmth and involvement, low levels of parental rejection, and greater closeness with mother than the other types. Both masculine and androgynous males received greater cognitive/intellectual encouragement from father than low masculinity males. Thus, for masculine as well as androgynous males, father seems to have been a nurturant and involved figure who modeled and encouraged masculine interests and traits. These findings did not replicate Kelly

and Worell's findings that masculine males have cool, unaffectionate relationships with both parents.

Among females, mother's influence far outweighed that of father. Masculine women were lowest in both paternal and maternal acceptance, involvement, and egalitarianism, and described both parents as highly rejecting. They were substantially lower than all other types in receiving parental encouragement to achieve and to develop cognitively, a finding which disagrees with Kelly & Worell's (1976) finding that masculine women received higher levels of parental encouragement in these areas. However, as Kelly and Worell found, androgynous women were clearly highest in maternal encouragement for achievement and cognitive/intellectual development. It is noteworthy that masculine males received such encouragement more from father and androgynous women received it from mother. For feminine-typed women, the same high level of maternal warmth, involvement, and egalitarianism was found as was found for androgynous and undifferentiated women, and conformity pressure was as high as it was for androgynous women. In addition, the parents, particularly the mothers of feminine women, tended to be extremely sex-typed relative to other categories.

In sum, Kelly and Worell (1976) conclude that the adoption of nontraditional (i.e., cross-sex-typed and androgynous) gender identities "is associated with reports of increased parental affection for males and increased intellectual-achievement behaviors for females The likelihood of an androgynous orientation is enhanced when the same-sex parent exhibits cross-typed characteristics" (p. 849). These

findings were confirmed in Orlofsky's (1979) study for those subjects who adopt an androgynous orientation. However, a very different pattern of results were obtained for subjects who adopted a cross-sex typed orientation, indicating that the family environment which produces feminine males and masculine females is not nearly as benign as suggested by Kelly and Worell's data.

A series of studies by Baumrind (1967, 1971) involving nursery school children and their parents provides relevant data on the influence of parental behaviors on the development of instrumental attributes. Baumrind identified three major patterns of parental behaviors: authoritarian (highly restrictive, low in acceptance of the child); authoritative (moderately restrictive, high on acceptance of the child); and permissive (low on restrictiveness, high on acceptance). Extensive observation of the behavior of the children suggested that those from authoritative homes were more likely to exhibit instrumental competence than those from other types of homes. Specifically, daughters of authoritative parents were more dominant, independent, purposive, and achievement-oriented than daughters of authoritarian or permissive parents. The sons were more friendly and achievement-oriented if their parents were authoritative. With respect to girls, the clear association found between instrumental attributes and authoritative parental behaviors suggests that the development of these attributes in females is facilitated by high demands along with warmth and acceptance. For boys the relationship is weaker suggesting that perhaps socialization practices within the

family may have greater influence on independence and related characteristics in girls than boys.

Finally, a comprehensive study by Spence and Helmreich (1978) offers evidence for the importance of considering constellations of parental behavior (as opposed to any single type of behavior) in predicting instrumental characteristics such as achievement-motivation. The Parental Attitudes Questionnaire was given to a sample of high school students along with the PAQ, which is a measure of respondents' level of instrumentality and expressiveness. The items on the Parental Attitudes Questionnaire were subjected to a factor analysis which revealed seven factors that were highly similar in both males and females. These scales were labeled father positivity, mother positivity, father democracy, mother democracy, rule enforcement, family protectiveness, and sex-role enforcement. Four additional scales were also included labeled male family harmony, female family harmony and mother supportiveness, male achievement standards, and female standards.

Respondents were categorized as either being masculine, feminine, androgynous, and undifferentiated based on their PAQ scores. For males, the groups were found to differ significantly on parental socialization dimensions except for the sex-role and female standards scales. Androgynous males fell near the mean on the protectiveness scales but were above average on the rest of the scales, most notably on family harmony and achievement standards. The masculine males were lower than the androgynous group on all but one of these scales--

father democracy. Feminine males were discernibly below average on father positivity and democracy and above average on mother democracy, rule enforcement, and protectiveness. A picture emerges in which feminine boys seem to come from protective, nonpermissive homes in which the mother is relatively warm and accepting but the father is less emotionally supportive and more authoritarian. This profile of parent behaviors is somewhat less favorable than reported by Kelly and Worell (1976). Undifferentiated males scored the lowest on almost all dimensions of parent behavior with the exception of father democracy (on which feminine males were lowest).

For females, nonsignificant differences were found for "protectiveness" and "sex-role" among the PAQ categories. Androgynous girls were markedly above average on all parenting dimensions but the female standards scale (feminine girls scored highest). In contrast, masculine girls were below average and undifferentiated girls tended to have the lowest means of all on the parenting clusters. A profile emerged suggesting that masculine girls were treated strictly and expected to meet high standards of behavior although these behaviors did not necessarily involve conventional achievement-oriented activities. These results differ from those reported by Kelly and Worell (1976) for masculine college women, particularly with respect to the encouragement of achievement behaviors. This ordering of means with respect to overall parent involvement and the encouragement of achievement behaviors--androgynous followed by sex-traditional, cross-sex and undifferentiated--is parallel to what was found in males.

Although studies examining parental socialization variables and gender role preferences are more sparse than studies dealing with parental antecedents of masculinity and femininity, the literature suggests that these preferences are learned from parents during childhood and adolescence and lie on a continuum with one end labeled "modern" or "contemporary" and the other end often called "conventional" or "traditional" (Holter, 1970; Scanzoni & Fox, 1980). A traditional orientation reflects preferences for continued role differentiation between men and women with occupational and household behaviors being ascribed chiefly on the basis of sex. Persons at the nontraditional or modern end of the continuum prefer low gender differentiation or little sex-typing of behavior and more role interchangeability both at work and home.

The most recent and comprehensive study related to socialization and gender role preferences was conducted by Herzog and Bachman (1982) and connected various kinds of gender role preferences with background characteristics. Utilizing a series of national samples of high school seniors, they tested a path model which included "socialization factors" and students' "personal characteristics" as uncorrelated exogenous variables. Unfortunately, however, the "socialization factors" did not include any measures of parent-child interactions. Instead, they consisted solely of measures of the social context within which actual socialization occurs. These included mothers' education, fathers' education, whether the respondent lived with the father or not while growing up, whether the mother

worked when the respondent was growing up, and the degree of urban density of the setting in which the respondent grew up. Next, Herzog and Bachman argued that these types of socialization factors as well as students' personal characteristics (intelligence, abilities, religiosity, etc.) which were characterized as intervening variables in the model, both influenced gender role preferences. Results suggested that predictors of more egalitarian or modern gender role preferences were those dimensions having to do with academic accomplishment (i.e., grades, college plans). Those students with higher levels of academic achievement tended to be more egalitarian. Other background factors positively associated with more modern preferences included parents' educational attainments, living in an urban area, and liberal political views and religious practices.

Nonetheless, as noted above, there appears to be an absence of literature correlating actual parent-child interaction variables with gender role preferences that is in any way comparable to the substantial literature connecting parent-child interaction to indices of masculinity and femininity. This gap in the literature is explained in part by the fact that family sociologists have tended to focus on other sorts of variables (contextual, demographic). This tradition in family sociology of investigating the effects of "structural" elements on gender roles can be identified as far back as Holter (1970) and continues in Scanzoni (1978), Mason, Czaska, and Arber (1976), and Herzog and Bachman (1982).

The literature identifies several variables--religious devoutness, attitudes toward work, and individualism--which help explain variation on individuals' gender role preferences (Morgan & Scanzoni, 1987; Scanzoni & Arnett, 1987; Scanzoni & Scinovacz, 1978). For example, several researchers (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; D'Antonio, 1983; Franceor, 1983; Huber & Spitze, 1983) suggest that religion, as it is manifested in the contemporary U.S., exists on a continuum from what is labeled "progressive" to "conservative." A hypothesis appearing in the literature is that these two continua (preferences and religiosity) are correlated. Bellah et al. (1983) are quite explicit in indicating the direction of the hypothesis: the more religiously "progressive" persons are, the more "non-conventional" they tend to be, that is, favoring androgyny, role-sharing and so forth. Conversely, persons who are more religiously "conservative" tend to be more gender "traditional." The literature also suggests that women's expected work continuity will vary inversely with more traditional gender role preferences and positively with more modern preferences (Morgan & Scanzoni, 1987). Likewise individualism, the extent to which one puts self-interests over group well-being, also appears to relate inversely with traditional role preferences and positively with more modern preferences (Scanzoni, 1978).

Figure 1 represents the conceptual model which illustrates the proposed relationships among the three major constructs in this study--parent behaviors, trait descriptions, and gender role

Independent Variables

Dependent Variables

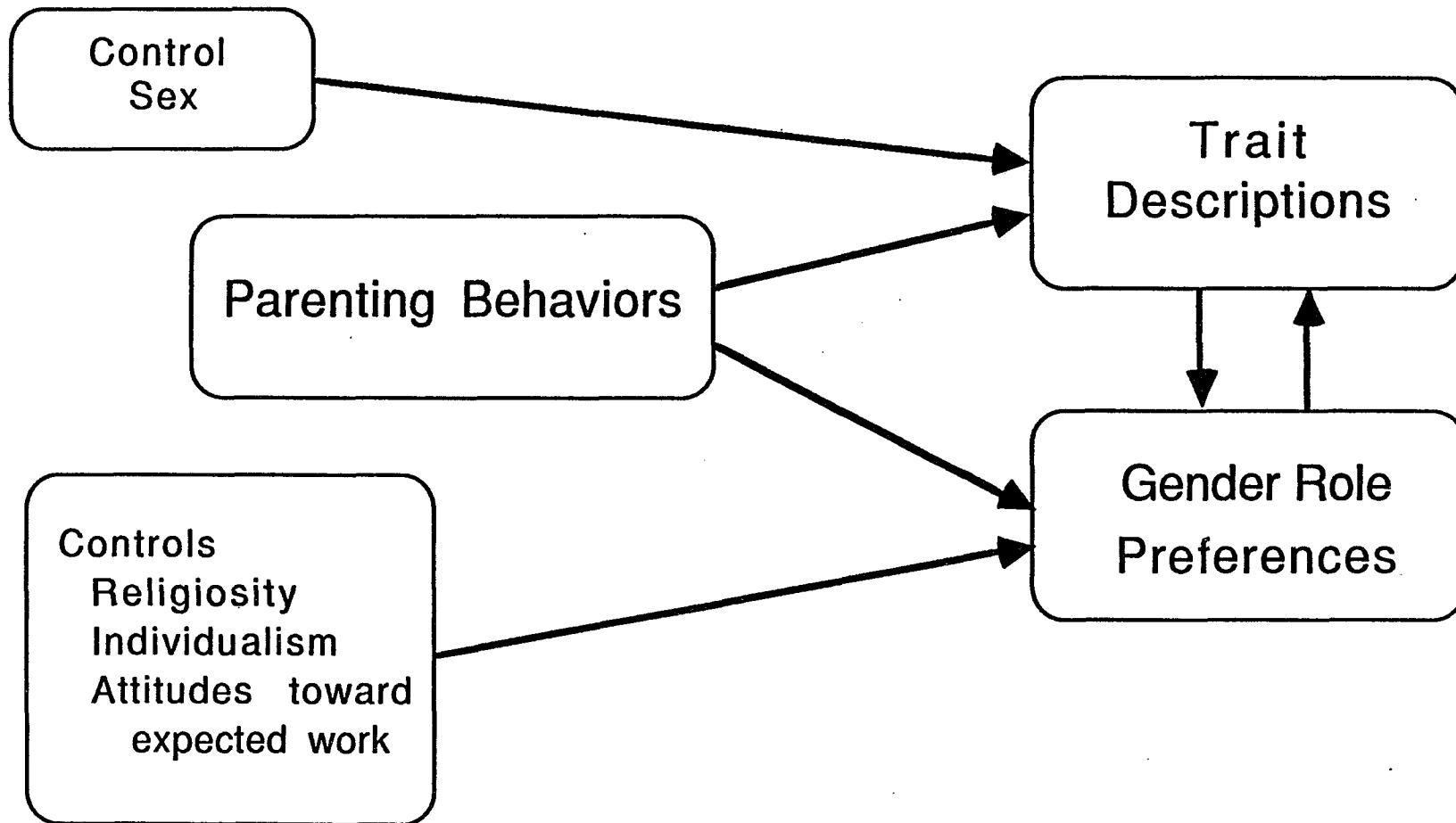


Figure 1. Conceptual Model

preferences. Exogenous variables include parenting behaviors and several control variables which will be described in more detail in the next section. Endogenous variables in the model include: self-report trait descriptions and gender role preferences. Although the possibility cannot be ruled out that the behavior or characteristics of the child elicits differential responses by the parents, the usual interpretation given to correlational studies of parent-child relationships is that the causal flow is primarily in the reverse direction, that is, variations in parental practices foster differences in the child (Spence & Helmreich, 1978). This is the underlying logic of the model itself and guides the statistical techniques that will be employed. However, the direction of influence is less clear with regard to the criterion variables. That is, in exploring the linkages between trait descriptions and gender role preferences, the causal flow remains undocumented. For this reason, these variables were conceptualized within a nonrecursive model, i.e., college students' trait descriptions of instrumentality and expressiveness are allowed to influence their gender role preferences and vice versa.

CHAPTER III

METHODS

The present study is an ex post facto design utilizing data from college students collected from a single site. Students' responses to a battery of self-report questionnaires were then coded and analyzed.

Sample and Data Collection

Two hundred and fifteen subjects were systematically randomly selected from a population of male and female undergraduate students enrolled at a state university. An interviewer and the respondent met at a prearranged time, and in the interviewer's presence, the respondent completed a questionnaire including several instruments which, upon completion, the interviewer immediately collected.

Instrumentation

Parental socialization behavior. Parent socialization variables were assessed using the Parent Behavior Form (PBF) (Kelly & Worell, 1974) which consists of two sets of 117 items that describe each parent's behavior from the perspective of the child (see Appendix A). The respondent is asked to rate each descriptive statement as being like, somewhat like, or not like the parent. Prior research has reported that for each parent, PBF subscales (reliabilities given in parentheses) assess warmth (.89), active involvement

(.87), egalitarianism (.82), cognitive independence (.85), cognitive curiosity (.82), cognitive competence (.67), lax control (.66), conformity (.49), achievement control (.63), strict control (.76), punitive control (.81), hostile control (.82), and rejection (.67) (see Appendix B for scale descriptions). Previous factor analysis of the measure revealed the presence of three orthogonal dimensions underlying the subscales: parental warmth, parental control, and parental cognitive involvement (Worell & Worell, 1974).

Instrumentality/expressiveness. Respondents' levels of instrumentality and expressiveness were assessed by using the Bem Sex Role Inventory (BSRI) (Bem, 1974), a self-report inventory which yields scores for instrumentality (labeled masculine scale) and expressiveness (labeled feminine scale) (see Appendix C). A reliability analysis of the scale yielded an alpha of .87. BSRI items were originally selected from a pool of personality characteristics which seemed positive in value and tended to differentiate between the sexes. Respondents indicate using a 5-point rating code the degree to which each characteristic describes themselves ("never or almost never true" to "always or almost always true"). In its original usage as developed by Bem, median splits on masculinity and femininity scales permit classification of subjects into four categories: masculinity, femininity, androgynous and undifferentiated. However, more recently, several researchers have described this method of classification as being "crude" and having little utility (Lubinski, Tellegen, & Butcher, 1983). Subsequently, based on the usage of this scale for

the purposes of the present study (i.e., simply as a measure of instrumentality and expressiveness) and the questionable accuracy and usefulness of the median split procedure, the masculinity (instrumental) and femininity (expressive) scales will be left intact and respondents' self-ratings will be interpreted as two continuous scores. This method of analyzing the BSRI has been demonstrated by Lubinski (1983) and Lubinski et al. (1981, 1983) and has received acceptance by other sex-role theorists such as Spence (1984).

Gender role preferences. Gender role preferences were measured using a 7-item subscale from an index used by Scanzoni and Scinovacz (1980, pp. 17-18; see Appendix D). A reliability analysis of the scale yields an alpha of .71. Persons tend to vary in the degree to which they prefer the kinds of tastes, utilities, goals, and interests indicated by the items within each index (Scanzoni & Scinovacz, 1980). Variation was measured by 5-point Likert-type responses (strongly agree, agree, mixed feelings, disagree, strongly disagree) to the items. Based on these items, it is possible to conclude that persons are gender traditional to a greater or lesser extent. These preferences lie on a continuum with some women and men preferring a high degree of interchangeability regarding home and work place behaviors. This end of the continuum is labeled modern. The other end of the continuum is labeled traditional and individuals falling at this end prefer the rewards/costs associated with a specialized division of labor in the home and workplace.

In addition to the above sets of variables, the following control variables were measured in the study: sex of the respondent, religiosity of the respondent, expected labor force consistency, and individualism of the respondents. These variables were included because, in the sociological literature, they tend to account for variation among measures of gender role preferences (Scanzoni & Fox, 1980). The measure of expected labor force consistency is from Morgan & Scanzoni (1987) (see Appendix E); the assumption is that expected labor force participation will vary inversely with more traditional gender role preferences. The expected labor force consistency variable assesses the degree to which college women expect (and college men expect their wives) to be employed full- or part-time in conjunction with the ages of (any) children. Labor force expectancy was measured by a 7-item scale in which respondents were asked whether they intend to work for pay part-time, full-time, or not at all during various periods in their lives pertaining to marriage and childbearing ($\alpha = .76$).

Likewise, a measure of individualism was introduced on the assumption that it would relate inversely to traditional gender role preferences. Individualism assesses the degree to which persons balance the relative demands of individual versus relationship interests. Individualism is represented by a continuum with individualism or pragmatism at one pole and familism at the the other pole. This line of reasoning has been advanced and articulated most strongly by Scanzoni (1975), Swidler (1980), and Bellah et al. (1985).

Individualism was measured by a 16-item Likert scale ($\alpha = .64$) (see Appendix F). Respondents were asked to what extent they agreed or disagreed with a variety of items which related to the degree one would put self interests before family or marital interests. Examples from the scale include items such as "A person in a close relationship should consider the other person's needs and wants before his/her own" and "A married couple should put what's best for their family ahead of what's best for any one of them as individuals."

Religiosity was measured with a 8-item Guttman scale from Connecticut Mutual (1981) ($\alpha = .89$). Respondents were asked how often they engaged in certain activities such as "engage in prayer," "attend church," or "listen to religious broadcasts" (see Appendix G). They responded on a 5-point scale from zero ("never") to five ("very often"). This scale was initially used in a national sample survey and several studies have documented a linkage between religious devoutness and gender role orientations (Brinkerhoff & Machie, 1984, 1985; McNurry, 1978). Bellah et al. (1985) suggest that the more religiously "progressive" (less devout and/or less involved in religious activities) persons are, the less traditional they tend to be. Conversely, persons who are more religiously "conservative," devout, or involved, tend to be more gender "traditional" in their preferences.

Preliminary Analyses

In order to refine the conceptual model presented in Figure 1, preliminary analyses were conducted. Factor analyses were conducted

on the Parent Behavior Form, the Bem Sex Role Inventory, and the gender role preference scale in order to test the measurement properties of the instruments. Results for the factor analyses are presented in this section because they are the basis for subsequent refinements made in the theoretical model and the development of the empirical model to be tested.

Tables 1 and 2 show the results of a principal components factor analysis of the Parent Behavior Form describing mothers' and fathers' behavior from the perspective of the respondent. Using Catell's scree test for estimating the number of meaningful factors, two factors were extracted which together retained 68.5% of the original variability in the items for fathers and 67.5% for mothers (Tabachnick & Fidell, 1983). Tables 1 and 2 also show the communality of each of the 13 PBF subscales, which indicates the amount of variance in each subscale accounted for by all factors taken together. Previous factor analyses on the PBF reveal three dimensions of parenting behavior: warmth, control, and cognition (Worell & Worell, 1974). However, results from the present study suggest the existence of only two dimensions: encouragement and control.

The first factor, labeled Encouragement, retained 49.2% of the variance in the 13 subscales for fathers and 46.2 % for mothers. Several items, acceptance, active involvement, equalitarianism, cognitive involvement, curiosity, and cognitive competence, loaded quite high. Parental rejection also loaded negatively on this factor. Variables clustering along this dimension suggest warmth, acceptance,

Table 1

Factor Analysis, Parent Behavior Form (Fathers)

Item	Factor 1 (Encouragement)	Factor 2 (Control)	Communality
Acceptance	.89		.83
Active Involvement	.86		.76
Equalitarianism	.87		.88
Cognitive Involvement	.90		.86
Curiosity	.80		.72
Cognitive Competence	.73	.30	.65
Conformity	.37	.62	.56
Achievement		.77	.63
Strict Control	-.32	.64	.81
Punitive Control	-.30	.61	.82
Hostile Control	-.67	.55	.82
Rejection	-.78	.36	.74

Table 2
 Factor Analysis, Parent Behavior Form (Mothers)

Item	Factor 1 (Encouragement)	Factor 2 (Control)	Communality
Acceptance	.85		.80
Active Involvement	.88		.78
Equalitarianism	.83	-.35	.85
Cognitive Independence	.90		.83
Curiosity	.81		.70
Cognitive Competence	.69		.54
Strict Control		.87	.86
Punitive Control		.83	.82
Achievement		.79	.74
Hostile Control	-.54	.70	.78
Conformity		.62	.51
Rejection	-.56	.60	.78

and a high degree of perceived involvement on the part of the parent. Interestingly, cognitive sorts of variables, rather than forming a discrete dimension as Worell and Worell suggest, load onto the encouragement dimension. One explanation for this discrepancy could be that respondents who perceive their parents as actively involved and warm, also perceive them as being encouraging of intellectual pursuits, curiosity, and independent thinking. Indeed, in looking at the PBF scale descriptors (see Appendix B) one notes that the content of the "cognitive" subscales (i.e., cognitive independence, curiosity, and cognitive competence) all suggest a high degree of encouragement and involvement. That is, parents that are perceived as warm and actively involved also tend to be seen as encouraging these kinds of cognitive characteristics in their children.

The second factor, labeled Control, retained 19.3% of the variance in the original 13 subscales for fathers and 21.3% for mothers. Consistent with Worell and Worell, conformity, strict control, punitive control, and hostile control all loaded strongly on this factor. In addition, achievement loaded on this factor suggesting that respondents who perceived their parents as controlling also perceived them as having high goals and expectations for achievement.

Table 3 shows the results of a principal components factor analysis for the Bem Sex Role Inventory. Again, using Catell's scree test for estimating the number of meaningful factors, two factors were extracted which together retained approximately one third of the original variability in the BSRI items. Table 3 also shows the

Table 3
Factor Analysis--BEM Sex Role Inventory

Item	Factor 1 (Expressiveness)	Factor 2 (Instrumentality)	Communality
Gentle	.80		.64
Tender	.75		.56
Compassionate	.74		.58
Sensitive	.74		.57
Sympathetic	.69		.48
Sincere	.68		.47
Soothing	.67		.46
Understanding	.67		.46
Cheerful	.66		.48
Affectionate	.62		.39
Friendly	.61		.45
Helpful	.61		.37
Happy	.57		.37
Loves Children	.55		.30
Loyal	.51		.27
Conceited	-.44	.31	.29
Reliable	.41		.19
Conventional	.36	.30	.13
Adaptable	.35		.21
Flatterable	.31		.17
Tactful	.30		.10

Item	Factor 1 (Expressiveness)	Factor 2 (Instrumentality)	Communality
Feminine	.30		.11
Assertive		.76	.59
Takes a Stand		.74	.55
Dominant		.70	.55
Strong Leader		.67	.46
Aggressive		.65	.44
Soft Spoken		.63	.42
Strong Personality		.63	.44
Leadership Ability		.63	.41
Competitive		.63	.39
Takes Risks		.62	.40
Ambitious		.62	.39
Independent		.61	.38
Defends Beliefs		.60	.40
Individualistic		.57	.33
Forceful		.53	.31
Self-Sufficient		.49	.29
Self-Reliant		.48	.31
Decisive		.44	.22
Athletic		.41	.17
Shy		-.37	.14
Theatrical		.37	.14
Analytical		.37	.14

communality of each of the BSRI items loading above .30 on either of the two factors. Previous factor analyses on the BSRI have generally revealed the existence of two factors: instrumentality and expressiveness (Cook, 1985). The present study, while confirming these results conceptually, also acknowledges the fact that empirically, a certain amount of variability was lost by retaining only two factors.

The first factor, labeled Expressiveness, retained 18.3% of the variance in the BSRI items. Items loading on this factor tend to describe typical expressive qualities--gentle, tender, compassionate, sensitive, etc. Factor 2, labeled Instrumentality, retained 11.2% of the original variability of the BSRI items. Items loading on this factor tend to center on assertiveness, dominance and self-sufficiency, all instrumental characteristics. Thus, the present study's factor analysis results are conceptually consistent with previous work.

Table 4 shows the results of a principal components factor analysis of the gender role preference subscale "Preferences for the Role of Mother." Using Catell's scree test for estimating the number of meaningful factors, one factor was extracted which retained 37.2% of the original variability in the seven items. Table 4 also shows the communality of each of the seven items indicating the amount of variance in each item accounted for by all factors taken together. The literature assumes that this subscale is unifactorial; however, results suggest that two of the items split from the other five into another factor. Table 4 shows which five items cluster together and appear to be tapping into preferences for the role of mother.

Table 4
Factor Analysis--Gender Role Preferences

Item	Factor 1	Factor 2	Communality
Mother should give up job if hardship for children	.75		.57
Mother should work only if she needs money	.70		.60
Mother's greatest reward is her children	.68		.48
Mother should be able to work as many hours as Father	.62		.41
Mothers of preschoolers should not work	.58		.47
There should be more day care centers		.79	.65
If being a mother is not satisfying, then she should work		.76	.58

However, two items "there should be more day care centers" and "if being a mother is not satisfying, then she should work" do not load with the other five. Perhaps the issue of whether or not there should be day care centers is tapping into people's attitudes about day care rather than their preferences for the role of mother. The other item regarding mother's satisfaction may be more focused on people's judgments regarding someone who is not satisfied being a mother. Such a person may be viewed as "bad," even by respondents who felt it was fine for mothers to work. While these two items may be worthy of further investigation, it is not within the scope of the present study to do so. Thus, only the first factor was retained for subsequent analyses.

Primary Analyses

Figure 2 represents the refined empirical model to be tested. At the far left are the control variables and the exogenous construct "parenting behaviors" which is now specified as two dimensions of behavior--parental encouragement and control. Regarding the criterion variables, the larger construct of respondents' trait descriptions has been broken down into two dimensions--instrumentality and expressiveness. Gender role preferences still remain in the model as previously conceptualized.

Based on Figure 2, specific research questions to be asked within the context of the multivariate model will be:

1. What is the relationship between parenting behaviors of encouragement and control and their children's degree of

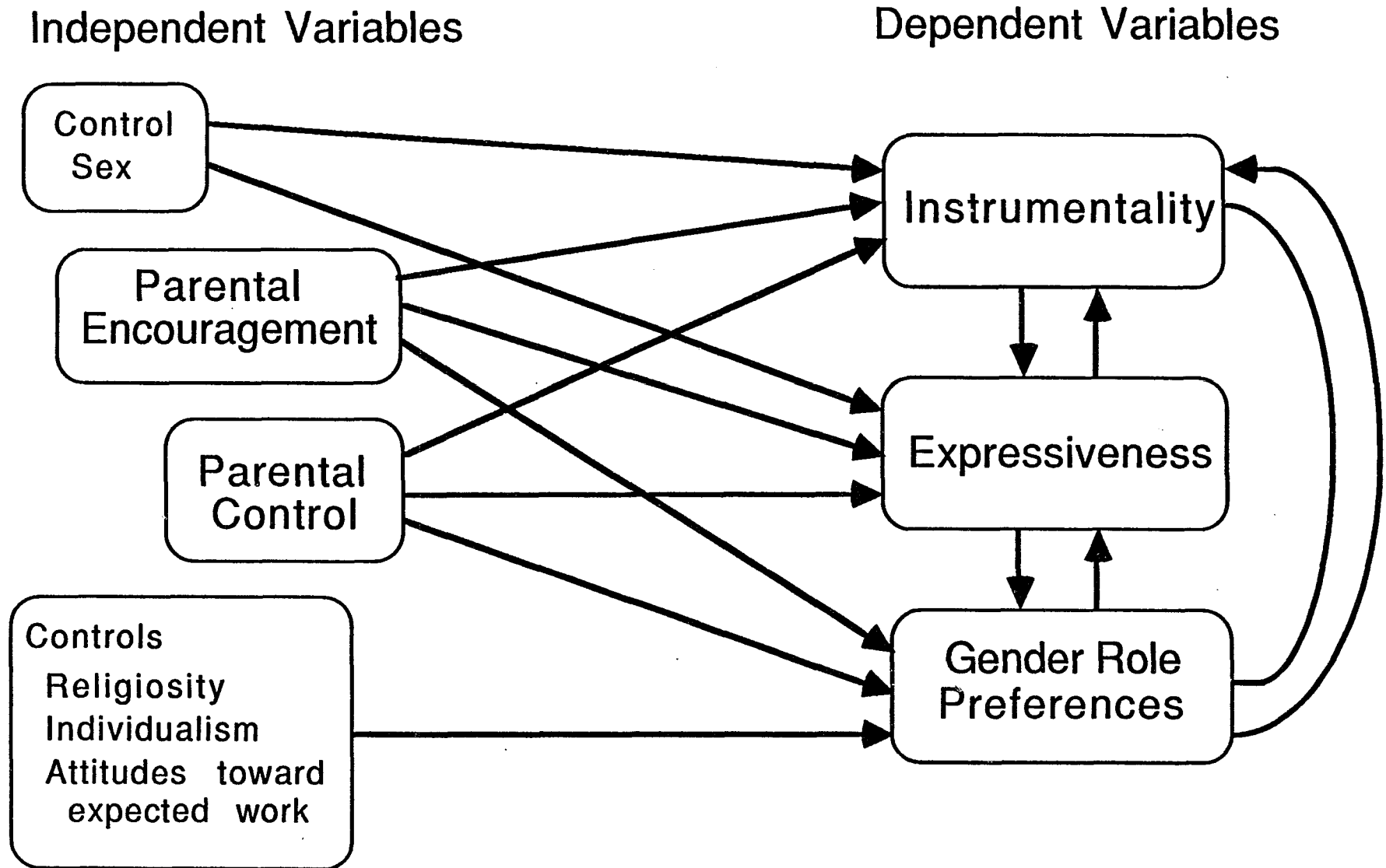


Figure 2. Refined Empirical Model

- instrumentality and expressiveness?
- 1a. Do children whose parents exhibit higher levels of encouragement rate themselves higher on expressiveness and instrumentality?
 - 1b. Do children whose parents exhibit greater levels of control rate themselves lower on expressiveness and instrumentality?
2. What is the relationship between parenting behaviors of encouragement and control and children's gender role preferences?
- 2a. Do children whose parents exhibit higher levels of encouragement rate themselves as less traditional?
 - 2b. Do children whose parents exhibit higher levels of control rate themselves as more traditional?
3. What is the relationship between children's levels of instrumentality and expressiveness and their gender role preferences?
- 3a. Do children with high levels of both instrumentality and expressiveness possess *more modern preferences*?
 - 3b. Do children with more traditional preferences rate themselves higher on one dimension (instrumentality or expressiveness) than on the other?

The plan of analyses implemented in the present study involved a series of steps involving the use of progressively more complex statistical techniques; the first representing a "point of departure" and the final step representing methodology capable of fully testing

the preceding research questions. The first step involved a partial replication of Orlofsky's (1979) study in which he administered the Bem Sex Role Inventory and the Parent Behavior Form. The parent version of the BSRI was not administered in the present study. The logic in doing this involves supporting the use of more sophisticated statistical techniques by highlighting the inadequacies of the use of univariate techniques and investigating the replicability of previous results with a new sample. In the Orlofsky study and also Kelly and Worell's (1976) study, univariate analyses of variance (ANOVA) were performed separately on each of the 13 parenting behavior subscales and conclusions were drawn from them. However, as McCall (1970) suggests, it is unlikely that parenting behaviors have effects on children independently of one another. Furthermore, as Lamske and Felsing (1983) have pointed out, the use of such ANOVA tests on each parenting variable increases the likelihood of committing a Type I error (i.e., incorrectly rejecting the null hypotheses) which results in an inaccurate representation or overestimation of the relationships between parenting behavior and sex role outcomes in children. The replication also acts as a "springboard" from which to launch a more comprehensive model examining parent behaviors and sex role outcomes highlighting the present study's conceptual and methodological refinements.

Next, a series of ordinary least square regressions were implemented. The multiple regressions may be seen as an intermediary step between the ANOVAs and simultaneous equations, in that since multiple

regression is a multivariate procedure, it is possible to test for complex relationships among the independent variables which cannot be considered using univariate techniques like ANOVA. However, while representing an advance of sorts, ordinary least squares cannot test nonrecursive relationships between dependent variables. Thus, the third set of research questions cannot be addressed using this technique alone.

In order to have the capacity to test the entire set of research questions stated above, simultaneous equations methods were utilized. These methods are extensions of the linear multiple regression method and allow one to analyze complex relationships where the dependent variables are conceptually or mathematically interdependent (Godwin, 1985). Recall that as shown in Figure 2, the model being tested allows for the possibility of nonrecursive or bidirectional relationships among respondents' level of instrumentality, expressiveness, and gender role preferences. According to Godwin (1985), if there are, indeed, causal relationships among these constructs, estimates of the relationships among the variables in the model with ordinary least squares would contain "simultaneity bias." The technique that is appropriate for estimating this system of equations is two stage least squares, an extension of ordinary least squares capable of handling nonrecursive models.

Each step of the plan of analyses represents a series of advancements and can be summarized in the following steps:

1. A partial replication of Orlofsky's (1978) study involving

a series of 13 ANOVAs testing for the degree to which each parenting subscale can independently differentiate between sex role categories.

2. Three ordinary least square regression equations which consider separately, for each dependent variable, the degree to which the independent variables simultaneously create variation in respondents' level of instrumentality, expressiveness and their gender role preferences.
3. A series of simultaneous equations (two stage least squares) to test the nonrecursive model of the relationships among the various constructs presented in Figure 2.

CHAPTER IV

RESULTS

This study examined the interrelationships between parenting behaviors, gender role preferences and the self-reported level of instrumentality and expressiveness of college students. Results are presented in the following order: (1) descriptive data; (2) results from a partial replication of Orlofsky's (1979) study examining parent behaviors and BSRI sex role categories; (3) results from a series of ordinary least squares regressions, and (4) the results from the two-stage least squares analyses of a nonrecursive model of gender roles.

Descriptive data. The data were collected from a sample of college students at a southeastern university in the fall of 1985. Twenty-five percent of the sample of 215 students were male ($n = 53$) and 75% were female ($n = 162$). The average age of the respondents in the study was 21. Students were relatively average on measures of religiosity ($\bar{x} = 15.2$; $R_g = 32$) and individualism ($\bar{x} = 15.9$; $R_g = 27$). Students appeared to have relatively high expectations of participating in full-time paid work in the future ($\bar{x} = 11.9$; $R_g = 13$). Means and standard deviations for the instrumentality and expressiveness variables were 100.2, 15.1; 101.6, 12.0, respectively. Of course, the means and standard deviations of those variables for which factor scores were used (i.e., parental encouragement, parental control, and gender role preferences) were .00 and 1.00.

Parenting behaviors and BSRI sex role categories. Tables 5 and 6 show the results of a series of 26 one-way ANOVAs carried out separately for males and females in an attempt to replicate the Orlofsky (1979) study. The BSRI categories--masculine, feminine, androgynous, and undifferentiated--were determined using a median-split procedure and were the independent variable categories. The 13 subscales from the Parent Behavior Form, measuring self-reports of students of their mothers' and fathers' parenting behavior, were the dependent variables. For males, their findings were replicated for only one parent dimension, mother egalitarianism. This may be due in part to the small number of males in the sample. In both studies the undifferentiated males reported the lowest level of maternal egalitarianism and the androgynous males reported the highest levels. In addition to maternal egalitarianism, the present study also found maternal acceptance, active involvement and cognitive independence to significantly differentiate between groups. Most notable was the absence of any significant differences among the four groups on reports of dimensions of paternal behavior, whereas, Orlofsky reported 8 out of the 13 ANOVAs for these variables as being significant. Results of the present study were in contrast to previous work which contended that the same-sex parent, in this case father, was the most influential on the gender role of children. Rather it appears that mother was most influential. Again, this may have been largely due to the limited number of males in the total sample. Or perhaps this contrary finding may point to the possibility that fathers were

Table 5

Parent Behavior Scale Means for Bem Sex Role Categories (Females)^a

PBF Variable	Feminine (n=37)	Masculine (n=30)	Androgynous (n=44)	Undiff. (n=52)	Total \bar{x}	F	F Prob.
<u>Mother</u>							
Acceptance	21.41 ^b	23.07	24.64 ^b	23.73	23.33	5.01	.002
Active Involvement	20.51 ^{b,c}	22.60	24.25 ^b	24.17 ^c	23.07	8.11	.000
Egalitarianism	20.84 ^{b,c}	22.73	24.28 ^b	23.71 ^c	23.03	6.35	.000
Cognitive Independence	21.24 ^b	23.57	24.57 ^b	23.37	23.25	6.26	.001
Curiosity	18.43 ^b	21.00 ^b	22.14 ^b	20.85	20.67	4.70	.004
Cognitive Competence	18.65 ^{b,c}	21.80 ^b	21.27 ^c	19.94	20.35	4.42	.005
Lax Control	16.14	16.10	17.95	16.71	16.80	2.91	.04
Punitive Control	15.19	16.70	14.09	14.37	14.91	2.74	.05
Rejection	12.03	12.50	10.85	11.00	11.47	3.33	.02
<u>Father</u>							
Acceptance	18.86 ^b	20.03	22.36 ^b	21.38	20.83	3.60	.01
Active Involvement	17.65 ^{b,c}	19.00	21.18 ^b	20.79 ^c	19.85	4.29	.006
Egalitarianism	18.92 ^b	20.43	22.41 ^b	21.54	20.98	3.77	.01
Cognitive Involvement	19.65 ^b	21.40	22.91 ^b	21.50	21.44	3.05	.03
Conformity	17.14	18.97	18.82	19.25	18.60	2.85	.04

^aOnly parent variables that yielded significant differences were included.

^{b,c}Denotes pairs of groups significantly different at the .05 levels.

Table 6

Parent Behavior Scale Means for Bem Sex Role Categories (Males)^a

PBF Variable	Feminine (n=15)	Masculine (n=23)	Androgynous (n=13)	Undiff. (n=2)	Total \bar{x}	F	F Prob.
<u>Mother</u>							
Acceptance	22.47	22.96 ^b	24.07 ^c	13.00 ^{b,c}	22.43	4.03	.01
Active Involvement	22.00 ^b	22.74 ^c	23.77 ^d	10.50 ^{b,c,d}	22.32	5.81	.002
Egalitarianism	21.73	22.70 ^b	23.31 ^c	14.00 ^{b,c}	22.25	3.24	.03
Cognitive Independence	21.67 ^b	23.22 ^c	23.08 ^d	14.00 ^{b,c,d}	22.40	4.64	.006
<u>Father</u>							
none found significant							

^aOnly parent variables that yielded significant differences were included.

^{b,c,d}Denotes pairs of groups significantly different at the .05 level.

largely unavailable to children, and were thus less influential in the development of sex-typed characteristics than mothers.

Findings for females in this sample were somewhat more consistent with those of Orlofsky. With regard to maternal behaviors, current findings on the following dimensions replicated Orlofsky's results. There were significant differences between students in the four sex role categories on mothers' level of acceptance, active involvement, egalitarianism, cognitive independence, curiosity, cognitive competence, and rejections. However, with the exception of cognitive independence, the pattern of differences among means was inconsistent with Orlofsky's data. For example, Orlofsky reported an overall trend in which masculine females had the lowest scores on the maternal behavior subscales (with the exception of cognitive independence and curiosity) and androgynous females reported the highest scores (with the exception of acceptance). The present study, in sharp contrast, indicated that on all dimensions with the exception of maternal rejection, feminine females had the lowest scores. Consistently with Orlofsky, androgynous females reported the highest means except for reporting that their mothers were lowest on punitive control and rejection. With regard to paternal behaviors, the present study replicated Orlofsky's findings regarding the statistical significance of differences on acceptance, active involvement and egalitarianism; however, again, a pattern of mean differences emerged that was inconsistent with Orlofsky's results. In his study, masculine females reported having fathers that were the least accepting,

actively involved, and egalitarian than other groups and feminine females reported that their fathers were the most accepting, actively involved and egalitarian. In contrast, rather than finding feminine females to have the highest means, the present study found androgynous females reported the highest means on all dimensions that were significant with the exception of conformity.

Ordinary least squares tests of the model. Table 7 shows the results of three ordinary least square regression equations which consider separately, for each dependent variable, the degree to which the exogenous variables (as illustrated in Figure 2) explained variation in respondents' levels of instrumentality, expressiveness, and their gender role preferences. A correlation matrix is contained in Appendix H. Maternal and paternal variables were included in separate regression equations in order to avoid multicollinearity as there was a correlation of .47 between maternal and paternal encouragement. Standardized regression coefficients (b) indicated the strength and direction of the relationships between variables and t values indicated whether the relationships were significant. Recall that the coefficients in these analyses suffer from simultaneity bias if the model in Figure 2 is correct.

Looking first at instrumentality, an estimated beta coefficient of .25 reveals that maternal encouragement is strongly associated with higher levels of instrumentality. Maternal control was also predictive of instrumentality; the more control mothers exercised, the more instrumental respondents perceived themselves to be. With regard to

Table 7

Multiple Regression Analysis for Respondents' Instrumentality,
Expressiveness and Gender Role Preferences

Dependent Variable	Mothers' Parenting Behavior			Fathers' Parenting Behavior		
	b	B	t	b	B	t
<u>Instrumentality</u>						
Maternal Encouragement	3.81	.25	3.76 ^a	-	-	-
Maternal Control	1.89	.12	1.97 ^b	-	-	-
Paternal Encouragement	-	-	-	1.36	.09	1.35
Paternal Control	-	-	-	1.69	.11	1.73 ^c
Expressiveness	.22	.17	2.41 ^b	.28	.22	3.15 ^c
G.R. Preferences	.94	.06	.96 ^a	.97	.06	.97 ^a
Sex	-11.92	-.34	-5.15 ^a	-11.44	-.33	-4.81 ^a
F	9.83 ^a		6.68 ^a			
R ² adj.	.17		.12			
<u>Expressiveness</u>						
Maternal Encouragement	3.42	.29	4.51 ^a	-	-	-
Maternal Control	-1.49	-.12	-2.04 ^c	-	-	-
Paternal Encouragement	-	-	-	2.54	.21	3.40 ^a
Paternal Control	-	-	-	.11	.01	.15 ^c
Instrumentality	.12	.16	2.41 ^b	.16	.20	3.15 ^c
G.R. Preferences	-2.32	-.19	-3.19 ^c	-2.00	-.17	-2.69 ^c
Sex	8.84	.32	5.02 ^a	9.47	.34	5.31 ^a
F	14.38 ^a		11.10 ^a			
R ² adj.	.24		.19			
<u>Gender Role Preferences</u>						
Maternal Encouragement	.02	.02	.35 ^c	-	-	-
Maternal Control	-.19	-.19	-2.93 ^c	-	-	-
Paternal Encouragement	-	-	-	.06	.06	.91 ^b
Paternal Control	-	-	-	-.14	-.14	-2.12 ^b
Expressiveness	-.01	-.14	-1.92 ^b	-.01	-.12	-1.71
Instrumentality	-.00	-.01	-.22 ^a	-.00	-.02	-.31 ^a
Individualism	.08	.35	5.25 ^a	.09	.37	5.44 ^a
Religiosity	.01	.09	1.16 ^b	.01	.08	1.18 ^b
Work	.05	.13	1.94 ^b	.06	.14	2.09 ^b
F	6.48 ^a		5.92 ^a			
R ² adj.	.15		.14			

^a $p < .001$; ^b $p < .05$; ^c $p < .01$

the paternal variables, neither paternal encouragement nor control was predictive of instrumentality. Furthermore, respondents' level of expressiveness was positively associated with their level of instrumentality. This relationship was relatively strong and appeared regardless of whether students' reports of their mothers' behavior or fathers' behavior were included in the regression equation. Finally, males perceived themselves as being more instrumental than females. Utilizing maternal variables, the exogenous variables were able to explain 17% of the variance in respondents' instrumentality and when paternal variables were included, 12% of the variance was explained. Each equation had significant F values which indicated rejection of the null hypothesis $R^2 = 0$.

Looking next at respondents' expressiveness, estimated coefficients of .29 and .21 for mothers' and fathers' encouragement, respectively, suggested that parental encouragement was related to higher levels of expressiveness in their children. Maternal control was negatively associated with expressiveness but not fathers' control, which had no relationship to children's level of expressiveness. Respondents' instrumentality also was positively associated with expressiveness. Results also suggest that more modern gender role preferences were associated with lower levels of expressiveness. In addition, females were more likely than males to see themselves as having expressive personality traits. Utilizing maternal variables, the exogenous variables explained 24% of the variation for children's level of expressiveness, a significant portion of the variation.

Nineteen percent of the variance in respondents' expressiveness was accounted for when paternal variables were included into the regression equation. Each equation had significant F values which indicated the null hypothesis, $R^2 = 0$, should be rejected.

Finally, in considering gender role preferences for the role of mother, higher levels of perceived maternal and paternal control were associated with more traditional (less modern) gender role preferences. In the equation including maternal variables, an estimated beta coefficient of $-.14$ for the relationship between expressiveness and gender role preferences suggested that higher levels of expressiveness were associated with more traditional or less modern gender role preferences. When paternal variables were included, the B value for expressiveness changed slightly but lost its statistical significance. Respondents' individualism appeared to be the most powerful predictor of more modern preferences. In addition, respondents' who expected to work more continuously in the labor force also tended to have more modern preferences. The variables included in each equation accounted for 15% and 14% of the variation in respondents' gender role preferences utilizing maternal and paternal variables, respectively. And once again, each equation had a significant F value indicating the rejection of the null hypothesis $R^2 = 0$.

If these underlying models of relationships among gender role phenomena and parenting behaviors are correct, these results had some consistency with the socialization literature (Huston, 1983). Parental encouragement is associated with the acquisition of sex-typed

characteristics, that is, males being more instrumental and females being more expressive. Furthermore, since the encouragement factor encompasses both warmth and cognitive involvement, such as "smiles at me very often" and "lets me help decide how to do things we're working on," it makes sense that parental encouragement would be linked to both self-reported levels of expressiveness and instrumentality of students. Mothers' reported extent of control was also associated with the attainment of instrumental characteristics. This suggests that students who reported more instrumental traits had mothers who pressured them to achieve. However, maternal control does not seem to facilitate the development of expressive characteristics.

With regard to gender role preferences, more parental control appears to be associated with more traditional gender role preferences, which suggests that parents who exhibit more controlling behaviors may convey a greater emphasis on conformity and obedience to sex role norms. Neither maternal nor paternal encouragement behaviors made a difference on their child's gender role preferences, expectations that such behaviors may produce less traditional females, at least. These effects may be more accurately captured by the work expectations variable. Greater individualism and nontraditional work attitudes (i.e., women's expectations for working full-time in the future, even with young children) seem to be important predictors of modern preferences.

Of particular interest were the associations found between the dependent variables. Instrumentality and expressiveness appeared to

be positively related to each other and expressiveness was negatively associated with modernity in gender role preferences. With respect to the latter association, it could simply reflect the fact that the sample is composed mainly of females, so that expressiveness is stereotypical, thus being indicative of more traditional preferences. One could speculate that for males, more expressive orientations, being unconventional, may be associated with more modern preferences. A final result of interest was that for virtually every association, the magnitude of the relationships between mothers' parenting behavior and child outcomes outweighed that of fathers' parenting behavior and child outcomes. Again, it could be because the sample is mostly female. Mothers' parenting behavior might be expected to be more critical to female children's sex role characteristics and attitudes than to males'. The stronger relationship between the dependent variables and maternal variables may reflect the more powerful influence of the same-sex parent overshadowing fathers' contributions.

Two stage least squares tests of the model. As suggested previously, it seems plausible that instrumentality, expressiveness, and gender role preferences are conceptually related given the multi-dimensional nature of gender role phenomena. As reported in the ordinary least squares results, instrumentality was positively related to the level of expressive traits reported by students in the equations for expressiveness and expressiveness was positively associated with the level of instrumentality. Expressivity was also statistically significant in the equation for the gender role preferences of

students. This suggests that the classic simultaneous equations model is a more appropriate representation of the gender role phenomena of interest here. Using OLS to estimate equations in a system of simultaneous equations such as the model in the present study would result in biased estimators. Thus OLS coefficients may actually overestimate the relationships between variables. On the other hand, 2SLS estimators are unbiased for sources of simultaneity bias have been removed. As Namboodiri, Carter and Blalock (1975) suggest,

The general idea behind two stage least squares is basically that of purifying the endogenous variables that appear in the equation to be estimated in such a way that they become uncorrelated with the disturbance term in that equation. (p. 514)

This full model in Figure 2 was tested for using a two stage least squares technique suitable to a nonrecursive model. The key to such an analysis involves describing a full model which includes putative causes of instrumentality, expressiveness, and gender role preferences. According to Godwin (1985) a precondition for estimating systems of equations is studying the identification of the equations which relates to the number of independent variables included in each equation. The simplest rule for determining whether equations specified in the model are estimable (i.e., identified) is called the "order condition" which states that the number of predetermined variables excluded from the equation must be greater or equal to the number of included endogenous variables minus one (Pindyck & Rubinfeld, 1981). For the model of gender role preferences, certain variables had to be omitted in order for the equation to be

identified. Because of the correlations among several of the exogenous variables and gender role preferences both religiosity and work had to be removed from the 2SLS equation of gender role preferences utilizing maternal variables and work was left out of the equation utilizing paternal variables in order to make these equations identified. These variables were dropped because, based on the OLS results, they were the least associated with gender role preferences. Table 8 is a summary of the results of the two-stage least squares analyses of the nonrecursive relationship between instrumentality, expressiveness, and gender role preferences by the exogenous variables previously specified using OLS regression.

The results for the statistically significant relationships found in the analysis are displayed in Figures 3 and 4. When the hypothesized reciprocal relationships among the endogenous variables are included in the model estimation, it appears that the exogenous variables are less able to explain variation on the endogenous variables. Comparing these results to the OLS, fewer associations between the independent and dependent variables were found to be statistically significant. However, the results show significant paths from sex to instrumentality and expressiveness with males perceiving themselves as more instrumental than females and females perceiving themselves as more expressive than males. Negative regression coefficients of -2.87 and -.14, respectively, reveal that higher levels of maternal control are related to lower levels of expressiveness and more traditional gender role preferences. And finally,

Table 8

Two Stage Least Squares Analysis for Respondents' Instrumentality, Expressiveness and Gender Role Preferences

Dependent Variable	Mothers' Parenting Behavior		Fathers' Parenting Behavior	
	Coefficient	T	Coefficient	T
<u>Instrumentality</u>				
Maternal Encouragement	.72	1.49	-	-
Maternal Control	2.86	1.58	-	-
Paternal Encouragement	-	-	-.94	-.53
Paternal Control	-	-	1.30	1.07 ^a
Expressiveness	1.00	1.49	1.08	2.20 ^a
G.R. Preferences	2.40	.40 ^b	1.71	.30 ^b
Sex	-17.98	-3.03 ^b	-18.07	-3.75 ^b
<u>Expressiveness</u>				
Maternal Encouragement	-.72	-.21 ^a	-	-
Maternal Control	-2.87	-1.97 ^a	-	-
Paternal Encouragement	-	-	.87	.64
Paternal Control	-	-	-1.20	-.96 ^a
Instrumentality	1.00	1.49	.93	2.20 ^a
G.R. Preferences	-2.41	-.47 ^a	-1.59	-.33 ^b
Sex	18.06	2.48 ^a	16.77	3.58 ^b
<u>Gender Role Preferences</u>				
Maternal Encouragement	.21	1.35 ^a	-	-
Maternal Control	-.14	-1.90 ^a	-	-
Paternal Encouragement	-	-	-.02	-.19
Paternal Control	-	-	.11	-1.39
Expressiveness	-.02	-.96	.04	1.59 ^a
Instrumentality	-.03	-1.71 ^c	-.03	-1.94 ^a
Individualism	.05	2.81 ^c	.09	3.50 ^b
Religiosity	-	-	-	-
Work	-	-	.12	1.75

^a_p < .05

^b_p < .001

^c_p < .01

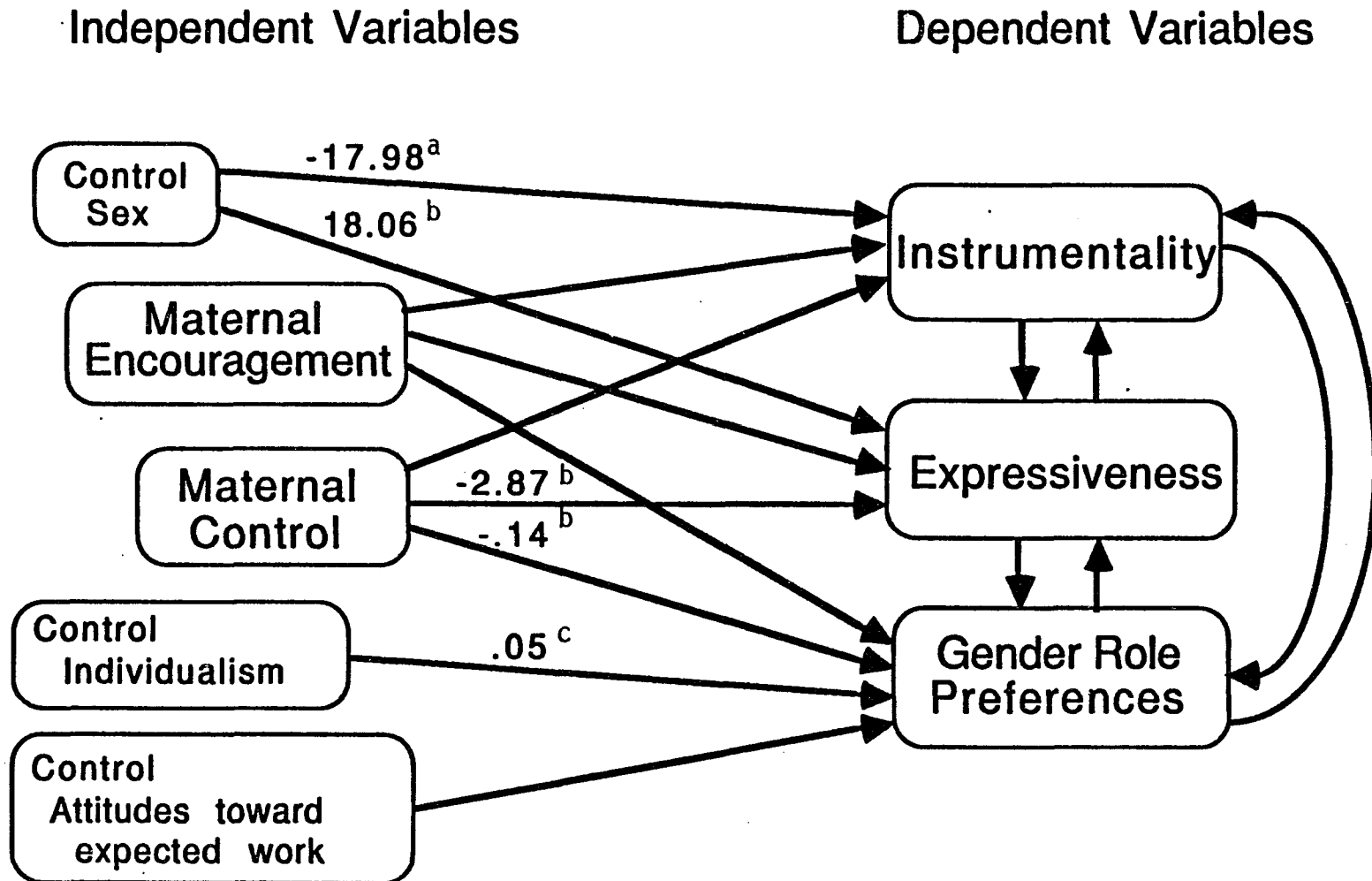


Figure 3. Estimated Model: Two-Stage Least Squares Analysis (Mothers' Parenting Behavior)

^a $p < .001$; ^b $p < .05$; ^c $p < .01$

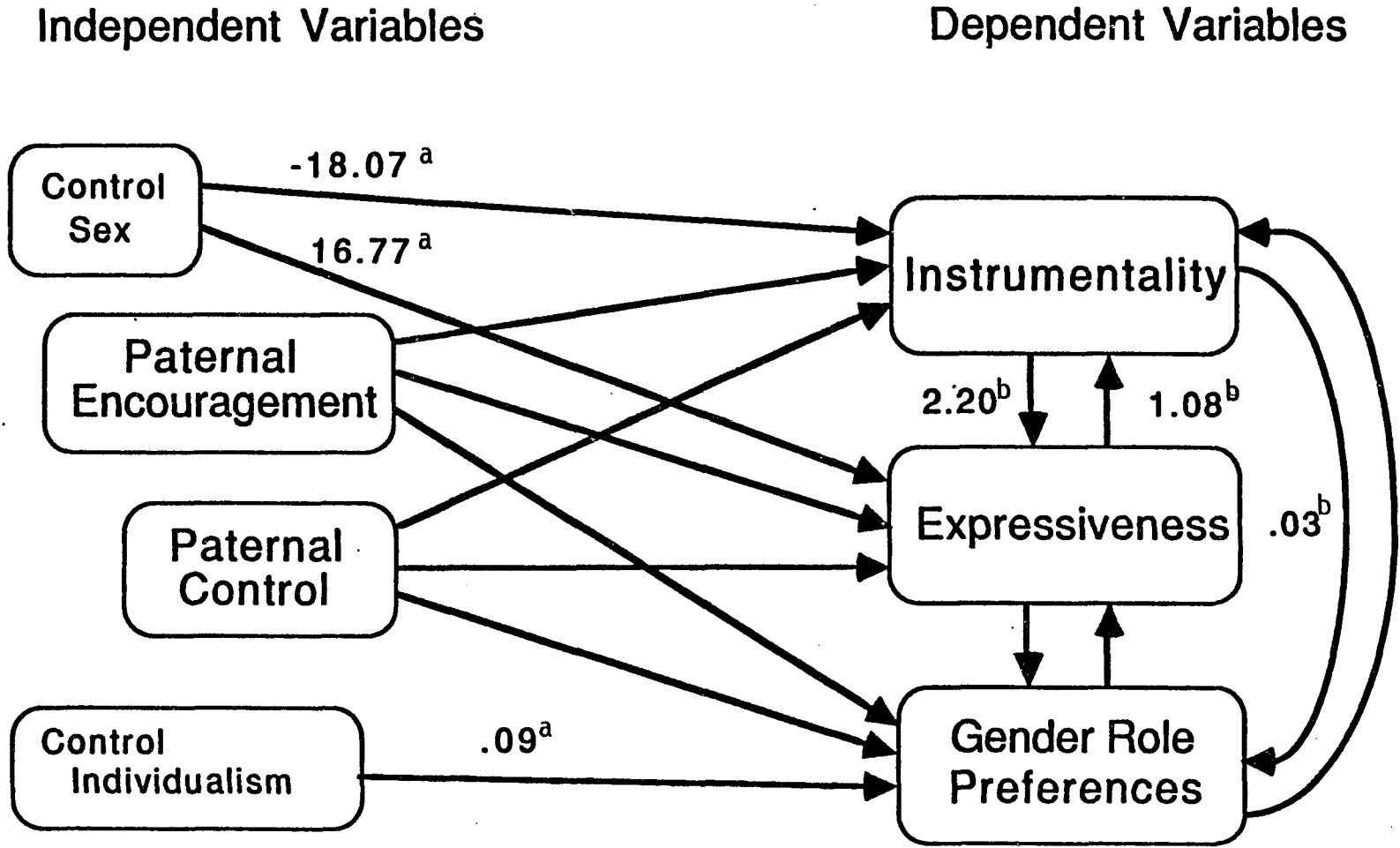


Figure 4. Estimated Model: Two-Stage Least Squares Analysis (Fathers' Parenting Behavior)

^a $p < .001$; ^b $p < .05$

individualism remains as an important influence on modernity in gender role preferences.

Looking at the interrelationships between the endogenous variables, the 2SLS analysis revealed significant bidirectional paths between instrumentality and expressiveness and a path from instrumentality to gender role preferences. Thus when paternal variables were included, higher levels of instrumentality were associated with greater levels of expressiveness and vice versa. Furthermore, greater instrumentality was associated with more modern preferences. No significant paths among endogenous variables emerged in the model using maternal variables.

Discussion

This study began with a concern for the role of parental socialization in affecting certain gender role phenomena, namely children's self-perceptions of sex-differentiating traits and their preferences for behavior associated with family roles. A secondary concern within the study involved making certain methodological refinements and testing the measurement properties of the instruments measuring both parenting behaviors and children's gender role traits and preferences. The analyses reported here provide support for a nonrecursive relationship between instrumentality and expressiveness, at least when considered with measures of paternal behavior in the regression equation. In addition, based on the estimated model, there is some evidence suggesting that self-perceptions tend to influence

or shape gender role preferences for the role of mother. That is, self-perceptions of high levels of instrumentality are related to more modern preferences.

Of particular interest is the discrepancy of results obtained conducting OLS and those obtained utilizing 2SLS. 2SLS is a more conservative technique in that it includes multiple controls; thus, fewer associations were revealed between the exogenous and endogenous variables than when those relationships were considered using ordinary least squares. Just as the use of ordinary least squares represents an advancement over the use of univariate techniques such as ANOVA, the use of 2SLS with a nonrecursive model may provide a more accurate estimation of the relationships between the variables in the model.

With regard to the measurement of instrumentality and expressiveness, the finding that these two constructs were positively related does support the idea that androgyny is possible in individuals, that is, high levels of expressiveness and instrumentality can exist in the same persons as can lower or medium levels of both. The measurement technique used here, i.e., treating each as a separate but related measure of sex-differentiating characteristics, each measured on a continuous scale, seems far preferable to the four group technique of placing individuals in categories based on a median split where much variability within cells is lost. Yet, it allows both dimensions to be measured (like the four category method) independently rather than conceptualizing instrumentality and expressiveness as two ends of a single continuum.

Based on the 2SLS results, parental socialization behaviors appear to have only a modest impact on gender role phenomena when multiple controls are employed. Mothers' behaviors appear to be more influential than fathers'--specifically maternal control. This could be due to the fact that fathers are typically less available to their children or the disproportionate number of females in the sample and the greater influence of a same-sex parent. Furthermore, it appears that factors other than parental socialization and the controls used in the model are accounting for variation in respondents' instrumentality, expressiveness, and gender role preferences. Perhaps the socialization process involving the acquisition of sex-typed traits and gender role preferences is more subtle and indirect than depicted here and in similar previous work.

One set of factors could involve characteristics of the parents other than the behaviors that the PBF measures. Most obvious would be the parents' own level of instrumentality and expressiveness, their sex-role attitudes and perhaps the degree to which they engage in non-traditional sex-role behavior at home. There is some research, for example, that indicates factors such as parents' reported levels of instrumentality and expressiveness are explanatory of older children's level of the same (Orlofsky, 1981; Spence & Helmreich, 1978). Mackinnon, Brody, and Stoneman (1984) have noted a link between maternal sex-role attitudes and the degree to which young children sex role stereotype a variety of home and work behaviors. Similarly, parents' gender role preferences or their gender role behavior as seen through

their child's eyes, may be more closely related to children's gender role preferences than the parenting behaviors measured here. The former evidence and possibilities would reflect a modeling hypothesis that is less directly observable and perhaps less objectively reportable by children than the parenting behaviors measure by the PBF.

It is also possible that other characteristics of the family environment and the larger ecology play an important role in the development of and maintenance of gender role attitudes and self-perceptions. It is already well-documented that other socialization agents such as teachers and peers are important sources of information for children. In general, teacher influence has been found to be very strong although subtle (Honig & Wittmer, 1982). Teachers have been found to reinforce boys for being aggressive and girls for being dependent (Serbin, O'Leary, Kent, & Tonick, 1973). Fagot (1984) found that boys were given more attention for their behavior by teachers and were given more positive feedback from their teachers than were girls for engaging in academic behaviors. For girls, only sex-stereotyped behaviors brought consistent positive feedback from teachers. The lack of accurate and continuous feedback for girls from many teachers may interfere with the development of instrumental attributes such as self-confidence and achievement motivation.

Peers also serve as strong socializing agents and become increasingly important as children grow older. Peer influence may actually outweigh parental influence during adolescence (Hartup, 1983). In general, children's experiences with peers tend to

accentuate sex differences and reinforce traditional socialization patterns (Pitcher & Schultz, 1983). Hartup believes that the segregation of play groups by sex affects the course of children's socialization by elaborating the sex-differentiated psychological and cultural environments initially created by parent-child interactions (1983). In addition, Fagot (1977, 1978) suggests that children who adopt traditional forms of sex-role behavior are more socially acceptable to their peers than those who do not adopt traditional patterns.

A third set of factors which may account for variation in respondents' instrumentality, expressiveness, and gender role preferences may be biological. In overemphasizing the role of parental socialization behaviors on gender role outcomes in children, it is also possible that we might be underestimating the importance of biological factors and inherited characteristics. In fact, renewed attention is being paid to the possibility that biological factors are at the root of sex differences in psychological characteristics (much like those in the BSRI) and orientations toward parenting (Rossi, 1985). Rossi believes that theories of socialization which attempt to explain sex differences and other gender role phenomena are inadequate for they do not seek an integration of biological and social constructs. She points out that although research on age and aging has attempted such an integration, research on gender has "studiously avoided efforts in this direction" (Rossi, 1985, p. 161). She states: "Gender differentiation is not simply a function of socialization. . . hence, sociological units of analysis such as

roles, groups, networks, and classes divert attention from the fact that the subjects of our work are male and female animals with genes, glands, bone, and flesh occupying an ecological niche of a particular kind in a tiny fragment of time" (p. 161).

Finally, age emerges as an important consideration in examining the linkages between parental behaviors and gender role outcomes in children. It has already been suggested that other socializing agents such as peers and teachers become increasingly influential as children age. Perhaps the model tested in this study would represent a better "fit" with the socialization experiences of younger children. In other words, associations between parenting behavior and sex role outcomes in children may be stronger for younger children and other potential sources of variation less influential. Theories of sex role socialization make implicit assumptions about developmental shifts in socialization emphases as a function of age and sex; however, research efforts have only infrequently been concerned with documenting and articulating these developmental trends (Block, 1984). Block (1984) sees documentation of these trends as being critical in fully understanding the relationship between parent socialization and gender role outcomes in children.

Parents' global parenting behaviors as conceptualized in studies such as those by Orlofsky (1979) and Kelly and Worell (1976) may be less influential in shaping gender role outcomes in their young adult children than previously believed. A similar assertion was made by Maccoby and Jacklin (1974) when they concluded that parents treat

their male and female children more similarly than different and suggested that sex differences may be more a result of sources of influence other than differential treatment by parents. In any case, gender role phenomena appear more complex and difficult to measure than previously conceptualized. Studies like Orlofsky's (1979) and Kelly and Worell's (1976) seem overly simplistic regarding the importance of general parental socialization practices. The results of their studies may have been inflated in the face of the information gained by utilizing simultaneous equations.

CHAPTER V

SUMMARY AND CONCLUSIONS

The goal of the present study was to assess the relationships between parenting behavior of mothers and fathers and self-report measures of college students' instrumentality, expressiveness, and gender role preferences. Most theories of socialization assign a significant and far reaching role to parental behavior in shaping children's gender role development; thus, it is of value to empirically test this premise. Previous research has tended to consider only certain aspects of these relationships and for the most part utilize univariate statistical procedures. These procedures generally produce inflated results and increase the likelihood of committing a Type 1 error (incorrectly rejecting the null).

Furthermore, this study has acknowledged the multidimensional nature of sex role phenomena. In the past, sex role outcomes have been conceptualized in a rather simplistic manner. Self-report trait descriptions of individuals' masculinity and femininity have been treated as encompassing all of one's gender role with little or no discussion of other possible facets of this broad construct. Trait descriptions represent only a piece of a larger puzzle. Thus, in addition to considering instrumental and expressive personality traits descriptions, this study explores the linkage between personality and behavioral preferences within the framework of one model. This

represents a relatively more comprehensive approach to examine the interrelationships between parenting behavior and sex-role outcomes in children.

A secondary goal of the study was to explore the measurement properties of instruments measuring the constructs of instrumentality, expressiveness, gender role preferences, and parenting behaviors. Of particular interest were the results from the factor analysis of the Parent Behavior Form. Previous factor analyses on the PBF have revealed three dimensions of parenting behavior: warmth, control, and cognition. Results from the present study revealed only two dimensions: parental encouragement and parental control. This finding supports the necessity of carefully examining the structure of measurement instruments in order to have a better understanding of the constructs they really are measuring. A factor analysis of the BSRI was consistent with much of the previous literature and confirmed the existence of two underlying conceptual dimensions: instrumentality and expressiveness. And although a factor analysis for the gender role preference subscale yielded two factors rather than one, five of the items did indeed cluster around preferences for the role of mother. Hence, only the first factor was retained.

The preliminary analyses discussed were the basis for the development of the refined empirical model (Figure 2) which was used in the subsequent analyses. The plan of analyses implemented encompassed a series of steps involving the use of progressively more complex statistical techniques. The first step involved a partial

replication of Orlofsky's (1979) study in which he administered the Bem Sex Role Inventory and the Parent Behavior Form. With regard to parental behavior, many of the dimensions Orlofsky reported as differentiating between sex role categories for females were replicated; however, the pattern of mean differences revealed by the present analyses did not replicate Orlofsky's results. This could be due in part to differences in sample composition or changes in attitudes regarding the desirability of reporting oneself as stereotypically masculine or feminine. He consistently found masculine females as having the lowest scores on several positive parenting dimensions. This study found feminine females to have the lowest means, which suggests that feminine females may have a far less benign family environment than previously believed. For males, with the exception of maternal egalitarianism, the present study was unable to replicate any of Orlofsky's findings. Most notable was the absence of any significant differences among the four groups on reports of dimensions of paternal behavior. Again, this could largely be due to differences in sample composition or it could suggest that fathers are less influential in males' sex role development than previously believed. In any case, it is apparent that univariate procedures do not adequately address the research questions being asked and do not lend themselves readily to interpretation. Using ANOVAs, much is lost conceptually and statistically by putting individuals into four sex role categories and then relating them to 13 subscales. Such an approach is fragmented and difficult to interpret.

The use of ordinary least squares represented an intermediary step between the ANOVAs and simultaneous equations. Since multiple regression is a multivariate procedure, it was possible to test for complex relationships among the independent variables that could not be considered using univariate techniques like ANOVA. Overall, results suggested maternal encouragement was positively associated with respondents' instrumentality and expressiveness. Paternal encouragement was also positively associated with expressiveness. Maternal control was positively associated with instrumentality and gender role traditionalism but negatively associated with expressiveness. Paternal control was also associated with more traditional preferences for the role of mother. Results also suggested positive associations between respondents' level of instrumentality and expressiveness and a negative relationship between expressiveness and gender role preferences. Control variables such as individualism and expectations regarding full-time work were significant predictors of gender role modernity.

Results from the ordinary least squares suggested that linkages between the dependent variables existed, however, there was no way of knowing the direction of influence. In other words, if the dependent variables are to be conceptualized as being interrelated, then ordinarily least squares estimates are biased because the simultaneous relationships are not modeled appropriately. The final step of analyses in this study fully tested the model in Figure 2 and truly addressed the research questions that were proposed. When the

hypothesized reciprocal relationships among the endogenous variables were included in the model estimation, the exogenous variables were less able to explain variation on the endogenous variables. Higher levels of maternal control continued to be associated with lower levels of expressiveness and more traditional gender role preferences. Sex continued to be an important control variable for respondents' instrumentality and expressiveness. And individualism remained as an important influence on modernity in gender role preferences. Most importantly, the use of 2SLS revealed a bidirectional path between instrumentality and expressiveness and a path from instrumentality to gender role preferences when paternal variables were included in the 2SLS equation.

Within the context of a truly multivariate model that considers interrelationships between the dependent variables, the research questions can be answered accordingly. With regard to the first set of questions addressing the relationship between parental encouragement and control and children's degree of instrumentality and expressiveness, results suggest that only maternal control is related to children's expressiveness. College students who perceive their mothers as exhibiting higher levels of control report lower levels of expressiveness. The second set of questions address the relationships between parenting behaviors and children's gender role preferences. Results suggest that students who perceive their mothers as exhibiting higher levels of control report more traditional gender role preferences. And finally, considering the third set of questions

which address the relationship between children's levels of instrumentality and expressiveness and their gender role preferences, results suggest that positive levels of instrumentality are associated with greater levels of expressiveness and vice versa. Furthermore, greater instrumentality was associated with more modern preferences.

Implications for Future Research

The present study offers new groundwork from which to launch future research in the area of gender roles. The use of multivariate techniques like simultaneous equations modeling provides researchers with the tools necessary in order to answer complex questions regarding socialization and gender role outcomes in children. Simultaneous equations techniques are more appropriate techniques than univariate procedures and multiple regression techniques and result in estimations that are probably much closer approximations of the role of parents' behavior in the development of sex-typed characteristics and gender role preferences. It appears that much of the earlier work runs the risk of overestimating the importance of parental socialization on gender role development. Furthermore, results from the present study support a multifactoral view of gender role phenomena which considers the linkages between self-endorsed trait descriptions and gender role preferences for family roles.

An area which has been left relatively unexplored, however, would consider not only personality traits and attitudes but also actual behavior. In other words, are people's gender role preferences indicative of certain kinds of behavior? It is relatively

common knowledge in the social sciences that attitudes are not necessarily related to behavior. In the area of gender roles, it is of value to consider discrepancies and consistencies between attitudes and behaviors. For example, it has been documented that husbands whose wives work who espouse egalitarian attitudes toward sharing domestic work are actually only slightly more involved in housework than husbands whose wives stay at home (Blumstein & Schwartz, 1983; Coverman & Sheley, 1986). One wonders what kind of actual behavior in the home and work place may be a result of being more instrumental or expressive. Considering the link between instrumentality, expressiveness, and gender role preferences was a first step in this direction but we still do not really know anything about individuals' actual behavior. More research needs to be done utilizing observational techniques in addition to self-report measures to provide a better, more comprehensive measurement of the constructs under study. Similarly, actual observations of parental behavior in addition to self-reports of both parents and students would be invaluable. Although students' perceptions of their parents' behavior are valid, it would be of interest to identify discrepancies between parents' actual behavior children's report of their parents' behavior. Perhaps a pattern of recall would emerge that would help researchers untangle the web of socialization effects.

Multimethod research could bring a richness to gender role research and perhaps fill in the missing gaps that tend to result when relying solely on paper-and-pencil measures. It is not uncommon in

studying young children to employ observational techniques, however, research that observes the actual behavior of older children and adults, however, is relatively unusual. Besides a lack of observational research in the area of gender roles, the lack of developmental considerations emerges as an important deficit. Research studies designed to permit age-related comparisons in order to better search for organizing processes in sex role socialization are needed.

In conclusion, much remains to be done in examining the connections between parent socialization behaviors and gender role phenomena. The present study represents an attempt to conceptualize retrospective reports of mothers' and fathers' parenting behavior, older children's gender role preferences and their reported levels of instrumentality and expressiveness within one multivariate model. In the future, researchers should attempt to improve currently existing studies by designing studies which deal with the theoretical and methodological complexities of gender role constructs and approach the topic of parent socialization in a more comprehensive manner.

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APPENDIX A
SAMPLE ITEMS DRAWN FROM THE
PARENT BEHAVIOR FORM (PBF)

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APPENDIX B
PBF SCALE DESCRIPTIONS

APPENDIX C
SAMPLE ITEMS DRAWN FROM THE BEM
SEX ROLE INVENTORY (BSRI)

APPENDIX D
SEVEN-ITEM SCALE DRAWN FROM
SCANZONI AND SZINOVACZ

Seven-Item Scale Drawn From
Scanzoni and Szinovacz
(1980)

Sample Items:

Please circle whether you strongly agree, agree, have mixed feelings, disagree, or strongly disagree about each of the following statements as they apply to a mother.

- a. A mother should realize that her greatest rewards and satisfaction in life come through her children.
- b. A mother of preschool children should work only if the family really needs the money a whole lot.
- c. A working mother should give up her job whenever it makes a hardship for children.
- d. There should be more day care centers and nursery schools so that mothers of preschool children could work.
- e. If being a mother isn't satisfying enough, she should take a job.
- f. A mother of preschool children should not work because it is not good for the child.
- g. A mother with preschoolers should be able to work as many hours per week as their father.

APPENDIX E
MEASURE OF EXPECTED LABOR
FORCE CONSISTENCY

Measure of Expected Labor
Force Consistency
(Morgan & Scanzoni, 1987)

For each of the following periods of your life, do you intend to work for PAY full-time, part-time, or not at all?

(Please circle)

Full-time Part-time Not at All

- a. Before marriage?
- b. After marriage, but before the first child?
- c. Between pregnancies?
- d. When youngest child is under five years of age?
- e. When youngest child is between six and twelve years of age?
- f. After youngest child enters high school?
- g. After all children have left home

APPENDIX F
ITEMS FROM INDIVIDUALISM INDEX
DRAWN FROM SCANZONI

Items From Individualism Index
 Drawn From Scanzoni
 (1975)

Do you strongly agree, agree, have mixed feelings, disagree, strongly disagree with each of the following items? Please circle each one.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Mixed Feelings</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
a. Divorce is wrong except when one partner commits adultery.	0	1	2	3	4
b. Marriage is for life even if the couple is unhappy.	0	1	2	3	4
c. If a husband and wife simply cannot get along, it is probably better for them to end their marriage	0	1	2	3	4
d. It is proper for a couple to feel that if their marriage does not work out, they can obtain a divorce.	0	1	2	3	4
e. A married couple should put what's best for their family ahead of what's best for any one of them as individuals.	0	1	2	3	4
f. A person should not stay in a marriage if she/he does not continue to grow as an individual.	0	1	2	3	4
g. It is better to stay with a long-term relationship, even if things are not going well, than to try to find someone else.	0	1	2	3	4

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Mixed</u> <u>Fellings</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
h. Maintining a sense of independence is important in any close relationship.	0	1	2	3	4
i. A woman should change her name when she marries.	0	1	2	3	4
j. A person in a close relationship should consider the other person's needs and wants before his/her own.	0	1	2	3	4
k. A woman cannot have a family and a career at the same time and be successful at both.	0	1	2	3	4
l. Sex is important to relationships because it stimulates individual growth and enables the partners to explore new experiences regardless of commitments.	0	1	2	3	4
m. Apart from committed relationships, sexual intercourse is a form of getting something for nothing.	0	1	2	3	4
n. Getting what's best for the wife and husband as individuals is just as important as having what is best for the family.	0	1	2	3	4
o. Under certain conditions, sexual intercourse between single persons may be permissible.	0	1	2	3	4

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Mixed</u> <u>Feelings</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
p. Under certain conditions, it may be permissible for a married person to have sexual intercourse with someone other than his/her spouse.	0	1	2	3	4

APPENDIX G
MEASURE OF RELIGIOSITY FROM CONNECTICUT MUTUAL

Measure of Religiosity from Connecticut Mutual
(1981)

Please circle how often you do each of the following religious experiences, or have these religious feelings.

Very
Often Often Sometimes Seldom Never

- a. Attend religious services
- b. Engage in prayer
- c. Encourage others to
turn to religion
- d. Participate in a
church social
activity
- e. Listen to or watch
religious broadcasts
- f. Read the Bible
- g. Feel that God loves
you
- h. Have something that
you call a religious
experience

APPENDIX H
CORRELATION MATRIX FOR VARIABLES USED IN
MULTIPLE REGRESSION AND 2SLS ANALYSIS

Correlation Matrix for Variables Used in Multiple Regression and 2SLS Analysis

	Mat. Enc.	Mat. Ctrl.	Pat. Enc.	Pat. Ctrl.	Sex	Individ.	Work	Relig.	GRP	Inst.	Exp.
Maternal Encouragement	1.0	.0	.47 ^a	.20 ^b	.12 ^c	.05	.01	.30 ^a	.01	.28 ^a	.36 ^a
Maternal Control	-	1.0	-.01	.57 ^a	.03	.03	.03	.11 ^c	-.16 ^c	.09	-.07
Paternal Encouragement	-	-	1.0	.00	.08	-.14 ^c	-.05	.12 ^c	-.02	.12 ^c	.27 ^a
Paternal Control	-	-	-	1.0	-.01	.09	.07	.14 ^c	-.09	.12 ^c	.05
Sex	-	-	-	-	1.0	.00	-.40 ^a	.24 ^a	.10	-.25 ^a	.29 ^a
Individualism	-	-	-	-	-	1.0	.03	-.34 ^a	.33 ^a	.03	-.07
Expected Work	-	-	-	-	-	-	1.0	-.08	.15 ^c	.09	-.21 ^a
Religiosity	-	-	-	-	-	-	-	1.0	-.10	.13 ^c	.31 ^c
Gender Role Preferences	-	-	-	-	-	-	-	-	1.0	-.01	-.14 ^c
Instrumentality	-	-	-	-	-	-	-	-	-	1.0	.15 ^c
Expressiveness	-	-	-	-	-	-	-	-	-	-	1.0

^a_p < .001

^b_p < .01

^c_p < .05