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THE RELATIONSHIP BETWEEN FAMILY ENVIRONMENT AND LATE
ADOLESCENT PERSONALITY AS REFLECTED IN
GENDER-ROLE SOCIALIZATION

by

Steve Macuk

A Dissertation Submitted to the Faculty of the Graduate
School of Loyola University of Chicago in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

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I can still picture my wife pounding out drafts of my first graduate paper six years ago. Over these years I know it must have felt like that draft kept going! With true love, Binda, now I can finally say that it's really finished.

VITA

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CHAPTER I

INTRODUCTION

This study examines the relationship between family environment and personality traits in older adolescents. It particularly focuses on gender-role socialization in adolescents and how this might be affected by parent education level and parent identification. The study begins by exploring the belief that family environment influences personality formation, an axiom of psychological theory running from classical analytic to recent family systems thinking. The effect of an adolescent's gender is introduced with the hypothesis that traditional gender-based differences in personality traits have correlated traits in family environment. An example would be female subjects who rate themselves as more acquiescent than aggressive also seeing their families as emphasizing acquiescence over conflict; in contrast, male subjects would rate themselves as more aggressive and see their families as emphasizing that trait. Contrary to this stereotyped gender dichotomy, a less traditional gender presentation across personality traits is

expected with higher levels of parental education or when adolescents identify with their opposite-sex parent. As will be noted in our review of the related literature, debate has revolved around these ideas for decades. Gentry (1989, p.5) put it succinctly: "As a sociological phenomenon, gender is less of a picture waiting to be discovered than it is part of our changing and changeable social fabric." The purpose of this study is thus not to strike out into new territory but to sift familiar ground through the sieve of a contemporary analysis. Specifically, how do our theories on family, personality, and gender hold up when applied to a current sampling of university students?

CHAPTER II

REVIEW OF LITERATURE

Theories of psychology from virtually all orientations have supported the idea that our personalities are largely if not wholly shaped by our caretaking families. From the analytic school of Freud to its offshoots in psychodynamic and object relations theories, the emphasis has been on personality formation in the early years of life resulting chiefly from parental contact (e.g., Bowlby, 1958; Freud, 1925; Hall & Lindzey, 1978; Hoffman, 1980; Sanchez, 1986). Behavioral and social learning theory from Skinner (1981) to Bandura (1977) expanded the range of parental effect on personality to include later childhood through ideas such as conditioning and social learning. Kohlberg (1966) and other cognitive-developmental theorists acknowledged the importance of reinforcement for continued gender¹ stereotyped

¹The term gender is used in this study to refer to socially related phenomena (e.g., gender role, gender traits). While the word sex can be similarly used in a social context (as it has by some authors cited in our review), it is used in this study to refer to body anatomy and physiology (e.g., sex groups, female and male).

behavior, but added that children need to be old enough to identify the sex of others before they use gender as a cognitive organizer.

Family systems theorists, developing in part from the interpersonal frame of Adler (1929) and Sullivan (1953) to the more current ideas of Minuchin (1974), Haley (1977), and Schwartz (1987), broadened this range even further. Systems thinking noted the effects of parents, other family members, and larger systems on personality development with concepts such as interdependence, family hierarchy, and circularity. These effects were assumed to continue through adolescence if not into adult life. Other theorists and researchers have affirmed the notion of ongoing gender-role development in adulthood (Block, 1984; Sedney, 1986).

Recent analyses of social influence and individual development highlight various aspects of the family-personality relationship. Research has ranged from the effects of families as a whole (Foreman & Foreman, 1981; Lewis, 1982; Lidz, 1979) to specific factors such as paternal competence (Kotler, 1975), maternal attitudes (Ollendick, La Berteaux, & Horne, 1978), and sibling relationships (Daniels, 1986; Pfouts, 1976). Central to the latter research are the assumptions that "The family is generally considered among the most important environmental influences on personality development" (Foreman & Foreman, 1981, p. 163), particularly for adolescents (Grotevant, 1983).

This study's literature review pertains to family influences on adolescent personality and gender roles. As a way to set the stage, as well as to illustrate the complexity of the family-personality relationship, we begin with investigations of family influences in childhood.

Family Environment and Personality Development in Childhood

Working with pre-schoolers, Ollendick, La Berteaux, and Horne (1976) examined the relationships among maternal attitudes toward child-rearing, locus of control, perceived family environments, and childhood behavior. The study included 25 mothers, 14 girls, and 12 boys. The authors found that mothers with greater internal locus of control had less authoritarian-controlling attitudes toward child-rearing, more democratic-egalitarian attitudes, and more family cohesion (Ollendick et al., 1978). Family conflict had a particularly strong and negative correlation with democratic-egalitarian attitudes. These results in part validate what Lewis (1979) called the requisites a family must provide for balanced development of its children: parental nurturance, intrapsychically beneficial family organization, social role instruction, and cultural awareness.

While these requisites can be taken to emphasize the role of parents, Pfouts (1976) indicated how siblings play a major role in childhood personality development:

The sibling world is a fateful world, for it is here that children first learn the costs and rewards of

interacting with peers and it is here that permanent adult roles may have their beginnings....Most important, it is an ascribed world in which, for better or worse, siblings must involuntarily spend long hours, days, and years together. Over these long years of childhood they help to build one another's identity through interaction. (p. 200)

In a study of 50 brother pairs, ages 5-14, Pfouts (1976) sought to verify this view. She compared the scores of brothers on measures of personality, family relations, and intelligence. Results showed that the brothers endowed with culturally valued characteristics (e.g., intelligence, adaptive behavior) were more ambivalent in their fraternal relationships; less favored brothers expressed more hostility, lower self-esteem, and showed more resentment in their relationships with paired brothers. Reaffirming the complexity of family-personality dynamics (even when restricted to siblings), Pfouts (1976) noted that more research is needed to clarify the effects of sibship composition, sex, birth order, spacing, and rivalry for parental attention.

Personality development during childhood will be further reviewed as part of our second hypothesis on gender-role development. With the latter studies serving as a brief introduction to family environment and beginning personality development, our focus now sharpens on the adolescent period.

Family Environment and Personality Development in Adolescence

A number of models and studies have addressed the impact of the family unit on personality development in adolescence. Foreman and Foreman (1981) studied the relationship between family social-climate characteristics and adolescent personality. Family-climate ratings were collected from 80 high school students and their parents through administration of the Family Environment Scale (Moos, 1974). Significant findings included that when families emphasized helpful and supportive member relations, their adolescents were more relaxed and less anxious; families that encouraged the open expression of conflict tended to have more self-assured adolescents. Despite these specific results, the investigators concluded that offspring behavior varies more with total family functioning (i.e., moderate scores across family environment variables) than with low or high ratings on particular family variables (Foreman & Foreman, 1981). Lewis (1982), supporting the notion that optimal behavior relates to overall rather than particular system variables, proposed a biopsychosocial model that emphasized the multiplicity of influences, including societal, on adolescent character. When looking at specific familial influences, Lewis (1982) singled out parental mental health and consistent family structure as important.

Lewis' shift from various to specific familial influences

demonstrates their range in the adolescent personality development literature. Subsequent work appears to attempt a delineation of particular influences. Ford (1983), writing from the clinical perspective of a practitioner, noted that a family's rules affect the growth and change of its members while allowing for intimacy and preventing disintegration of the system. He hypothesized that everpresent and rigid rules, though adding stability to the system, also limit growth and change compared with more ambiguous rules that can accommodate, if not foster, development. Within this framework, rigid rules would ultimately lead from stability to dysfunction. Following this idea, Grotevant (1983) wrote how renegotiation of family rules is central to successful adaptation and identity formation in adolescence. His framework drew on Erikson's (1980) contextual approach; that is, the need to see identity formation in a psychosocial context (Grotevant, 1983). The family, according to Grotevant, might be the most important social system for adolescents, and thus key to their personality development.

Grotevant's (1983) own review of the literature from the 1970s and early 1980s underscored the family's role in promoting identity development in adolescence. It focused on familial adaptation to changes from childhood through early adolescence. Grotevant referred to four categories of identity: diffusion, foreclosure, moratorium, and achievement.

As summarized by Campbell, Adams, and Dobson (1984), identity diffusion is said to describe individuals who express little or no interest in self-exploration of or commitment to significant life issues (e.g., religion, government, occupation); foreclosure refers to people who commit to their parents' religious, political, and occupational views without any self-exploration; moratorium describes the questioning and searching period of self-exploration as one seeks to define personal commitments; identity achievement follows moratorium and occurs when identity coalesces around self-defined commitments to significant life issues.

Based on his review, Grotevant concluded that adolescent moratorium and identity achievement were facilitated by individuality and moderate connectedness within the family. Individuality described a sense of self as unique; it would be developed while an adolescent observes such acts as disagreements among family members, especially parents, and then feels free to voice disagreements also (Grotevant, 1983). Connectedness referred to mutual acceptance and encouragement among family members, something leading to higher self-esteem and the security for self-exploration. Studies indicated that high connectedness tended to inhibit identity exploration and promote foreclosure; low connectedness also inhibited self-exploration and promoted diffusion (Grotevant, 1983).

Research by Campbell et al. (1984) supported Grotevant's emphasis on family members' individuality and connectedness in

finding that healthy identity formation correlated with parental facilitation of emotional attachment (connectedness) and independence (individuality). The investigators chose to work with college freshmen because:

Numerous developmental studies with late adolescents have substantiated...that individual differences exist in identity formation, where uncommitted statuses (diffusion, moratorium) are likely to develop into committed statuses (foreclosure, identity achievement) during the college-age years. (Campbell et al., 1984, p. 510)

The subjects included 203 female students, 83 male students, and 130 pairs of parents. The students were given a measure of ego-identity status and asked how they perceived their relationship with their parents; parents were asked for their perceptions on the parent-adolescent relationship. In addition to the results noted above, Campbell et al. (1984) speculated that foreclosure status stemmed from adolescents delaying self-definition due to their overly strong bonds with parents; diffusion status was believed to occur when adolescents lacked a strong sense of security within the family and consequently lacked the confidence for self-exploration.

As alluded to in Grotevant's (1983) study, communication has also been examined in the quest to identify family system factors related to personality development. At the University

of Texas, Cooper, Grotevant, and Condon (1983) studied the interaction patterns of 84 high school seniors and their families. They found that the seniors' identity exploration and adoption of roles correlated with family communication patterns. Once again, the family's ability to openly communicate disagreement was associated with identity formation in late adolescence (Cooper et al., 1983). Another study that highlighted the importance of communication to families and personality development came from Hauser, Weiss, Follansbee, and Powers (1986). In an attempt to join models of family and adolescent personality development, Hauser et al. (1986) studied the effect of family transactions (constraining vs. enabling interactions) on adolescents. They found that the use of enabling communication patterns characterized the interaction of adolescents with high levels of ego development as well as the interaction of their parents.

Reflecting on the different theories and findings in this review, one can see agreement on the significance of numerous variables in the family environment-personality development relationship. Variables range from broad concepts such as a biopsychosocial model (Lewis, 1982) and total family system functioning (Foreman & Foreman, 1981) to more delineated factors such as family rules (Ford, 1983) and relational connectedness (Grotevant, 1983). Adding preexisting patterns from childhood (Ollendick et al., 1978) only complicates any effort to separate the truly "active ingredients" from those

less relevant to adolescents.

Another complication arises in regard to different concerns within the adolescent period itself. As cited in Grotevant (1983), Coleman's focal theory of adolescent development (Coleman, 1974, 1978) posited that different areas, or domains, of interest concern adolescents at different stages of development. Grotevant's example of this noted how many adolescents appear foreclosed regarding religious considerations during high school, yet confront their own needs for religious participation and affiliation once they have moved out of the family home. Despite an adolescent's foreclosure in the religious domain, her or his family may well be encouraging self-exploration to take place in another domain--career expectations, for example--such that the "family's contribution to identity formation may also differ as a function of domain" (Grotevant, 1983, p.233).

Consideration of identity development influences beyond the family would at the least include the adolescent peer group. For example, though speaking only of identity related to achievement motivation acquisition, Sutherland and Veroff (1985) nonetheless noted how "late adolescent (peer) socialization may in fact be very powerful in undoing the stability...(of) family socialization on achievement orientation" (p. 119). Unfortunately, examining the many and intricate familial factors influencing adolescent personality development, let alone extra-familial factors such as peer

groups, is clearly beyond the scope of this paper. An aspect of our literature review limited enough to probe, however, is the role of family members, particularly parents, in personality formation. This is especially relevant for the subjects in this study, the majority in their late teens, who would be expected to have personalities pushed to the cusp of development by family influence.

In consequence, our first hypothesis is that subjects' self-reports of family environment traits significantly correlate with their self-reported personality characteristics. Due to the specific focus on gender in our subsequent hypotheses, these traits and characteristics are either relatively gender-neutral (e.g., organization, breadth of interest) or relatively gender-stereotyped (e.g., social participation--feminine, independence--masculine). The first hypothesis proposes that family and adolescent similarity is seen across all traits.

Gender

As noted above and in the title of this study, our focus is particularly on gender-role socialization as a part of late adolescent personality development. It is unrealistic, if not impossible, to address the family and adolescent-identity relationship without reference to gender effects. An immediate example of this point comes from the earlier cited work of Campbell et al. (1984). In their study of identity formation and familial correlates, these authors concluded

that, independent of subject sex, identity status did correlate with both independence from and attachment to parents. However, they added that fathers more closely matched offspring in perception of relational independence while mothers more closely matched offspring in perception of relational attachment. Speculating on the reason for this finding, Campbell et al. (1984) stated that:

It may be that mothers offer a sense of security through positive emotional attachments that establish the necessary psychological formation for (identity) searching, while fathers may provide the encouragement of independence and self-assertion that is necessary to explore and judge alternatives. (p. 523)

From this perspective, Campbell et al.'s previously "gender-free" conclusion regarding identity status takes on a gender-laden quality; it begs the question, "If the sex of parents makes a difference in adolescent personality, are there interwoven gender effects of the adolescent's sex?".

Gender Bias: Beta and Alpha, in Families and in Research

The saying "the child is father of the man" conveys a belief in psychology that childhood events shape later personality traits. It also reflects gender bias through the choice of "father" and "man"--why not "the child is mother of the woman"? In a similar vein, much of psychological theory has downplayed or skewed the role of gender in personality development.

Ignoring gender-based differences when they do exist has been referred to as "beta prejudice" (Goren, Bonecutter, Bonecutter, & Nidetz, 1988) or "beta bias" (Hare-Mustin & Marecek, 1988). Sometimes this appears as an attempt to mask gender differences by including, but not identifying as such, conventional masculine and feminine personality traits within a generic presentation (for example, of psychosocial traits in normal adolescents--Neinstein, 1984). Or, as Gilligan (1982) has pointed out in her description of Kohlberg's theory of moral development, the pattern may be to ignore gender difference to the point of fitting both sexes into a masculine framework. Wallston (1981) suggested that this criticism applies to the bulk of psychological studies on human behavior in that most were based on the observation of males.

In contrast to beta bias, alpha bias exaggerates the differences between men and women (Hare-Mustin & Marecek, 1988). This encompasses traditional (i.e., difference) meanings of gender that confine if not subjugate women. Although the alpha bias criticism has likely targets in psychoanalytic (e.g., Freud, 1925) and related theories, it has also been leveled at feminist theories (e.g. Gilligan's, 1982) that, while viewing differences from a positive perspective, nonetheless emphasize differences between the sexes (Hare-Mustin & Marecek, 1988).

While not wanting to err in the direction of either alpha or beta bias, this study presumes that perceptions of gender

difference run throughout American society. Despite the egalitarian, if not fashionable, appeal of an androgynous, unfettered-by-gender-stereotypes personality, accepting it as the status quo ignores the blanket of gender distinctions socially placed over human development.

When one combines the existence of gender stereotypes with an acknowledgement of parental and familial impact on personality formation, it follows that family environment could considerably affect which gender traits are acquired in personality development. As stated by Atkinson, Atkinson and Hilgard (1983):

Most psychologists--regardless of how they define it--view identification as the basic process in the socialization of children. By modeling themselves after the important people in their environment, children acquire the attitudes and behaviors expected of adults in their society. Parents, because they are children's earliest and most frequent associates, serve as the primary source of identification. The parent of the same sex usually serves as the model for sex-typed behavior. (p. 87)

Block (1980) elaborated on this point, noting that parents expect girls to be sensitive, trustworthy and socially concerned while boys are expected to be competitive, independent and achievement oriented. Or, as Hallmark Cards puts it (on a blue card), "Welcome to the world of boys

--Baseballs, trucks, and vroom, vroom noise, chocolate smiles and soldier toys...."

Both theory and research support the position that parents and families facilitate the acquisition of gendertypes (gender stereotypes) in their young. As has been pointed out, however, theory can be gender-biased (Hare-Mustin & Marecek, 1988), and so can research (Deaux, 1984). Deaux (1984) noted that validation studies of Maccoby and Jacklin's (1974) extensive gender-difference review illustrated how "male authors (are) more likely to report evidence of female conformity and male independence; female authorship is associated with finding greater female superiority in nonverbal decoding" (Deaux, 1984, p. 107). Another criticism Deaux (1984) raised is the "surprisingly little work...done to define (gender) stereotypes very precisely" (p.112). Her criticism points to an issue seen in other work (e.g., Bem, 1981), and concerns the lack of a process approach to understanding gender differences (Deaux, 1984; Deaux & Major, 1987). That is, gender differences and stereotypes are argued to have proximal causation that varies with ongoing communication, perceiver emitted expectancies, and other context/self interaction (Deaux & Major, 1987).

While the present study must be on guard against the investigator gender bias as Deaux described, it does probe the definitions of gender stereotypes with a precision afforded by empirically sound assessment measures. Furthermore, these

measures seek to explore a process in the relationship between family and gender-role development that is arguably as historical (developmental) as it is ongoing; thus, it is justifiably less concerned with proximal causation.

One could counter that the "historical process" certainly goes beyond family; that is, the study is not broad enough. For example, a study by Hauser and Garvey (1985) found that in 470 college women, those enrolled in traditionally male programs were most distinguished from those enrolled in traditionally female programs by the greater support they had received from family, peers, teachers, and counselors. In short, influences beyond the family had encouraged these nontraditional women. This point recalls the previously cited statement by Sutherland and Veroff (1985) concerning the importance of peers to adolescent development. Although size limitations are implied in research of any subject as encompassing as gender, our focus on family and gender makes sense simply because of this relationship's clear importance. Noting this in regard to peers and gender roles, Sutherland and Veroff (1985) hypothesized that "While adolescent peer socialization may introduce discrepancies from family socialization, the results (of previous research) suggest that family socialization prevails" (p. 119).

In summary, it seems both warranted and justifiable to more fully explore the relationship between family and gender-role socialization.

Gender-Roles: Stereotypes in Childhood and Adolescence

Although our focus is on adolescents, to examine their gender-role (i.e., stereotyped gender-role) socialization necessitates a return to understanding this process in childhood. In her work on sex roles, identity, and socialization, Boudreau (1986) noted how Rubin, Provenzano, and Luria (1974) had shown that parents may tend to rate infants in gendertyped ways within hours after birth. Rubin et al. (1974) demonstrated how, in spite of disconfirming hospital records, parents described their newborn sons as more alert and robust and their daughters as more weak, fragile, and small. (Illustrating how these stereotypes are subtly perpetuated before birth, a currently used hospital brochure offering children's names introduces the girls' list with a pictured woman cuddling her daughter while the boys' list is preceded by a rugged man proudly holding his son up.) Boudreau (1986) reviewed how these biases carry over to the home, where an environment structured in gendertyped ways teaches children to assimilate differences. In Boudreau's (1986) words, "The fact that stereotypes await the child at birth...has profound implications for socialization into differentiated sex roles" (p. 71).

As one would expect, the literature has abundant examples of these differences manifesting in children. Sedney's (1987) review of parental influences on the development of androgyny cited research demonstrating that children consistently select

gendertype-appropriate toys by two years of age (O'Brian & Huston, 1985), that they show marked awareness of cultural gendertyping by three years (Thompson, 1975), and that behavioral differences between girls and boys typically increase from birth to four years and again in middle childhood (Kate, 1979). Fagot's (1974) study of 18 to 23 month olds showed that girls asked for help, played with dolls, danced, and played dress up more than boys while boys played with blocks and manipulated toys more than girls. Both parents tended to comment more (praise, criticism) on their daughters' behavior but did not interfere with their sons' play, or, when they joined it, did so more extensively than with girls (Fagot, 1974).

Taking this idea further, Aries and Olver (1985) connected mothers' contact with their infants and the development of a sense of self. These authors cited their own research as well as psychoanalytic (Chodorow, 1978), cognitive (Rubin et al., 1974), and a spate of behavioral (e.g., Minton, Kagan, & Levine, 1972) studies to affirm that mothers tend to have more physical contact (holding, rocking, touching) with their infant sons than their daughters from birth through six months, show a reverse of this pattern after six months (i.e., distance more from sons and make more contact with daughters), and become more protective of their daughters by 27 months. Aries and Olver (1985) drew on Mahler's theory of separation-individuation to explain how these patterns make it more

difficult for daughters to develop a sense of self. That is, Mahler's differentiation stage begins at six months; the greater withdrawal of contact from sons fosters their achievement of differentiation while the increased contact/protectiveness towards daughters inhibits this step (Aries & Olver, 1985).

Aries and Olver's work illustrates how gender socialization in very early childhood may have an impact on at least one aspect of personality--a sense of self/independence. Not surprisingly, the personality characteristic of independence is viewed as stereotypically masculine. This perspective, albeit focused on maternal behavior, becomes more sobering if seen as only one part of a multifaceted process. Boudreau (1986a), for example, reported from recent socialization literature that as children mature and become aware of social bias favoring masculine traits, the self-opinions of girls lowers while it rises for boys (also noted by Antill & Cunningham, 1979; Jones, Chernovetz, & Hannson, 1978). Eccles (1987) remarked on how much parents can, beginning in school years, influence their daughters perceptions of limited options for courses and careers. This influence can be subtle (expecting achievement motivation to be seen as for boys) or blatant: parents traditionally did not pay as much for girls as for boys to go to college; while today this is less the case, parents now seem unwilling to provide girls with equal computer training (Eccles, 1987).

Metzler-Brennan, Lewis, and Gerrard (1985), also connecting childhood and adult experiences, conducted a retrospective study on 63 career women and 62 homemakers (34-48 years old) about what had been their childhood activities, toys, academic endeavors, and other pastimes. Similar to the findings of Eccles, results suggested that a woman's career choice and adult masculinity rating correlate with her childhood activities, interests, and aspirations (Metzler-Brennan et al., 1985).

As is becoming plain, what may seem a standard relationship between adolescent gender-role socialization and parents is actually multifaceted, existent from birth if not earlier, and with educational, career, and other future implications. Adding the effects of different (non-parent) family members only increases this complexity. For example, Rosenberg and Sutton-Smith (1973) studied the effects of family structure (number of offspring, sibling position, etc.) on children's gender-roles. They found that both sex-role development and stereotypes were strongly influenced by family structure. Lidz' (1979) developmental model supported this finding in predicting that family organization affects gender identity in offspring.

Eagly's (1987) work emphasized the importance of a structural approach to gender-role understanding:

Structural explanations (of group differences in personality and behavior) emphasize that members of

social groups experience common situational constraints because they tend to have the same or similar positions within organizations and other structures such as families. (p. 9)

In Eagly's view, the structural approach is distinct from a more cultural one that emphasizes childhood socialization pressures. Drawing from Bakan (1966) and the functionalist theory of Williams and Best (1982), she maintained that gendertypes and gender roles persist because of family labor divisions along male-agentic (nondomestic, active) and female-communal (domestic, nurturant) lines that define and maintain traditional expectations for women and men (Eagly, 1987).

One may speculate that with all these forces impinging on the adolescents' developing years, their gender roles, including gender stereotypes, would continue to approximate those of their families/caretakers. This view has support in the literature. Focusing on gender identification in families, Munsinger and Rabin (1978) compared the self-reports of 177 undergraduates and their families on multiple feminine and masculine behaviors. Their results were consistent with a same-sex model of gender identification (i.e., daughters model their behavior after mothers, sons after fathers). As summarized by Haber and Runyon (1983) in writing about sex-role acquisition:

Children have many opportunities to take note of how their fathers and mothers behave toward one another.

Boys imitate what they see their fathers do, and girls imitate the behavior of their mothers. Thus girls tend to grow into adults who behave like their mothers and boys develop into men who behave like their fathers.

(p. 415)

While Haber and Runyon's (1983) view might oversimplify what we have already seen is a complex process, it does support the continuity of gendertyping into adolescence. As Ellis and Bentler (1973, p. 28) noted, "Sex stereotypes and traditional sex-determined role standards appear to reinforce each other." This reinforcement would only seem to facilitate the child-parent imitative pattern suggested by Haber and Runyon.

So entrenched are these patterns that they can persist beyond adolescence. In a study of sex-role and socialization patterns in 66 male and 69 female 30 to 40 year olds, Block, von der Lippe and Block (1973) found personality characteristics often linked to paternal and maternal personality traits, behaviors, and child-rearing practices. Those adult offspring with traditional masculine or feminine personality ratings had parents who followed a clear and traditional role differentiation; in these cases, the like-sex parent had been the salient figure for identification (Block et al., 1973). Results also showed that having more androgynous parents led to socialized, but not gender-role stereotyped, offspring. Parents categorized as neurotic or

psychotic were seen to produce undersocialized and reactive offspring (Block et al., 1973). Reactivity referred to when children learn how to behave in traditional gender-appropriate ways in reaction to shaping by the dominant, opposite-sex parent. Finally, Block et al. (1973) noted that sex-role typing seemed beneficial for males while restricting the behavior and expression of females.

Longevity of Gender Bias

Different theories have evolved to explain the persistence of gendertyping in adolescence (and later life). Gender-role socialization theory has been emphasized in this review, though Eagly (1987) offered the structural perspective noted earlier. Bem (1981) gave a more cognitive explanation for gendertyping through schema theory. She began by observing that "The distinction between male and female serves as a basic organizing principle for every human culture" (Bem, 1981, p. 354). Speaking of American culture, Bem (1981) stated that the:

typical American child cannot help but observe...that what parents, teachers, and peers consider to be appropriate behavior varies as a function of sex; that toys, clothing, occupations, hobbies, domestic chores--even pronouns--all vary as a function of sex. (p. 362)

As children grow they learn that particular behaviors and attributes are tied to sex to form what Bem (1981, p. 355) called a "gender-schema...a network of sex-related

associations....a cognitive structure that...organizes and guides an individual's perception." In short, environmental input meets an internal gender-schema to yield a person's perceptions. In schema theory, self-concept plays an important role in maintenance of gendertypes. Children evaluate their adequacy as people in the match between their behaviors and thoughts with their gender-schema prototypes set in place and reinforced by the social world (Bem, 1981).

Bem (1981) reported two studies of university undergraduates that supported her theory. 48 male and 48 female students were placed in gendertyped (feminine, masculine) and non-gendertyped categories based on their responses to the Bem Sex Role Inventory (BSRI; Bem, 1974). Students were given a gender-loaded word recall task and, in the followup study, were asked to signal "like me" or "not like me" as each BSRI item was shown to them. In a tentative validation of gender-schema theory, results showed that students who rated as gendertyped recalled word clusters by gender more, signaled faster in making schema-consistent judgements about themselves, and signaled more slowly in making schema-inconsistent self-judgements (Bem, 1981).

Bem's cognitive understanding of gendertyping makes reference to its familial and social roots and to its personality outcomes. Her account of where schemata originate, from childhood toys to parents to self-concept reinforcement, covers many points raised in our literature

review. The cognitive dimension can also explain Eagly's (1987) research contention that we try to fit the stereotypic expectations, especially in regard to gender, that others have about our behavior.

Deaux's (1984) attribution theory blends with the cognitive perspective, too. According to Deaux (1984), it is not so much how males and females differ as it is how much they think they differ that perpetuates gender dichotomies. (One manifestation of this seemingly simple perspective is the previously mentioned investigator bias Deaux reported.) This gets spelled out in attribution theory when gender stereotypes, with their specific task expectations, either match or do not match actual performance. Deaux (1984), speaking from her own and others' causal attribution research, concluded that females may be more likely than males to internally attribute performance failures and externally attribute successes. She noted that there is "some evidence that general attitudes toward men and women are indeed correlated with attributions" (Deaux, 1984, p. 111) where the stereotyped low expectation for a female's performance makes failure an expectation-consistent result internally attributed to personality.

We began the section on adolescent personality development and gender with the point that gender bias exists and is likely to be fostered by parental and familial influences. This has led to a theoretical and empirical

review of these influences from childhood through adolescence and adulthood. Our concluding comments on gendertype perpetuation came from what at least Deaux (1984) indicated as the most recent approach to understanding gender differences--cognitive theory. It is based on these works that our second hypothesis counters the notion that androgyny is the predominant gender role; in contrast, it postulates a continuation of gender-role stereotypes--females as feminine, males as masculine.

Predicting gender-role differences is not to suggest they are right or wrong; it is to say that socially pervasive distinctions surely have an effect. As an example close to home, the female-male ratio of subjects in this study was almost two to one, a response pattern common in research with undergraduate students. Were these women showing traditional gender-typed characteristics of conformity/conscientiousness (Eagly & Chrvala, 1986) and the (absent) men independence/impulsivity (Hoffman, 1980)? What personality factors go into deciding whether to proceed as suggested with attending a psychology lab study? The truly intriguing question concerns what personality and family differences by gender exist, if any, among these students, and whether or not they fall along traditional gendertyped lines.

Our second hypothesis is thus two part: that adolescent female subjects select traditionally feminine traits to describe themselves and their families, and that adolescent

male subjects select traditionally masculine traits to describe themselves and their families.

Feminine and Masculine Traits

Just what are these traditionally feminine and masculine traits? As cited earlier and in separate writings, Block (1973; 1980) distinguished gender traits of sensitivity, submissiveness, trustworthiness and social concern for females and competitiveness, opportunism, independence and achievement striving for males. Mischel (1970) found that most research on gender differences demarcated aggressive behaviors in males and dependent behaviors in females. An extensive review of studies on gender differences also showed that socially aggressive behavior was a well established finding for males (Maccoby & Jackson, 1974). Seiden (1989) noted that the "human needs for agency (getting things done) and communion (maintaining satisfying relationships) have been differentially gender-typed" (p. 3) with men responsible for agency and women for communion.

Other adjectives noted as traditionally differentiating feminine personality traits include: "friendly, warm, trusting, talkative, cheerful, kind, loyal, helpful, praising, accepting, generous" (Lindgren, 1984, p. 32); "neat, quiet, mannerly, pretty, clean, artistic, studious, sensitive, obedient, gentle" (Austin, Clark, & Fitchett, 1971, p. 2); nurturant, deferential, supportive, success avoidant (Elkin & Handel, 1984); interpersonal, intimate (Coleman, 1980);

affectively expressive (Hoffman, 1980); achievement/success fearful (Petersen & Wittig, 1979); and intuitive, instinctive (Gilligan, 1982). Traditional masculine personality descriptors noted, often the opposite of feminine traits, include: "active, adventuresome, brave, curious, dirty, imaginative, robust, outspoken, disheveled, rough (Austin et al., 1971, p. 2); dominant, constructive" (Elkin & Handel, 1984); assertive, ability to lead, emotional stability (Gollnick & Chinn, 1983); self-sufficient, interpersonally action-oriented (Coleman, 1980); self-reliant, impulsive (Hoffman, 1980); and autonomous thinking, decisive (Broverman, Vogel, & Broverman, 1972). The specific trait/characteristic descriptors used in this study overlap with these lists and are presented at the end of this chapter.

Parental Education and Gender Stereotypes

In 1968, the Hazen Foundation formed a committee to study students in higher education. The committee's basic assumption was that:

the college is a major agent in promoting the personality development of the young adult...(through) impact on the young person's self and world view, on his confidence and altruism, on his mastering the needs for identity and intimacy." (Hazen Foundation, 1968, p. 5)

They saw this impact as coming from the classroom, faculty, friendships, students' alternative values, and similar areas. While this citation shows its own bias in gender ("his

confidence," "his mastery"), the message of personality development in college is clear. It was one repeated ten years later when Parker (1978) wrote that personality development in college students had always been a goal in education; its roots were in early America when the university was a religious institution with the purpose of character development (Parker, 1978). Widick and Simpson (1978) affirmed this message when writing that "student purposes for attending college generally fall into three categories: knowledge acquisition, personality development, and career preparation" (p. 27).

Using a longitudinal study from 1954-1963, Perry (1970) indicated that this period saw "an evolution in students' interpretation of their lives" (p. 1). Students who appeared to be identity foreclosed were seen to grow through the shock of confrontation in areas ranging from "dormitory bull sessions" to academic work (Perry, 1970, p.3). Other students seemed to come to college already aware of value relativism and in exploration of their own values (moratorium). While speculating that this relativism and perception of a pluralistic environment was a development of the 20th century, particularly post World War II, Perry (1970) linked its personality development aspect to Piaget's developmental stage of formal operations:

The movement is away from a naive egocentrism to a differentiated awareness of the environment....Although

Piaget and his co-workers have not yet traced in detail the articulation of this particular process at the level of late adolescence and early adulthood, they have pointed explicitly to it in describing the impact on the adolescent of his bringing to bear upon his ideas his new capacity to think not only of what 'is' but of all that 'might be'. (p. 204)

In short, Perry provided both empirical and theoretical support for the notion that higher education impacts on personality development.

Well into the 1980s we find the Organization for Economic Cooperation and Development (OECD, 1985) broadening the message of education and personality development with language of equality. The OECD (1985), writing on education in modern society, stated that "education is...strategic to the achievement of greater equality in...economic, social and domestic spheres" (p. 44). Coming on the heels of societal pressures for equality in America during the previous decades, including the resurging women's movement questioning gender-role norms (Eagly, 1987), the OECD's statement can be seen to blend the ideas of higher education, personal growth, and gender equality. Indeed, it reflects the thoughts of Emile Durkheim, a founding sociologist at the turn of the 20th century. Durkheim felt that educational changes not only mirrored societal change, but were an "active agent in the process" (Karbel & Halsey, 1977, p. 87). Durkheim's point of

social change through education is brought home by Boudreau (1986b) with her focus on women and men. According to Boudreau (1986b), as a subordinated group, women have attempted to gain equal status with men by making the educational process their vehicle of opportunity.

Many authors (e.g., Bem, 1981; Boudreau, 1986b; Eccles, 1989; Gollnick & Chinn, 1983; Parsons, Kaczala, & Meece, 1982; Rogers, 1987) have questioned whether the educational process acts to equalize or further subordinate females through enforcement of traditional gender norms. At the same time, other work, particularly in regard to higher education, has supported the more egalitarian, personal growth picture of education described above both in terms of personality development and improved parenting skills.

Speaking on the effects of a rise in the education level of fathers, Bronfenbrenner (1961) noted that:

parents, especially the mother, spend more time with the child, and are less severe in their punishments; while fathers, although more often away from home are more likely to participate in projects and activities with other children. (p. 250)

Lipman-Blumen (1972) reported that higher educational aspirations were typical of college women in nontraditional fields, with these aspirations important in distinguishing traditional from nontraditional women. Lipman-Blumen's work could indicate a complementary interaction between previously

high-achieving women and a high-expectancy and demanding field. It could also indicate the effects of previous supports such as encouraging parents. In a study of college seniors, Crawford's (1978) results indicated that the education level of parents might influence nontraditional aspirations of women; specifically, female college seniors with nontraditional career plans were found to have better educated mothers than female seniors with more traditional plans. The familial effect of parental education was addressed by Heiss (1986). Heiss (1986) noted that "women who have more education than their husbands tend to be more powerful (in regard to family decision making) than women who do not" (p. 91). Furthermore, research showed that after the birth of the first child, women with less than a college education lose power to fathers whereas women with a college education lose little or no power (Heiss, 1986).

The familial implications of higher education that Heiss described have social parallels. In a study of social-political attitudes in Europe, Hartnett and Bradley (1987) found that "Education tended to modify the view of both sexes. The higher their level of education the more in favor of female access to paid employment people are" (p. 222). While access to paid employment might seem to many Americans as inalienable as suffrage, higher education might play a similar role in equalizing the kinds of employment and pay expectations held by men and women. Even when the employment

is more traditional, such as a teaching position for a woman, higher education can have an effect. Addressing math achievement in children, Eccles (1989) noted that teachers now either act more egalitarian because of observers or because "teacher training has been effective at producing teachers who are more egalitarian in their treatment of boys and girls in their math classrooms" (p. 49).

In summary, while the education process has been criticized as a potential perpetuator of gender biases, it has also been seen and used as a gender equalizer. From the standpoint of education as a tool of personal empowerment and growth, it seems reasonable to believe that if anything will weaken the grasp of gender-based social norms on one's personality, it is an equality confirming education. Goren et al. (1988) noted that "college education may be the individual's first introduction to analytic consideration of sex stereotyping and its impact on all aspects of life" (p. 3). Yet the subjects in our study have generally just begun the higher education process. Given psychology's overall acceptance of the influence parents have on their children and the parental education effects noted above, what may be most salient here is the education level of parents. That is, a well-educated parent, due to her or his more empowered (gendertype sensitized) status, may be more likely to shape personality traits in offspring consonant with a non-traditional view on gender roles (Goren et al., 1988; Sedney,

1987).

Thus, in our third hypothesis, we expect to find that female subjects whose parents are college graduates include more masculine traits in their family and personality descriptions than do female subjects whose parents are not college graduates. The same pattern is expected for males: that male subjects whose parents are college graduates perceive both their family and personality traits as more feminine than do male subjects whose parents are not college graduates.

Although it might be assumed that less gendertyping means more androgyny, this may not be the case. Bem (1974; 1977) and other researchers (e.g., Hargreaves, 1987; Kelly & Worell, 1977; Spence & Helmreich, 1978) have distinguished between androgynous and undifferentiated individuals, androgynous describing people who embody both traditionally feminine and masculine traits and undifferentiated describing people who commit to neither set of traits. This distinction leads to the last component of our third hypothesis; namely, that subjects of college educated parents have more of an androgynous personality (that we presume their parents have) than a traditionally feminine, masculine, or undifferentiated one.

While gendertyping is prevalent enough in our society to speculate that parents' lacking higher education may perpetuate this bias (as suggested by Hypothesis III), it does

not necessarily follow that a lack of such education fosters undifferentiated adolescents. The latter area of inquiry is beyond the scope of this paper, however, and is not a focus of our hypotheses.

Parent Identification and Gender Stereotypes

As the third hypothesis suggests, one way to change the perpetuation of gendertyping in adolescents is through more educated parents. Another avenue of change possibly involves the identification of children with their opposite-sex parent. That is, a girl who identifies with her father might value his traits enough to use him as a model; if he emphasizes traditional masculine traits (e.g., achievement, risk-taking) she will take these on herself. The same pattern would be expected for boys: those who identify with their mothers will take on conventional feminine characteristics (e.g., warmth, nurturance). This possibility will be examined in comparison with same-sex identification theory.

Same-Sex Identification

The theory of same-sex role identification is quite established in psychology (e.g., Atkinson et al., 1983; Kotler, 1975; Spence & Helmreich, 1978). It echoes the statement cited earlier from Haber and Runyon (1983) that girls are likely to grow up to be like their mothers and boys like their fathers. Same-sex theory runs throughout the gender-role literature of our second hypothesis as well; family environment, especially through children's

identification with same-sex parents, influences gender stereotype acquisition. Another illustration comes from Margolin and Patterson (1975), who studied the different response patterns of mothers and fathers to their sons and daughters. These authors hypothesized that parents are more responsive to their same-sex children. Results indicated that fathers gave close to two times as many positive responses to their sons as to their daughters whereas mothers' responses were evenly distributed (Margolin & Patterson, 1975). Considering this result in light of modeling literature, Margolin and Patterson suggested that sons are more apt to pattern their behavior after their fathers than daughters are.

More relevant to this study's population, Munsinger and Rabin's (1978) work involved an empirical comparison of various gender identification theories applied to undergraduates. Data on approximately 70 feminine and masculine behaviors were collected from 177 students and their families (Munsinger & Rabin, 1978). Behavioral correlations among family members were then examined for identification patterns. Results were not supportive of either X-linkage gender identity theory (where correlations of child and opposite-sex parent are expected to exceed that of child and same-sex parent) or additive-genetic theory (where correlations between fathers and their children, mothers and their children, and siblings are expected to be modest and positive); in contrast, results were more indicative of same-

sex theory with the highest correlations existing between mothers and daughters, fathers and sons, and like-sex siblings (Munsinger & Rabin, 1978).

Adding the idea of same-sex identification to our analysis, the fourth hypothesis is that significantly more subjects identify with their same-sex parent than with their opposite-sex parent.

Opposite-Sex Identification

Earlier it was suggested that an adolescent's identification with his or her opposite-sex parent might lead to having a less traditional self-perception of gender role. This is similar to the X-linkage theory of gender identification mentioned above and contrary to the concept of reactivity (where one's traditional gender role acquisition is prompted by the opposite-sex parent) described by Block et al. (1973) in the literature review of our second hypothesis. While the process of identification with the opposite-sex parent may end up with the same masculine-feminine trait balance that might be reached through androgynous parenting, it conversely appears to achieve this result through continuation of gendertypes. For example, when Singleton (1987) wrote that "from the very moment of birth parents will treat boys and girls differently" (p. 20) or Lewis (1987) that "many studies show that parents, especially fathers, do tend to treat boys and girls differently even during the first two years of life" (p. 111), they refer to the kind of mainstream

gendertyping that opposite-sex parent identification may build around. A daughter could be more aggressive because she identifies with her aggressive father; a son could be more emotionally expressive because he identifies with his emotionally expressive mother.

Research has investigated the gender ramifications of this opposite identification process, or at least not identifying with the same-sex parent based on sex alone. Spence and Helmreich (1978), in their seminal work on gender stereotypes, noted that experimental studies in the 1950s and 1960s showed that "adult models assigned control over resources or positions of power are imitated (by children) more than less powerful models" (p. 133), especially for girls. They cited a study by Hetherington in which preschool and elementary school boys with dominant mothers had less masculine scores than those with dominant fathers. (Dominance was rated based on observation of parents discussing problems in raising children.) The same pattern, though not significant, existed for girls with dominant/nondominant fathers, and Hetherington concluded that children were responding to greater identification with the dominant parent (Spence & Helmreich, 1978).

The added importance of parental nurturance was suggested in a study of college males by Moulton, Liberty, Burnstein, and Altucher (cited in Spence & Helmreich, 1978). Results showed that subjects with more masculine interests and

attitudes had a dominant father rated as high in affection; subjects with more feminine interests and attitudes had a dominant mother rated as high in affection. Review of further studies led Spence and Helmreich (1978) to suggest that children's personality characteristics approximate those of their more dominant or nurturant parent more than the parent without these traits. That a parent might be of the same sex as the child was seen as important but not necessary to the identification process.

The previous studies recall our first hypothesis; it predicted similarity of personality and family in both gender-neutral and gender-specific characteristics. Indeed, Spence and Helmreich (1978) speculated that factors influencing the "inheritance" of gendertyped personality traits may be more similar to those factors influencing non-gendertyped trait perpetuation.

Paternal Influence

One factor influencing trait development in children comes up repeatedly in the literature--the influence of fathers. This makes sense given the research on traditional families and offspring preference for the dominant parent. It also makes sense given that while both parents may make the same number of family decisions, the decisions of fathers are more major and tend to delimit those of mothers (Wilson & Boudreau, 1986). Although rebutting some details of Johnson's (1963) reciprocal role theory, Spence and Helmreich (1978)

agreed that "fathers typically make a more influential contribution to the development of girls than mothers make to the development of boys" (p. 137). They added that existing studies suggested fathers seem to be less demanding of their daughters than their sons and more likely than mothers to be concerned about their sons' gender-role interests and activities. In a study of adolescent siblings and personality differences, Daniels (1986) found that paternal closeness was related to greater sibling achievement. Block's (1973) studies of child-rearing from preschool to college populations indicated that while parents might share gendertyped expectancies for boys and girls, fathers were more likely than mothers to emphasize affectionate relationships with their daughters and masculine socialization practices for their sons.

In a series of studies involving high school and college students, Spence and Helmreich (1978) found evidence that fathers had more of an impact than mothers on their sons' gender characteristics. This was true even for feminine characteristics provided the father was more androgynous than masculine. Males from more traditional homes identified more with their fathers than their mothers, though they tended to identify equally with both parents if the mother was androgynous (Spence & Helmreich, 1978). Females in more traditional homes were likely to identify equally with both parents. According to Spence and Helmreich (1978), "students

of both sexes who were more traditional in their attitudes towards women's roles tended to report having fathers and mothers who were more traditional parents" (p. 210). Again suggesting that females can be more responsive to masculine characteristics, the authors noted that the majority of masculine females were from families where fathers were masculine and mothers feminine or both parents were masculine. In regard to their results on opposite-sex parent identification, Spence and Helmreich (1978) reported that it was "most likely when that (opposite-sex) parent was perceived as being high in either feminine or masculine characteristics and when the same sex parent was perceived as low in both" (p. 180).

Whether through a parent's dominance or nurturance, a lack of established gender traits in the same-sex parent, or other factors, the latter research indicates that offspring can and do identify with their opposite-sex parent. Also indicated is that the gender traits of these offspring tend to resemble those of the opposite-sex parent. Seeking to explore this relationship as a means other than higher education to balance gender characteristics, our fifth hypothesis states that subjects who identify with their opposite-sex parent present more gender traits of that parent than do those subjects who identify with their same-sex parent. As a corollary hypothesis, we also expect to find this pattern holds true even for subjects whose parents did not attend

college. That is, our earlier review and third hypothesis suggested that a lack of parental education might be influential in the continuation of gendertypes. One might expect that children of non-college educated parents tend toward gendertyping if this suggestion is accurate. In contrast, our corollary to Hypothesis V predicts that opposite-sex parent identification and corresponding opposite-gender trait elevations maintain whether or not parents were college educated. In short, the effect of identification is seen as outweighing the effect of less parental education.

Hypotheses

1. The first hypothesis is that subjects' self-reports of family environment traits significantly correlate with their self-reported personality traits in a positive direction; it proposes that this family and personality similarity is seen across all pairs of traits. A summary of these trait pairs and their gender category (feminine, masculine, or neutral) is provided in Table 1.

2. The second hypothesis is two part:

a) female subjects select significantly more feminine than masculine traits to describe themselves and their families;

b) male subjects select significantly more masculine than feminine traits to describe themselves and their families.

3. The third hypothesis is three part:

a) female subjects whose parents are college graduates

Table 1

Personality and Family Trait Pairs Separated into
Traditional Feminine, Masculine, and Gender Neutral Groups

JPI Traits	FES Traits	Group
1. CONFORMITY	(non) CONFLICT	F
2. SOCIAL PARTICIPATION	COHESION	F
3. INTERPERSONAL AFFECT	EXPRESSIVENESS	F
4. SELF-ESTEEM	INDEPENDENCE	M
5. RISK TAKING	ACHIEVEMENT ORIENTATION	M
6. ENERGY LEVEL	ACTIVE RECREATIONAL ORIENTATION	M
7. VALUE ORTHODOXY	MORAL/RELIGIOUS EMPHASIS	N
8. ORGANIZATION	ORGANIZATION	N
9. BREADTH OF INTEREST	INTELLECTUAL/CULTURAL ORIENTATION	N

Note. Trait assessment measures and group names are referred to by acronym: Jackson Personality Inventory (JPI --Jackson, 1976), Family Environment Scales (FES--Moos, 1974), Feminine (F), Masculine (M), and Gender Neutral (N). An elaboration of trait selection is given in Chapter III.

include significantly more masculine traits in their family and personality descriptions than do female subjects whose parents are not college graduates;

b) male subjects whose parents are college graduates include significantly more feminine traits in their family and personality descriptions than do male subjects whose parents are not college graduates;

c) of the subjects whose parents are both college educated, significantly more give an androgynous personality rating than an undifferentiated, feminine, or masculine one.

4. The fourth hypothesis is that significantly more subjects identify with their same-sex parent than with their opposite-sex parent.

5. The fifth hypothesis is two part:

a) subjects who identify with their opposite-sex parent present more personality gender traits of that parent than do those subjects who identify with their same-sex parent;

b) the latter parent-identification and gender-trait parallel holds true whether or not subjects' parents completed college. In other words, regardless of parental education, the nontraditional gender-role influence of one's opposite-sex parent, if this is the parent most identified with, outweighs the traditional gender-role influence of the same-sex parent as measured by the use of nontraditional gender traits in self-description.

CHAPTER III

METHOD

Subjects

The subjects in this study were college students who volunteered and received credit for study participation as part of their introductory psychology course. While the subject pool did include a mix of racial and socioeconomic groups, the majority of subjects were white and middle-class. There were a total of 70 students who participated in the study, 46 female and 24 male. The results of six subjects were determined to be invalid due to their excessive scores on an infrequency/validity scale, and dropped the final subject total to 64 (44 females and 20 males). Subject age ranged from 17 years, 3 months to 23 years with a mean of 18 years, 10 months.

Setting

The study (i.e., testing procedure) took place at a mid-Western university campus. Groups of subjects were administered a series of self-report tests; group size ranged from 7 to 18 students. There was no time limit for test

completion, and each subject completed testing in one sitting. The final group of subjects was tested within four weeks of the first group.

Materials

Four measures were used in this study, one for each of four data categories: family environment, personality characteristics, parent identification, and the education level of parents (along with other demographic data). The two foci of this study, family and personality, were assessed with the Moos (1974) Family Environment Scale (FES) and the Jackson (1976) Personality Inventory (JPI). The JPI and FES were selected for use because the information they yield related to our hypotheses, they have been widely used in personality and family research, and because they are acknowledged as psychometrically superior instruments (Caldwell, 1985; Dyer, 1985).

The FES is a 90 item true-false measure comprised of 10 bipolar, family environment scales. These scales are combined into three dimensions: Relationship, Personal Growth and System Maintenance. Nine of the 10 scales are relevant to this study: Conflict, Independence, Active-Recreational Orientation, Cohesion, Expressiveness, Achievement Orientation, Moral-Religious Emphasis, Organization, and Intellectual-Cultural Orientation. In the FES preliminary manual, Moos (1974) indicated that interscale correlation coefficients average .20, showing that the 10 scales are

minimally related. Internal consistency coefficients range from .64 to .78, item-scale correlation coefficients range from .45 to .58, and test-retest reliabilities are from .68 to .86 over an eight week span.

A significant convergent validity issue Moos (1974) recognized involved the subjectivity of FES scores; that is, the same family's members might rate their family environment differently. Moos (1974) devised a Family Incongruence Score to assess this based on different family members' FES scores. Preliminary analyses (N=1053) indicated no significant sex differences (between sons and daughters, or fathers and mothers) in family environment perceptions and "small but systematic differences" in parent and child perceptions (Moos, 1974, p. 14). Compared to their parents, Moos noted that children perceived somewhat more emphasis in the family environment on Achievement Orientation, Active Recreational Orientation and Conflict than do parents and somewhat less emphasis on Independence, Intellectual-Cultural Orientation, Moral-Religious, Cohesion and Expressiveness.

The JPI is a 320 item true-false measure yielding 16 personality scales. Due to their general theoretical pairing with FES scales, the nine scales useful to this study are Conformity, Self-Esteem, Energy Level, Social Participation, Interpersonal Affect, Risk Taking, Value Orthodoxy, Organization, and Breadth of Interest. The JPI manual (Jackson, 1976) gave interscale correlation coefficients that

average .20. A separate work (Jackson, 1977) based on two studies gives internal consistency coefficients of .84 to .95 and .75 to .93. The manual does not give test-retest reliability figures.

Jackson (1977) assessed the JPI's convergent validity through two studies with college students (N=70, N=116). He compared students' JPI ratings with other self ratings and peer ratings. The majority of correlations (validity coefficients) were significant in the predicted direction, particularly when more than one peer rated each subject:

With the exception of the values for Breadth of Interest and Social Adroitness, all heteromethod peer rating validities are significant at the .01 level, ranging from .66 for Self Esteem to .32 for Interpersonal Affect. (Jackson, 1977, p. 28)

A third measure used in this study is the Semantic Differential Measure of Identification (SD) as modified by DeWolfe (1967). The SD will be used to measure subjects' inferred identification with parents. Identification is quantified by Osgood D scores (Osgood, Suci, & Tannenbaum, 1957) of self-reported similarity between subjects and their parents across 14 characteristics. The difference between subjects' ratings of themselves and their parents is the actual Osgood D score. A low D score thus indicates high perceived similarity and identification with parents.

Demographic data, including age, gender, race, religion and parental education, was collected using a self-report questionnaire.

Procedure

Prior to actual test administration, subjects were asked to give their informed consent for study participation. They also read a debriefing statement after testing. The Family Environment Scale, Jackson Personality Inventory, Semantic Differential Measure of Identification and demographic questionnaire made up the study's test batteries. They were given to each subject for completion during prearranged group administrations. Individual tests within each battery were randomly ordered.

Due to the FES having four masculine scales and two feminine scales, the inverse of subjects' scores on one of the masculine scales (CONFLICT) was used as a third FES feminine scale score (nonCONFLICT). Doing this created a balanced and more analyzable number of feminine and masculine trait scales.

A second procedural issue involved the comparison of gender traits. Bem (1977) described how the "degree of sex-role stereotyping...is then defined as Student's t ratio for the difference between his or her mean scores on the masculine and feminine attributes" (p. 197). Similarly, difference values were created for this study's subjects by subtracting the sum of their feminine scale scores from the sum of their masculine scale scores. For example, if male subject M had

JPI masculine scale scores of 65, 70 and 65 and feminine scale scores of 35, 25 and 30, then his masculine score total would be $(65+70+65)$, or 200, and his feminine score total would be $(35+25+30)$, or 90. The masculine minus feminine difference value for subject M comes to $(200-90)$, or 110. This difference value, averaged with other difference values in M's group (e.g., of male subjects), would yield a group mean difference value (MDV) that could be compared with another group's (e.g., female subjects) mean difference value. In this study, the creation and comparison of mean difference values (MDVs) were undertaken with both the FES and JPI.

Another procedural issue involved gender trait comparison when grouping subjects as androgynous, masculine, feminine, and undifferentiated. Bem's (1974, 1977) creation of difference values distinguished people who were androgynous from those who were masculine or feminine, but not from those who were undifferentiated; a difference value close to zero could result from high feminine scores subtracted from high masculine scores (a pattern signifying androgyny) or from low feminine scores subtracted from low masculine scores (a pattern signifying undifferentiation).

In response, Spence and Helmreich (1978) suggested using median splits: subjects whose feminine and masculine scores were above their respective (feminine and masculine) group medians were seen as androgynous and subjects whose scores were below these medians were seen as undifferentiated. A

masculine gender identity would result from masculinity and femininity scores above and below their respective medians. Similarly, a classification as feminine would result from femininity and masculinity scores above and below each of their medians. This process was used in the present study to differentiate androgynous from more undifferentiated, masculine, and feminine individuals.

Finally, the last hypothesis called for subjects who identified with a particular parent. Identification groups were formed by using Osgood D scores: subjects whose same-sex parent D scores were higher than 1.5 and opposite-sex parent D scores were lower than -1.5 were categorized as identifying with the opposite-sex parent; subjects whose opposite-sex parent D scores were higher than 1.5 and same-sex parent D scores were lower than -1.5 were categorized as identifying with the same-sex parent; and subjects whose D scores fell between 1.5 and -1.5 were rated as identifying with both parents.

CHAPTER IV

RESULTS

The hypotheses of the present study were tested by four main methods of analysis. They were tested by correlation between family and personality characteristics (i.e., scores on the FES and JPI), by comparison between and within female and male subject groups, and by comparison of the combined groups relative to other variables (e.g., gender-role identity, parent identification).

The first hypothesis involved nine separate correlations based on the nine personality (JPI) and family (FES) trait pairings given in Table 1. The null hypothesis was that these correlations were zero; Hypothesis I predicted that the correlations were positive and significantly different from zero. Table 2 summarizes these personality and family trait pairs, their correlations, and significance figures. As shown in Table 2, eight of the nine correlations were in the predicted direction. This result was statistically significant (binomial test, $p < .05$). Six of these eight correlations reached statistical significance individually.

Table 2

Correlations of Personality and Family Trait Pairs Separated into Feminine, Masculine, and Gender Neutral Groups

JPI Traits	FES Traits	Group	r	p
CONFORMITY	(non)CONFLICT	F	-.04	<u>ns</u>
SOCIAL- PARTICIPATION	COHESION	F	+.26	<.025
INTERPERSONAL- AFFECT	EXPRESSIVENESS	F	+.07	<u>ns</u>
SELF-ESTEEM	INDEPENDENCE	M	+.34	<.005
RISK TAKING	ACHIEVEMENT	M	+.18	<u>ns</u>
ENERGY LEVEL	ACTIVE RECREATIONAL- ORIENTATION	M	+.22	<.05
VALUE ORTHODOXY	MORAL/RELIGIOUS- EMPHASIS	N	+.52	<.0005
ORGANIZATION	ORGANIZATION	N	+.65	<.0005
BREADTH OF- INTEREST	INTELLECTUAL/CULTURAL- ORIENTATION	N	+.48	<.0005

Note. Trait assessment measures and group names are referred to by acronym: Jackson Personality Inventory (JPI --Jackson, 1976), Family Environment Scales (FES--Moos, 1974), Feminine (F), Masculine (M), and Gender Neutral (N). See Chapter III for trait information.

These results supported Hypothesis I by demonstrating significant personality and family similarity in both total and individual correlations. This similarity was most apparent across gender-neutral traits (i.e., VALUE ORTHODOXY-MORAL/RELIGIOUS EMPHASIS, ORGANIZATION-ORGANIZATION, BREADTH OF INTEREST-INTELLECTUAL/CULTURAL ORIENTATION), where the strength of correlations ($r = .48$ to $.65$, $df = 63$, $p < .0005$) was most pronounced. In contrast, significant gender-trait correlations (masculine or feminine) were not as strong ($r = .22$ to $.34$).

Hypothesis II predicted that female subjects draw on significantly more traditionally feminine traits to describe themselves and their families, and that male subjects select significantly more masculine traits in self and family descriptions. The null hypothesis was that subjects describe themselves and their families without such gendertyping.

The same data transformation was used for the JPI and FES: subjects' score totals from feminine trait scales were subtracted from their score totals on the masculine trait scales; the resulting masculine-minus-feminine difference values were averaged, creating mean difference values. (Further information on this transformation is provided in Chapter III.) Mean difference values (MDVs) of female and male subjects were then compared with each other and with zero (zero representing a total absence of gendertyping; that is,

the difference between equal feminine and masculine scores would be zero). In regard to sex group comparison, the second hypothesis suggests that the MDV for males would be significantly higher than the MDV for females on both the JPI and the FES. This pattern follows our expectation of same-gender stereotyping: a lower MDV indicates more femininity and a higher MDV indicates more masculinity.

Between-sex comparison on the JPI did yield a larger male MDV ($\bar{M} = -1.35$) than female MDV ($\bar{M} = -4.48$), but their difference was not significant, $t(62) = .88$, $p = .19$, one-tailed. While the male MDV was higher, it was, contrary to expectation, a negative value.

Again counter to expectation, the female MDV on the FES ($\bar{M} = 3.34$) was greater than the male MDV on the FES ($\bar{M} = 1.85$). This difference, too, was not statistically significant, $t(62) = -1.24$, $p = .22$, two-tailed. The results from both the JPI and FES indicated, in short, more similarity than difference between the sexes, but less similarity between personality and family descriptions.

At this point, comparisons were made between mean difference values and zero. In regard to personality traits, the JPI male MDV ($\bar{M} = -1.35$) was not significantly different from zero, $t(19) = -.45$, $p = .70$, two-tailed. The JPI female MDV ($\bar{M} = -4.48$), however, was significantly lower than zero, $t(43) = -2.26$, $p < .025$, one-tailed. (A one-tailed test was used because the direction of difference agreed with the one

hypothesized.)

As for family traits, the FES female MDV ($M = 3.34$) was significantly different from zero but in a direction contrary to expectation, $t(43) = 5.28$, $p < .001$, two-tailed. The FES male MDV ($M = 1.85$) was not significantly higher than zero, but did constitute a trend in the predicted direction, $t(19) = 1.67$, $p < .10$, one-tailed. The preceding female to male, female to zero, and male to zero t values and probability figures are summarized in Table 3.

The third hypothesis predicted less personality and family gendertyping among subjects whose parents completed college. Specifically, it proposed that female subjects of parents with a college degree include significantly more masculine traits in their personality and family descriptions than do female subjects whose parents did not graduate from college; male subjects of college educated parents were expected to include significantly more feminine traits in their personality and family descriptions than males whose parents who did not complete college. The null hypothesis was that parental education would not affect subjects' use of gender stereotypes.

Masculine-minus-feminine MDVs of subjects were not used as a dependent variable because they would have created a confound in the predicted main effect for parental education. That is, it was possible that the opposite signs of mean

Table 3

Comparison of Masculine-Minus-Feminine Mean Difference Values (MDVs) on Personality and Family Measures for Females, Males, and Zero

	JPI			FES		
	FM	FZ	MZ	FM	FZ	MZ
<u>t</u>	.88	-2.26	-.45	-1.24	5.28	1.67
<u>p</u>	.19	<.025*	.70	.22	<.001**	<.10*

Note. *one-tailed. **two-tailed. Personality measure, family measure, and comparison groups are referred to by acronym: Jackson Personality Inventory (JPI), Family Environment Scales (FES), Female MDV to Male MDV comparison (FM), Female MDV to Zero comparison (FZ), and Male MDV to Zero comparison (MZ).

difference values for female and male subjects, each demonstrating the use of gendertypes but measured with a negative value for females and a positive value for males, would cancel each other out. In particular, if the expected pattern occurred of a negative MDV for females and a positive MDV for males whose parents did not complete college, their overall MDV would move toward zero and inaccurately resemble the low mean of subjects whose parents completed college. Thus, a two-way ANOVA (Parental Education \times Sex) was performed using the femininity score total of male subjects combined with the masculinity score total of female subjects as a dependent variable. By using this modification, results consistent with Hypothesis III (i.e., higher parental education associated with more masculine traits in females and with more feminine traits in males, lower parental education associated with fewer masculine traits in females and fewer feminine traits in males) would all be positive and more accurately determine if a main effect for parental education were present.

The personality measure (JPI) was examined first. Results from the 2 (Parents College and Parents NonCollege) \times 2 (Female and Male) ANOVA are provided in Table 4. As is evident in Table 4, the cell means, all positive, can better illustrate group effects. While the F -tests for an interaction and for a main effect of Sex were not significant, the test for a main effect of Parental Education, $F(1,46) = 2.69$,

Table 4

Masculinity Scores for Females and Femininity Scores for Males
on a Personality Measure: Mean Values and Significance
Between Parental Education Groups

	Parents College			Parents NonCollege		
	F	M	ALL	F	M	ALL
<u>M</u>	32.86	34.10	33.38*	28.21	29.57	28.58*
<u>n</u>	14	10	24	19	7	26

Note. Subgroups are referred to by acronym: JPI masculinity scores for Females (F), JPI femininity scores for Males (M), and JPI masculinity scores for Females combined with JPI femininity scores for Males (ALL).

*Main effect F-test between Parental Education groups (Parents College, Parents No College), $F(1,46) = 2.69$, $p = .05$, one-tailed (see text).

$p = .05$, was significant at a one-tailed level of analysis.² This result was seen as supporting the first components of Hypothesis III: subjects in the Parents College group showed more opposite-sex gender characteristics in their personality descriptions than did their Parents NonCollege peers. Because the main effect for Parent Education applied across the sexes and because between-group value differences in Table 4 were visibly equivalent for females, males, and the sexes combined, between-group results were taken to apply for either sex.

The effect of parental education, as described above, concerns gendertyping in personality description. The same effect was hypothesized to occur with family (trait) description. Our initial 2 (Parents College and Parents NonCollege) \times 2 (Female and Male) ANOVA was used to pursue this idea, but with a different dependent variable: total FES (family measure) masculinity scores for females combined with total FES femininity scores for males.

In the family analysis, results partially supported the third hypothesis. Findings of the 2 (Parents College and Parents No College) \times 2 (Female and Male) analysis are given in Table 5. While the direction of difference fit

²Hypothesis III is directional; our interest lay in one direction of difference (whether subjects of college educated parents showed more nontraditional gender traits than did subjects of noncollege educated parents). Since the F value of Parental Education represents two groups and the hypothesis is directional, one-tailed analysis of the F values could be interpreted easily, were deemed appropriate, and accordingly replaced two-tailed results.

Table 5

Masculinity Scores for Females and Femininity Scores for Males on a Family Measure: Mean Values and Significance Between Parental Education Groups

	Parents College			Parents NonCollege		
	F	M	ALL	F	M	ALL
<u>M</u>	18.79	15.80	17.54	17.84	14.43	16.92
<u>n</u>	14	10	24	19	7	26

Note. Subgroups are referred to by acronym: FES masculinity scores for Females (F), FES femininity scores for Males (M), and FES masculinity scores for Females combined with FES femininity scores for Males (ALL). None of the between-group effects were significant.

Hypothesis III (females and males in the Parents College group had higher masculinity and femininity scores, respectively, than females and males in the Parents NonCollege group), this two-way ANOVA's cell means were not significantly different. The only significant F -test came from the main effect for Sex, $F(1,46) = 6.31, p = .02$; that is, the FES masculinity score for females in both Parental Education groups ($M = 18.24, n = 33$) was significantly higher than the FES femininity score for males in both groups ($M = 15.24, n = 17$). It was concluded that this section of the third hypothesis was not supported. Parental education did not significantly affect gendertyping in family descriptions.

In the last component of Hypothesis III, it was expected that significantly more subjects in the Parents College group would give an androgynous personality rating than an undifferentiated, feminine, or masculine one. With respect to our two-way ANOVA, this meant that, for Parents College subjects, the higher masculinity scores of females and femininity scores of males represented equal parts of overall higher masculinity and femininity scores--androgyny--rather than simply the dominant part of a masculine or feminine gender-role identity. This seemed a reasonable proposition. The existence of high masculine and feminine trait scores would by definition exclude a predominance of undifferentiation, and it did not seem likely that females scoring high in masculinity did it as part of a masculine

identity. Similarly, it seemed unlikely that males scoring high in femininity did it as part of a feminine identity.

A 4 (Gender-Role Identity: Androgynous, Undifferentiated, Masculine, and Feminine) \times 2 (Male and Female) \times 2 (Parents College and Parents NonCollege) ANOVA was done to explore the latter hypothesis. It used masculine-minus-feminine JPI mean difference values (MDVs) as the dependent variable. The main effect for Sex, $F(1,32) = 3.63$, $p = .07$, had marginal significance, and the main effect for Gender-Role Identity was highly significant, $F(3,32) = 42.43$, $p < .001$. The MDVs and significance figures for these effects are listed in Table 6. A Scheffe (multiple comparison) procedure was done to confirm separate Gender-Role categories. With the natural exception of the Androgynous and Undifferentiated comparison, all other category pairs were significantly different at the $p = .05$ level. None of the higher order interactions in the three-way ANOVA nor the main effect for Parental Education approached significance.

Some of the nonsignificant findings could be attributed to data measurement confounds (as discussed earlier in regard to positive and negative MDVs canceling each other out in a Parental Education by Sex interaction). Despite this limitation, the analysis was helpful in answering the last component of Hypothesis III. Specifically, the results shown in Table 7 indicate that subjects in the Parents College group were more evenly divided among the Gender-Role Identity

Table 6

Masculine-Minus-Feminine Mean Difference Values (MDVs) and Significance for Sex and for Gender-Role Identity on a Personality Measure

	Gender-Role Identity				Sex	
	A	U	F	M	Male	Female
<u>M</u>	-0.82	-1.54	-22.42	11.00*	-0.65	-5.00**
<u>n</u>	11	13	12	12	17	31

Note. Gender-Role Identity categories are referred to by acronym: Androgynous (A), Undifferentiated (U), Feminine (F), and Masculine (M).

*Main effect F-test for Gender-Role Identity categories, $F(3,32) = 42.43$, $p < .001$.

**Main effect F-test for Sex, $F(1,32) = 3.63$, $p = .07$.

Table 7

Masculine-Minus-Feminine Mean Difference Values (MDVs) for
Sex and Gender-Role Identity Interaction on a Personality
Measure within Parents College Group

	Female				Male			
	A	M	F	U	A	M	F	U
<u>M</u>	-3.50	11.20	-26.00	-2.50	2.33	7.00	-20.50	0.75
<u>n</u>	4	5	3	2	3	1	2	4

Note. Gender-Role Identity categories are referred to by acronym: Androgynous (A), Masculine (M), Feminine (F), and Undifferentiated (U).

categories than expected. It was particularly interesting that males scoring higher in femininity were almost equally divided between the androgynous ($n = 3$) and feminine ($n = 2$) categories, and that females who scored higher in masculinity were similarly divided between the androgynous ($n = 4$) and masculine ($n = 5$) categories.

In summary, significant results of Hypothesis III confirmed that females and males of college educated parents perceived more opposite-sex gender traits in themselves than did females and males of noncollege educated parents. This pattern was not repeated for family traits; parental education had no effect on the use of gender traits in family descriptions. Also counter to prediction, parental education had no effect on subject androgyny. Subjects evenly divided into four gender-role identities, with high femininity males and high masculinity females as likely to show an opposite-sex identity as an androgynous one. An added finding supported the results of Hypothesis II: females across the parental education groups rated themselves as significantly more feminine than did males.

The fourth hypothesis concerned parent identification, namely that subjects were expected to identify with their same-sex parent significantly more than with their opposite-sex parent. Our analysis relied on Semantic Differential (SD) Osgood D scores. A higher D score indicated less perceived similarity/identification with a parent while a lower D score

indicated more identification. Two t -tests were used to compare subjects' D scores created with same-sex and opposite-sex parents, one for females and one for males. It was predicted that subjects' D scores with same-sex parents would be significantly smaller than their D scores with opposite-sex parents.

The t -test results for male subjects showed no significant difference, $t(19) = -.55$, $p = .59$, two-tailed, between identification with mothers ($M = 6.06$, $n = 20$) and with fathers ($M = 6.38$, $n = 20$). The same pattern existed for females: there was no significant difference, $t(43) = -.16$, $p = .87$, two-tailed, between identification with mothers ($M = 6.59$, $n = 44$) and with fathers ($M = 6.69$, $n = 44$). In brief, the fourth hypothesis was not supported; for these subjects, it appeared that overall parent identification was equivalent for both parents and unrelated to sex.

The fifth hypothesis predicted that of the subjects who did identify with one parent over the other, those who identified with their opposite-sex parent present more gender traits of that parent than do subjects who identified with their same-sex parent. It was first examined by the use of two Parent Identification groups and a dependent variable based on JPI score transformations. An Opposite-Sex identification group was formed by combining males who identified with their mothers and females who identified with their fathers. A comparison Same-Sex identification group was created by combining males who identified with their fathers

and females who identified with their mothers. Transforming JPI scores allowed for the analysis of these groups with a t -test. The transformation involved creating a single dependent variable based on the total JPI masculinity scores of females combined with the total JPI femininity scores of males.

The result of this comparison was significant, $t(33) = -1.79$, $p = .04$, one-tailed. The Opposite-Sex group ($M = 32.80$, $n = 15$) described themselves with more gender traits of their opposite-sex parent than the Same-Sex group did ($M = 26.35$, $n = 20$). This result was probed to see if a similar effect occurred using a broader personality criterion, masculine-minus-feminine mean difference values, within sex groups.

A 2 (Parent Identification) \times 2 (Sex) ANOVA was first run with masculine-minus-feminine JPI MDVs as the dependent variable. Resulting cell values, provided in Table 8, showed a pattern of difference around Parent Identification: all values for identification with the father were positive (masculine) while all values for identification with the mother were negative (feminine). In fact, neither the F -test for an interaction nor for the main effect of Sex was significant, but the test for Parent Identification, $F(1,31) = 5.82$, $p = .02$, was significant.

Although this significant effect of Parent Identification held across Sex groups, an attempt was made to reveal any differential impact on female and male subjects. The previous two-way ANOVA was broken down with two univariate F -tests for

Table 8

Masculine-Minus-Feminine Mean Difference Values (MDVs) and Significance for Sex Categories on a Personality Measure within Parent Identification Groups

	FID			MID		
	Female	Male	ALL	Female	Male	ALL
<u>M</u>	0.25*	14.00*	3.69**	-9.06*	-4.00*	-8.26**
<u>n</u>	12	4	16	16	3	19

Note. Parent Identification groups are referred to by acronym: Identification with the Father (FID) and Identification with the Mother (MID).

*Separate F-tests between Parent Identification groups (FID, MID) for females, $F(1,26) = 1.75$, $p < .05$, one-tailed; and for males, $F(1,5) = 2.26$, $p = .04$, one-tailed.

**Main effect F-test between Parent Identification groups (FID, MID), $F(1,31) = 5.82$, $p = .02$.

females and males. As noted before, the directional nature of our hypothesis combined with the comparison of only two groups effectively creates one-tailed F - (or t -) tests. The comparison of MDVs (see Table 8) for female subjects was significant, $F(1,26) = 1.75$, $p < .05$, one-tailed, as was the comparison for male subjects, $F(1,5) = 2.26$, $p = .04$.

These results supported the first component of Hypothesis V in that subjects' self-descriptions contained more gender traits of the parent with whom they identified the most regardless of parent or subject sex.

The second part of Hypothesis V stated that the parent-identification and gender-trait parallel noted above holds whether or not subjects' parents completed college. That is, the nontraditional gender-role influence of one's opposite-sex parent, if this is the parent most identified with, outweighs the posited traditional gender-role influence of noncollege educated parents. This hypothesis was tested with a 2 (Parent Identification) \times 2 (Parental Education) ANOVA using the dependent variable of female subjects' JPI masculinity score total and male subjects' JPI femininity score total.

Results of this analysis indicated a significant interaction, $F(1,23) = 14.53$, $p = .001$, and significant main effect, $F(1,23) = 6.29$, $p = .02$, for Parent Education. As evidenced by the cell values in Table 9, the interaction likely stemmed from the dominant mean of subjects who identified with their opposite-sex parent and whose parents went to college ($M =$

Table 9

Masculinity Scores for Females and Femininity Scores for Males on a Personality Measure: Mean Values and Significance for Parental Education by Parent Identification

	Parents College			Parents NonCollege		
	OSX	SSX	ALL	OSX	SSX	ALL
<u>M</u>	45.25**	26.00**	32.42*	22.00	27.11	25.07*
<u>n</u>	4	8	12	6	9	15

Note. Subgroups are referred to by acronym: Opposite-Sex (OSX), Same-Sex (SSX), and Opposite-Sex combined with Same-Sex (ALL).

*Main effect F-test between Parental Education groups (Parents College and Parents NonCollege), $F(1,23) = 6.29$, $p = .02$.

**Separate F-test between same-sex and opposite-sex parent identification subgroups within Parents College, $F(1,10) = -4.21$, $p = .001$, one-tailed.

45.25, $n = 4$). Follow-up univariate analyses broke down the interaction to examine the effect of Parent Identification at each level of Parental Education. In partial support of Hypothesis V, it was shown that Opposite-Sex/Parents College subjects significantly differed from Same-Sex/Parents College subjects, $F(1,10) = -4.21$, $p = .001$ (one-tailed), but that Opposite-Sex/Parents NonCollege subjects did not significantly differ from Same-Sex/Parents NonCollege subjects, $F(1,13) = 1.18$, $p = .26$ (see Table 9).

Of relevance to the fifth hypothesis, a final analysis was pursued to ascertain whether the bi- and univariate effects just noted varied with the sex of subjects. A 2 (Parent Identification) \times 2 (Parental Education) \times 2 (Sex) ANOVA was run using female subjects' masculinity scores and male subjects' femininity scores as the dependent variable. Results indicated that none of the new interactions nor the main effect for Sex was significant.

Summarizing the results from Hypothesis V, it was shown that subjects who identified with their opposite-sex parent used more opposite-sex gender traits to describe themselves than did subjects who identified with their same-sex parent. In fact, all subjects used more gender traits of the parent they identified with regardless of parent or subject sex. Finally, the pattern of opposite-sex parent identification and gender trait use did hold true, as expected, for subjects whose parents completed college. Counter to expectation, it

did not hold true for subjects in the Parents NonCollege group.

CHAPTER V

DISCUSSION

This study explored the relationship between family environment and personality traits in older adolescents. It focused in particular on gender-role traits and how their development was affected by parental education and parent identification. Given the current debate on gender roles and their etiology, as well as the therapeutic implications of determining familial antecedents to personality traits, a chance to clarify the family-personality relationship was seen as highly justified.

The investigation proposed five main hypotheses to probe this relationship and its focus on gender roles. Each hypothesis was based on previous research and theory suggesting a positive, if not causal, connection between family environment and personality (trait) development. While this study lacked the scope, longitudinal design, and experimental control necessary to confirm causality (e.g., the certainty of familial antecedents), most results gave at least partial support to the study's hypotheses. These findings are

discussed below as each hypothesis and its analysis are presented.

Family Environment and Personality Trait Correlations

The first hypothesis involved the correlation of nine family (FES) and personality (JPI) trait pairs specified in Table I. In support of the predicted positive relationship within each pair, results showed that 89% (eight out of nine) of the family and personality traits were positively correlated, this percentage reaching significance on a binomial test. Furthermore, 67% (six) correlations reached individual significance. The fact that the strongest correlations were across gender-neutral traits (FES Moral/Religious Emphasis-JPI Value Orthodoxy, FES Organization-JPI Organization, FES Intellectual/Cultural Orientation-JPI Breadth of Interest) attested early on to the complexity of the family-personality relationship. It appeared that subjects perceived themselves and their families as quite similar across traits as diverse as morality, organization, and cultural interest, yet saw only partial similarity on aspects of personality related to gender.

This variation related to gender traits recalls the previously cited work of Coleman (1974, 1978) on focal theory. It is possible that gender-role issues had become a focal domain (i.e., within moratorium) for these adolescent subjects while issues related to organization or morality were less in

flux (i.e., within foreclosure). If this were true, the gender-trait variation seen in JPI-FES correlations would simply represent subjects' different focal domains at the time of assessment; they saw their families one way, but because of their questioning focus on gender at that time, saw themselves another way on gender-related items.

An alternate explanation for the gender correlation differences more directly involves the family. That is, given the dynamic nature of what our society considers gender-appropriate, it is plausible that the lower gender-trait correlations reflected this change at a familial level. For example, some subjects might have perceived their families, particularly their parents, as having developed a more appropriate (and similar to the subjects') definition of gender roles, while others might not have seen this development. These different perceptions could then lower correlations on gender-related items. (The third hypothesis, in fact, looked at a variable--parental education--that would seem related to a parent's willingness to develop new gender-role definitions.)

Despite the different patterns of correlation for gender-neutral and gender-specific traits, their overall and individual significance figures indicated family and personality likeness. The fact that adolescence is often seen as a time of disengagement from the family makes these correlations, and the family-personality relationship, seem

even more powerful. Results from the first hypothesis were thus seen to confirm the expectation of similarity, at least as described by subjects, between one's family and personality.

Gendertyping in Self and Family Description

The second hypothesis predicted that the resemblance between family and personality extended to gender biases; specifically, that subjects would describe themselves and their families with the same gendertyped traits. These traits were expected to match subject sex, with females using feminine traits and males using masculine traits.

Depending on whether the opposite sex or androgyny is seen as the proper basis for comparison, results of our analyses could be interpreted as disconfirming or supporting Hypothesis II. Comparing males to females yielded nonsignificant differences in either personality or family description. Contrary to prediction, there was more similarity than difference between the sexes. The negative (feminine) direction of scores on the JPI and the positive (masculine) direction on the FES indicated further divergence from expectation in that personality and family scores did not show a matching pattern.

The picture changed somewhat once comparisons to zero were made. While the male JPI mean was not different from zero (and so males appeared more androgynous), the female JPI mean was significantly lower than zero. This indicated at

least partial support for Hypothesis II in that female subjects did describe themselves in a more feminine way. The discrepancy between this result and the nonsignificant between-sex comparison posed the question of which comparison was more valid. It could be argued, for example, that using zero to represent androgyny is too theoretical, or that comparing the sexes spotlights female-male differences without focusing on mutual patterns of deviance.

Alternatively, one can step away from the either-or question and see these findings as complementary. This perspective ultimately seemed most appropriate because each comparison provided information the other could not. Results were thus seen as revealing different aspects of the same phenomenon: both sexes perceived themselves as generally feminine, but with males the perception was incidental while with females it was more substantial. At least for females, their greater femininity supported prediction.

The final component of this hypothesis concerned FES comparisons with zero. Once again, findings diverged from nonsignificant between-sex differences as female subjects scored significantly higher than zero and male subjects approached significance in the same (masculine) direction. While a higher family masculinity score was expected for males, the opposite had been expected for females. Taking the complementary perspective of above, between-sex comparison showed that females and males had similar perceptions of their

families, with comparisons to androgyny (zero) indicating that these perceptions were more masculine. Once more the perception of female subjects, in this case of family masculinity, went further than that of male subjects.

In summary, results from the second hypothesis were only somewhat supportive. They showed that the perceptions of females and males, while not identical, tended to move in the same direction. As expected, females perceived their personalities as significantly feminine. Counter to prediction, males scored in the feminine direction but not significantly so. In regard to families, males followed the expected pattern of rating their families as somewhat masculine, but females broke from expectation by rating their families as significantly masculine. The latter finding will be further discussed with Hypothesis III's results.

Parental Education

The education level of parents was introduced in Hypothesis III as a variable affecting subjects' use of gender stereotypes. Subjects whose parents had completed college were hypothesized to include more opposite-sex gender traits in their personality and family descriptions than subjects whose parents did not complete college.

Using a dependent variable of masculinity scores for females combined with femininity scores for males, analysis showed significantly higher combination scores for subjects of college educated parents. This supported the prediction that

these subjects use more opposite-sex gender traits in personality description. A main effect for parental education across the sexes, in addition to equivalent score differences between parental education groups for males, females, and the sexes combined, indicated that the hypothesized effect occurred for both sexes.

The analysis for family environment, using (FES) female masculinity scores combined with male femininity scores as the dependent variable, did not support the predicted parental education effect. While the direction of scores fit Hypothesis III (Parents College subjects averaged higher femininity scores in males and masculinity scores in females), score differences were not significant. The only significant finding was for Sex; it indicated that females perceived more masculinity in their families than males perceived femininity. This added evidence to the family pattern seen in Hypothesis II of females giving their families a masculine description.

To summarize, the previous parental education effects supported Hypothesis III's expectations for personality but not for family. In support, having college educated parents related to higher nontraditional gender trait use in personality descriptions. This suggested an idea reviewed in the literature: that college education has the effect of raising gender consciousness in parents such that they encourage nontraditional gender roles in their offspring. In contrast, the use of nontraditional gender traits in family

descriptions was not significantly affected by parental education. It is of interest that females in both parental education groups had a relatively strong masculine perception of their families. This result, in conjunction with the masculine perception of families, particularly among females, seen in Hypothesis II, could reflect the existence of an "it's a man's world" quality in the family environment. This explanation involves masculinity biases reviewed in the literature. That is, the concepts of paternal dominance, and especially of social approval for masculinity and diminution of femininity, could apply here. Their overall effect on females might emphasize a masculine perception of families that outstrips any separate push for masculinity from college educated parents.

Parental Education and Gender-Role Identity

The last component of Hypothesis III predicted that Parents College subjects (in personality) are more androgynous than masculine, feminine, or undifferentiated. Recalling the earlier analyses of Hypothesis III, this meant that when females scored as more masculine and males scored as more feminine, their scores reflected androgyny. As noted in Chapter IV, this seemed a reasonable proposition; high gender trait scores argued against undifferentiation, and it did not seem likely that the high opposite-sex gender scores of subjects represented opposite-sex gender identity.

Analysis results did not bear out this hypothesis. While

there were more androgynous subjects than any other, this amounted to only slightly more than 25 percent of the total as subjects split quite evenly among the four gender-role categories. Females and males with high scores in use of opposite-sex gender traits were not necessarily androgynous. Results showed that they, too, were equally divided between androgynous and opposite-sex gender-role categories. These findings did not occur because of category similarity (a possibility if all scores cluster around the median). The Scheffe test indicated that, excluding the Androgynous-Undifferentiated comparison, all categories differed significantly from each other. The only significant result that did not contradict expectation was not related to this hypothesis but to Hypothesis II; that is, the main effect for Sex showed that the negative mean difference value (MDV) for females was significantly lower (more feminine) than the MDV for males.

A potential criticism concerns the use of median splits to categorize the four gender-role identities. While this procedure has support in the literature, as a statistical technique it can, especially when medians are widely divergent, force more of a numerical equivalence and score distortion among groups than exists otherwise. Despite this criticism, the previous results appear valid. To begin with, the JPI's masculine (34.0) and feminine (31.0) medians are quite similar. They are also virtually identical to their

respective means (34.4, masculine; 30.9, feminine), an indication of symmetric distributions that, in turn, supports the utility of median splits (widely divergent scores would have pulled mean values away from each median and increased the likelihood of unreliable medians). The strength and direction of masculine-minus-feminine difference values, one for each gender-role identity, had clear face validity. Finally, results from the Scheffe test, a conservative procedure for multiple comparisons, confirmed that these category means were significantly different from each other. For all these reasons, findings from the median split procedure were deemed valid.

To summarize this segment of the third hypothesis, subjects whose parents completed college did not manifest more androgyny in their personality descriptions. More specifically, Parents College subjects who scored high in opposite-sex gender trait use were as likely to identify themselves as in that opposite-sex gender category as in the androgynous category. These results did not support the hypothesis of predominant androgyny in Parents College subjects. In fact, results suggested that adolescents move equally into gender-role identities regardless of parental education. While parents who completed college may encourage nontraditional gender roles in their offspring (per the earlier results of Hypothesis III), this effect seems circumscribed by a phenomenon of equivalent dispersal into

gender-role categories.

Same-Sex Parent Identification

Hypothesis IV predicted that more subjects identify with their same-sex parent than with their opposite-sex parent. The separate analyses done for females and males indicated no overall difference in identification scores for mothers and for fathers within (or between) subject sex groups. Although a grouping procedure would be used in Hypothesis V to tease out subjects who appeared to identify with one parent over another, the present analyses tested for male and female group effects. Results did not support prediction as neither sex showed an overall pattern of same-sex parent identification. This finding may indicate an overall balance of parental dominance and nurturance, two factors noted in the literature to affect identification, in both parents. It could also indicate the neutralizing effects of each sex group having some subjects who identified with one parent and some who identified with the other. The remarkable equivalence of all scores, however, suggests that subjects generally identified with both parents.

Opposite-Sex Parent Identification

Hypothesis V began with the expectation that subjects who did identify with their opposite-sex parent would present more gender traits of that parent than would subjects who identified with their same-sex parent. As just indicated by the lack of overall within-sex differences, there were a

limited pool of subjects who fit into the two parent identification groups (totals: 28 female, 7 male). Partly to compensate for these numbers, parent identification groups combined male and female subjects. The dependent variable summed JPI masculinity scores of females with JPI femininity scores of males. Results of the comparison between parent identification groups showed that subjects who identified with the opposite-sex parent described themselves with gender traits of that parent to a greater extent than did subjects who identified with their same-sex parent. This finding supported the idea that one's gender-role identity can be less traditional (less same-sex gendertyped) if identification is with the opposite-sex parent.

Further support for Hypothesis V came with the analysis between Parent Identification and Sex. The significant main effect for Parent Identification essentially showed that subjects saw themselves as most similar to the parent they identified with regardless of parent sex; in short, identification meant similarity. The follow-up analyses within male and female subject groups, both significant despite the low number of subjects, affirmed that subjects of either sex matched their gender description to that of the parent identified with. These results confirmed the first component of Hypothesis V. They suggested that opposite-sex parent identification joins higher parental education as a possible way to promote nontraditional gender roles in

adolescents.

The second part of Hypothesis V predicted that the latter patterns of parent identification supersede parental education status. In specific, the nontraditional gender-role influence of identification with the opposite-sex parent would exceed the traditional influence of subjects' same-sex parent whether or not parents had completed college. The consequent Parental Education by Parent Identification analysis yielded a significant interaction effect that, when probed with univariate analyses, gave partial support to this hypothesis. Subjects of parents without a college education, counter to expectation, did not significantly differ between parent identification groups. In contrast, subjects of parents who completed college showed a strong and significant difference between parent identification groups: opposite-sex parent identification combined with having parents who completed college led to subjects' nontraditional gender trait scores averaging almost twice that of subjects whose parents completed college and who identified with the same-sex parent.

A final analysis to check for sex differences in these effects revealed no change due to this variable. Apparently the previous results, expected or not, were unaffected by subject sex.

On the one hand, it is apparent that college educated parents and opposite-sex identification are complementary variables. Because subjects in this group were few in number

(4), it is also clear that the separate effects earlier analyzed for these variables were not confounded by each other--their overlap was not that great. The explanation of complementarity seems straightforward: two parallel forces working in unison have more power than either force alone. The nontraditional gender influence of identification with one's opposite-sex parent, combined with the nontraditional gender influence of having college educated parents, leads to a combined influence that exceeds either one alone.

It is less clear why opposite-sex identification did not lead to more use of nontraditional gender traits among subjects in the Parents NonCollege group. If anything, their direction of difference pointed toward less use of these gender traits than occurs with subjects in the same-sex parent subgroup. One clue may have come from the final analysis involving subject sex. While this variable was not significant, it was found that four of the six subjects who comprised the Opposite-Sex, Parents NonCollege subgroup were female. Given the research on parental dominance, reactivity (Block et al., 1973), and reciprocal role theory (e.g., in Spence & Helmreich, 1978), it is possible that these daughters identified with fathers who encouraged their traditional, feminine development. This idea would help explain the pattern of nontraditional gender trait means for this subgroup, particularly for females: total $\bar{M} = 22.0$, $n = 6$; female $\bar{M} = 19.3$, $n = 4$; male $\bar{M} = 27.5$, $n = 2$). That the

fathers would be more traditional fits the assumption of less parental education relating to more traditional gender values.

Study Limitations and Future Directions

As mentioned earlier, this study's lack of a longitudinal design, experimental control, and greater numbers of subjects made it impossible to assert causal relationships. Although it is equally difficult, if not invalidating, to impose this amount of control in investigations of social development, there were other limitations to this study that are worth noting for future remediation. These limitations are discussed below in combination with thoughts on future investigation of family environment, personality development, and gender-role socialization.

Because our study's hypotheses concerned adolescent perceptions, using data based on their self-report seemed appropriate. One could argue that this approach lacked external validity (i.e., supportive data from other family members), but this study was not intended to establish such a consensual picture. Furthermore, care had been taken to select relevant self-report measures that also seemed empirically sound. For example, the use of the JPI's Infrequency Scale caused six subjects' data to be rejected from analysis due to their possible invalidity, and both the JPI and FES had satisfactory external validity figures. Naturally, future investigations involving perceptions beyond one family member would require the collection of information

from other family members for comparison. Such work might shed light on a related question: whether subjects' reports on family environment mostly drew from one parent, both parents, siblings, or the family as a whole.

A second issue involved the fact that self-reports were collected from college students. Despite a literature replete with studies on college students, using this subject pool understandably biases results toward a minority of adolescents. This is not to say that the college age of subjects was inappropriate. As Campbell et al. (1984) noted, many studies have shown that college age adolescents are most active in sorting out questions of identity status. To increase the generalization of later findings, however, it seems advisable to include non-college adolescents.

Having greater numbers of subjects would facilitate the inclusion of adolescents out of college as well as other subgroup categories: race, religion, family size, economic status, and other descriptors. A higher number of subjects to fill these subgroup categories would allow for their meaningful analysis and comparison. This would have proven useful in Hypothesis V, for example, when the three-way ANOVA subgroup n was limited to four women and two men.

A greater number of traits would also be helpful. Beginning with the first hypothesis' comparison of family and personality traits, it was evident that having a greater number of traits, both gender specific and gender neutral,

would improve the specificity of conclusions drawn from their analysis. Ideally these traits would be part of instruments designed to have matched pairs such as Family Assertiveness and Personality Assertiveness. While the measures used in this study were partly chosen because of trait similarity, their comparison still involved matching difficulties (e.g., having to create the FES "non"Conflict trait, pairing JPI Risk Taking with FES Achievement Orientation) and a limited number of pairs. A related concern is that fewer traits provide weaker approximations of one's personality and family to the point where they are no longer representative.

The operationalization of gender-role identity categories was also at issue. The median splits technique, susceptible to the problems noted earlier, might be more effective if medians were from a more representative sample of adolescents or from normative populations. Similarly, a more substantial approximation of androgyny's normative range, as opposed to the theoretical ideal of zero used in Hypothesis III, would help create more realistic categorization.

The variable of parental education also had its limitations. It was not asked whether parents who had not completed college had ever attended, would have attended but were unable, or were still planning to attend--all imply an acknowledgement of education's value, and perhaps signal a greater openness to nontraditional gender roles. The most obvious parental education issue concerned couples where one

parent went to college and one did not. This group was considered beyond the scope of our study, but clearly has a role in future investigations. Their inclusion would allow for the delineation of separate effects for one or two parents who completed college, and how this interacts with parent identification (e.g., what would be the effect of opposite-sex identification with the one parent who had gone to college?) and other variables.

Another area of future work stems from parent identification. The speculation in Hypothesis V that daughters who identify with traditional fathers become correspondingly more traditional is worth further examination. The strongly positive effect of identifying with the opposite-sex parent and having both parents complete college deserves more examination as well. Similar research could also clarify which variables combine with identification to foster the acquisition of nontraditional gender roles.

Finally, it seems reasonable to believe there is clinical utility to be derived from future work. For instance, if later research with other family members can form a brief measure of trait selection, patterns of parent and adolescent trait selection could be discussed with family members to promote change. This would resemble how a family genogram--a "map" of the family history--can be made and discussed with family members to facilitate their mutual understanding and receptivity toward change. A map of individual and family

traits might similarly act as an educational tool to help family members understand different parts of themselves, how their perceptions of traits fit into family conflict, and how changing these perceptions can lead to conflict resolution.

Summary

The purpose of this study was to explore the relationship between family environment and personality traits in older adolescents. It primarily focused on gender-role socialization--represented by the gender-trait use of these adolescents--and how this interacted with parental education and parent identification. The main assumptions behind the study's hypotheses included family and personality similarity, the predominance of traditional gender-role stereotyping, and an increase in nontraditional gender perceptions related to having college educated parents or to identification with the opposite-sex parent.

It was shown that family and personality descriptions significantly correlated overall and on individual trait comparisons. Gender-specific correlations, while noteworthy, were not as pronounced as gender-neutral correlations. The fact that adolescence is often seen as a period of disengagement from parents and family made these correlations, and the family-personality relationship they represented, seem all the more powerful. Concerning gender perceptions, females did rate themselves as significantly feminine, though they perceived their families as significantly masculine. Males

did not rate themselves as masculine but saw their families as somewhat masculine.

Higher parental education was significantly related to increased use of nontraditional gender traits in self-description but not in family description. Despite this finding for self-description, higher parental education was not related to an androgynous gender-role identity. Opposite-sex parent identification also showed a significant relationship to increased use of nontraditional gender traits in personality description. It had a complementary interaction with higher parental education as their combination showed marked significance in relation to higher nontraditional gender trait use. The significance of both parental education and opposite-sex parent identification indicated that these variables may play a causal role in the acceptance of nontraditional gender roles and the discontinuation of gender stereotyping.

This study clearly dealt with multifaceted and complex relationships in focusing on family environment, personality development, and gender-role socialization. Results proved partially supportive of expectation, with notable significance in regard to family-personality similarity, and parental education and opposite-sex parent identification as factors counteracting traditional gender-role bias in personality. There is considerable room for future investigations involving follow-up hypotheses and design alternatives.

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APPROVAL SHEET

The dissertation submitted by Steve Macuk has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

8/13/91
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