AN ABSTRACT OF THE THESIS OF

Edward George Whipple for the degree of Doctor of Philosophy in College Student Services Administration presented on April 1, 1981

Title: Sex-Role Identity Differences as a Function of Place of Residence of Male College Students

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Dr. J. Roger Penn

The purpose of this investigation was to determine whether sex-role identification differences among college students were related to place of residence, and if so, whether certain factors affect these differences. Six hypotheses were developed. The study sought to ascertain if sex-role identification is related to certain dimensions of peer association found within the type of living group — involvement, independence, traditional social orientation, or competition. Two research questions were also posed. These dealt with the relationship between sex-role identification and academic achievement, and between sex-role identification and intellectuality found within the four kinds of living units. The subjects were 267 sophomore male college students who resided in single-sex residence halls, coed residence halls, fraternities, or off-campus housing.

Responses to the Bem Sex Role Inventory were used to measure the degree to which the individual viewed himself in a masculine sex-role. Selected subscales of the University Residence Environment Scale were used to assess relevant dimensions of peer association within the
The six hypotheses were tested using analysis of variance and Pearson product moment correlation.

The results showed:

1. No significant difference was found in sex-role identification among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

2. Fraternity members were significantly more involved in group social and academic activities within their living unit than men residing in single-sex residence halls, coed residence halls, or off-campus residences.

3. Fraternity members were significantly less independent within their living group than men in the other three types of living groups.

4. Men living off-campus and in coed residence halls were significantly less oriented socially, in a traditional sense, than men residing in single-sex residence halls or fraternities.

5. Men residing in off-campus housing were significantly less competitive within their living environment than men in the other three types of living groups.

6. Several significant relationships between sex-role identification and certain dimensions of peer association were evident within the living group environment.
7. No significant difference existed between sex-role identification of men in any of the four types of living groups and the peer association dimensions of academic achievement and intellectuality.

8. Further analyses of data indicated additional peer association relationships at varying levels of intensity and significance.

The results of this study indicate the need for an understanding from student services staff concerning sex-role identification development among college males and the various peer association factors affecting this development found within particular living groups. In order to provide for an optimum college experience, it is important that staff in living units be attuned to those peer association factors which are not only influencing sex-role identification, but also other areas of student development such as social orientation, scholastic achievement and extra-curricular activities.
Sex-Role Identity Differences as a Function of Place of Residence of Male College Students

by

Edward George Whipple

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SEX-ROLE IDENTITY DIFFERENCES AS A
FUNCTION OF PLACE OF RESIDENCE
OF MALE COLLEGE STUDENTS

CHAPTER I
INTRODUCTION

The educational experiences that students have while enrolled in colleges and universities have an impact on their interests, values and attitudes. This impact has affected students in both academic and non-academic areas (Astin, 1968; Feldman and Newcomb, 1969, 1973; Astin, 1977). For example, Astin (1977) presents a comprehensive summary of positive and negative effects of the impact of the college experience covering academic achievement, educational attainment, extra-curricular achievements, and specialized competencies and skills. Heath (1968), Chickering (1969), Feldman and Newcomb (1969, 1973), and Moos (1979), have discussed in-depth the college experience impact on the student. These experiences cover politico-socio-economic attitudes, religious attitudes, interpersonal and intrapersonal adjustments and personal values. Feldman and Newcomb (1969, 1973) state, "Whatever the characteristics of an individual that selectively propel him toward particular educational settings — going to college, selecting a particular one, choosing a certain academic major, acquiring membership in a particular group of peers — those same characteristics are apt to be reinforced and extended by the experiences incurred in those selected settings" (p. 333). Chickering (1969) supports this proposition and explains that there exists a developmental period of young adulthood during which certain kinds of changes occur in an individual's
development and during which certain kinds of experiences may have substantial impact. For example, these experiences could include exposure to a new peer culture, group living, and faculty and administration interaction.

The importance of identifying the sources of experiences on students has been stressed by several writers. Almost two decades ago, Sanford (1962) emphasized the need for research on those factors which influence the lives of college students. During the 1960's Chickering (1969) stated, "...though much useful knowledge has been generated, it has remained in unintegrated form, a collection of significant items to be examined and interpreted by each investigator who would use it for his own research, by each teacher or administrator who would use it for making practical decisions" (p. 4). Astin (1977) agrees and also has called for research on the topic of the impact of the college experience on students. Although there is some disagreement, he argues that many changes that occur in a student's development are attributable to the college's impact rather than to maturation, since resident students, for example, change more than commuters. Also, students with high interpersonal involvement on campus change more than students who are less involved, and students who stay enrolled in college more than four years change more than those who drop out.

Brown (1972) writes that even though research in student development is increasing, more is needed. Questions are becoming more complicated as are the techniques employed. He states research has a long way to go to truly have an impact on college programs and curricula. Additional study is necessary to examine the interaction of
the environment, student characteristics and college programs.

The impact of the college social environment has important effects on a student's satisfaction, learning, and personal growth. Both the social and physical settings in which students function influence attitudes and moods, behaviors and performances, and self-concepts and general senses of well-being (Moos, 1979). Pace (1962) recognized the impact of the university and college social climate on the student.

Suppose one asked the same kinds of questions about a college student: What is his height and weight, sex, residence, age, vocational goal, religious affiliation, and his family income. Knowing all these things one is still left in ignorance about what kind of a person the prospective student really is. The important knowledge concerns his aptitudes and interests, his motivations, and emotional and social maturity. In short, the crucial knowledge concerns his personality. So, too, with a college the crucial knowledge concerns its overall atmosphere or characteristics, the kinds of things that are rewarded, encouraged, emphasized, the style of life which is valued in the community and is most visibly expressed and felt. (p. 45)

Living groups are a source of impact in the university social and physical environment. These groups influence students in each of the seven developmental areas identified by Chickering (1969). Moos (1979) states that living group cultures can influence student stability and change. For example, at least two related social processes, accentuation of interests and progressive conformity, can influence college students.

The influence of the peer group on college students has been stressed by various writers. According to Astin (1968), "From the point of view of the prospective college student, the stimuli provided by his peers may represent the most significant aspect of the college environment. The potential impact of the peer environment becomes apparent when one realizes the great variety of roles that the student
and his classmates can play with respect to each other” (p. 15). Among these are friend, competitor, advisor or confident, sexual partner, intellectual companion, and so on. Brown (1972) writes that the importance of the peer group and the living group environment cannot be underestimated and should not be ignored.

Studies concerned with what occurs in the living group’s environment have varied (DeCoster, 1968; Brown, Winkworth and Braskamp, 1973; Schroeder and LeMay, 1973; Chickering, 1974; DeYoung 1974; Goebel, 1976). But one common element seems to exist within most. The most significant experience that students have in college appears to arise from their association with other people in their living units (Feldman and Newcomb, 1969, 1973). Astin (1977), for example, writes that being active in a social fraternity or sorority also leads to a higher degree of satisfaction with the undergraduate experience, as well as to a greater satisfaction overall with institutional quality and a higher emphasis on social life. Moos (1979) indicates that the impact of the living group climate is substantial. Living groups influence student stability and change in such areas as establishing autonomy and a sense of personal identity, developing more open interpersonal relationships, enhancing competence, and clarifying purposes and goals. He suggests that living groups tend to influence conformity; there is a stabilization or accentuation of a student’s characteristics which are congruent with dominant aspects of the particular living group.

Research on living groups has covered areas such as value preferences in unlike campus living environments (Abbott and Penn, 1979), vocational development (Astin and Panos, 1969), student life in a
coed residence hall (Brown, Winkworth and Braskamp, 1973), personality development (Chickering, 1974), alienation (Goebel, 1976), major choice (Hearn and Moos, 1976) and person-environment interactions (Walsh, 1973).

Another aspect of personal development involves sex-role identity during the college years. Chickering (1969) writes that those masculine and feminine stereotypes that students bring to college yield to more complex views during the school years. These complex views entail a greater understanding by the student of his or her sexual identity.

Research, though, has been minimal concerning sex-role identity among college students. Chickering (1969) suggests that more must be known about the nature of student life on campus if men and women are to recognize and accept more completely the blend of masculine and feminine components that make up an individual’s sexual identity. Brown (1972) indicates that development of interpersonal skills and concerns for a sex-role identity development are concurrent with other developmental processes. However, this has been ignored as far as the formal college program is concerned. He concludes, "This is a curriculum that is very real and very powerful, but its syllabus is not on file in the academic dean's office" (p. 34).

Various writers have indicated that sex-role identification is due to the socialization and cultural growth process (Parsons, 1955; Bandura, 1963; Kohlberg, 1966; Lynn, 1966; Mischel, 1966). Hoyenga and Hoyenga (1979) support this proposition saying that people change sex-role behaviors in order to conform to the stereotypical expectations of those around them. Consequently, sex-role identity is one area of
development among college students which might be influenced by the group living experience and intimate association with members of the peer group.

**Importance of the Study**

In order for college administrators and instructional faculty to understand the impact of the collegiate environment on students, it is imperative that institutions gain insight into the personality development of young adults and those factors influencing their development. Knefelkamp, Widick and Parker (1978) stress the need for more understanding of how the college environment can influence student development. They write, "Such knowledge would allow us to establish feasible departmental goals; to design interventions that take into account 'where students are;' and to draw on the processes underlying developmental change." Further, it is important to know the factors in the particular university environment which can either encourage or inhibit growth. For example, Astin (1968) writes that the university setting, with its education policies and practices, offers an ideal setting for experiments concerning the differential impact of the varied college environments on students. Thus, colleges and universities have a tremendous opportunity to influence the design and implementation of living group environments in order to have such an impact. Herein lies the importance of this study.

The present investigation is also of importance in that it will contribute to the body of knowledge regarding sex-role identity among college males and those factors within college living environments which have an impact on sex-role identity. In this respect, Brown (1972)
states that coed living units hold the potential for further development of clear conceptions of sex roles and initial research findings are supportive; however, little is reported about any special programming being done.

Achieving a clear understanding of sex-role identity frustrates many students. It has been found, for instance, that both men and women pay the price mentally and physically in trying to live up to or cope with their own sex-role identity, or what they perceive it to be (Balswick and Peek, 1971; Bem and Bem, 1971; Chesler, 1972; King, 1973; Mundy, 1975; David and Brannon, 1976). Achievement, success, learning, emotional stability, and career choice have all been affected by how students have perceived their sex-role. A clearer understanding of these factors affecting sex-role identity in a living unit will aid faculty and administrators in designing living experiences which will further enhance the student's total college experience and personal development.

Finally, the results of the study may raise new hypotheses in the area of student development. Only through continued questioning and research will the impact of the college experience on students be more completely understood.

Statement of the Problem

The research problem in this study is to determine whether sex-role identification differences among college students are related to the place of residence, and if so, whether certain factors affect these differences. This study will determine if there are sex-role identity
differences among male college students who reside in fraternities, single-sex residence halls, coed residence halls, or off-campus housing. The study will seek to ascertain if sex-role identification is related to the degree of involvement, independence, traditional social orientation, and competition found within the particular living group environment.

Research Hypotheses

1. There is no significant difference in sex-role identification among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

2. Fraternity men are significantly more involved within their living group than men living in a single-sex residence hall, coed residence hall, or off-campus residence.

3. There is no significant difference in independence among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

4. There is no significant difference in traditional social orientation among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

5. There is no significant difference in competition among sophomore men living in single-sex residence hall, coed residence hall,
6. There are no significant relationships among sex-role identification of sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence, and any of the four dimensions of peer association (involvement, independence, traditional social orientation, and competition).

Two research questions will also be analyzed: 1. What is the relationship of sex-role identity and academic achievement within each of the four types of living groups? 2. What is the relationship of sex-role identity and intellectuality within each of the four types of living groups?

**Definition of Terms**

In order to maintain clarity for the study, the following terms have been defined:

**Sophomore men:** male Oregon State University students with at least 45 credit hours and no more than 90 credit hours at time of data collection, and residing in recognized Oregon State University housing or in off-campus residences.

**Off-campus residence:** place of residence which is exclusive of the family home. This may include a house, apartment or duplex with the student either living alone or with other individuals.

**Sex-role identity:** the sameness, unity and persistence of one's
individuality as male or female (or androgynous) in greater or lesser degree, especially as it is experienced in cultural self-awareness and behavior. It is everything that a person says and does to indicate to others or to the self the degree to which one is male or female or androgynous.

Peer association: the interaction with other students in one's residence unit. Six dimensions of peer association are identified:

a. involvement: degree of commitment to the residence and residents; amount of interaction and feeling of friendship in the unit.

b. independence: degree of emphasis on freedom and self-reliance versus socially proper and conformist behavior.

c. traditional social orientation: stress on dating going on parties, and other traditional heterosexual interactions.

d. competition: degree to which wide variety of activities, such as dating and grades, are cast into a competitive framework.

e. academic achievement: prominence of strictly classroom and academic accomplishments and concerns.

f. intellectuality: emphasis on cultural, artistic, and other intellectual activities, as distinguished from strictly classroom achievements.

Limitations of Study

The subjects in this study have been limited to sophomore men for the following reasons:

1. The freshman year is one of "culture or value shock" (Heath,
The entering freshman faces expected and unexpected academic, intellectual and social challenges. Wallace (1964), for example, states there is a gross distinction between freshmen and non-freshmen (sophomores, juniors, and seniors).

2. By the start of the sophomore year the student generally is more adjusted to the academic and social environments. There is literature support for the suggestion that during the sophomore year, students become increasingly peer-oriented and begin to build a strong peer-group base (Freedman, 1956; Chickering and McCormick, 1973; Astin, 1977).

3. Since subjects will be taken from single-sex residence halls, coed residence halls, fraternities, and off-campus residences, the necessity for self-selection is important. Oregon State University sophomores have the option to choose their place of residence. Freshmen, however, are subject to the on-campus housing regulation and must live in approved Oregon State University residences (residence halls, fraternities, cooperatives or in the family home).
CHAPTER II

REVIEW OF RELATED LITERATURE

This review of literature provides an overview of scholarly works pertaining to personality development, sex-role development, and the influence of the college living group environment on students. The review is divided into four sections. The first section presents a theoretical basis of personality development during the college years. The second part focuses directly on sex-role development and its effect on young adults during this time period. The final two sections review the influence of the college environment on the lives of college students. These parts deal specifically with the peer group and the particular type of living group in which a student lives.

A Theoretical Basis of Personality Development During College

Personality is the basis for sex-role identity development. An understanding of this development is predicated on important theoretical concepts underlying personality development relating to sex-role acquisition.

In the last thirty years a new school of thought in the psychology of personality development and human behavior has evolved. Writers such as Rogers (1951), Kelly (1955), and Maslow (1968) have emphasized the role of the individual as a conscious and active self. These theorists have studied the concept of the self aside from outside influences, entering as much as possible into a person's own consciousness in order
to learn how each person relates to the world. Erekson (1975) writes that this understanding of the self is based on overlapping concepts of phenomenology, existentialism, humanism, and organismic theory.

The conceptual basis used today by many personality theorists is stated clearly by Sanford (1968). He says, "Personality, in its most widely accepted technical sense, refers to dispositions in the person that help to determine his [her] behavior and that differ from one person to another" (p. 587). In contrast, the traditional position has been dominated by the theories of psychoanalysis and behaviorism (Bavelas, 1970). These theories portray people as passive, adjusting, conforming and reactive. The self is viewed as "acted upon" and influenced by outside forces. Theorists holding this viewpoint believe that the primary factors influencing personality development occur during infancy and extend through the adolescent period; consequently, there is little chance for development during the college years. For example, Freud (1927) believed that by the age of five or six the basic personality has been formed.

In the last decade much has been written on human development during late adolescence (the young adult stage) while individuals attend college. In 1956, Sanford implied that personality does develop during the college years, and this development is to a certain extent, dependent on those influences in the college environment. Madison (1969) writes, "Personality development while in college, takes place when an individual makes an emotional commitment to a developmentally challenging situation, providing the ensuing challenges are within his [her] learning capabilities" (p. 485).
Two schools of thought of developmental theory underlying the understanding of the growth of college students are the cognitive developmental and psychosocial. Each theory emphasizes the role of the individual as a conscious and active self. Both theories also attempt to explain development of young adults; specifically college students.

The cognitive development theory is concerned with how an individual reasons, thinks, and makes meaning of experiences. Structural organization, developmental sequence and interactionism form the basis of the cognitive developmental approach (Piaget, 1964). The structure is a set of assumptions which acts as a filter for defining how the individual will interpret, organize, and evaluate experiences and events. It also determines how the individual will relate and behave in response to those activities. The structure is the primary factor in determining how a person defines and interacts in the world.

The developmental sequence is a progression along a continuum divided into stages which are sequential and hierarchical. Each successive stage is more differentiated, integrated and complex. Many cognitive development theorists believe the sequence is not culture bound (Kohlberg, 1969, 1971). Thus, some sequences of cognitive development may occur in any culture. The stages are qualitatively different — they shift from one way of looking at a certain experience to another different way. Finally, the stages are structures of "how" an individual thinks, not "what" an individual thinks. These stages, as most theorists agree, are irreversible. However, increased complexity in the cognitive structure cannot be altered.

"Interactionism" is the point at which the actual development
occurs. This interaction is between the individual and the environment. The environment creates dissonance for the individual's current mode of thinking. In other words, the structure of a person's current stage of reasoning is in conflict with the environment. The individual is forced to accommodate and alter the present cognitive structure in order to allow for more complexity. Progression, however, to the next stage, will not occur if the cognitive dissonance, or disequilibrium is too great or overwhelming.

Piaget laid the groundwork for the ideas of the cognitive developmental approach. Besides developing the three preceding concepts, he also contributed other valuable concepts. He believed that development in an individual occurs at an uneven rate and wrote that at the attainment of a specific stage the individual may not be able to apply newly-acquired capabilities in all situations. Further, he proposed that there is the presence of an attitude or "state of mind" which accompanies certain phases of the developmental progress.

The psychosocial theory of personality development centers around stages which are developmental crises, developmental tasks, and developmental coping skills (Rodgers, 1980). This theory is concerned with the content of development — the preoccupations of an individual at a particular point in life. The developing individual is seen in a social environment, interacting with parents, family, various institutions, and a specific culture. Development occurs when an individual meets a developmental crisis and accomplishes a developmental task. This crisis is the issue that the person must resolve during a certain stage in order to proceed to the next stage and task. The task
can be resolved either adequately or inadequately. These psychosocial stages are cumulative; the method by which one stage is resolved reflects the ability to deal adequately with future stages.

Rodgers (1980) writes that there are three broad psychosocial concepts which determine how development takes place. These concepts are epigenesis, optimum dissonance, and challenge and support. Epigenesis is the term for the complete process of personality development during the life span. Optimum dissonance denotes the amount of tension needed to produce change. Finally, challenge and support are both necessary; challenge motivates and support sustains that motivation.

Havighurst (1950) was one of the first theorists to center personality development around developmental tasks. He defined a developmental task as "a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his [her] happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks" (p. 2).

Much of today's psychosocial theory is based on Erickson's (1964) work. He focuses primarily on the development of the ego,

...ego identity is partially conscious and largely unconscious. It is a psychological process reflecting social process; but with sociological means it can be seen as a social process reflecting psychological processes; it meets its crisis in adolescence, but has grown throughout childhood and continues to reemerge in the crises of later years. The overriding meaning of it all, then, is the creation of a sense of sameness, a unity of personality now felt by the individual and recognized by others having consistency in time — of being, as it were, an irreversible historical fact. (p. 11)
The ego is viewed as the rational-intuitive core of the individual which brings clarity and order to that person's experiences. Ego epigenesis is the emergence and development of the ego. The ego emerges part by part in a sequential order as a component of a "master plan." Erickson writes of eight stages of human development. These include: basic trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, identity vs. role diffusion, intimacy vs. isolation, generality vs. stagnation, and ego integrity vs. despair.

Erickson's stage dealing with adolescence (identity vs. role diffusion) speaks specifically to the process of identity resolution, critical to the college-age group. Widick, Parker, and Knefelkemp (1978) write,

One's identity is more than the sum of childhood identification and involves the integration of a more complex and differentiated identity. The process seems to require (1) experiences which help the individual clarify his interests, skills, and attitudes, and (2) experiences which aid the individual in making commitments. The formation of identity is fostered by an environment which allows for (1) experimentation with varied roles; (2) the experiencing of choice; (3) meaningful achievement; (4) freedom from excessive anxiety; and (5) time for reflection and introspection. College can provide such a "psychological moratorium" which will allow the student to experiment and reflect in an environment that exists, at least in part, to foster such development. (pp. 6-7)

The college years do offer a positive chance to develop a sense of identity. Keniston (1963) indicates that the task is difficult; it involves selecting from many ideologies those elements which are most relevant, essential and enduring. The individual, in many cases and varying degrees, must make a unique synthesis of the incompatible models, identification, and ideas offered by society. A developed sense
of identity can resolve not only the discontinuity between childhood and adulthood, but also bridge the gap between the generations.

Erickson’s stage of identity is elaborated on by Chickering (1969) in his presentation of developmental vectors or dimensions. Chickering sees the college student in a distinct psychosocial phase with inner capabilities and emerging needs interacting with the challenges of an environment. He writes, "At one level of generalization, all the developmental vectors could be classified under the general heading 'identity formation'" (1969, p. 78). These vectors are: developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity. The developmental process along each vector involves differentiation, integration, and stimulation. Challenge and response are vital; the environment provides the stimulation which encourages the developmental changes.

Coons (1971), like Chickering, draws heavily from the work of Erickson. He writes that there are five developmental tasks of the college student: the shift in the nature of one’s relationship with one’s parents, the resolutions of a personal sexual identity, the creation of a value system which makes the student unique, the capacity for intimacy, and the choice of a life’s work.

The college-age period has been referred to as the movement from pre- to early-adulthood. Levinson (1978), in defining this period, states that the major task is to "start moving out of the pre-adult world: to question the nature of that world and one’s place in it; to modify or terminate existing relationships with important persons,
groups and institutions; to reappraise and modify the self that formed in it" (p. 56). Colleges provide the opportunity, challenge and responsibility required to separate from the family and adolescent world.

Summary

The literature shows a variety of theories stemming from two major schools of thought — cognitive development and psychosocial. In comparing these two main theories basic distinctions can be made.

Cognitive developmental theorists are concerned with the processes of student development — how students make meaning from their experiences. These theorists examine the assumptions and structures for making this meaning. In contrast, psychosocial theorists deal with the content of student development — how students develop from their experiences. Feelings, behavior, and thinking combine to move the student along the growth stages central to psychosocial thought. Both cognitive development and psychosocial theorists emphasize the importance of stress in the experiences of the college student. Without conflict, dissonance, and crises which present challenges and difficulties, development cannot occur. Both cognitive development and psychosocial theories form the foundation for the major concepts of sex-role identification development discussed in the next section. These two approaches to explaining personality development and sex-role identification development have bearing on the current study.
Sex-Role Development and its Effect on the College Student

Freud (1927) was one of the first major psychologists to discuss sex-role differences between males and females. His psychoanalytic theory emphasizes the biological differences between the sexes in sex-role development. He believed that anatomical differences are responsible for the differences in identity and held that sex-role development occurs through five psychosexual stages. Each stage is characterized by a concentration of reactions to given parts of the body. Freud's theory is based on drive. The organism attempts to reduce tension to the lowest possible level. The mechanisms of the Pleasure principle (the reduction of tension replaced by pleasure) and the principle of Nirvana (complete nothingness) are the key elements in the theory. A child acquires sex-role identity by proceeding through each stage. The child strives to reduce tension by identifying with the same-sex parent (personality characteristics, behaviors, attitudes and values, and an own sense of identity). Freud wrote that the sex-role identity of an individual is formed at a very early age, thus allowing for no change or adaption during the adolescent years. However, his theory does form the basis for other theories pertaining to sex-role development of young adults.

A theory emphasizing the importance of the family and subsequent internalization of social and cultural norms, coupled with Freud's theory of sex-role development, was developed by Parson and Bales (1955). This theory is based on important theoretical assumptions of psychosocial personality development. They, however, distinguish
between the roles the mother and father play. The concepts of instrumentality (emphasis on tasks, goals, relationships) and expressiveness (emphasis on social and emotional interactions with the family) are introduced. These concepts portray the father as high on power and instrumentality, but low on expressiveness; whereas the mother is pictured as high on power and expressiveness, but low on instrumentality. Thus, the father assumes an instrumental role and the mother an expressive one. Both males and females learn not to become their same-sex parent, but to take on roles of that parent as defined by the culture in which they live. An incorporation of instrumentality and expressiveness is found in both genders.

The social-learning theory of sex-role development is an expansion of Parson and Bales' theory. This theory states that sex-role behavior, ...

...is behavior that, once it occurs, receives different rewards from the environment as a function of the gender of the child exhibiting that behavior. Thus, there are sex differences only because people in the environment consistently react to, interpret, evaluate, and reward behavior differently based on the gender of the person involved. So there will be sex differences as long as we think men and women ought to act differently. (Hoyenga, 1979, p. 183)

The social-learning theory emphasizes differential reinforcement, generalization and discrimination, and modeling in the acquisition of a sex-role identity. Differential refers to reward and punishment. A child will learn what type of behavior provokes rewards, and which type brings punishment. Generalization indicates that once a behavior has been associated with certain rewards and punishment, it will occur in similar situations. The individual will learn to discriminate between those situations in which the same behavior receives different rewards
and punishments.

The social-learning theory has been expanded further by Bandura and Walters (1963) and Mischel (1966). They agree that the stages of sex-role development are not tied to age norms and that children initially acquire sex-role stereotype behaviors before acquiring sex-role identities. First of all, children learn to discriminate between appropriate and inappropriate sex-role behavior. They also copy behavior, especially that behavior of the same sex. Secondly, they generalize these behaviors to new situations beyond those in which reinforcement originally occurred. Thirdly, they perform the behavior in all situations with the aid of sex-role identity as a discriminative stimulus.

In contrast to the social-learning theory, the cognitive developmental theory of sex-role acquisition indicates that sex-role identity develops through stages that parallel stages in Piaget's cognitive developmental concepts, and the cognitive aspects of sex-role identity are emphasized. A child's conception of identity and behavior changes and matures as the intellectual capacity grows. The learning consists of the formation of cognitive structures, not the acquisition of responses or associations between stimuli and responses. Reinforcement is not needed for the learning to take place; however, some motive is needed for the response to be performed. The sex-role development, then, is due to a mental structure change.

Kohlberg (1966, 1974) writes that sex-role identity is determined by what ought to be, influences or social expectations, and the choice of the individual. He cites five stages by which the sex-role is
acquired: the consistency stage, the labeling stage, the object and gender constancy stage, the conformity stage, and the modeling stage. The consistency stage, from birth to three years is that stage of the child when he responds to new interests in a way consistent with past interests and behaviors. In the labeling stage, from three to four years, the same-sex peers and sex-typed activities are preferred because the self, and things similar to the self are valued. The object and gender constancy stage, from four to six years, sees the gender as constant, paralleling object constancy. In the conformity stage, from five to six years, conformity to culturally approved sex-role behavior is viewed as moral; the performance out of the approved role is viewed as immoral. From six to early adolescence, there is an increasing tendency to model adults who have prestige, power, and competency, and who are in some way, such as gender, like the self. There is an orientation by the individual to authority and the maintenance of social order. Sex-role identification occurs because that is the way the child sees things around him or her. The child has, to a certain degree, established an abstract, constant definition of the sex-role based on anatomy.

In light of this cognitive developmental theory, Kohlberg and Ullman (1974) looked at development changes in sex-role concepts in older males. They find that by the age of eleven the sex-role expectations have already been defined by society. Fifteen year-olds view their sex-roles as occurring independent of and prior to the sex-roles established by society. College-age males reject the conventional sex-role standards and attempt to operate more on a
principle of equity (rewards are proportional to behavior, regardless of gender).

The major differences between social-learning theory and cognitive developmental theory regard the "when" and "why" sex-role identity occurs. Social-learning theorists write that differential reinforcement of sex-role behavior leads to identity. Identification involves the imitation of same-sex models. This results in an acquired behavior and is irreversible. In contrast, cognitive developmental theorists indicate that the identity arrives first, which in turn makes the performance of sex-typed activities differentially reinforcing. Identification is the general process of imitation of the same-sex adult model. This identification, though, is reversible. These theorists vary to some degree in what they perceive to be the steps in sex-role development. However, they do agree that differential socialization and culture stereotypes must be the most important causes of sex-role identity acquisition in humans.

Recent research (Bazin and Freeman, 1974; Bem, 1974; Bem and Lenney, 1976; Spence, Helmreich, and Stapp, 1975) indicates that sex-role identification need not only be looked at in either a masculine or feminine sense, but that it can be studied in androgynous terms. An androgynous individual is one who does not distinguish between masculinity and femininity in his or her self-description. Instead, the individual feels he or she incorporates an equal amount of masculine and feminine traits. Bem writes,

The concept of psychological androgyny implies that it is possible for an individual to be both assertive and compassionate, both instrumental and expressive, both masculine and feminine, depending upon the situational appropriateness of these various modalities; and it further
implies that an individual may even blend these complementary modalities in a single act, being able to, for example, fire an employee if the circumstances warrant it but with sensitivity for the human emotion that such an act inevitably produces. (p. 196)

Androgyny is an important concept which will aid in reassessing and analyzing traditional social-learning and cognitive developmental theories of sex-role identification.

Even though it is the consensus that most of the basic sex-role development occurs in the early years of life, research shows the need to develop a proper sex-role identity during the college years. Chickering (1969) writes,

Issues of sexual identification intimately interact with concerns for bodily appearance and self-presentation. Discovering what it means to be a man or to be a woman, coming to terms with some of the behaviors and roles required, and developing a position consistent with one's own peculiar blend of masculinity and femininity is an absorbing and complex task. Can I be both halfback and painter, wrestler and poet? Can I be sufficiently submissive? Or dominant, strong and tough? Interests must be reappraised, career plans reexamined. Perspective on fundamental feelings and responses — culturally defined as feminine or masculine though parts of both reside in each of us — must be achieved. (p. 83)

The college years are a critical time in which individuals learn to understand their sexual identity. Students are in contact with ideas different from their own. Their new environment, free from parental controls, gives them the opportunity to reassess their own thinking. Sex-role identity is one facet of the college student's personality which can be influenced during this time period.

Coons (1970) states that one of the developmental tasks encountered by the college student is the resolution of a personal sexual identity. When confronted with a wide range of new personalities in the college
setting, many students for the first time wonder about their own sexual identity. Out of the safe high school environment, where reinforcement occurs more readily, students often find it difficult to accept their own sex-role identity relative to others from varied backgrounds.

Recent research has centered on college student sex-role identity and its impact on the college experience. The anxiety level of college students correlates with how they view themselves in a specific role. Carsrud and Carsrud (1979) found that students who viewed themselves as masculine and androgynous showed less anxiety than those who had feminine orientation. The writers, however, state that all groups (masculine, feminine and androgynous) had some level of anxiety, regardless of sex-role. Biaggio and Nielson (1976) found, in a similar study, that students with a feminine sex-role orientation, produce higher anxiety scores, but also greater openness, than do students in a masculine sex-role. Studies by Gray (1957), Cosentina and Heibrun (1964), and Morris and Zoerner (1973) support these results.

Fear of success and achievement is related to sex-role identity. Major (1979) writes that fear of success in college students is negatively correlated to achievement motivation. As students become more fearful of achieving academically or in a work field, their motivation to succeed declines. In her study, she states that students with a masculine sex-role identification are more fearful of success than those with an androgynous or feminine sex-role. A correlative study by Shapiro (1979) indicates that students have more anxiety about engaging in achievement activities in job fields that have been traditionally for the opposite sex.
Adjustment of college students to their environment, lifestyle, and relationships has been related to sex-typing. High masculinity in males has been correlated during adolescence with better psychological adjustment (Mussen, 1961). However, it has also been correlated during adulthood with high anxiety, high neuroticism, and low self-acceptance (Mussen, 1962; Harford, Willis, and Deabler, 1967). College men with a masculine sex role orientation see themselves as more adjusted to the university life than do males with an androgynous orientation. However, both masculine and androgynous men are more adjusted to college life than are men with a feminine sex-role identification (Silvern and Ryan, 1979).

High self-esteem in androgynous men is reported by Hodgsen and Fischer (1979). College students who view themselves as incorporating more of an androgynous sex-role identity have received more honors in school, dated more frequently and were sick less often (Spence, Helmreich and Stapp, 1975). College students with high self-esteem are more consistent in saying what their behavior would be in various situations, showing they were more independent in a given situation, and psychologically healthier (Heilbrun, 1976).

Greater intellectual development has been related with cross sex-typing. Females who show a masculine orientation and males who show a feminine orientation have a higher level of intellectual development than those who are more sex-typed. Those more highly sex-typed males and females have been found to have lower overall intelligence, lower spatial ability, and lower creativity (Maccoby, 1966).

Leadership and supervision is correlated with how an individual
views others in a specific sex-role. Rosen and Jerdee (1973) examined the way sex-role stereotypes influence evaluations of male and female supervisory behavior in a college setting. Their results indicate that sex-role stereotypes do influence evaluations of supervisory effectiveness for some, but not all supervisory styles. They discuss their findings in terms of the potential negative consequences of sex-role stereotypes for supervisory behavior. A recent investigation by Interlied and Powell (1979) indicates that there are connections between certain masculine characteristics of college students and their ability to assume leadership roles.

Data support the theory that there are gender differences in depressive experiences and that these differences are consistent with societal sex-role expectations (Chevron, Quinlan and Blatt, 1978). Females show higher levels of depressive experiences associated with dependency situations; whereas males show higher levels of depressive experiences around issues of self-criticism.

Career choice has traditionally been oriented toward one particular gender. However, recent findings indicate that this tradition is fading. Harren (1978, 1979) states that sex and sex-role attitudes together with a student's cognitive style, influence the career decision-making progress. He indicates that although gender today is still the best predictor of gender-dominant major and career choices, men are not as bound as women to traditional sex-role careers. College males, according to Lunneberg and Gerry (1977) are more interested in artistic areas of work and less interested in realistic and enterprising areas of work than men in general. College men, when investigating
career opportunities, tend to be more interested in traditional women's occupations, such as a dental hygienist, and less interested in traditional men's occupations, such as a chemist or engineer.

Sex-role identification can influence a job recruiter's hiring decision. In a study by Cohen (1975), decisions were found to be influenced by not only the sex of the individual, and the specific job, but also various personality traits. Based on sex-job role congruence of these variables, an individual might or might not be offered a job.

Political attitudes and values attached to sex-role identity have distinct social consequences (Cottle, Edwards and Pleck, 1970). This research indicates that the value of culturally appropriate sex-typed behavior forms the basis for a controlled social order. The results show that those individuals who assume non-traditional sex-roles in society have more liberal attitudes toward politics, birth control, sex-role morality, racial discrimination, and the achievement ethic.

Sex-role identity can provide role strain for athletes. Stein and Hoffman (1978) discovered that athletes have conflicting views regarding their sex-role identity, an overload of sex-role obligations, and role-intrinsic anxiety. Nonathletes were also tested. They experienced role strain involving the incongruity between personality characteristics and the demands of the athletic role.

Summary

Sex-role identity development today is viewed primarily in the context of a social-learning theory, or cognitive-developmental theory. However, the work of Freud (1927) provides a valuable basis for both
schools of thought. Research has indicated that sex-role identity may not only be looked at in terms of a masculine and feminine orientation, but also in an androgynous orientation. The college environment is a critical period during which students attempt to understand their own sex-role identity. Student development theorists state that the college environment provides the opportunity to develop this identity. Studies show that anxiety, fear of success, achievement, adjustment, self-esteem, intellectual development, leadership, depression, career choice, political attitudes and role strain are all correlated to some degree with college students' sex-role identification.
Influence of the Peer Group on the College Student

For many students, the college environment provides for the first time, close and constant contact with peers — whether it be in a residence hall, fraternity or sorority, or the classroom. The effect that peers have on a student are substantial.

Feldman and Newcomb (1969, 1973) write that there are several functions that peer groups serve for each individual student. These include:

1. helping the individual to achieve independence from home,
2. facilitating and supporting the academic and intellectual goals of the college,
3. offering general emotional support to the students,
4. providing an opportunity to associate with individuals with different backgrounds, interests and orientations,
5. supporting and reinforcing the student's value system; however, the peer group can also provide an opportunity to challenge these traditional value systems and viewpoints,
6. offering an alternative source of reinforcement and positiveness for students who do not succeed academically,
7. providing personal and professional ties after the college years.

Different types of peer groups have specific impacts on students. Three primary types of peer groups which are found in the college setting are reference, membership and friendship groups. Kelley (1952), Astin (1963, 1977), and Chickering (1969) stress the impact of the
reference group. According to Chickering (1969),

Once an individual identifies himself with a particular group, the group becomes both an anchor and a reference point: The values and behavioral norms of the group provide a background against which the individual's decisions about behavior, and his modification of values and attitudes, occur. (p. 226)

The membership group also has a decisive impact on students, Feldman and Newcomb (1969, 1973) write,

The student community is not only a comparative reference group for its individual members, it is also in varying degrees a normative membership group. Students have mutual and reciprocal influence on one another. In the interaction they develop consensual and shared sets of expectations regarding each others' behavior and regarding important aspects of their common environment. These consensual and shared expectations — known as norms or standards — form the basis of the student peer group's power over individual members. (p. 240)

Specific membership groups which have a direct impact on the student include different living group environments such as fraternities, sororities, and cooperative houses. These groups have rules, regulations, and traditions which bind membership together. People in these groups self-select for the purpose of being a part of an organization.

Friendship groups provide an impact on the student. Wallace (1966) states,

The main criteria of friendship selection and the main influence of resulting friendships may not be on attitudes relevant to...life as a student, but rather on those...larger and often more burning problems of developing an orientation to life in general; problems of becoming an adult in an adult world; problems, in short, of life cycle....(p. 114)

Chickering (1969) supports this statement indicating that "a student's most important teacher is another student. Friends and
reference groups filter and modulate the massages from the larger student culture. They amplify or attenuate the force of curriculum, faculty, parietal rules, institutional regulations." (p. 253)

Wallace (1964), Newcomb, Koenig, Flacks and Warwick (1967), and Astin (1977) also have written regarding the impact of friendship on the college student. Active participation in these three peer groups is necessary for continued maturity and social growth. Astin (1977) states that the degree of involvement by students during the college years does determine their pattern of development. Specifically, Astin writes, the student who shows maximum interpersonal involvement selects academic course work usually in the humanities or social sciences and becomes active in campus organizations. There is aggressive interaction with peers and faculty. This student, according to Astin, projects a larger personality and behavioral change during the college years than does the student who is more involved with academics or athletics.

Feldman and Newcomb (1969, 1973) conclude that these three types of peer groups do have an impact on the college student's experience during the college years.

Individual students are influenced by the total body of their campus peers, which provides both standards for self-judgement and norms of "proper" attitudes and behavior. Close friends commonly share one or more important values, and their impacts upon one another may represent either value change or simply mutual selection on the basis of preexisting agreement. Even in the latter case, for each of the friends there is apt to be reinforcement if not accentuation of the attitudes and values they share. By the same token, different sets of friends may increase their initial group differences — a process that may account for the fact...that homogeneity of values and attitudes does not invariably or even routinely increase between freshmen and senior years. (p. 248)
Summary

The influence of the peer group on the college student is substantial. Reference, membership, and friendship groups all provide important peer contact with the student, which determines to a great degree, the type of college experience and education he or she will have. Maturity and social growth are attained through participation and interaction with different facets of the peer group.
Influence of the Living Group Environment on the Student

The living group environment has also been shown to have a decisive impact on each student's experiences during the college years. Feldman and Newcomb (1969, 1973) have done extensive study of residence groupings. They conclude that the particular type of living group a student chooses has ongoing impacts. These impacts include attitude changes and reinforcement, and strengthening of existing personal attitude values.

A question, however, involves the determination of differences among students in different types of residences due to the selection process, rather than the changes resulting from the forces and influences of the particular group in which the student lives. Feldman and Newcomb (1969, 1973) write that differences among members in the several types of living situations that have been discovered are consequences of self-selection and recruitment. Students often live together because they do share similar characteristics. Greeks are especially selective in their recruitment of new members — the general rule being to recruit members who most closely resemble existing ones. Moos (1979) claims that students usually choose the environment in which they will live and this choice may be influenced by their characteristics, or the characteristics may change after entering a new environment, in order to adapt.

Chickering (1969) stresses the importance of the living group environment.

...[the living group] has most impact when it becomes an effective- and affective-subculture, when it becomes a
reference group for its members. The values and behavioral norms of the group become the background against which individual decisions about behavior, values, and attitudes are taken. Under such conditions the shared standards and rules for conduct are not viewed as arbitrary, capricious, or functionless, nor are they felt to be unduly coercive, intrusive or authoritarian. Of course, decisions are not made on a simple one-to-one relationship with group standards. Through continuing interaction alternatives are developed, tested, and modified, and thus individuals assume their own positions and roles. (p. 153)

Astin (1977) compares those students who live in campus residences with those students who do not. He writes that the most significant impact of an on-campus living experience versus the off-campus experience is on achievement and career development. Chickering (1974) stresses that on-campus living is generally a positive experience for students, providing an environment that increases self-concepts, broadens political viewpoints, leads to increased social interaction, and encourages higher academic goals.

Moos (1979) states that the living group situation influences students in each of seven developmental areas identified by Chickering (1969). He indicates also that college living settings have some influence on differential change; however, most effects occur because students create settings that help them to maintain their preferred characteristics. Moos also indicates there are relationships between living groups and the college campuses on which they live,

A supportive living group may protect students from the stressful effects of a competitive college setting. A living group in which achievement and studying are valued may enhance the impact of a college setting that strongly values academic concerns, but the potential effects of such a college setting may be countered by the norms of a relationship oriented unit (a focus on social activities) or an intellectually oriented unit (a focus on intellectual but not on academic matters). (p. 113)
Different types of living groups promote varied impacts on students living within their respective environments. Moos (1979) writes that much of the diversity among living groups is seen in six basic types of social environments. These environments are classified as relationship, traditionally socially-oriented, achievement, competitive, independent, and intellectual. Relationship and traditionally socially-oriented environments focus on interpersonal relationships and social activities. An achievement environment emphasizes academic achievement in a supportive context while a competitive social environment emphasizes competition and achievement while not stressing cohesion and a sense of community. An independent environment stresses independence and has a moderate emphasis on support, whereas the intellectual environment places a higher value on supportive interpersonal relationships and on intellectuality, student influence, and innovation. These six social environments help describe living group settings and major subcultures students create within them.

One reason for variation in social environments is the difference among living groups. These six social environments can be studied relative to the four different types of living situations found at many colleges. These are single-sex residence halls, coed residence halls, Greek houses (fraternities and sororities), and off-campus housing. For example, studies indicate the single-sex male residence halls stress competitive and non-conformist qualities. Moos (1979) in a study of 41 men's residence halls, states that involvement, emotional support and social orientation are low compared to fraternities and coed group living settings, whereas independence is high. Academic achievement is
de-emphasized, but competition in regard to social status is high. Ford (1975) found single-sex residences to place less commitment on the living group, friendship, and emotional support. Frichette (1976) discovered that male single-sex halls were concerned less with involvement, emotional support, traditional social orientation but concerned more with independence. Goebel (1976) writes that single-sex residences stress the competitive environment, but not the relationship, intellectual, and innovative aspects.

Coed living groups have increased considerably in the last decade. The primary motivation in establishing coed living groups is to encourage the development of different types of social environments. Moos (1979) studied 51 coed residence halls. He found that coed halls were characterized by more involvement, as much emotional support as in women's halls, and as much independence as in men's halls. Competition is not emphasized to a great extent; however, coed halls are higher than single-sex halls in intellectuality, student influence, and innovation. They are lower, though, in traditional social orientation. Moos writes that residents of coed halls find their living environments provides the opportunity for involvement, emotional support, independence, and intellectual ability.

Brown, Winkworth, and Braskamp (1973) found that men living in a coed hall were more involved with women on a casual basis, had fewer strictly "masculine" interactions with other men, engaged in fewer formal dating activities, and attained greater ease in dating women. Varied research on sexual activity in coed residence halls has been conducted. Duncan (1974) found that there were more platonic
relationships in coed halls, due to the sense of community feeling. However, Reid (1974) and Katz (1974) found there is more sexual activity in coed halls along with more casual relationships between men and women.

Schroeder and LeMay (1973) discovered that students who choose coed halls are higher on indexes of measuring inner-directed support, existentiality, and capacity for ultimate contact. These results indicate that students who choose coed residence halls are more mature, exhibit greater flexibility in applying their values and have a greater ability to develop meaningful, interpersonal relationships.

Moos and Otto (1975) studied the initial differences between students entering coed living groups, students entering single-sex living groups and identified the different effects of these environments. Findings showed that there were relatively few initial differences between males who entered coed halls and single-sex halls. Coed living groups, however, placed more emphasis on emotional support and concern for others in the living group and on cultural and intellectual activities and less emphasis on traditional social activities such as dating, going to parties and other traditional heterosexual activities.

There has been substantial literature concerning the impact of fraternities and sororities on the student's college experience. According to Feldman and Newcomb (1969, 1973), data in the socioability—activities are not as plentiful for students in the several kinds of residences other than fraternities and sororities.

Both desirable and undesirable functions have been attributed to fraternities and sororities. Claims on the positive side include the following: assistance to students in their transition from
home to university; protection against feelings of "disintegration" stemming from the many factors in the college environment that make students feel insecure and unworthy; informal training leadership together with the development of skills needed in certain occupations; provision of opportunities for cooperation, helpfulness, and responsibility; assistance in achieving heterosexuality; creation of an environment conducive to relaxation and the sharing of leisure-time activities; training in getting along with people, encouragement of feelings of mutual interest among members, and the fostering of lasting friendships; and encouragement of service to the college as well as to the fraternity, and the instillment of a better spirit within the college.

On the negative side, charges include the following: encouragement of superficiality in interpersonal relationships and the blunting of social perceptions; fostering attitudes of social superiority, snobbishness, and prejudice toward a variety of "out-groups;" demands for excessive group participation and conformity; discouragement of openness to novelty and change-inducing experiences; promotion of aggressive and regressive behavior; encouragement of simplistic concepts of masculinity and femininity; and creation of an atmosphere favorable to heavy, even excessive, drinking. (p. 215)

Recent findings indicate that the fraternities have a decided effect on their members. In a comprehensive study, Longino and Kart (1973) found that fraternity membership tends to stratify; that is, members of higher status fraternities have greater opportunities to date women in higher status sororities. His findings also show that independents are less conservative politically and socially than Greeks are. Fraternity members are more conservative on measure of authoritarianism, and prejudice. Achievement differences between Greeks and independents, Longino writes, vary widely with the quality of the college and the higher school academic record of the student.

A study done by Carney (1980) at the University of Oklahoma shows that even though Greek students have lower academic ability as measured by standardized entrance exams, they have higher retention and graduation rates than residence hall students. LeMay (1980), in a study
covering a six year period, cites evidence indicating that new freshmen who are attracted to fraternity living are more likely to persist in their educational goals than those students who do not affiliate. Astin (1977) supports these findings. He writes that fraternity members live in an environment affecting the student's intellectual, self-esteem, business interests, status need and hedonism. The fraternity living group experience promotes a positive force towards persistence, overall satisfaction with college, and satisfaction with instruction and social life.

The attitudes inherent in a Greek living group are instrumental in determining the type of environment. Greek living groups have been compared to single-sex residence and coed residence halls in order to assess the various environmental factors. Frichette (1976) writes that the Greek living group has more of a high involvement level, more emotional support, and a high social orientation than do single-sex and coed halls. However, the Greeks are less independent than these two groups. Goebel (1976) produced similar findings. He writes that the Greeks emphasize interaction with others, friendship and support, and social activities. There is, though, a de-emphasis on competition and individuality.

Moos (1979) studied 16 fraternities and found them to have environments consistently more cohesive and supportive, and more socially active and satisfied than other types of living groups. However, fraternities had students who were less independent than those who were in single-sex and coed residences.

Research concerning the off-campus student is limited, especially
research assessing the social living environment. This student, however, has recently been referred to as the "new student" emerging on the university campus. Chickering (1974) writes that there are three major groups of students whose backgrounds are different from the traditional students'. These types are the student from the lower socioeconomic level with a weak academic background; the student from the inner city, culturally deprived, unprepared, disadvantaged; and the student from the middle and upper class who is "new" in the outlook toward college, traditional societal norms, and the place of education in life. Chickering writes extensively about the commuter student. He distinguishes between the commuter student who lives at home with his or her family and the commuter student who lives in an apartment or house outside of the family home. He states that living away from a group environment restricts opportunities to meet different kinds of people. His comparison of the on-campus students with the off-campus students shows marked differences. For example, in the college setting, students who live off-campus argue more frequently with professors in class and read books not required for courses. They flunk a course in nearly the same proportions as students who live at home and they take pass-fail courses at about the same rate as residence hall students. They do, however, talk more frequently with their major professor about his or her field and do engage in social conversation with him or her. In college social relationships, off-campus students least frequently arrange dates for others, and most frequently drink beer, stay up all night, go out on dates, and attend parties. In all areas surveyed by Chickering, off-campus residents are less involved than their resident
peers.

In the educational setting, Chickering writes that off-campus students are much more frequently civil-libertarian and activist in orientation than those who either live at home or on-campus. They also are more consistently in agreement with liberal orientations. These students rank themselves higher on intellectual and social self-confidence and on popularity with the opposite sex, and lower on the "drive to achieve" in comparison with students living at home.

In comparing off-campus students with those who live on-campus or in the family home, Astin (1977) writes one would expect students living on-campus to be most involved in the college environment, those living at home the least, and students living in private, off-campus housing, falling somewhat in-between.

In a study of commuter students, including those who live both at home and in private off-campus residences, Trivett (1974) supports much of the research findings. He claims that students living off-campus have feelings of social-sexual inadequacy or fear of failure, which may influence their desire to live off. They are more likely to have jobs, lower high school grades, lower educational expectations and lower family incomes as compared to campus residents. They also have more difficulty participating in extra-curricula activities and developing friendships. Off-campus students are also shown to have more gradual development patterns, more emotional problems, and are slower to give up ineffective study habits and to develop the self-imposed freedom necessary for college success (Harrington, 1972; Rich and Jolicoeur, 1978).
There are differences between on-campus students and the way in which administrators react to them. Student services administrators are believed to react more negatively toward off-campus residents than they do toward on-campus residents. In a study by Foster (1976), off-campus students are seen as less mature and less competent in interpersonal relationships. They are also considered to have less integrity.

Summary

The influence of the living group environment on the student includes attitude changes and reinforcement, and the strengthening of personal attitude values. Studies have shown that these changes are more likely to occur in on-campus living experiences as opposed to off-campus living experiences. Six basic types of social environments have an impact on students — relationship, traditionally socially-oriented, achievement, competitive, independent, and intellectual. Variation in social environments occurs because of the difference among living groups. Single-sex residence halls, coed residence halls, Greek houses, and off-campus housing all place different amounts of emphases on each facet of the social environment. Therefore, an analysis of different types of influences working within the specific types of living groups would provide continued information regarding the developmental factors of college students.
Summary of Related Literature

Two major schools of thought which form the theoretical base of personality development, and subsequently sex-role development, are cognitive developmental and psychosocial. Cognitive developmental theory emphasizes the processes of how the individual develops. Sex-role identity development, placed in a cognitive developmental framework, progresses through various set, yet reversible, stages. As the individual grows and matures, his conception of identity and behavior changes due to movement from one stage to the next.

Psychosocial developmental theory states that the individual moves along important growth continuums, as opposed to set stages or levels. The social-learning theory of sex-role development stems from this theoretical base. The individual, while progressing along these continuums, experiences different situations and also imitates behavior which is central to an acquired, irreversible, sex-role behavior.

Even though the two personality developmental theories are conceptually different, the two sex-role identification development theories derived from them are not so antithetical. Cognitive developmental theory and social-learning theory do vary in what they perceive to be the steps in acquiring one’s sex-role; however, both theories support the most important causes of sex-role identity acquisition in individuals — differential socialization and cultural stereotypes.

Recent research indicates that one’s sex-role identification may not only be masculine or feminine, but also androgynous. Various studies have supported the assumption that the understanding and
acceptance of one's sex-role — masculine, feminine, or androgynous — can be critical to emotional health. The college years have proved to be an important time for accepting, easily or with difficulty, one's sex-role identity. Studies concerning such varied aspects as adjustment to the environment, job searching, intellectual development, and leadership perception, are correlated with an individual's sex-role identification.

The college environment, specifically the peer group, has an effect on the student's personality growth. Many studies have pointed to the impact of the college environment, peer group, and particular type of living group on the college student. Research, however, has not been conducted on the impact of sex-role development in relation to the college environment, and most importantly, the particular type of living unit.

Peer factors in the living group, such as involvement, independence, traditional social orientation, competition, academic achievement, and intellectuality can change the attitudes and subsequently, the various personality traits of individuals within those living groups. The impact of these peer dimensions is found to vary according to the type of living group. Single-sex residence halls, coed residence halls, fraternities, and off-campus residences differ in the level of certain kinds of peer associations. Thus, the factors working within a particular type of living unit may have an important effect on sex-role identity. The lack of literature support indicates the need to analyze sex-role identification among different kinds of living groups. Also, an analysis of sex-role identification as it relates to various
peer association dimensions within the living group environment is important. It will provide additional findings concerning these factors in the peer living group environment which can effect both personality and sex-role development.
CHAPTER III

METHODOLOGY

This chapter summarizes the methodology used in testing research hypotheses and presents a description of subjects, sources of data, and procedures used in collecting data.

Subjects

The subjects selected to participate in this study were sophomore males enrolled at Oregon State University during the 1980-81 academic year. Sophomore standing was defined as academic credit accumulation of at least 45 credit hours and no more than 90 credit hours at time of data collection. In order to limit the influence of extraneous variables, only those students born September 1, 1959 or after, unmarried, and citizens of the United States were eligible to participate in the study. The students also were required to have had one year previous residence in an Oregon State University recognized living unit (single-sex residence hall, coed residence hall, fraternity or cooperative).

A total of 1,771 students fulfilled the requirements for inclusion in the study population. A standard equation for determining sample size was used to select the appropriate number of subjects needed from each kind of living group. Table 1 summarizes the number of students needed, and the actual number tested.
Table 1. Sample Size for Each Type of Living Group.

<table>
<thead>
<tr>
<th>Living Group</th>
<th>Total Population</th>
<th>Needed Sample Size</th>
<th>Actual Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-sex hall</td>
<td>108</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>Coed hall</td>
<td>391</td>
<td>66</td>
<td>70</td>
</tr>
<tr>
<td>Fraternity</td>
<td>400</td>
<td>68</td>
<td>70</td>
</tr>
<tr>
<td>Off-campus residence</td>
<td>872</td>
<td>96</td>
<td>97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1771</strong></td>
<td><strong>252</strong></td>
<td><strong>267</strong></td>
</tr>
</tbody>
</table>

Four hundred and twenty students were selected to participate in the study by a standard random number sampling technique. Two hundred and sixty-seven students (64%) responded. This is 15% of the sophomore male class. A minimum of two hundred and fifty-two students were needed for a significant sample size.

**Sources of Data**

The two sources of data used in this investigation were the Bem Sex Role Inventory (Bem, 1974) and the University Residence Environment Scale (Gerst and Moos, 1974). The Bem Sex Role Inventory (BSRI) includes 20 masculine personality characteristics, 20 feminine personality characteristics and 20 neutral personality characteristics. The subject indicates on a seven point scale to which degree each characteristic describes himself or herself. A masculinity score and femininity score are computed for each subject, as well as group medians for masculine and feminine scores. The masculinity and femininity scores are simply the mathematical mean score of each subject's ratings.
of the masculine and feminine adjectives on the BSRI. A given subject’s masculinity score is the mean of the subject’s ratings on the masculine adjectives, and that same subject’s femininity score is the mean of his or her ratings on the feminine adjectives. In this study, the masculinity score was the measurement analyzed. Thus, the term “sex-role identification” refers to masculine sex-role identification.

The BSRI was developed in 1973 when it was administered to 444 male and 279 female students at Stanford University. Also, 117 male and 72 female students at Foothill Junior College were tested. These groups represent the normative data for the BSRI.

Bem (1974) writes that the dimensions of masculinity and femininity are empirically, as well as logically independent (average $r = -.03$). The concept of psychological androgyny is reliable (Spence, Helmreich, and Stapp, 1975; Bem and Lenney, 1976). The degree of sex-role stereotyping is defined as Student’s $t$-ratio for the difference between the total points assigned to the feminine and masculine attributes, respectively. High sex-typed scores do not reflect a general tendency by the student to respond in a socially desirable direction (average $r = -.06$), but rather there is a more specific tendency to describe the self in accordance with sex-typed standards of desirable behavior for men and women.

The resulting BSRI data indicate internal consistency (average $\alpha = .86$) and reliability over a four-week interval (average $r = .93$). Correlations with other prominent measures of masculinity and femininity were analyzed. The BSRI is not correlated with the Guilford-Zimmerman Temperament Survey and only moderately correlated with the California
Psychological Inventory. This indicates that the BSRI is measuring an aspect of sex-role which is not directly tapped by either of these two scales.

The University Residence Environment Scale (URES) describes the social-psychological aspects of the living group. It differentiates among residences on relevant dimensions of the environment. There are 100 true-false questions. These measure residents' perceptions of their living group. Each item belongs to one of the ten subscales: involvement, emotional support, independence, traditional social orientation, competition, academic achievement, intellectuality, order and organization, student influence and innovation. In this investigation, the six subscales comprising dimensions of relationship and personal growth or development were used to assess levels of peer association within different types of living units. The relationship dimension includes involvement which assesses the extent to which individuals are involved in the living group and its activities. Independence and traditional social orientation measure the types and intensity of personal relationships among students and between students and staff. These personal growth or development dimensions also emphasize the maturation within the particular living group. Competition assesses the degree to which social activities and academics are put into a competitive framework. Academic achievement and intellectuality assess the emphasis on the aspects of academic growth.

The development of the URES is derived from four basic sources — residence hall students, housing staff, previous studies, and existing environmental scales. Five hundred statements were initially used in
testing; this was pared to 238 statements. The instrument was initially administered to the residents of 13 living groups at a private university. From the results, a revised form R1 with 140 items and 14 environmental subscales was created. Data were then collected from students in 13 different colleges of varying sizes. Seventy-four living units of different types participated. Form R2 was thus created in its present form. From initial standardization and substantive data, the URES has proved to be highly reliable, with independent subscales which discriminate among residences. Measures of internal consistency, temporal stability and profile stability indicate the high reliability of R2. In terms of subscale independence, most of the subscales are only moderately correlated, and some not at all. This suggests that the subscales are measuring a diverse, but unified environment exposing some variances among living groups. An analysis of variance shows that all ten subscales of R2 discriminate among residences. A one-way analysis of variance across a sample of residences in the norm group indicated that all ten subscales discriminate among the residences in the norm group. A further analysis showed that each type of living group emphasized different dimensions of peer association.
Collection of Data

The data used in testing the hypotheses developed for this study were collected during fall term 1980. The questionnaires were administered by the author with the assistance of head residents, resident advisers, and fraternity officers in the various residence units. Off-campus students were requested by letter to participate in the research. Questionnaires, instructions, and a stamped return envelope were provided for each student. After the test administration, the answer sheets were hand-scored using the procedures outlined by the respective test authors and subsequently rescored for possible error. The resulting data were keypunched on separate data processing cards, verified, and then analyzed by the Oregon State University Computer Center by the statistical methods outlined in the following section.

Analysis of Data

Hypotheses one through five were analyzed by a one-way analysis of variance in order to test for significant differences between the particular variable involved (sex-role identification, involvement, independence, traditional social orientation, competition) and the four types of living groups. This method is appropriate for testing for significant differences between the means of the four types of living groups. The variance of each group was tested for mean differences. The scores of all subjects in the subgroups were then artificially
combined into one total group. This was done by regrouping, for analysis purposes, all of the scores in the several groups as though they were one, and then computing the variance of the total group. If the variance of the combined total group was approximately the same as the average variance of the separate groups, then there existed no significant difference between the means of the separate groups. If, however, the variance of the combined total group was considerably larger than the average variance of the separate subgroups, then a significant mean difference existed between two or more of the subgroups. In order to find between which two (or more) groups the significant mean difference existed, the Student–Neuman–Keuls multiple-range test was used.

Hypothesis six was analyzed by a Pearson product moment correlation coefficient analysis in order to test for existence of a significant relationship between sex-role identification and any of the four dimensions of peer association. A correlation was run between the sex-role identification score of the total population and each score of the peer association dimensions. Also, the relationship of sex-role identification to each peer association dimension within the four types of living groups was analyzed. The Pearson $r$ correlation measured the type of strength of the relationship under study. The strength and direction of the relationship between the two variables under study were described by the value $r$ which ranges from a perfect relationship of $\pm 1.00$ to a nonexistent relationship of zero.

The two research questions were analyzed by the same methods used in the hypotheses analyses. A one-way analysis of variance tested for a
significant difference in academic achievement and intellectuality among the four types of living groups. Pearson \( r \) correlation analyzed the relationship between sex-role identification and any of the four peer association dimensions within each kind of living unit.
CHAPTER IV
RESULTS

The objective of the study was to determine if sex-role identification differences among sophomore college men are related to place of residence, and if so, whether certain peer factors, or dimensions, in the environment (involvement, independence, traditional social orientation, and competition) affect these differences. This chapter presents the results of the data relative to this investigation. The results of the analysis are presented in the order that the hypotheses were considered in the study.

Presentation of Results

Hypothesis 1. There is no significant difference in sex-role identification among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

Table 2 illustrates the results of the comparison of sex-role scores among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Any difference among the four types of groups was tested for using a one-way analysis of variance. As the data indicate, the analysis revealed no significant difference in masculine sex-role identification scores among the four different types of living groups. Hypothesis 1, therefore, was retained.
Table 2. Analysis of Masculine Sex-Role Identification of Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity or Off-Campus Residence.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>620.6330</td>
<td>206.8777</td>
<td>2.504</td>
<td>0.597</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>21732.0936</td>
<td>82.6315</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>22352.7266</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level
F = 3.88 at .01 level

*Significant at .05 level
**Significant at .01 level

Hypothesis 2. Fraternity men are significantly more involved within their living group than men living in a single-sex residence hall, coed residence hall, or off-campus residence.

Table 3 illustrates the results of the comparison in involvement scores among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Any difference among the four groups was tested for using a one-way analysis of variance. Significant difference was observed among the four groups. Hypothesis 2, therefore, was retained.
Table 3. Analysis of Involvement Among Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degree of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>6622.7080</td>
<td>2207.5693</td>
<td>17.064**</td>
<td>.0</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>34025.2096</td>
<td>129.3734</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>40647.9176</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level
F = 3.88 at .01 level

The Student–Neuman–Keuls procedure was used for discriminating differences among the four groups. The multiple-range test revealed three homogeneous subsets within the four kinds of living groups. Table 4 presents these subsets:

Table 4. Analysis of Involvement Differences Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th>Group Mean</th>
<th>Subset 2</th>
<th>Group Mean</th>
<th>Subset 3</th>
<th>Group Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>off-campus</td>
<td></td>
<td>single-sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.5567</td>
<td></td>
<td>49.6000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>coed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>51.0857</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>fraternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>59.1857</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The least degree of involvement in a particular living group is noted among the off-campus students, with the fraternity men the most involved. The mean score of men in single-sex halls is lower than the mean score of men in coed halls.
Hypothesis 3. There is no significant difference in independence among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

Table 5 shows the results of the comparison in independence scores among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Any difference among the four groups was tested for using a one-way analysis of variance. Significant difference was observed among the four groups. Hypothesis 3, therefore, was rejected.

Table 5. Analysis of Independence Among Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>8084.3023</td>
<td>2694.7674</td>
<td>15.789**</td>
<td>.0</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>44885.9524</td>
<td>170.6690</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>52970.2547</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level  
F = 3.88 at .01 level

*Significant at .05 level  
**Significant at .01 level

The Student–Neuman–Keuls procedure was used for discriminating differences among the four kinds of groups. This multiple-range test revealed two homogeneous subsets within the four types of living groups. Table 6 illustrates these subsets.
Table 6. Analysis of Independence Differences Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th>Subset 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>group mean</td>
<td>fraternity</td>
</tr>
<tr>
<td></td>
<td>35.2714</td>
</tr>
</tbody>
</table>

The least degree of independence in a particular living group was noted among the fraternity men who scored significantly lower than men in the other three groups. The single-sex hall group scored the highest in independence, which is surprising as it, like the fraternity group, is composed of only males. In the comparison of group means, the single-sex hall group has the highest level of independence, followed by the off-campus group, coed hall group, and lastly, the fraternity group.

Hypothesis 4. There is no significant difference in traditional social orientation among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

Table 7 illustrates the results of the comparison in traditional social orientation among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Any difference among the four groups was tested for using a one-way analysis of variance. Significant difference was observed among the four groups. Hypothesis 4, therefore, was rejected.
Table 7. Analysis of Traditional Social Orientation Among Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>5601.0556</td>
<td>1867.0165</td>
<td>12.219**</td>
<td>.0</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>40184.8095</td>
<td>152.7940</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>45785.8652</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level  
*Significant at .05 level

F = 3.88 at .01 level  
**Significant at .01 level

The Student-Neuman-Keuls procedure was used for discriminating differences among the four groups. The multiple-range test revealed two homogeneous subsets within the four living group types. Table 8 illustrates these subsets.

Table 8. Analysis of Traditional Social Orientation Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th></th>
<th>Subset 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>group mean</td>
<td>off-campus</td>
<td>48.00</td>
<td>coed</td>
</tr>
<tr>
<td></td>
<td>single-sex</td>
<td>56.3667</td>
<td>fraternity</td>
</tr>
</tbody>
</table>

The off-campus group and the coed hall group were significantly lower in their respective levels of traditional social orientation than were the single-sex hall group and fraternity group. In the comparison of group means, the fraternity group scored the highest in traditional social orientation, followed by the single-sex hall group, coed hall group, and lastly, the off-campus group.

Hypothesis 5. There is no significant difference in
competition among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

Table 9 presents the results of the comparison in competition among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Any difference among the four different living groups was tested for using a one-way analysis of variance. Significant difference was observed among the four groups. Hypothesis 5, therefore, was rejected.

Table 9. Analysis of Competition Among Sophomore Male Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>6371.8951</td>
<td>2123.9650</td>
<td>6.833**</td>
<td>.0002</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>81750.1798</td>
<td>310.8372</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>88122.0749</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level
F = 3.88 at .01 level

*Significant at .05 level
**Significant at .01 level

The Student–Neuman–Keuls procedure was used for discriminating differences among the four groups. The multiple-range test revealed two homogeneous subsets within the four kinds of living groups. Table 10 illustrates these subsets.
Table 10. Analysis of Competition Differences Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th>Subset 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>group mean</td>
<td>off-campus</td>
</tr>
<tr>
<td></td>
<td>41.7216</td>
</tr>
</tbody>
</table>

The off-campus group is significantly lower in its level of competition than are the single-sex hall, coed hall, and fraternity groups. In the comparison of the group means, the fraternity group had the highest level of competition, followed by the single-sex hall group, coed hall group, and lastly, the off-campus group.

**Hypothesis 6.** There are no significant relationships among sex-role identification of sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence and any of the four dimensions of peer association (involvement, independence, traditional social orientation, and competition).

Five important relationships were analyzed in this hypothesis. The first relationship dealt with the correlation between the sex-role identification of the total number of sophomore men in the study and the four dimensions of peer association (involvement, independence, traditional social orientation, and competition). The next four relationships were concerned with the sex-role identification of the specific living group (single-sex, coed, fraternity, or off-campus) and any of the four peer association dimensions.
Table 11 illustrates the results of the analysis of the relationship between sex-role identification of the total number of sophomore men in the study and the four dimensions of peer association. The relationship between sex-role identification and each dimension of peer association was tested using Pearson r correlation. A significant relationship was found between sex-role identification and involvement in the living group ($r = .21$, $p = .0$). There are no significant relationships between sex-role identification and any of the three other dimensions of peer association. Therefore, when considering the four living group samples as a whole, Hypothesis 6 was rejected, and it was concluded that there is a significant relationship between sex-role identification of sophomore men and involvement within the living group.

Table 11. Analysis of the Relationship of Sex-Role Identification to Selected Dimensions of Peer Association of Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with involvement</td>
<td>0.22*</td>
<td>.0</td>
</tr>
<tr>
<td>Sex-role with independence</td>
<td>-0.01</td>
<td>.88</td>
</tr>
<tr>
<td>Sex-role with traditional social orientation</td>
<td>-0.08</td>
<td>.17</td>
</tr>
<tr>
<td>Sex-role with competition</td>
<td>-0.05</td>
<td>.47</td>
</tr>
<tr>
<td>Sex-role with total</td>
<td>-0.01</td>
<td>.88</td>
</tr>
</tbody>
</table>

*Significant relationship

The results of the analysis of the relationship between sex-role identification of men living in single-sex residence halls, and the four dimensions of peer association are presented in Table 12. A significant
relationship was found at the .04 level between sex-role identification and traditional social orientation. There were no significant relationships between the sex-role identification and the other three dimensions of peer association. Thus, it was concluded that in single-sex residence halls, sex-role and traditional social orientation are significantly related.

Table 12. Analysis of the Relationship of Sex-Role Identification to Selected Dimensions of Peer Association of Single-Sex Residence Hall Sophomore Males

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with involvement</td>
<td>0.13</td>
<td>.49</td>
</tr>
<tr>
<td>Sex-role with independence</td>
<td>-0.10</td>
<td>.57</td>
</tr>
<tr>
<td>Sex-role with traditional social orientation</td>
<td>0.38*</td>
<td>.04</td>
</tr>
<tr>
<td>Sex-role with competition</td>
<td>-0.03</td>
<td>.89</td>
</tr>
</tbody>
</table>

*Significant relationship

Table 13 shows the results of the analysis of the relationship between sex-role identification of men living in coed residence halls, and the four dimensions of peer association. There was a significant relationship at the .05 level between sex-role identification and independence. There were no significant relationships between sex-role identification and involvement, traditional social orientation, and competition. It was concluded that in coed residence halls, sex-role identification and independence are significantly related.
Table 13. Analysis of the Relationship of Sex-Role Identification to Selected Dimensions of Peer Association of Coed Residence Hall Sophomore Males

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with involvement</td>
<td>0.13</td>
<td>.29</td>
</tr>
<tr>
<td>Sex-role with independence</td>
<td>0.24*</td>
<td>.05</td>
</tr>
<tr>
<td>Sex-role with traditional social orientation</td>
<td>0.02</td>
<td>.86</td>
</tr>
<tr>
<td>Sex-role with competition</td>
<td>-0.06</td>
<td>.60</td>
</tr>
</tbody>
</table>

*Significant relationship

The results of the analysis of the relationship between sex-role identification of men living in fraternities and the four dimensions of peer association are presented in Table 14. There were no significant relationships between sex-role identification and any of the four dimensions. Thus, it was concluded there are no significant relationships between sex-role identification of fraternity males and involvement, independence, traditional social orientation, and competition within the living group environment.

Table 14. Analysis of the Relationship of Sex-Role Identification to Selected Dimensions of Peer Association of Fraternity Sophomore Males

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with involvement</td>
<td>0.15</td>
<td>.23</td>
</tr>
<tr>
<td>Sex-role with independence</td>
<td>0.02</td>
<td>.87</td>
</tr>
<tr>
<td>Sex-role with traditional social orientation</td>
<td>0.14</td>
<td>.24</td>
</tr>
<tr>
<td>Sex-role with competition</td>
<td>-0.13</td>
<td>.30</td>
</tr>
</tbody>
</table>

Table 15 indicates the results of the analysis of the relationship
between sex-role identification of men living off-campus and the four dimensions of peer association. At the .04 level there was a significant relationship between sex-role identification and involvement as in Table 11. There are no significant relationships between sex-role identification and any of the other dimensions. It was concluded that in off-campus residences, there is a significant relationship between sex-role identification and involvement.

Table 15. Analysis of the Relationship of Sex-Role Identification to Selected Dimensions of Peer Association of Off-Campus Sophomore Males

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with involvement</td>
<td>0.21*</td>
<td>.04</td>
</tr>
<tr>
<td>Sex-role with independence</td>
<td>-0.03</td>
<td>.81</td>
</tr>
<tr>
<td>Sex-role with traditional social orientation</td>
<td>-0.03</td>
<td>.76</td>
</tr>
<tr>
<td>Sex-role with competition</td>
<td>-0.06</td>
<td>.54</td>
</tr>
</tbody>
</table>

*Significant relationship

In this study, two research questions were posed. The first question dealt with the relationship between sex-role identification and academic achievement in the particular type of living group. The second question was concerned with the relationship between sex-role identity and intellectuality in the living environment.

Results from the first question are presented in Table 16. In none of the four living groups was there a significant relationship between sex-role identity and academic achievement. Thus, it was concluded that sex-role identification and academic achievement are not significantly related.
Table 16. Analysis of the Relationship of Sex-Role Identification to Academic Achievement of Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with academic achievement</td>
<td>single-sex 0.3</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>coed 0.01</td>
<td>.93</td>
</tr>
<tr>
<td></td>
<td>fraternity 0.05</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>off-campus -0.06</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>Total 0.09</td>
<td>.15</td>
</tr>
</tbody>
</table>

Table 17 illustrates the results from the second research question. In none of the four living groups was there a significant relationship between sex-role identification and intellectuality. Consequently, it was concluded the sex-role identity and intellectuality in the particular living group are not significantly related.

Table 17. Analysis of the Relationship of Sex-Role Identification to Intellectuality of Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Coefficient (r)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex-role with intellectuality</td>
<td>single-sex 0.05</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>coed 0.16</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td>fraternity 0.10</td>
<td>.43</td>
</tr>
<tr>
<td></td>
<td>off-campus 0.08</td>
<td>.43</td>
</tr>
<tr>
<td></td>
<td>Total -0.01</td>
<td>.88</td>
</tr>
</tbody>
</table>
Additional Findings

Additional findings from the statistical analyses reveal important results regarding peer association influences within each particular living group. Academic achievement, using a one-way analyses of variance, was found to be significantly different among the four kinds of living groups, as Table 18 illustrates.

Table 18. Analysis of Academic Achievement Among Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>1856.0783</td>
<td>618.6928</td>
<td>4.9**</td>
<td>.0025</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>33205.3225</td>
<td>126.2560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>35061.4007</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at .05 level
**Significant at .01 level

The Student-Neuman-Keuls procedure was used for discriminating differences among the four types of groups. Two subsets were revealed, with fraternity men significantly higher in academic achievement than the other three groups. Table 19 presents the results.

Table 19. Analysis of Academic Achievement Differences Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th>single-sex</th>
<th>coed</th>
<th>off-campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group mean</td>
<td>48.667</td>
<td>52.2286</td>
<td>52.5773</td>
</tr>
<tr>
<td>Subset 2</td>
<td>fraternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group mean</td>
<td>57.1286</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Intellectuality, using a one-way analysis of variance, was found to be significantly different among the four living group types. Table 20 illustrates the results.

Table 20. Analysis of Intellectuality Among Sophomore Males Living in a Single-Sex Residence Hall, Coed Residence Hall, Fraternity, or Off-Campus Residence

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>1264.8374</td>
<td>421.6125</td>
<td>3.288*</td>
<td>.0213</td>
</tr>
<tr>
<td>Within Groups</td>
<td>263</td>
<td>33718.9229</td>
<td>128.2088</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>34983.7603</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 2.65 at .05 level
F = 3.88 at .01 level

The Student-Neuman-Keuls procedure was used to find the significant difference among the four kinds of groups. In Table 21, two subsets are revealed indicating that fraternities, off-campus residences, and coed residences are significantly higher than a subset containing single-sex residences, coed residences and off-campus residences. The inclusion of off-campus and coed residence groups in both subsets indicates the unclear differences among single-sex, coed, and off-campus groups.

Table 21. Analysis of Intellectuality Difference Among the Four Types of Living Groups

<table>
<thead>
<tr>
<th>Subset 1</th>
<th>single-sex</th>
<th>coed</th>
<th>off-campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group mean</td>
<td>46.3333</td>
<td>48.8</td>
<td>51.6082</td>
</tr>
<tr>
<td>Subset 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group mean</td>
<td></td>
<td>48.8</td>
<td>51.6082</td>
</tr>
</tbody>
</table>

Among sophomore males, six dimensions of peer association
(involvement, independence, traditional social orientation, competition, academic achievement, and intellectuality) were analyzed using Pearson $r$ correlation in order to distinguish which peer association was significantly related to another peer association dimension.

Table 22 illustrates the peer dimension associations in the single-sex residence halls. At the .05 level, involvement and intellectuality were significantly related. Traditional social orientation and competition were also significantly related at the .05 level. It was concluded that in single-sex residence halls, there is a significant relationship between involvement and intellectuality, and between traditional social orientation and competition.

Table 22. Relationship Between Peer Association Dimensions in Single-Sex Residence Halls

<table>
<thead>
<tr>
<th></th>
<th>INV</th>
<th>IND</th>
<th>TSO</th>
<th>C</th>
<th>AA</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INV</td>
<td>$r = 1.00$</td>
<td>$r = -0.26$</td>
<td>$r = 0.06$</td>
<td>$r = -0.07$</td>
<td>$r = 0.001$</td>
<td>$r = 0.37^*$</td>
</tr>
<tr>
<td>$P = 0.0$</td>
<td>$P = 0.17$</td>
<td>$P = 0.77$</td>
<td>$P = 0.73$</td>
<td>$P = 0.995$</td>
<td>$P = 0.05$</td>
<td></td>
</tr>
<tr>
<td>IND</td>
<td>$r = -0.26$</td>
<td>$r = 1.00$</td>
<td>$r = -0.18$</td>
<td>$r = -0.13$</td>
<td>$r = -0.26$</td>
<td>$r = -0.18$</td>
</tr>
<tr>
<td>$P = 0.17$</td>
<td>$P = 0.0$</td>
<td>$P = 0.34$</td>
<td>$P = 0.49$</td>
<td>$P = 0.17$</td>
<td>$P = 0.35$</td>
<td></td>
</tr>
<tr>
<td>TSO</td>
<td>$r = 0.06$</td>
<td>$r = -0.18$</td>
<td>$r = 1.00$</td>
<td>$r = 0.41^*$</td>
<td>$r = 0.09$</td>
<td>$r = 0.26$</td>
</tr>
<tr>
<td>$P = 0.77$</td>
<td>$P = 0.34$</td>
<td>$P = 0.0$</td>
<td>$P = 0.03$</td>
<td>$P = 0.65$</td>
<td>$P = 0.17$</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>$r = -0.07$</td>
<td>$r = -0.13$</td>
<td>$r = 0.41^*$</td>
<td>$r = 1.00$</td>
<td>$r = -0.16$</td>
<td>$r = 0.03$</td>
</tr>
<tr>
<td>$P = 0.73$</td>
<td>$P = 0.49$</td>
<td>$P = 0.03$</td>
<td>$P = 0.0$</td>
<td>$P = 0.40$</td>
<td>$P = 0.86$</td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>$r = 0.001$</td>
<td>$r = -0.26$</td>
<td>$r = 0.09$</td>
<td>$r = -0.16$</td>
<td>$r = 1.00$</td>
<td>$r = 0.15$</td>
</tr>
<tr>
<td>$P = 0.995$</td>
<td>$P = 0.17$</td>
<td>$P = 0.65$</td>
<td>$P = 0.40$</td>
<td>$p = 0.0$</td>
<td>$P = 0.45$</td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>$r = 0.37^*$</td>
<td>$r = -0.18$</td>
<td>$r = 0.26$</td>
<td>$r = 0.03$</td>
<td>$r = 0.15$</td>
<td>$r = 1.00$</td>
</tr>
<tr>
<td>$P = 0.05$</td>
<td>$P = 0.35$</td>
<td>$P = 0.17$</td>
<td>$P = 0.86$</td>
<td>$P = 0.45$</td>
<td>$P = 1.00$</td>
<td></td>
</tr>
</tbody>
</table>

$^*$Significant relationship

In coed residence halls, there were more significantly related dimensions of peer association. Table 23 presents the results. At the
.10 level there was a significant relationship between involvement and intellectuality. At the .05 level there was a significant relationship between intellectuality and academic achievement. Finally, at the .01 level, there were three significant relationships — involvement with traditional social orientation, independence with academic achievement, and traditional social orientation with competition. Thus, in a coed residence hall, it was concluded that the following dimensions of peer association are significantly related: involvement with intellectuality, intellectuality with academic achievement, involvement with traditional social orientation, independence with academic achievement, and traditional social orientation with competition.

Table 23. Relationship Between Peer Association Dimensions in Coed Residence Halls

<table>
<thead>
<tr>
<th>INV</th>
<th>IND</th>
<th>TSO</th>
<th>C</th>
<th>AA</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INV</td>
<td>r = 1.00</td>
<td>r = .04</td>
<td>r = .38*</td>
<td>r = .10</td>
<td>r = .07</td>
</tr>
<tr>
<td>P = .0</td>
<td>P = .77</td>
<td>P = .001</td>
<td>P = .40</td>
<td>P = .57</td>
<td>P = .04</td>
</tr>
<tr>
<td>IND</td>
<td>r = .04</td>
<td>r = 1.00</td>
<td>r = .08</td>
<td>r = .15</td>
<td>r = .32*</td>
</tr>
<tr>
<td>P = .77</td>
<td>P = .00</td>
<td>P = .50</td>
<td>P = .22</td>
<td>P = .006</td>
<td>P = .88</td>
</tr>
<tr>
<td>TSO</td>
<td>r = .38*</td>
<td>r = .08</td>
<td>r = 1.00</td>
<td>r = .37*</td>
<td>r = -.02</td>
</tr>
<tr>
<td>P = .001</td>
<td>P = .50</td>
<td>P = .00</td>
<td>P = .002</td>
<td>P = .84</td>
<td>P = .64</td>
</tr>
<tr>
<td>C</td>
<td>r = .10</td>
<td>r = .15</td>
<td>r = .37*</td>
<td>r = 1.00</td>
<td>r = -.04</td>
</tr>
<tr>
<td>P = .40</td>
<td>P = .22</td>
<td>P = .002</td>
<td>P = .00</td>
<td>P = .75</td>
<td>P = .56</td>
</tr>
<tr>
<td>AA</td>
<td>r = .07</td>
<td>r = .32*</td>
<td>r = -.02</td>
<td>r = -.04</td>
<td>r = 1.00</td>
</tr>
<tr>
<td>P = .57</td>
<td>P = .006</td>
<td>P = .84</td>
<td>P = .75</td>
<td>P = .00</td>
<td>P = .02</td>
</tr>
<tr>
<td>INT</td>
<td>r = .24*</td>
<td>r = .02</td>
<td>r = -.06</td>
<td>r = -.07</td>
<td>r = .29*</td>
</tr>
<tr>
<td>P = .04</td>
<td>P = .88</td>
<td>P = .64</td>
<td>P = .56</td>
<td>P = .02</td>
<td>P = .00</td>
</tr>
</tbody>
</table>

*Significant relationship

Table 24 illustrates the significant relationships among certain peer association dimensions within the fraternity group. Involvement
and intellectuality were significantly related in a positive direction at the .10 level. There was a significant negative correlation at the .10 level between intellectuality and traditional social orientation and independence and traditional social orientation. At the .05 level academic achievement and intellectuality were significantly related. Finally, at the .01 level, there were two significant relationships: involvement with competition is negatively related, whereas involvement with academic achievement is positively related. Consequently, in fraternities it appears that there are the following significant relationships of certain dimensions of peer association: intellectuality with traditional social orientation, independence with traditional social orientation, involvement with intellectuality, academic achievement with intellectuality, involvement with competition, and involvement with academic achievement.

Table 24. Relationship between Peer Association Dimensions in Fraternities

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*Significant relationship
Certain significant relationships appear within the off-campus living group environment. Table 25 presents the results. At the .05 level, involvement was significantly related with academic achievement and competition with intellectuality. There were four significant relationships at the .01 level: involvement with intellectuality, independence with intellectuality, traditional social orientation with competition and academic achievement with intellectuality. Thus, it was concluded that the following are significantly related: involvement with academic achievement, competition with intellectuality, involvement with intellectuality, independence with intellectuality, traditional social orientation with competition, and academic achievement with intellectuality.

Table 25. Relationship Between Peer Association Dimensions in Off-Campus Residences

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*Significant relationship
Summary of Results

The analyses conducted to test the hypotheses under investigation yield interesting results. No significant difference was found in sex-role identification among sophomore men residing in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence. Thus, sex-role identification among sophomore college men does not vary by place of residence.

Certain dimensions of peer association, however, had varying influences in the four kinds of living groups. Involvement in a particular living group (measuring the degree of commitment to the residence and residents, plus the amount of interaction of friendship within the group) was found to be significantly higher in the fraternity setting and significantly lower in the off-campus and single-sex hall setting.

Fraternity men were significantly lower in the degree of independence found within their living group. The independence scale measured the level of emphasis on freedom and self-reliance versus the level of socially proper and conformist behavior within the living group. The single-sex hall men, though not significantly higher in their degree of involvement than the coed hall and off-campus group, had the highest group mean score.

The degree of traditional social orientation measured the stress on traditional heterosexual activities such as dating and going to parties. Men living in single-sex residence halls and fraternities were found to
be significantly higher in their commitment to traditional social patterns, than those men residing in the other two living groups.

Competition indicated the level to which a wide variety of activities, such as social and academic, were cast into a competitive framework. The off-campus men were found to be significantly lower in their degree of competitiveness than were the men in the other three groups. The fraternity group, though not differing significantly from the coed hall and single-sex hall groups, had the highest mean score.

Important relationships occurred between the sex-role identification scores and various dimensions of peer association. When the total sample size was combined as one group, there was a significant relationship between sex-role identification and involvement within the living group. However, the four groups' sex-role scores when compared individually with the various dimensions of peer associations yielded interesting results.

In the single-sex residence hall group, sex-role identification and traditional social orientation were significantly related. In the coed residence hall group, sex-role identification and independence were significantly related. There were no significant relationships in the fraternity group between sex-role identification and any of the four peer association dimensions. Sex-role identification and involvement were significantly correlated in the off-campus group.

Two research questions were also investigated in this study: the relationship of sex-role identity to academic achievement and intellectuality in the four kinds of living groups. Academic achievement measured the level of prominence of strictly classroom and
academic accomplishments and concerns within the living group. Intellectuality measured the degree of emphasis on cultural, artistic, and other intellectual activities, as opposed to strictly classroom accomplishments. In none of the four kinds of living groups was sex-role identity related to either academic achievement or intellectuality.

Additional findings were revealed in this study. Fraternity men were higher in academic achievement than men in the other three groups. There were significant differences among the four groups in degree of intellectuality. However, the breakdown was less clear. Fraternity men were significantly higher in intellectuality within their living group than were men in single-sex halls. The difference within the other two groups in relation to a single-sex group and fraternity group were not as obvious.

Additional findings illustrated that certain dimensions of peer association were related in each kind of living group. In single-sex residence halls significant relationships were found between involvement and intellectuality, and between traditional social orientation and competition. In coed residence halls significant relationships were shown between involvement and intellectuality, intellectuality and academic achievement, involvement and traditional social orientation, independence and academic achievement, and traditional social orientation and competition. In fraternities, there were significant relationships between intellectuality and traditional social orientation, independence and traditional orientation, involvement and intellectuality, academic achievement and intellectuality, involvement
and competition, and involvement and academic achievement. Lastly, in the off-campus residences, significant correlations were discovered between involvement and academic achievement, competition and intellectuality, involvement and intellectuality, independence and intellectuality, traditional social orientation and competition, and academic achievement and intellectuality.
CHAPTER V
SUMMARY, DISCUSSION, CONCLUSIONS
IMPLIEDATIONS, AND RECOMMENDATIONS

Summary

The research undertaken in this study was stimulated by an interest in the impact of the college experience on the personality development and sex-role development of young adults. The literature review indicates that there is considerable evidence regarding the interests, attitudes, changes and values of college students. The evidence gathered on sex-role development, specifically as it relates to the college student and the environment, has been less conclusive.

The purpose of this investigation was to determine whether sex-role identification differences among college students were related to the place of residence, and if so, whether certain factors affected these differences. Specifically, the study sought to determine if there were sex-role identity differences among sophomore male college students who reside in single-sex residence halls, coed residence halls, fraternities, or off-campus housing. The study further sought to ascertain if sex-role identification was related to certain dimensions of peer association found within the type of living group — involvement, independence, traditional social orientation, or competition. Two research questions were also posed. These dealt with the relationship between sex-role identification and academic achievement, and between sex-role identification and intellectuality found within the four kinds of living units.
The subjects of the study were Oregon State University sophomore men residing in single-sex residence halls, coed residence halls, fraternities, or off-campus residences during the 1980-81 academic year. In order to limit the influence of extraneous variables, only those unmarried students born September 1, 1959 or after, and citizens of the United States were eligible to participate in the study. The students also were required to have had one year previous residence in an Oregon State University recognized living unit. Four hundred and twenty sophomore men were selected to participate, by a random sampling technique, in the study. A total of 267 students (64% return and 15% of the sophomore male class) participated in the study which was conducted during fall term.

Two sources of information were used in gathering the data for the hypotheses under investigation. Responses to the Bem Sex Role Inventory (BSRI) were used to measure the degree to which an individual is masculine, feminine, or androgynous. In this study, the masculine score was analyzed. Selected subscales of the University Residence Environment Scale (URES) were used to assess relevant dimensions of peer association within the students' living groups. Those dimensions of peer association used in the study were involvement, independence, traditional social orientation, competition, academic achievement, and intellectuality.

Analysis of variance tested for significant differences among the mean scores of sex-role identity and the four dimensions of peer association studied within each kind of living group. Pearson product moment correlation coefficient tested for a significant relationship
between two variables. In each analysis, the .05 level of confidence was accepted as indicating significance. In several of the correlation analyses, however, the .10 level of confidence was accepted as indicating significance.
Discussion

Sex-Role Identification Differences

The study found that sophomore men residing in different types of residential units do not vary significantly in their sex-role identification. The sophomore men in all four kinds of living groups see themselves in virtually the same type of masculine sex-role (Table 2). The scores, if compared with the Bem Sex Role Inventory norm mean scores (Appendix B), place Oregon State University male students higher on the masculine scale than the normative group of Stanford University males.

One explanation for this result is that Oregon State University, a land-grant institution, tends to draw students who are interested in such majors as agriculture, science, engineering, and business. As other studies indicate, this type of student is more practical, traditional, and conservative in personal values orientation than are students who major in the liberal arts (Bem, 1965; Feldman and Newcomb, 1969, 1973). The Bem Sex Role Inventory specifically measures those American culturally-defined sex-role attributes which are associated with being "typically" male or female. Sex-role development, and the subsequent acceptance of the student's sex-role identity have been viewed by several authors as important functions of the developmental process during the college years (Chickering, 1969; Coons, 1970; Levinson, 1978). It may well be that there is a need to develop a sex-role identity during this time period. Thus, the Oregon State University student majoring in a technical field, coupled with the
values and attitudes of the student attending a land-grant institution, may account for the similar sex-role identity scores among the four kinds of living groups.

Another factor which may have influenced the similarity of scores includes a particular student's unwillingness to score himself highly on some of the feminine traits such as "compassionate," "gentle," "tender," and "feminine." Even though the student, in fact, may often incorporate one or more of these traits to a high degree, the belief "I shouldn't be that way because I'm male and males aren't supposed to act like that," could have hindered an honest answer. Bem, however, does not address this problem in her literature regarding the inventory.

A third explanation which may have accounted for the similarity in mean scores is the lack of actual difference among types of living groups at Oregon State University. This study's results indicate that single-sex residence halls, coed residence halls, fraternities, and off-campus residences do not attract diverse students in terms of sex-role identity, into their groups. For example, the "macho" male does not necessarily migrate toward a fraternity — he could easily live off-campus, or in a single-sex hall or coed hall. On the other hand, the mild-mannered, quiet male, may be a member of a fraternity, just as readily as he could be a member of another type of living unit. At Oregon State University, residence halls and fraternities are similar in that both have active hall or house governments, social events are numerous, and athletic competition is strong. This explanation, however, does not explain the reason why off-campus males scored highly. These off-campus men, though, were required to live in recognized Oregon
State University housing one year prior to moving off-campus. The on-campus experience could have had an impact similar to the on-going impact for those individuals presently living in either fraternities or residence halls.

**Differences in Certain Dimensions of Peer Association**

The involvement subscale measured perceptions of the environment such as unity and cohesion, loyalty toward a house, and friendship. Studies have indicated that fraternities are much higher in involvement than are single-sex halls and coed halls (Frichette, 1976; Moos, 1979). The literature supports this study's results as fraternities were significantly higher in involvement than the other three kinds of living groups. A possible explanation is that in fraternities, selection and initiation of new members draw the membership closer together, promote loyalty, and foster cohesion because the existing members' interests and values tend to be similar to the new members. Fraternities also have more control over the day-to-day operation of the house and decisions. The membership is more stable in fraternities, as opposed to residence halls; consequently, there is a commitment to involvement and support within the living group. The chances to become involved within the fraternity are readily available, whereas, for example, the off-campus student does not have the opportunities to take part in varied, large group activities.

The off-campus men were the least involved within their living group environment. Other research supports this finding stating that residents in off-campus living units are not oriented toward involving
themselves with others within the living group. Studies have shown that the reason some students live off-campus is because they do not want to become involved in any type of organized function (Harrington, 1972; Chickering, 1974). This is not surprising as the lack of any organized structure within the residence would give little impetus to become involved. This investigation did not delineate between those off-campus males living alone or sharing a dwelling with another or others. However, it may be assumed that some individuals in the research answered on the basis that they had no chance to become involved in house activities because there were no individuals with whom to become involved.

The independence subscale measured aspects of the living environment such as acting and thinking freely without too much regard for social opinion, upholding social conventions, and relying on oneself when a problem comes up. Fraternities scored significantly lower on this subscale than did the other three types of living groups. Chickering (1974) has stressed the independence of the off-campus student within his living environment. However, Barna (1978) writes that many of the off-campus students are less autonomous than their traditional peers and are much more dependent on authority figures for structure and guidance. Research indicates also that independence is high in single-sex halls and coed halls because of the lack of peer pressure to conform (Moos, 1979). In contrast, Schroeder and LeMay (1973) found that in coed halls independence is less because of the capacity for ultimate contact, resulting in more dependence on others. Fraternities, as this study also indicates, are less independent than
other types of residences because of the peer pressure to conform to regulations and social convention of the particular house (Johnson, 1970; Longino and Kart, 1973; and Moos, 1979). The pressure to conform is undoubtedly the main reason. Fraternities are self-selective and tend to draw similar membership by means of concerted group recruitment, which ultimately decides the composition of the living unit. Also, the need for social approval by the peer group is higher in a fraternity than in the other types of living groups. Thus, "straying from the norm" would be frowned upon by house members in an environment where house unity is stressed. On the other hand, it is not surprising that independence is more evident in single-sex halls, coed halls, and off-campus residences. Residents in these living units, as opposed to fraternities, are not constrained by their peers to interact, attend specific events, and participate in activities primarily within the living group.

The traditional social orientation subscale assessed such environmental influences as dating as a recurring topic, frequency of dating, and number of exchanges and parties within the living group. Various studies, in measuring the level of traditional social orientation within a particular living group, have shown coed halls and single-sex halls as low (Brown et al., 1973; Moos, 1979). Other studies have rated the coed residences high in social activities (Schroeder and LeMay, 1973; Duncan, 1974; Reid, 1974). Fraternities have measured consistently high on the social subscale at various campuses (Frichette, 1976; Goebel, 1976; Moos, 1979). In this study, high fraternity social orientation was consistent with previous studies;
however, single-sex halls also scored significantly higher than the coed halls and off-campus residences. One reason for the higher single-sex hall orientation toward social activities may be the effort on the part of Oregon State University residence hall staff to plan and successfully implement social activities which encourage interaction among different residence halls. Another reason, which is evident in the fraternities, is the male peer pressure to date and to develop a traditional heterosexual relationship with a member of the opposite sex. This type of pressure is not found in coed halls, where an emphasis on "friendship" relations is more prominent (Brown et al., 1973; Katz, 1974). The off-campus group scored lowest in the study. If the student lived alone there would be no peer pressure within the living group to become socially involved. Chickering's study (1974) supports this investigation's results that off-campus students are more independent in their social needs and do not rely on group activities as much as those who live in organized residences.

The competition subscale assessed environmental influences such as competition for the high grades, people "bragging" about dates and discussions turning into verbal battles. This investigation showed the off-campus group scoring significantly lower on the competition subscale. A major reason, as Chickering (1974) indicates, is that there is less contact with peers if the student lives alone, or with only a few roommates. Another reason is that this subscale was measuring academic and social competition. It is obvious that in a larger peer group, one in which a student must daily interact, the press to compete academically and socially is much stronger than if one lives alone or
with one or more roommates.

Sex-Role Identity and Peer Association

Before discussing the results regarding the relationship of sex-role identity to certain dimensions of peer association, it is necessary to understand several important facts regarding the underlying assumptions of Pearson product moment correlation coefficient, the method used to analyze this hypothesis. First, in the interpretation of the relationships between sex-role identity and certain dimensions of peer association, the Pearson $r$ is not a measure of causality, although in some cases a casual relationship may exist between the two variables. Second, the size of the correlation itself is not the most important thing about it, but it is the situation in or purpose for which it is being used that determines how it is evaluated. These points must be taken into consideration in attempting to interpret the following results.

When the total sample size was viewed as one group, there was a significant positive relationship between sex-role identification and involvement. This indicates that those men who score higher on the sex-role inventory are also more involved within their living group. The same results appeared when the off-campus men were analyzed alone. In the interpretation of this result, it is important to understand that the establishment of a sexual identity is vital and it is a necessary developmental dimension of the college experience (Erickson, 1964; Chickering, 1969; Coons, 1970). Consequently, once a male has understood his sex-role, he feels freer and more comfortable to become
involved with his peers and subsequently within his living group. The understanding of his sex-role promotes confidence, thus making it easier for him to deal with and relate to others.

Sex-role identification as it relates to certain peer dimensions, however, varies according to the kind of group living environment. As previously mentioned, sex-role identification and involvement in the off-campus group were significantly related in a positive direction. Sex-role identification and traditional social orientation were positively correlated in the single-sex residence halls. This is not surprising, as the peer pressure for a male in this type of hall tends to center around talk regarding the opposite sex, the need to develop a traditional heterosexual relationship, and the need to let the peer group see that he is establishing contact with a female (Brown et al., 1973; Katz, 1974). Often times the masculine, or "macho" image is equated with how many women a man is dating and how many times he goes out.

What is surprising, though, is the lack of any correlation in the fraternity group between sex-role identification and traditional social orientation. The fraternity group scored significantly higher than off-campus and coed groups on the traditional social orientation scale (Table 8). There are certain factors, then, within the fraternity environment, as opposed to the single-sex hall environment, which appear to downplay the masculine sex-role image in relation to social activities. One possible explanation is the difference in fraternity stereotypes at Oregon State University. The fraternity sample was randomly selected from 27 houses, some much more oriented socially than
others. The single-sex residence sample was randomly selected from the only two single-sex men's halls on campus. Thus, the fraternity sample had a broader range of respondents, as opposed to the single-sex respondents who came from two similar halls.

Another explanation for the lack of correlation within the fraternities between sex-role identification and traditional social orientation is the higher stress on different activities within the living group. Scholastics, sports, and the pressure to participate in all-campus organizations are pushed to a greater degree in the fraternity than in the residence hall (Feldman and Newcomb, 1969, 1973). Thus, the social pressure is lessened to an extent because of involvement in other types of activities.

There is a significant positive relationship between sex-role identification and independence in the coed residence hall group. Individuals who are more masculine are more independent within their living group. It would seem that there should have been the same results with the off-campus and single-sex groups; however, such results were not found. In these two groups, in addition to the fraternity group, there may be a connection with masculinity and the need to identify with members of the same sex. The results in the coed group, though, are supported by studies indicating relationships in coed residences are more of a friendship nature between members of the opposite sex. The press to become involved in traditional heterosexual activities is not nearly as strong in the coed halls as it is in the other groups. Consequently, there is more independence, and a lack of peer pressure, in developing relationships.
Research Questions

Sex-role identification, as it relates to academic achievement and intellectuality, resulted in no significant relationships in any of the four kinds of living groups. These results indicate that a student’s perceptions of his sex-role identity has no relation to his feelings toward academic achievement or intellectuality within the living group.

Additional Findings

Academic Achievement and Intellectuality

The analyses of the data provided additional information regarding certain peer association factors within the environment. Tables 18-25 present the results.

The levels of academic achievement and intellectuality were significantly higher in fraternities than in the other three kinds of living groups (Tables 19, 21). Fraternities do stress academic achievement in a more organized method than do the other types of living groups. Competition among fraternities for top grades, which aids in recruitment of members and improving campus reputation, fosters the academic and intellectual environment of the house. Studies by Feldman and Newcomb (1969, 1973), Astin (1977), and LeMay (1980) support these results.

Relationships between Peer Association Dimensions within the Single-Sex Halls

The relationships between certain peer association dimensions in a particular living group were also analyzed. In single-sex halls there
were significant positive relationships between involvement and intellectuality, and traditional social orientation and competition. The student who sees the hall as providing activities also perceives the activities as occurring in an intellectual environment. Activities in the single-sex hall are evidently stimulating the intellectual environment. In a single-sex residence hall, as the press to become engaged in traditional heterosexual activities increases, so does the press to compete. This is not surprising as the competition for both grades and dates is a common phenomenon during the college years. The all-male hall would certainly foster this interaction.

**Relationships between Peer Association Dimensions within the Coed Halls**

In coed halls there were significant positive relationships between involvement and traditional social orientation, involvement and intellectuality, independence and academic achievement, traditional social orientation and competition, and academic achievement and intellectuality. Men in coed halls, then, who are involved within the hall are also more oriented socially. A successful social orientation within a group is based on strong involvement which these results indicate. Men indicating they reside in an atmosphere of independence tend to feel they are in one which stresses academic achievement. Thus, the lack of peer pressure, which fosters independence among a group, is responsible for promoting an academic atmosphere. Here, as in the single-sex hall, the more oriented socially an individual is, the more competitive he is in his relationships within the hall. Finally, men in a coed hall who believe they are in an environment which stresses
academic achievement, also believe they are in an intellectual one.

Relationships between Peer Association Dimensions within the Fraternities

Within the fraternities, there were significant relationships between competition and involvement, academic achievement and involvement, intellectuality and involvement, traditional social orientation and intellectuality, and academic achievement and intellectuality. The interesting relationships are those of involvement with competition, academic achievement, and intellectuality. Involvement is significantly higher in the fraternity than the other three kinds of living groups (Table 4).

In the fraternity, involvement is positively correlated with academic achievement and intellectuality. Thus, involvement within the living group promotes more of an academic and intellectual atmosphere. An explanation for this is the more involved a student is — whether it be in his house, on campus, or in the community — the need to budget one's time becomes more acute. Surprisingly, the more involved student is often the academically better student; consequently, the higher level of academic achievement and intellectuality found within the living group. Involvement and competition, however, are negatively related. The more involved members of fraternities are, the less competitive they become. One reason is that members who interact consistently with each other produce positive feelings towards one another, thus reducing tension and conflict which promote competitive feelings.

Independence was found to be negatively related to traditional
social orientation within the fraternities. As the social atmosphere of the house increases, the independence decreases. This is not surprising as fraternities are significantly lower than the other three kinds of living groups on the independence subscale (Table 6) and significantly higher on the social orientation subscale (Table 8) than the off-campus and coed groups. The promoting of all-house social events, and the stressing of attendance, leads to less freedom and independence in social decision making.

Traditional social orientation and intellectuality are negatively correlated within the fraternities. As the social environment within the house increases, the intellectual atmosphere decreases. When the intellectual atmosphere tends to be the focus of a house, the social emphasis is not paramount, and vice-versa.

Academic achievement and intellectuality are positively correlated. When academic achievement is stressed within a living group, there is a certain amount of intellectuality within the environment to promote the need to achieve academically.

**Relationships between Peer Association Dimensions within Off-Campus Residences**

In the off-campus residences, significant positive relationships were found between involvement and academic achievement, involvement and intellectuality, independence and intellectuality, traditional social orientation and competition, competition and intellectuality, and academic achievement and intellectuality. It is not unusual that there is a positive correlation between involvement and both academic achievement and intellectuality. The off-campus student, living alone
or with roommates, would tend to center involvement around academics as opposed to social programs because of the lack of a large peer group to structure his social activities.

The positive correlation between independence and intellectuality is interesting, but not surprising. The student living alone is in an independent environment, but yet may be there for academic reasons. He believes that by living alone, or with one or more roommates, his environment is more intellectual and less subject to social pressure, than living in a fraternity or residence hall.

Within the off-campus group, competition is positively correlated both with traditional social orientation and intellectuality. Off-campus men scored significantly lower on the competition subscale than did the other three groups (Table 10). This correlation has little meaning for the student who lives alone because it is difficult to argue if an individual is living alone how he could reside in a competitive environment. However, the off-campus student living with one or more roommates could be in an extremely competitive environment in terms of dating and academics. Off-campus roommates, similar to roommates who reside in residence halls or fraternities, can compete against each other on both a social and intellectual level.

The last correlation, academic achievement and intellectuality, again, is not surprising. The stress of achieving academically is often times supported by and related to the intellectual factors in the environment.
Summary of Discussion

It may be concluded that sex-role identity differences do not exist among men in single-sex residence halls, coed residence halls, fraternities, or off-campus residences as defined in this study. However, the results emphasize the importance of understanding sex-role identity during the college years. Both social learning theories (Bandura and Walters, 1963; Mischel, 1966) and cognitive development theories (Kohlberg, 1966, 1974) of sex-role development are supported in this investigation. These two schools of thought emphasize cultural stereotypes and differential socialization as the main determinants of sex-role acquisition and modification. The responses to the Bem Sex Role Inventory are based on culturally-defined sex-role traits, thus the students were defining themselves in accordance with American sex-typed standards for desirable behavior for men. High masculine mean scores received for the four types of living groups indicated that factors are at work within the four kinds of living group environments promoting and encouraging the traditional, masculine sex-role identity. This particular investigation, however, does not support the research of Kohlberg and Ullman (1974) stating that college-age males reject the conventional sex-role standards and attempt to operate more on a principle of equity. The results showed that college-age males at the university in this sample readily accept conventional sex-role standards.

The data concerning the impact of the peer group is supported (Feldman and Newcomb, 1969, 1973; Astin, 1963, 1977; Chickering,
1969). Certain dimensions of peer association were apparent in varying degrees depending on the kind of environment. The works of Moos (1979), Frichette (1976), Ford (1976), and Goebel (1976) support this investigation's results.

Sex-role identity, as it relates to certain peer dimensions, indicates that there may be certain factors within the living group which do encourage sex-role identification, modification, or acceptance. The presence of the relationship of sex-role identity to such factors as involvement, traditional social orientation and independence infers that the type and quality of peer association quite possibly may affect, or even cause, a modification in sex-role identity.

The additional research regarding the positive and negative relationships between peer association dimensions in the four types of living groups is supported by Moos' studies (1979) indicating the different emphases each kind of living group places on certain dimensions of peer association and the relationship which one dimension might have with another.
Conclusions

The following conclusions were drawn from the results of the study and must be considered in view of the limitations indicated.

1. No significant difference was found in sex-role identification among sophomore men living in a single-sex residence hall, coed residence hall, fraternity, or off-campus residence.

2. Fraternity members were significantly more involved within their living group than sophomore men residing in single-sex residence halls, coed residence halls, or off-campus residences.

3. Fraternity members were significantly less independent within their living group than men in the other three types of living groups.

4. Men living off-campus and in coed residence halls were significantly less oriented socially in a traditional sense, than men residing in single-sex residence halls or fraternities.

5. Men residing in off-campus housing were significantly less competitive within their living environment than men in the other three types of living groups.

6. Several significant relationships between sex-role identification
and certain dimensions of peer association are evident within the living group environment. When the total sample was analyzed as one group, sex-role identification and involvement were positively correlated. Testing the groups separately resulted in different significant relationships. Men residing in single-sex halls showed a positive correlation between sex-role identity and traditional social orientation. Coed hall men showed a positive relationship between sex-role identification and independence. Within the fraternity group, there was no significant relationship between sex-role identification and any of the four peer association dimensions. Men living off-campus showed a positive relationship between sex-role identification and involvement.

7. No significant difference existed between sex-role identification of men in any of the four types of living groups and the peer association dimensions of academic achievement and intellectuality.

8. Further analyses of data in this investigation indicated additional peer association relationships at varying levels of intensity and significance. The intensity and level of significance depended on the type of living group. Specifically, these analyses resulted in information regarding the positive and negative relationships between the peer association dimensions — involvement, independence, traditional social orientation, competition, academic achievement, and intellectuality — within each type of living group.
Implications of the Study

The results of this investigation indicate that there are some important implications for student services practitioners in working with students in the four types of living groups studied.

In single-sex residence halls, student services staff are dealing with men who are competitive in their relations with others, oriented toward traditional social patterns, independent, and not involved within the living unit. In both social and educational programming design, planning should center around the encouragement of student involvement. Programs, therefore, must be of interest to the students. Resident support in planning and implementing programs, then, is imperative in order to encourage this involvement. Since single-sex residence halls are highly oriented socially, involvement should not be a difficult objective to achieve.

Competition also encourages involvement. However, activities should be planned which do not promote stressful competition, but rather the type of competition which builds friendships and promotes sportsmanship.

The study's results also imply that staff selection for single-sex residence halls is important. Hall directors and resident assistants must be attuned to the types of peer association dimensions that exist within the hall. For example, they should be aware that in the hall academic and social competition is high and could lead to stressful and undesirable consequences. Student services administrators must also realize the peer association dynamics within the living group.
Approaches to counseling, programming, and group and individual discipline, are all dependent on how administrators view the living unit.

In the study, sex-role identification and traditional social orientation within the single-sex hall were positively correlated. Therefore, activities must not become "all-male." In American society, where an understanding of equality of the sexes is important, encouragement in developing a healthy male sex-role identity in relations with members of both sexes is imperative.

In coed residence halls, like the single-sex halls, men lack involvement. They are less oriented socially than men in single-sex halls and fraternities. They are, however, competitive and independent. Programs, as in the single-sex residence, must be developed to encourage involvement and lessen unhealthy competition. A higher proportion of double rooms, better recreational facilities, and more varied activities would aid in attaining cohesiveness and involvement.

It is important, as it is in the single-sex hall, for residence hall staff and student services administrators to understand the peer association dimensions within the coed hall environment. Male and female relationships, according to this study's results and previous literature, are viewed differently by members of the coed hall than by members of the other three types of living groups. Thus, staff must be aware of the kind of environment from which a coed resident comes, as opposed to a resident from a single-sex hall, fraternity, or off-campus residence.

Fraternity men are highly involved within their group, highly
oriented socially, and also highly competitive. However, they are less independent than the other three kinds of living groups. Student services staff should continue support of the programs which do encourage involvement and social activities. The competitiveness of the fraternity, though, should be assessed more completely by the student services administrator. Fraternities tend to draw more competitive members, as this study and the literature indicate. This competition can be a negative factor within a living group when members begin competing against each other socially and academically. If this type of competition is not channeled in a more positive direction, it can easily lead to unhealthy competition with other types of living groups on the campus.

Student services staff, in dealing with the fraternity group, should be aware that they are dealing with a membership more cohesive and organized than the other three kinds of living groups studied. For instance, in a discipline proceeding, action taken against a fraternity may be appealed to student services administrators in a more organized and persuasive fashion than another type of living group. On the other hand, this cohesiveness and organization aids in better communication between the student services staff and the group.

The off-campus group is characteristic of members who are less involved within the living group, less oriented toward traditional social activities, less competitive, but higher in independence than the other three types of groups. Definite programs should be designed to make the off-campus student feel he is part of the university community. Programs dealing with specific needs of the off-campus student should be
assessed and planned. Publicity also should be generated to promote these programs. Results of this investigation indicate that planned, group social activities are lacking within the off-campus residence environment. Organized social events would be beneficial as they would provide the opportunity to meet others, both on and off the campus. Also, more promotion by student services staff of intramural sports would aid in increasing involvement and healthy competition among off-campus students.
Recommendations

The following recommendations are derived from the results of this study in hopes of providing impetus for further research.

1. There is a need for longitudinal studies concerning sex-role identity and the influence of certain peer association dimensions in order to assess the long-term impact of sex-role identity within the living group environment.

2. The study should be replicated on other campuses — both similar and dissimilar — to Oregon State University to see if this study's results are applicable to other college settings.

3. Other studies should be conducted to examine the influence of sex-role identity on the acceptance of identity, development of the college student's value system, and the achievement of meaningful, interpersonal relationships.

4. Studies should be developed and conducted to further examine what other environmental factors are influencing sex-role identity.

5. Student services staff should proceed to design living group environments which offer the opportunity to explore issues, attitudes, values, and behavior related to sex-role identification.
6. The research should be expanded to include different types of group living units and different class levels of men and women.

7. The assessment of the effect of the staff influence on sex-role identification development would be beneficial in order to add to the information concerning factors within the residence hall affecting sex-role development during college.

8. Further studies should be conducted which examine the social climate of college residences and its relation to different aspects of individual personality development to see if certain factors within the group living situation are affecting personality development.

9. The development of techniques for measuring sex-role identity and peer association dimensions within the living group, other than self-assessments, might provide a different insight into sex-role identity and those factors within the environment which may be influencing it.

10. Continued measurement and refinement of the Bem Sex Role Inventory and University Residence Environment Scale are necessary so that these two instruments measure what they purport to measure.

11. The development of an instrument to effectively measure the environmental impact of the off-campus living experience on personality
development, values, and attitudes of the off-campus resident is needed. A differentiation between the off-campus student who lives in the family home and the off-campus student who lives alone or with one or more roommates would be beneficial.
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Dear O.S.U. Student,

As a member of the O.S.U. student body your help is needed. One of the many functions of a university is developing a better understanding of students and the programs which serve them. Your cooperation is important as you have been selected to participate in a study concerning student living conditions and human sexuality.

This is not a psychological test. You will notice a number on each questionnaire. This is for follow-up purposes only. You may mark it out if you wish. All responses will be kept strictly confidential. No individual will be identified and only group comparisons will be made. You are under no obligation to complete the questionnaires. If you do not choose to participate in this study please use the self-addressed envelope to return the forms. If you are married, a transfer student, or born before September 1, 1959, you need not participate in the survey; however, please return the questionnaires.

Enclosed are the two questionnaires. In order to insure the success of this study, please complete both and return them in the self-addressed, stamped envelope by ______.

Your involvement is very much appreciated. This research is being conducted under the supervision of Dr. I. Penn in the Office of Student Services. If you have any questions, please feel free to contact me or Dr. Penn.

Yours very truly,

Ed Whipple
Doctoral Candidate

P.S. Please note that one of the questionnaires is called the University Residence Environment Scale. It may have some statements which you feel do not pertain to your off-campus living situation. Your answers, however, are necessary. Please complete the entire questionnaire.
APPENDIX B

Mean Scores of Males for the
Bem Sex Role Inventory

**norm group** (N = 444)
- masculine mean = 4.97
- feminine mean = 4.44

**single-sex hall group** (N = 30)
- masculine mean = 5.18
- feminine mean = 4.50

**coed hall group** (N = 70)
- masculine mean = 5.14
- feminine mean = 4.53

**fraternity group** (N = 70)
- masculine mean = 5.35
- feminine mean = 4.63

**off-campus group** (N = 97)
- masculine mean = 5.11
- feminine mean = 4.56