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COMPARING MALE CADET ATTITUDES FOR MASCULINITY IDEOLOGY WITHIN CIVILIAN AND MILITARY COLLEGE ENVIRONMENTS

by

Ardis G. Cecil

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

ARIZONA STATE UNIVERSITY

August 1996

COMPARING MALE CADET ATTITUDES FOR MASCULINITY IDEOLOGY

WITHIN CIVILIAN AND MILITARY COLLEGE ENVIRONMENTS

by

Ardis G. Cecil

has been approved

June 1996

APPROVED:

Sharon E. Kurpius Chair

Barbara Ken

Richard T. Kinnier

Supervisory Committee

ACCEPTED:

Gail Hackett

Division Director

Bianca I. Bernstein

Dean, Graduate College

ABSTRACT

This study was designed to explore the interrelationships of masculinity ideology, attitudes toward women, and authoritarianism among cadets in military and civilian college environments. In addition, it tests whether cadets would change their attitudes as a result of being socialized in their respective college environments for four years. Cadets from two settings were recruited as subjects, first and fourth-year cadets from the Air Force Academy and first and fourth-year cadets from the Air Force Reserve Officer Training Corps program at Arizona State University. These cadets completed three research instruments—the Male Role Norms Scale, the Attitudes Toward Women Scale, and the Right-Wing Authoritarian Scale. Correlational analyses revealed significant relationships between attitudes about masculinity ideology and authoritarianism and between attitudes about masculinity ideology and women's gender roles but no relationship between attitudes about women's gender roles and authoritarianism. A priori t-tests further indicated that first-year and fourth-year military cadets at both military and civilian college environments reported similar attitudes about masculinity ideology and authoritarianism, in spite of differences in socialization factors. Three instruments were chosen to test the hypotheses that: 1) there would be a positive relationship between attitudes in masculinity ideology and authoritarianism and a negative relationship between attitudes about women's gender roles and authoritarianism for cadets in a

military college environment; 2) there would be no relationship between attitudes about masculinity ideology and women's gender roles; 3) there would be no differences in attitudes about masculinity ideology and authoritarianism between first-year and fourth-year cadets in a military college environment but differences on those same constructs would be reported between first-year and fourth-year cadets in a civilian college environment; and 4) there would be no attitudinal differences in masculinity ideology and authoritarianism between first-year cadets from military and civilian college environments but differences would occur between fourth-year cadets from military and civilian college environments. The findings are consistent with the fact that cadets from both college environments evidenced a self-selection factor and a "best fit" for a military environment, along with a singular occupational choice—that is, a military officer—which transcends environmental and related socialization differences.

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CHAPTER I

THE PROBLEM IN PERSPECTIVE

National polices to end racial and sex discrimination in the military were enacted in 1948. This has resulted in increasing numbers of African-Americans and women serving in the Armed Forces (Herek, 1993). Although problems such as discrimination and sexual harassment have been associated with these changes, the military has aggressively sought zero-tolerance of discrimination or sexual harassment among its members (Boles, 1995).

Discrimination against women in the military was officially addressed in 1948; however, equal occupational opportunities were not available for some time. It was not until almost 30 years later in 1976 that women first joined the Air Force Academy's (AFA) entering class of cadets (DeFleur, Gillman, & Marshak, 1978).

> These women stepped into an environment heavily dominated by tradition and 'maleness'....In the socialization process, it stresses the development of disciplined officers who are physically competent, competitive, and aggressive. These are essentially masculine role characteristics; to the present time, 'maleness' has been an ascribed criterion for entrance and participation in most military organizations, including the Academy (DeFleur et al., 1978, p. 608).

Because of the long history of a male-only environment at the AFA, problems in the integration of women were expected. To have some perspective

on the problem, cadet attitudes towards women (i.e., per the 25-item Attitudes Toward Women Scale, AWS) and attitudes toward women cadets (i.e., per a 43-item questionnaire) were surveyed in the summer and fall of 1976. Not only were attitudes by male cadets towards women found traditional on the first administration, but their attitude increased in traditionality on the later administration. These traditional attitudes toward gender roles are important to understand as they relate to many serious gender-related problems, such as women's integration at the AFA.

The literature on gender suggests that many societal and individual problems (e.g., sexual harassment, gender discrimination, and rape) are associated with traditional attitudes toward gender roles (i.e., Daniel, Abernath, & Oliver, 1984; Millham & Weinberger, 1977; Quackenbush, 1989; Shotland & Goodstein, 1983; Stark, 1991; Szymanski, Devlin, Chrisler, & Vyse, 1993). For example, Hofeller (1982) found that strict adherence to a rigidly defined male role was one of the striking characteristics about those men who battered their partners. The military, a traditional institution, also has gender-related problems evidenced by the recent need for a world-wide, 1995 Department of Defense survey about sexual discrimination and gender harassment issues in the Armed Forces (Dorn, 1995). The proportion of first-year women cadets in May, 1977 was 11.7% ($\underline{n}$ = 146) and the proportion of first-year women cadets in May, 1996 was 14.9% ($\underline{n}$ = 169). This raises additional concern about traditional attitudes perhaps limiting military opportunities for women as there has been

only a minimal increase in proportion of female cadets at the AFA after almost 20 years.

An initial and vague assumption in the research by DeFleur et al. (1978) may contribute to an understanding of this problem and evoked additional questions. It was earlier mentioned that DeFleur et al. determined that the AFA and the male cadets were "traditional" based on the fact that the AFA had a history of ceremony and ritual and because a few masculine role adjective traits were descriptive of the role of a military officer (e.g., physically competent, competitive, and aggressive). To assess attitudes toward women accurately, a 68-item assessment was developed. Clearly, the conclusion about male cadet attitudes being traditionally masculine was not as empirically established as were attitudes toward women. Consequently, the first question related to DeFleur et al.'s initial assumption is whether male cadets' attitudes toward men's gender roles are traditional and to what degree. No investigation of male cadet attitudes toward male gender roles has been found in the literature to date. Thompson , Pleck, and Ferrara (1992) identified this historical lack of research about male attitudes toward male gender roles as research which emphasized males, but failed to study men as men. Future research needs to recognize "males as one of the two genders whose life opportunities and social experience systematically differ from women's" (Thompson et al., 1992, p. 574).

This leads to questions about the existence and extent of a relationship between male cadets' attitudes about women's gender roles and men's gender

roles and questions about any other variables which might be related to the gender role attitudes of male cadets at the AFA. For example, are there Academy or military policies that are traditional and contribute to the findings? Since research has defined the military as not only a traditional institution but an authoritarian institution (Eckhardt, 1991), the role of authoritarian attitudes must be considered when investigating attitudes about gender roles

Finally, theories of college student development (Chickering & Reisser, 1993; Perry, 1970, 1981; Weidman, 1989a, 1989b) indicate that there is growth and evolution of attitudes, thoughts, and behaviors as a result of being in a college environment for four or more years. This raises two questions with respect to a military college environment. First, does the context of a four-year college experience at the AFA influence changes in the male cadets' attitudes toward men's and women's gender roles? Decreases in traditional gender role attitudes were found related to decreases in partner abuse (Gondolf & Hanneke, 1987). Therefore, it would be beneficial to monitor attitudes about men's gender roles while observing gender-related problems such as discrimination, sexual harassment, and resistance to women' integration. Second, is that contextual experience significantly different from a four-year civilian college experience? This research was designed to provide answers to these questions.

Related Literature

When examining male cadet attitudes about gender roles, it is important to investigate not only attitudes about women's gender roles, but attitudes

toward men's gender roles, along with potentially related variables, and the context in which the attitudes are manifested. The following is an overview of the literature on a) gender role research, b) women's gender roles, c) masculinity ideology, d) authoritarianism, and e) undergraduate socialization for both military and civilian contexts.

Gender Role Research

As a human categorical variable, gender is a characteristic which is easily and immediately recognized (Kessler & McKenna, 1978). "As a consequence, the gender beliefs system may be activated very quickly, before other potentially contradictory information can be introduced" (Deaux & Major, 1987, p. 384). This means that individual beliefs about what is appropriate or inappropriate behavior for another individual is first dependent upon observation of gender and then is influenced by social interactions.

The expectations associated with an individual's gender have been referred to as sex role or gender role attitudes. Gender roles can refer to culturally accepted cognitions, feelings, and behaviors related to internalizations of masculinity and femininity (Bem, 1993; Deaux & Kite, 1987; Kite & Whitley, in press; O'Neil, Egan, Owen, & Murray, 1993). Social scientists have generally used gender role socialization within a culturally deterministic paradigm as a primary method to explain human behavior (Sidanius, Cling, & Plato, 1991). Additionally, Sidanius et al. (1991) reported that social learning theory (e.g.,

Bandura & Walters, 1963) is the fundamental approach for discussing gender role socialization.

> According to this approach, differences in the attitudes and behaviors of males and females are considered to be functions of learned gender roles. These roles consist of specific conglomerates of attitudes and behaviors that a given culture defines as appropriate for a particular sex. Within gender role socialization models, these roles are purely culturally defined constructions, the specific contents of which are, in principle, arbitrary. Children learn the appropriate gender roles by observing the attitudes and behaviors of other males and females (i.e., role models) and absorbing the "appropriate" attitudes and behaviors associated with their sex from the general environment within their cultures (Sidanius et al., 1991, p. 135).

In spite of a significant amount of gender role research, outcome consistency among researchers is problematic. "These contrasting patterns of variability and stability, of similarity and differences, have presented a persistent challenge to theories of gender" (Deaux & Major, 1987, p. 369). Relatedly, O'Neil et al. (1993) found that gender role attitudes are variable over the lifespan. Consequently, O'Neil and his colleagues created a developmental model to predict gender-related attitude changes.

Burnett, Anderson, and Heppner (1995) reviewed the gender literature and found that instrumentation was a research methodology issue of concern as

the instruments were often biased or inadequately operationalized the gender construct of interest. Other researchers (Thompson & Pleck, 1995; Thompson et al., 1992) also identified the same problem. Therefore, future researchers need to discuss and define the gender construct of interest adequately and then effectively measure the variable with appropriate instrumentation. Thus far, gender related research problems have been identified with defining the gender construct(s) of interest, utilizing appropriate instrumentation, and explaining variability in gender role attitudes over a life-time.

Deaux and Major (1987) identified a fourth consideration—context. Specifically, they suggested that "the context in which interaction occurs shapes the resultant behavior" (p. 369) and accounts for variable outcomes in gender research. This means that men and women construct their interaction with others as a result of the specific environment in which the interaction takes place. This perspective also provides insight into the variable findings with respect to gender research as a "gap" or incongruency may exist between an individual's gender role expectation and the expectation associated with the environmental context. "Thus, in their social encounters, people may experience tension between two needs: the need to routinize their behavior and cognition in accord with pre-established conceptualizations and behavioral patterns, and the need to contexualize their behavior and cognitions to fit with immediate situational demands and interaction goals" (Deaux & Major, 1987, p. 370).

Deaux and Major (1987) concluded that gender related behaviors are rooted in social interactionism; therefore, how individual gender role expectations and environmental gender role expectations converge must be considered. Such a convergence may explain the problem in predicting behavioral outcomes about gender in the past. While researchers may have looked at gender attitudes with appropriate definitions and instrumentation, context may not have been controlled or considered. Consequently, "situational specificity" (Deaux & Major, 1987, p. 384) needs to be a fundamental component of gender-related behavioral research.

Overall, gender research has been moving in a positive direction in that construct definition is better delineated and instruments better match these constructs. Clearly, more attention to defining gender related constructs and more appropriate ways of measuring gender role beliefs will enhance the gender research endeavor. In addition, efforts to understand traditional gender role beliefs need not be done in a vacuum, as observing variation in context can contribute to a better understanding of gender role beliefs.

Women's Gender Roles

Gender role attitudes were earlier defined as culturally determined cognitions, feelings, and behaviors related to the internalization of femininity and masculinity attributes. Relatedly, Bem (1973) developed a list of feminine characteristics which were typically considered appropriate and expected for a woman. They include: affectionate, cheerful, childlike, compassionate, avoids

harsh language, eager to soothe hurt feelings, feminine, flatterable, gentle, gullible, loves children, loyal, sensitive to others' needs, shy, soft spoken, sympathetic, tender, understanding, warm, and yielding. In contrast, Bem (1973) listed stereotypical masculine characteristics as: "acts as a leader, aggressive, ambitious, analytical, assertive, athletic, competitive, defends own beliefs, dominant, forceful, has leadership abilities, independent, individualistic, makes decisions easily, masculine, self-reliant, self-sufficient, strong personality, and willing to take a stand" (p. 156). While it is expected that individuals will affirm some characteristics from both categories, affirming more of the characteristics which are congruent with one's gender would support a more traditional attitude about women's or men's characteristics. "In general, masculinity has been associated with an instrumental orientation, a cognitive focus on "getting the job done;" and femininity has been associated with an expressive orientation, an effective concern for the welfare of others" (Bem, 1973, p. 156).

Bem's (1973) femininity and masculinity descriptors appear to put men in heroic leadership roles, while women appear to hold lesser, supportive roles. Relatedly, Noble (1994) found that "From the religious myths of the ancient world to the secular myths of the modern world, the stereotype of the heroine reinforces the restrictive attitudes toward woman in patriarchal cultures " (p. 12). Restricting or narrowly defining gender-appropriate roles reflects more traditional perspectives, while accepting and promoting a variety of behaviors is

the opposite, a nontraditional or liberal perspective. For example, restrictive attitudes toward women are exemplified by the main female character, Princess Leia, in the Star Wars film. Princess Leia "seemed to devolve over the course of events, finally becoming a scantily clad heroine who inspired Han Solo and Luke Skywalker to greater depths of spiritual and personal prowess but never developed her own" (Noble, 1994, p. 11). This illustration by Noble supports Bem's list of descriptors as Princess Leia is loyal, sensitive to the needs of others, yielding, and understanding. Additionally, such "messages" from the entertainment industry contribute to the culture's standards of gender role behavior.

Attitudes about women's gender roles have been assessed by measuring traditional role expectations such as those for occupational choices. Traditionally, women were expected to have homogenous goals of marriage and children and/or a traditional career such as being a secretary, nurse, and teacher (Bem & Bem, 1970). It would be possible for a woman to obtain a career in a field other than the ones listed, but the expectation for a nontraditional career was not likely to occur.

In summary, attitudes toward traditional women's gender roles are often assessed along a continuum of traditional to nontraditional expectations with regard to characteristics, behaviors, and roles. Attitudes about women's gender roles from a traditional perspective might include the feminine characteristics (e.g., tender, understanding, affectionate, etc.) described by Bem (1973),

supportive or peripheral roles as described by Noble (1994) , or restricted role opportunities (e.g., wife, teacher, nurse, or secretary) as indicated by Bem and Bem (1970).

Masculinity Ideology

O'Neil (1981) coined the phrase "masculine mystique and value system" (p. 67) to describe a system of traditional values and beliefs that rigidly define optimal masculinity. Citing numerous studies, O'Neil developed the following list of traditional assumptions which underlie the masculine mystique:

> 1) Men are biologically superior to women, and therefore men have greater human potential than women; 2) Masculinity, rather than femininity, is the superior, dominant, more valued form of gender identity; 3) Masculine power, dominance, competition, and control are essential to proving one's masculinity; 4) Vulnerabilities, feelings, and emotions in men are signs of femininity and to be avoided; 5) Interpersonal communication that emphasizes human emotions, feelings, intuitions, and physical contact are considered feminine and to be avoided. Rational-logical thought rather than intuitive and emotional expressions is the superior form of communication; 6) Sex is a primary means to prove one's masculinity. Affectionate, sensual, and intimate behavior are considered feminine and less valued; 7) Vulnerability and intimacy with other men are to be avoided because (a) a man can not be vulnerable and intimate with a male competitor because he may be taken

> advantage of, and (b) intimacy with other men may imply homosexuality or effeminacy; 8) Men's work and career success are measures of their masculinity; 9) Men are vastly different and superior to women in career abilities; therefore men's primary role is that of breadwinner or economic provider; women's primary role is that of caretaker of home and children (p. 205).

Men who are traditional will use negative reinforcement or punishment with men who deviate from the rigid standards (O'Neil, 1981). O'Neil (1981) also recognized two levels of ideology associated with the masculine mystique—beliefs at the individual level and policies at the institutional level. These findings are congruent with Deaux and Major's (1987) model of gender role attitudes which emphasize context.

Relatedly, Thompson and Pleck (1995) and Thompson et al. (1992) have looked at men's gender role attitudes from a normative rather than from a trait perspective. This resulting perspective has been called masculinity ideology. This differentiation means a social constructionist perspective, not a psychologically or biologically based perspective. The normative perspective "is a socially constructed gender ideal for men and male roles" (Thompson & Pleck, 1995, p. 131). While using a perspective of masculinity ideology, Thompson and Pleck (1986) found that a man can hold a progressive, nontraditional attitude toward female roles, while at the same time maintain a traditional attitude toward male roles. Previously, it was assumed that gender role attitudes were

similar across gender constructs. Thompson and Pleck (1986) reported that "the normative approach views 'masculinity' as a socially constructed gender script, and examines the ideologies and institutions involved in maintaining different masculinity standards" (p. 576). This finding is congruent with Deaux's and Major's (1987) model of considering context in gender role research.

In summary, first it is important to define adequately the gender construct of interest. Then the decision is whether to assume a trait perspective that is psychologically or biologically based in a cultural framework or to choose a normative perspective that reflects a social constructionist perspective and addresses what is the norm or traditionally expected for male gender roles. The choice of perspective will be reflected in the selection of the research instrumentation. Finally, it should be remembered that attitudes toward women's gender roles may not have a relationship to masculinity ideology.

Authoritarianism

Although not a gender role construct, authoritarianism is a closely related concept. The first research on authoritarianism, attributed to Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), was conducted during World War II. Adorno and his colleagues found authoritarianism correlated with conservatism, militarism, nationalism, and religiosity. Eckhardt (1991) conducted an analysis of authoritarianism by comparing it to other psychological constructs that appear to be interrelated along a value dimension. The constructs compared to authoritarianism included: conservatism, toughmindedness, religiosity,

dogmatism, militarism, nationalism, and compulsion. After searching for commonalities, Eckhardt (1991) posited the following general rules about these psychological constructs: 1) a basic psychological pattern links the constructs, 2) this pattern makes the constructs look similar, and 3) neither intelligence nor clinical personality explain the variance shared by these constructs. This basic psychological pattern was characterized by inner conflicts or self-contradictions (i.e., religious control vs. sexuality), by denial or repression of these internal conflicts , of projection of denied or disliked aspects of self (especially onto perceived inferiors), and by justification or actualization of denied values (i.e., through aggression and dominance). Overall, Eckhardt (1991) concluded that these constructs "were simply different parts of the same forest;" (p. 121) that they provided a human value measure of "the greatest good or freedom for the greatest number of people at one extreme to the greatest good or freedom for the smallest number at the other;" (p. 121) and that these value-laden dimensions determined "what is good for whom and for how many and for how long" (p.121). Therefore, authoritarianism appears to be an attitudinal response to reduce inner distress caused by ethical and moral dilemmas that are not prone to resolution.

Altemeyer (1981) reviewed all the research on authoritarianism prior to 1980 and identified five major works: Eysenck (1953), Rokeach (1960), Wilson and Patterson (1968), Lee and Warr (1969), and Kohn (1972). After conducting extensive analyses of their respective findings about authoritarianism,

Altemeyer (1981) concluded that there were various problems with existing research and a common problem was response sets. This information was valuable to Altemeyer (1981) in his development of a "viable scientific construct of authoritarianism" (p. 10) and a valid measure of it, the Right-Wing Authoritarianism Scale (RWAS). He defined "right-wing authoritarianism" as attitudinal clusters which look at the degree of submission to authorities in society perceived as established and legitimate, the degree of aggression against objects sanctioned by established authorities, and the degree of conventionalism or adherence to societal conventions endorsed by established authorities. Altemeyer (1981, 1988) conducted extensive research on right-wing authoritarianism, a word used interchangeably with the single word, authoritarianism. He tested about 20,000 respondents with the 30-item RWAS. After rigorous psychometric testing, Altemeyer (1988) concluded that the RWAS "appears to be the best measure of personal authoritarianism we have at the moment" (p. 12). Altemeyer wondered if there was an explanation hidden in a person's early life which would explain how each person's authoritarian attitude develops. He found the framework of social learning theory helpful in doing so.

Altemeyer (1988) relied on Bandura's (1977) social learning theory to explain how RWA develops in a person.

> Social learning theory, like other theories, states that attitudes are shaped by the reinforcements administered by parents and others and also by the reinforcements received while interacting with the objects of attitudes.

> But it also allows, indeed insists, that much is learned through imitation and vicarious reinforcement. The theory's further emphasis on our use of cognitive symbols to represent events, persons, and objects clearly accommodates an interest in attitudes....Finally, social learning theory acknowledges the complexity of human social behavior; stresses that people shape their environment as well as vice-versa, and is supported by a considerable volume of experimental evidence (Altemeyer, 1988, pp. 54-55).

This framework provided Altemeyer the direction in which to seek answers. For example, his research considered parental, peer, and educational influences of authoritarian attitudes.

Relatedly, Altemeyer (1988) investigated the effects of four years of college education on authoritarianism. He compared the 1982 scores of 77 first-year college students to their 1986 scores as fourth-year college students. Authoritarianism scores dropped significantly. After analysis by college major, Altemeyer, found that the less liberal program majors had an 8 percent score reduction, while more liberal arts program majors incurred an 18 percent score reduction. "This longitudinal finding also corroborates many earlier (negative) correlations between level of education and authoritarianism" (pp. 92-93).

Altemeyer (1981, 1988) has conducted thorough and empirically sound research on authoritarianism. In fact, a draft of Altemeyer's 1988 book won the 1986 Prize for Behavioral Science Research by the American Association for the

Advancement of Science. His work resulted in a unidimensional understanding of authoritarianism and a measure which looks at three attitudinal clusters: authoritarian submission, authoritarian aggression, and conventionalism. Altemeyer (1988) studied attitudinal changes occurring between the first and fourth year of college education, and his results supported the idea that education is negatively correlated to authoritarianism. Conceptually, right-wing authoritarianism reflects a pattern of traditional thinking and behavior. For example, submission means to accept what the larger group (i.e., majority or society) defines as appropriate or as the standard—that is, the traditional, stereotypical expectations. Furthermore, conventionalism means to accept customs and long-held values of society, again, an aspect of traditionality.

It is logical, then, when examining authoritarianism, to determine how it relates to social customs, standards, values, and issues. For example, Altemeyer (1981, 1988) investigated correlations between authoritarianism and social issues such as religion, education, politics, punishment, prejudice, and demographic variables. Peterson, Doty, and Winter (1993) examined authoritarian attitudes along with attitudes about contemporary social issues such as AIDS, drug use, the environment, abortion, child abuse, homelessness, the space program, the trade deficit, and the missions of colleges. Haddock, Zanna, and Esses (1993) assessed the attitudes toward homosexuals and right-wing authoritarianism. It

is evident that a variety of social issues have been examined as they relate to authoritarianism.

Attitudes toward gender roles is a social issue that has not received much attention with respect to its relationship with authoritarian attitudes. Haddock and Zanna (1994) focused on the relationship between attitudes toward women and authoritarianism. Although Altemeyer (1988) referred to an incidental relationship between a wife's subservient role and highly authoritarian individuals, he conducted no investigation in this area. Haddock's and Zanna's purpose was to replicate previous studies (Eagley & Mladnic, 1989; Eagley, Mladnic, & Otto, 1991) that found overall attitudes toward women was more favorable than overall attitudes toward men. In a series of four studies that related attitudes toward women and authoritarian attitudes, Haddock and Zanna found that attitudes toward women were more favorable than toward men, that attitudes toward housewives were more favorable than attitudes toward feminists, that there was a negative relationship between right-wing authoritarianism and attitudes toward feminists, and that differences in values about feminists mediated the relationship to authoritarianism. As previous discussion has emphasized, appropriate instrumentation has been problematic in most gender role research. A single-item about women with a response option of 1-100, ranging from "extremely unfavorable" to "extremely favorable" was the method used by Haddock and Zanna (1994) for measuring attitudes about women. There was no discussion about the reliability or validity of this choice

of measure. Although the 30-item RWAS was used to measure authoritarianism on three of the four studies, one study incorporated a version with only 10 items. These psychometric concerns raise questions regarding the validity of Haddock's and Zanna 's conclusions.

From this discussion of research about social issues and authoritarianism, it is evident that the relationship between authoritarianism and attitudes toward gender roles is still poorly understood. The research which has been reported has used varied operationalizations of attitudes about authoritarianism and women's gender roles (e.g., Centers, 1963; Frenkel-Brunswick, 1954; Haddock & Zanna, 1994; Saryp, 1974). Furthermore, attitudinal research about men's gender roles and authoritarianism has been neglected altogether.

Undergraduate Socialization

Many theories have been developed to explain the effects of the college experience on students. Such theories provide valuable insight into the development of student behaviors, feelings, and thoughts. Most of the theories fall into one of four categories: 1) psychosocial theories, 2) cognitive theories, 3) typology theories, and 4) person-environment interaction theories (Pascarella & Terenzini, 1991). The person-environment interaction models allow for consideration of normative contexts, socialization processes, formal and informal aspects, along with structural and organizational characteristics of institutions (Chickering & Reisser, 1993). The person-environment interaction theory compliments Deaux's and Major's (1987) social interactionist perspective. Both

theories note the need to consider the normative context in order to authentically understand attitudes toward gender roles.

The conceptual framework of undergraduate student development is also needed to explain the connections among individuals, institutions, and attitudes. Herek (1984) referred to this relationship as the "cultural context of attitudes" (p. 3). Weidman's (1989b) Conceptual Model of Undergraduate Socialization (see Figure 1) identified many of the factors involved and described how these factors relate. In another article discussing his framework of undergraduate socialization, Weidman (1989a) raised the process of "integration" to a level equal to "normative contexts" and "socialization processes," (i.e., interpersonal and intrapersonal). The integration component addresses the student's perception of his or her academic and social "fit" in the college environment. Weidman's (1989a, 1989b) socialization concepts first note that the student has a personality (e.g., aptitude, aspirations, and values) prior to entering college. Next, the model reflects experiences before college (e.g., family and peers) which typically continue to influence the student during college. In related research, Weidman (1984) has suggested, however, that parents have a decreasing influence on their sons and daughters once they move to college (e.g., away from overall supervision of the family). Third, the model indicates the many institutional characteristics (e.g., institutional quality, institutional mission, hidden curriculum) and socialization processes that may influence the

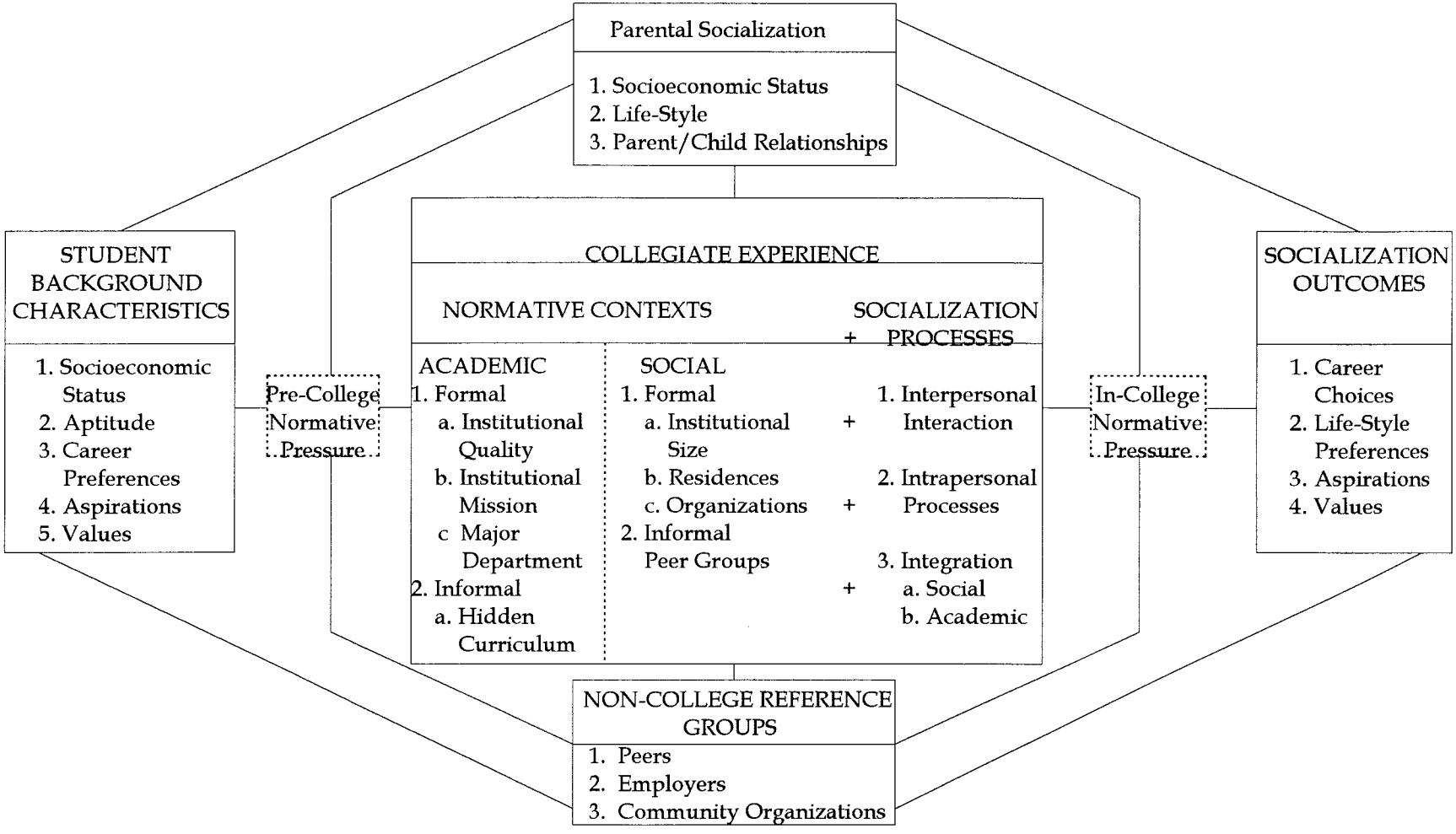

Figure 1. A conceptual model of undergraduate socialization. From "Undergraduate Socialization: A Conceptual Approach," (p. 299) by J. Weidman, 1989b, in J. Smart (Ed.), Higher education: Handbook of Theory and Research, Vol. V (pp. 289-322). NY: Agathon Press. Reprinted with permission from Agathon Press.

development of an undergraduate student. Finally, the model logically organizes these variables to explain probable outcomes (e.g., career choices, life-styles, values). Weidman's (1989a, 1989b) conceptualizations of undergraduate socialization is useful as a framework to map out the relationships among students, student attitudes, and the institution. The question left unanswered is to what extent does Weidman's (1989a, 1989b) framework of civilian undergraduate socialization accurately reflects what happens in a military college setting?

Weidman's (1989a, 1989b) framework of undergraduate socialization can be revised to differentiate military undergraduate socialization from its civilian counterpart. Cecil's (1996) adaptation of Weidman's (1989a, 1989b) framework illustrates how the socialization differences between civilian and military colleges may occur. Two major changes are necessary (see Figure 2). First, "military training" is conceptually added to the collegiate experience as a normative context, in addition to the academic and social contexts. The academic context addresses experiences influenced by institutional selectivity of its students/faculty, institutional quality, choice of major, faculty evaluation, and unwritten rules. The social context considers the influences of extracurricular participation. On-campus activities is an important consideration because "...the broader the scope of the student's involvement with the college, the more accessible he is to intervention and the more diverse the mechanisms

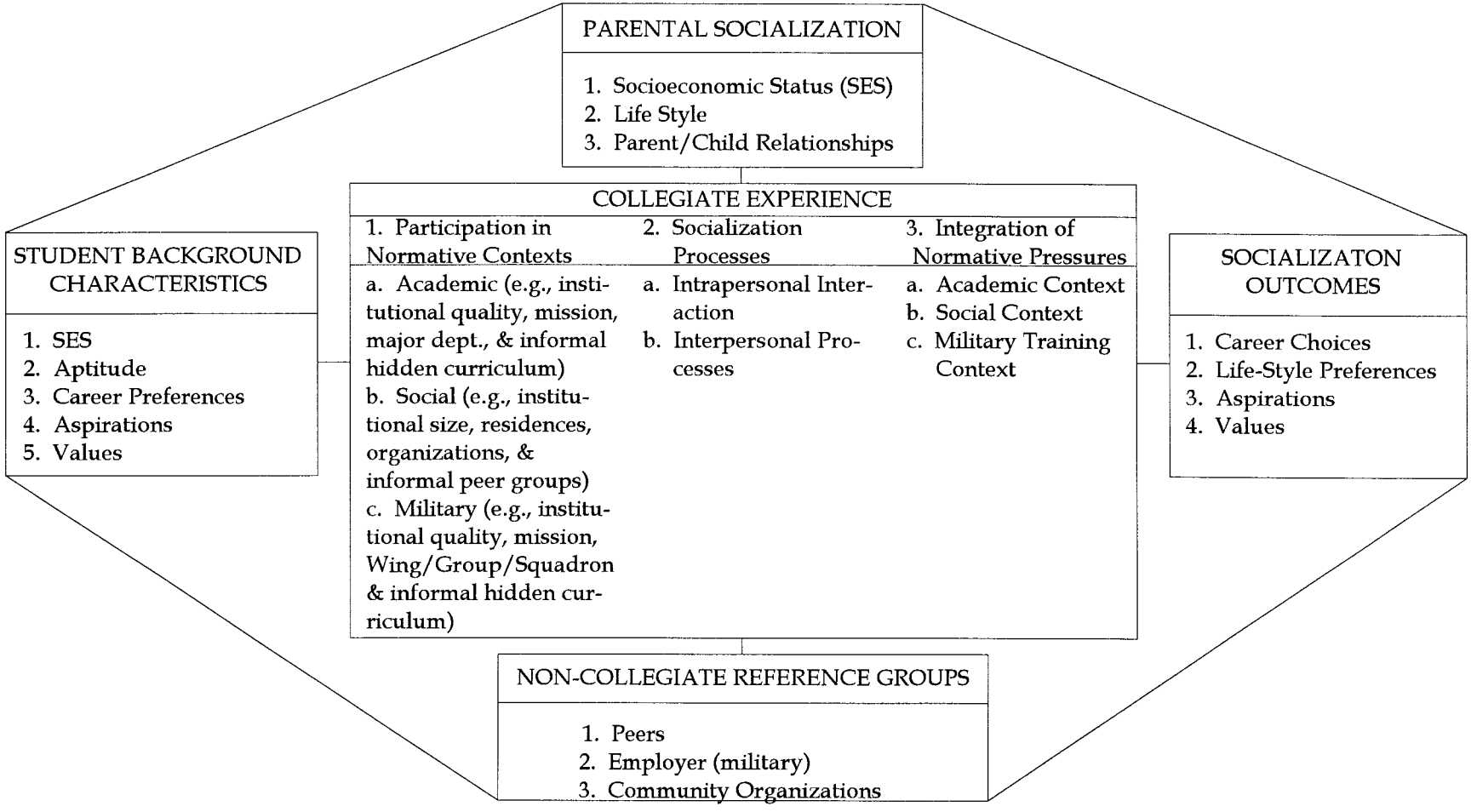

Figure 2. A conceptual model of undergraduate socialization for a military college environment. Adapted from "The Social World of Higher Education," (p. 93) by J. Weidman, 1989a, in K. Hurrelmann & U. Engel (Eds.), The Social World of Adolescents: International Perspectives (pp. 87-105), NY: Walter de Gruyter and "Undergraduate Socialization: A Conceptual Approach," (p. 299) by J. Weidman, 1989b, in J. Smart (Ed.), Higher education: Handbook of Theory and Research, Vol. V (pp. 289-322), NY: Agathon Press. Adapted with permission from Weidman.

that can be employed (especially mechanisms of indirect manipulation)" (Vreeland & Bidwell, 1965, p. 235). The military training context can account for those experiences related to military training that exert a pressure on the socialization process. This military training context is pervasive as it is evident almost everywhere and at most times—in the classroom, in the dormitories, on the grounds, in the cafeteria, on the playing fields—within a military college environment. Additionally, the context is explicit in uniforms and the appearance (e.g., haircuts, weight standards) of all cadets and of most faculty.

The other change to the civilian framework is the recognition of a military integration process in addition to the academic and social integration processes. Integration refers to the student's perception of how well he or she "fits" into the college and department of his or her major (e.g., academic integration) and into the campus relationships (e.g., social integration). "Academic integration is reflected in the success of students in accommodating themselves to the demands of the formal curricular structure" (Weidman, 1989a, p. 100), while social integration is observed primarily among the relationships between students, faculty, and administration. Military integration addresses the student's perception about "fit" with regard to military training experiences. For example, how a student perceives his or her ability to meet and maintain military standards (i.e., in dorm room inspections, in the wear of the uniform, in physical fitness tests, in military parade activities, on the obstacle course, in the

handling of weapons, under the pressure of regimen, etc.) contributes to his or her perception of "fit" in a military career. Both Weidman's civilian (1989a, 1989b) and Cecil's (1996) military conceptualizations of undergraduate socialization are helpful "maps" that point out relevant influences and the "direct and indirect interactions among them" (Chickering & Reisser, 1993, p. 458).

Cecil's (1996) undergraduate socialization model recognizes both psychological and social structural influences on a military member's development—an overall cultural influence that occurs through military training, education, values, and traditions. In 1990, Smith and McAllister stated that, "Much of the activity in military academies is intended to inculcate into cadets certain core values and beliefs about the military profession" (p. 381). Relatedly, the policies and practices of a military institution are considered authoritarian (Eckhardt, 1991). Because a military student's collegiate experience is about 11 months of each year, nonmilitary influences are limited.

An interesting change occurs during a students' four-year experience in a college environment. Lottes and Kuriloff (1994) reported that seniors obtained higher scores on such items as liberalism as compared to first-year students. Perry's (1970) theory can be used to explain these results. His intellectual and ethical developmental framework looks at first-year undergraduates as often dualistic in their thinking. By the time most civilian students are fourth-year students, the intellectual and ethical development has evolved to more

pluralistic and relativistic thinking. In other words, the fourth-year students have acquired an acceptance or higher tolerance of diversity in others because of intellectual and ethical growth during their college experience. Perry (1981) defined "relativism" as avoiding simplistic either/or categories, as avoiding right/wrong knowledge, and as considering context in evaluation processes. When dualism and relativism were studied as a developmental factor for undergraduates, Perry's (1970) model has been empirically supported (Beers, 1985; Ryan, 1984a, 1984b; Schwartz & Wilkinson, 1988).

Perry (1970) also identified authority as a significant variable in undergraduates' intellectual and moral development. Smith's and McAllister's (1990) discussion of the role of officer-producing institutions (e.g., the AFA) emphasized the role of authority in a military undergraduate setting and compliments the undergraduate socialization models (e.g., Cecil, 1996; Weidman, 1989a, 1989b). Smith and McAllister explained that military colleges:

> ...combine military training and academic education over a period of years and are hence most likely to shape the attitudes of those who pass through them...most military forces seek to exercise close scrutiny over their academies and to preserve them as an essential means of transmitting what they see as fundamental military values. The military academy may thus serve as a tool of social and organizational experimentation (p. 376).

These comments by Smith and McAllister (1990) cast light on how a military

school which molds civilians into officers expects students to submit to its authority and to accept military customs (e.g., conventionalism).

In summary, Cecil's (1996) adaptation of Weidman's (1989a, 1989b) framework of undergraduate socialization points out the significant differences between a military and a civilian college environment. Primarily, the military environment involves an additional normative context and social integration process because of its military training component. Higher levels of authoritarianism may be needed by military institutions in order to achieve their outcome goals of career officers and to accomplish their mission of protecting the country through aggression if necessary.

Summary

Although gender roles have been researched for about 30 years, there are concerns about this research. For example, masculinity has previously been investigated by assessing attitudes toward women's gender roles and by considering the relationships of men and women. Past findings may not have provided an accurate picture of male gender roles because of weaknesses in understanding the construct of masculinity and in the use of inappropriate instrumentation. In addition, Burnett et al. (1995) and Deaux and Major (1987) have suggested the significance of considering context or environment to fully understand gender role norms.

Authoritarianism, as defined by Altemeyer (1981, 1988), is linked to masculinity ideology. For example, just as aggression is a component of

traditional male behavior, aggression is a major attitudinal cluster of authoritarianism. Just as those with a traditional masculinity attitude would be slow to accept change, those with conventional attitudes would prefer social traditions and customs. Additionally, authoritarianism may not only describe attitudes held by individuals, it can reflect the attitudinal policies of an institution. As the AFA is an authoritarian institution (Eckhardt, 1991), authoritarianism is a potential variable for shedding light on the relationships between gender roles and social contexts.

Undergraduate socialization models help to explain the influences on undergraduate development for both civilian and military college environments. These models look at the relationship between the individual and the institution in order to facilitate understanding of student outcomes (i.e., attitudes, values, and career decisions).

Purpose of This Study

The purpose of this study was to compare the attitudes of first-year and fourth-year male military cadets from both military and civilian college environments. The attitude areas investigated were masculinity ideology, women's gender roles, and authoritarianism.

Hypotheses

This study investigated four hypotheses.

H1: For male cadets in a military college environment, there will be a significant positive relationship between attitudes about masculinity ideology

and level of authoritarianism and a significant negative relationship between level of authoritarianism and attitudes about women's gender roles.

H2: For male cadets in a military college environment, there will be no relationship between attitudes about masculinity ideology and attitudes about women's gender roles.

H3: First-year male cadets and fourth-year male cadets in a military college environment will not be significantly different in attitudes about masculinity ideology and in level of authoritarianism; however, there will be a difference between first-year and fourth-year male cadets in a civilian college environment in attitudes about masculinity ideology and level of authoritarianism.

H4: First-year male cadets in a military college environment will not be significantly different from first-year male cadets in a civilian college environment in attitudes about masculinity ideology and in level of authoritarianism; however, fourth-year male cadets in a military college environment will be significantly different from fourth-year male cadets in a civilian college environment in attitudes about masculinity ideology and level of authoritarianism.

CHAPTER II

METHOD

Setting

This study involved the comparisons of military cadet undergraduates whose college environments were either a military setting or a civilian setting. The military setting was represented by the United States Air Force Academy (AFA) in Colorado Springs, Colorado, while the setting for the civilian college environment was Arizona State University (ASU) in Tempe, Arizona.

The AFA is a major United States Air Force (USAF) command located about 60 miles south of Denver and 5 miles north of Colorado Springs. The Academy is the primary source of new military officers for the United States Air Force. Immediately following graduation, the cadets are commissioned as officers. The campus is situated at the foothills of the Rocky Mountains and comprises a wide, rural expanse of land covered with pine trees, meadows, and deer. As of May, 1996, the total AFA cadet strength was 3,895, composed of undergraduate level students only. The attrition rate for first-year cadets from the fall, 1995, to May, 1996, was 13.7%. Until the fall of 1978, the AFA was an all-male military academy. As of May, 1996, 85.3% of the cadet population was male (Office of Institutional Research, USAFA, 1996).

ASU is a major university located in the southwest region of the United States. In the fall, 1995, ASU supported a total student population of 42,040, which included an undergraduate student population of 31,212 (Office of

Institutional Analysis, ASU, 1996). The attrition rate for first-year undergraduate students who did not reenroll the next semester was 31.8%. The ROTC Commander (Lt. Col. Perkins, 1996) reported that the attrition rate for cadets leaving the ROTC program needs to be differentiated by those on military scholarship and by those not on any military scholarship. He explained that this is an important consideration when ROTC cadets are compared to AFA cadets as 100% of AFA cadets are on scholarship while not all ROTC cadets are on a military scholarship. Those ROTC cadets on a military scholarship have an attrition rate of 50% while those not on scholarship have a rate slightly less (Lt. Col. Perkins, 1996.) As of May, 1996, 50.0% of the ASU undergraduate and 49.6% of the total population was male. ASU is classified by the Carnegie Foundation as one of 88 Research I universities in the country, reflecting the level of graduate research accomplished at Research I institutions. The school is situated near downtown Tempe, adjacent to Phoenix, Mesa, and Scottsdale.

Participant Recruitment

Not only did the recruitment of the AFA cadets require the ASU Research Office's approval, it required both Air Force and AFA level review and approval of the research plan and survey instruments. The military approval process was started in July, 1995, and was completed by November, 1995. In early December, 1995, the AFA provided a computer-generated random sample of names of 300 first-year and 300 fourth-year cadets. Immediately, survey packages containing a cover letter, survey instruments, and a return envelope

were bulk-mailed to the Cadet Counseling and Leadership Center. The Center used local distribution to forward the 600 packages to the cadets. In early February, 1996, a follow-up letter was sent to all cadets.

After ASU's Research Office and the ASU Reserve Officer Training Corps (ROTC) commander authorized the recruitment of ASU's ROTC cadets, the survey packages were distributed to the cadets in April, 1996, during their ROTC classes. The return envelopes were pre-addressed to the researcher and collected by ROTC staff.

Participants

The pool of first-year and fourth-year cadets at the AFA consisted of about 2,150 cadets. From this pool, the research sample of names of 600 cadets was randomly generated by a computer. By the end of January, 1996, 110 surveys or 18 per cent, had been returned. Two of the 110 surveys did not have the demographic sections completed; therefore, sex of the respondent was not available, and the surveys were not usable. Of the remaining 108 surveys, 86 were from male cadets.

A follow-up letter was mailed to the original sample of 600 cadets in February, 1996. The second mailing resulted in the return of 12 additional surveys, 8 from male cadets. Of the new total of 122 returned surveys, 2 were incomplete, 28 were from female cadets, and 94 were from male cadets. The final response rate for the 600 cadets contacted was 20%.

The pool of ROTC cadets consisted of 81 first-year, third-year, and fourth-year cadets who were enrolled in the ASU ROTC program. Eighty-one survey packages were provided to the ROTC staff to distribute in class. Fifty-eight of the surveys were returned completed, and 23 were returned not completed, resulting in a 72% useable response rate. A follow-up letter was not sent. Of the 58 surveys which were returned completed, 16 were from female ROTC cadets, and 42 were from males. The ASU Research Office recommended that all cadets, male and female, be surveyed, although only the results of the male cadets were desired for this study.

Overall, there were 94 male AFA cadets and 42 male ROTC cadets for a total sample of 136 cadets. The total group included 59 first-year , 14 third-year, and 63 fourth-year cadets. The mean age for all first-year male cadets (AFA and ROTC) was 18.64 years (SD = .78). The mean age for the group of third-year male cadets (ROTC only) was 22.71 years (SD = 2.30). The remaining group of fourth-year male cadets (AFA and ROTC) had a mean age of 22.00 years (SD = 1.51). The majority of both the AFA and ROTC male cadet groups were Caucasian (n = 111, 83%). Other ethnicities represented by the male cadets were African-Americans (n = 11, 8%), Mexican-Americans (n = 6, 5%), Asians/Pacific Islanders (n = 4, 3%), Native-American (n = 1, 1%), and Spanish (n = 1, 1%). With respect to religion, most were Protestants (n = 65, 48%). Other religion responses included Catholics (n = 33, 24%), no religion (n = 18, 13%), other (n = 14, 10 %), Latter Day Saints (n = 4, 3%), Islamic (n = 1, 1%), and Jewish (n = 1,

1%). All regions of the United States were represented in the cadet sample. Also, communities with varying populations (i.e., rural, town, city, and large city areas) were represented.

The primary programs of study for both the AFA (48%) and ROTC (60%) male cadets were in the areas of Science/Math/Engineering/Computer (n = 70, 52%). After this technical area, the next two popular programs of study areas were History/Political Science (n = 24, 18%) and Business (n = 10, 7%). Nineteen per cent of AFA cadets were majoring in History/Political Science and 5% in Business, while 14% of ROTC cadets were majoring in History/Political Science and 12% in Business.

Most of the male cadets had a parent or parents who had been in the military at one time or another (n = 83, 61%). The ROTC cadets (n = 30, 71%) had a larger proportion of parent(s)who had been in the military than did the AFA cadets (n = 53, 56%). Other demographic information about the male cadets is shown in Table 1.

Instrumentation

The cover letter explained the purpose of the study, stated that participation was strictly voluntary, and ensured that anonymous responses and group data reporting contributed to confidentiality. By returning a completed survey, the participants acknowledged informed consent. Copies of the survey cover letter are located in Appendix A.

Table 1

Descriptive Statistics of USAFA Cadets, ROTC Cadets, and All Cadets

	USAFA (n = 94)		ROTC (n = 42)		ALL (n = 136)	
Variable	M	SD	M	SD	M	SD
Age	20.30	1.63	21.33	3.04.	20.62	2.21
Mother's Education	15.15	2.77	14.36	2.59	14.90	2.73
Father's Education	16.10	2.79	15.60	2.76	15.95	2.78
	f	%	f	%	f	%
Freshmen	41	43.6	18	42.9	59	43.4
Juniors	-	-	14	33.3	14	10.3
Seniors	53	56.4	10	23.8	63	46.3

The first page of the survey clearly indicated the survey purpose, explained the privacy notice, and listed instructions. The USAF Survey Office approved the survey package for use with their employees, the AFA cadets, and assigned a survey control number (i.e., USAF SCN 95-100) to authorize its use. This page also stated that participation was voluntary. A copy of this cover page is located in Appendix B.

All surveys began with the demographics section. The two-page, 12-item section, requested information about gender, age, year in college, ethnicity, religion, program of study, home population environment (i.e., rural, town, city, or large city), education level of parents, indication of whether a parent had been in the military, and home region environment. A copy of the demographics section is located in Appendix C.

The three instruments used in the survey package measured attitudes about women's gender roles, masculinity ideology, and authoritarianism. The three respective instruments, Attitudes Toward Women Scale (AWS), Masculinity Role Norm Scale (MRNS), and Right-Wing Authoritarianism Scale (RWAS) were counterbalanced and equal numbers of each order were distributed. These two steps increased confidence that the results would not be confounded by an order effect.

Attitudes Toward Women Scale (AWS)

The AWS is the most widely used measure of attitudes toward women, reported in more than 250 published studies and 52 ERIC documents (Beere,

1990). The 25-item short-form of the AWS (Spence, Helmreich, & Stapp, 1973) measures attitudes concerning the rights, roles, and obligations, and privileges that women should have in modern society. Spence et al. (1973) recommended use of the AWS short-form when the purpose is to compare groups and when the desired responses range from traditional to liberal. The original AWS (Spence & Helmreich, 1973) consists of 55 items, and a 15 item version has also been developed (Spence & Helmreich, 1978).

Research by Bailey, Less, and Harrell (1992) supported findings by Eagley and Mladinic (1989) that the AWS is not a measure of general attitudes toward women, as the name implies, but is a measure of women's roles and rights. For simplicity in discussing the AWS in this study, the AWS will be referred to as a measure of attitudes about women's gender roles.

The AWS short-form consists of 25 statements with four response options: a) agrees strongly, b) agrees mildly, c) disagrees mildly, or d) disagrees strongly. The response choices are equally weighted and scored 0, 1, 2, or 3 (Beere, 1990). Scores can range from 0 to 75. Lower scores reflect more traditional attitudes, while higher scores reflect more liberal attitudes.

The 25-item version was originally developed from an item analysis of the 55-item version using the responses of 241 female and 286 male students at University of Texas in Austin (Spence et al., 1973). This student sample of introductory psychology classes was tested during the 1971-72 school year. The item analysis provided for the selection of 25 items which had maximum

discrimination among quartile groups for both sexes and the largest biserial correlations.

Spence et al. (1973) and Spence and Helmreich (1973) obtained alpha coefficients ranging from .89 to .97 for the 55-item and 25-item versions of the AWS. The 25-item short-form was used as a sex role measure for the U.S. Military Academy's male and female first-year cadets (Yoder, Rice, Adams, Priest, & Prince, 1982) during the summer and fall of 1978. This instrument was selected in association with Project Athena, a study to assess the initial entry of women at that academy in 1978. The AWS was administered before and after Basic Cadet Training, a six week program of intense physical testing and training. Reliability data for males (N = 1,007) revealed test-retest reliability was .74 and the before and after alpha coefficients were .83 and .85, respectively. For females (N = 78) test-retest reliability was .80 and alpha-coefficients were .81 and .82. From pre to post testing, the mean attitude scores for males decreased from 42.58 to 39.88, while the mean scores for females remained constant, 57.60 and 57.38.

Masculinity Role Norm Scale (MRNS)

Thompson and Pleck (1986) developed this 26-item scale of traditional masculinity ideology from a previously developed instrument (1976; Brannon & Juni, 1984). The short form of the Brannon Masculinity Scale (Brannon, 1976; Brannon & Juni, 1984) was used to empirically develop a masculinity ideology scale which reduced the number of sub-scales from four to three. The resulting

three dimensions included: status norms representing the need to achieve status and respect (n = 11 items), toughness norms reflecting the expectation to be tough and self-reliant (n = 8 items), and antifemininity norms corresponding to the belief that men should avoid women's traditional activities (n = 7 items). Masculinity ideology is based on a social constructionist model verses a trait (i.e., psychologically or biologically based) model, and consists of "a range of normative standards defining the traditional male sex role (Thompson & Pleck, 1986, p. 532).

The 26-item self-report scale has 7 response options ranging from "very strongly disagree" to "very strongly agree" (Thompson & Pleck, 1986). Each item is equally weighted and scored from 1 to 7. A low score reflects a nontraditional attitude while a high score indicates a traditional attitude.

Combining multiple samples of male and female college students (N = 1,510), the scale's internal consistency was .86, and the alpha coefficients for the sub-scales for status, toughness, and antifemininity were .81, .74, and .76, respectively. The MRNS was positively related (r = .44 for undergraduate males; r = .55 for undergraduate females) to the 15-item short-form of the Attitudes Toward Women Scale (Thompson, 1990).

Thompson and Pleck (1992, 1995) reviewed available instruments assessing masculinity ideology verses measures of gender stereotypes or gender orientation. They identified construct validity, brevity of form, and discriminant validity as strong points of the MRNS.

Right-Wing Authoritarian Scale (RWAS)

Authoritarianism is an attitudinal construct which has interrelated clusters of authoritarian submission, authoritarian aggression, and conventionalism (Altemeyer, 1988). Authoritarian submission is the degree to which one submits to an authority perceived as legitimate (e.g., parents, teachers, and government). Authoritarian aggression is aggression toward other people which is perceived as being sanctioned by a legitimate authority. Conventionalism is the degree to which a person adheres to the social customs which appear to be endorsed by a society. Altemeyer (1981, 1988) conducted many years of research to develop, validate, and revise RWAS. Altemeyer (1988) has "pitted the initial version of the RWA Scale in 1973 against five other tests: the California F Scale (Adorno et al., 1950), Rokeach's (1960) Dogmatism Scale, Wilson and Patterson's (1968) Conservatism Scale, Lee and Warr's (1969) 'Balanced F Scale,' and Kohn's (1972) Authoritarianism-Rebellion Scale" (p. 12). None of these other measures of authoritarianism did as well as the RWAS with regard to internal consistency and unidimensionality.

The 30-item Right-Wing Authoritarianism Scale (Altemeyer, 1988) consists of 9 response options which range from "very strongly agree" to "very strongly disagree." Item scores can range from 1 to 9, the score for a neutral answer is five, and the instrument score can range from 9 to 270. Higher scores represent higher levels of authoritarianism.

Altemeyer (1988) identified significant relationships between authoritarianism and the following social norm behaviors: acceptance of government injustices (r = .55), acceptance of law as the basis of morality (r = .60), level of punishment (r = .43), prejudice (r = .35), and religion (r = .45). Other researchers have reported internal consistencies for the RWAS ranging from .81 to .94. With college student samples from 1981 to 1986, Altemeyer (1988) found test-retest reliabilities ranging from .95 for a one week interval to .85 for a 28-week interval. Wylie and Forest (1992) obtained a mean interitem correlation of .34 and a Cronbach alpha of .94 in their study of the RWAS. Eckhardt (1991) reported that authoritarianism is similar to dimension values of militarism and nationalism.

Procedures

At the AFA, the Cadet Counseling and Leadership Center, using campus mail, distributed the 600 survey packages to the randomly selected cadets. Cadets completed the survey at their leisure and returned them by campus mail to the Center. These returned packages were then forward to the researcher.

At ASU, the surveys were distributed to the cadets during their ROTC classes by the ROTC instructors. Surveys were completed during class time and returned to the instructor. Those cadets who were absent from these classes were given an opportunity during the following week to complete the survey at their leisure and were instructed to return the completed packages to the ROTC Office.

CHAPTER III

RESULTS

The purpose of this study was to explore the influence of college environment upon the attitudes of male cadets who are enrolled at a military college verses the attitudes of male cadets enrolled at a civilian college. The attitudes investigated were masculinity ideology, women' gender roles, and authoritarianism. Four hypotheses were investigated.

Preliminary Analysis

Because of the small sample size for undergraduate senior ROTC cadets, a preliminary analysis was conducted to determine whether the junior and senior ROTC cadets were significantly different from each other with respect to their attitudes about women's gender roles, masculinity ideology, and authoritarianism. A series of t-tests were calculated to determine whether the junior and senior ROTC cadets from Arizona State University (ASU) could be collapsed together into one group. Juniors (M = 2.01, SD = .49) and seniors (M = 1.87, SD = .52) were not significantly different among attitudes about women's gender roles. Similarly, no differences were found on attitudes about masculinity ideology (Junior M = 4.00, SD = 1.25; Senior M = 4.48, SD = .52). This pattern of no differences also resulted when these two groups of ROTC cadets were compared on level of authoritarian attitude (Junior M = 5.75, SD = 1.10; Senior M = 6.35, SD = .80). For analyses of the study hypotheses, junior and fourth-year ROTC cadets were combined to form the senior ROTC group.

Next, the internal consistency reliabilities for the three dependent variables were calculated using the group of all cadets. For the Attitudes Toward Women Scale (AWS; Spence et al., 1973), the Cronbach alpha was .86 with a mean inter-item correlation of .20. On the second instrument, the Male Role Norm Scale (MRNS; Thompson & Pleck, 1986), the Cronbach alpha was .82 and the mean inter-item correlation was .16. For the last instrument, the Right-Wing Authoritarian Scale (RWAS; Altemeyer, 1981, 1988), the Cronbach alpha was .90 and the inter-item correlation was .22. All the instruments had internal consistency reliabilities which were high.

Hypothesis Testing

Hypothesis One

The first hypothesis predicted that for male cadets in a military environment there would be a positive relationship between level of authoritarian attitudes and attitudes of masculinity and a significant negative relationship between level of authoritarian attitudes and attitudes about women's gender roles. This hypothesis was tested by two zero-order correlations. The correlation, $r = .37$, between level of authoritarian attitudes and masculinity attitudes was significant ($p < .001$). The higher the level of authoritarianism for the Air Force Academy (AFA) cadets, the more traditional were their attitudes about masculinity. The second correlation between authoritarianism and attitudes about women's gender roles was not significant ($r = .16$, $p < .12$). Based on these results, hypothesis one was partially supported.

Hypothesis Two

Hypothesis two posited that for male cadets in a military college environment, there would be no relationship between their attitudes about masculinity and women's gender roles. A significant correlation was found between attitudes about masculinity and attitudes about women's gender roles ($r = -.26$, $p < .01$). Hypothesis two was not supported.

Hypothesis Three

Hypothesis three predicted that first-year male cadets and fourth-year male cadets in a military college environment would not be significantly different with respect to their attitudes about masculinity and in their level of authoritarian attitudes; however, there would be a difference between first-year male and fourth-year male cadets in a civilian college environment with respect to their attitudes about masculinity and their level of authoritarian attitudes. Hypothesis three was tested by a priori t-tests. As was predicted, there were no differences between first-year and fourth-year AFA cadets in their attitudes toward masculinity, $t\ (92) = .54$, $p = .59$, and in level of authoritarian attitude, $t\ (92) = .001$, $p = 1.00$. Although differences between first-year and fourth-year ROTC cadets were predicted, no differences were found on attitudes about masculinity, $t\ (40) = .13$, $p = .90$, or on authoritarianism, $t\ (40) = .13$, $p = .90$. Based on these data, hypothesis three was partially supported.

Hypothesis Four

The last hypothesis stated that first-year male cadets in a military college environment would not be significantly different from first-year male cadets in a civilian college environment in their attitudes about masculinity and in level of authoritarian attitudes; however, there would be a difference between fourth-year male cadets in a military college and fourth-year male cadets in a civilian college in their attitudes about masculinity and in level of authoritarian attitudes. As predicted, no differences were found between first-year male cadets at a military college and those at a civilian college on masculinity, t (57) = 1.18, p = .24, or on authoritarianism, t (57) = .84, p = .41. Although differences were predicted between the fourth-year cadets in a military college and those in a civilian college, no differences were found on attitudes toward masculinity, t (75) = 1.05, p = .30, or on authoritarianism, t (75) = 1.38, p = .17. Based on these data, hypothesis four was partially supported. Table 2 presents the cell means and standard deviations across samples on each dependent measure.

Post Hoc Analyses

Since homophobia has been linked to masculinity ideology (Herek, 1984; Minnigerode, 1976; Stark, 1991;), all-male institutions (Britton, 1990), and gender with men holding more negative attitudes than women (Kite & Whitley, in press; Oliver & Hyde, 1995; Whitley & Kite, 1995), a post hoc analyses explored the potential relationship between masculinity ideology and homophobia. A series of correlations revealed that for male AFA cadets, a more

Table 2

Descriptive Statistics of Dependent Variables for AFA and ROTC Cadets

	AFA		ROTC	
Dependent Variables	1st- Yr. (n = 41)	4th-Yr. (n = 53)	1st- Yr. (n = 18)	4th-Yr. (n = 24)
Attitudes Toward Women Scale				
M	2.37	2.24	2.09	1.95
SD	1.56	1.01	0.42	0.50
Masculinity Role Norms Scale				
M	3.93	4.01	4.16	4.20
SD	0.71	0.58	0.63	1.02
Right-Wing Authoritarian Scale				
M	5.69	5.69	5.96	6.00
SD	0.98	0.88	1.37	1.01

Note. The higher the score on the AWS (range = 0 to 3) indicates a more liberal attitude; however, the higher scores on the MRNS (range = 1 to 7) and RWAS (range = 1 to 9) indicate more traditional attitudes.

negative attitude toward homosexuality was related to the MRNS subscales of antifemininity (r = .39, p < .01) and toughness (r = .39, p < .001), but not to the status subscale. A similar pattern of relationships was found for male ROTC cadets. Negative attitudes toward homosexuality were significantly related to antifemininity (r = .36, p < .05) and to toughness (r = .42, p < .01). The complete set of correlations is presented in Table 3.

Table 3.

Intercorrelations Between Item 10 (RWAS) and Subscales (MRNS) for AFA and ROTC Cadets

Item or Subscale	1	2	3	4
		AFA Cadets (n = 94)		
1. Item 10 (RWAS)	--	.32**	.39***	.15
2. Antifemininity (MRNS)		--	.32**	.21*
3. Toughness (MRNS)			--	.36***
4. Status (MRNS)				--
		ROTC Cadets (n = 42)		
1. Item 10 (RWAS)	--	.36*	.42**	.03
2. Antifemininity (MRNS)		--	.40*	.17
3. Toughness (MRNS)			--	.14
4. Status (MRNS)				--

Note. Item 10 (RWAS; Altemeyer, 1988, p. 22) is, "There is nothing immoral or sick in somebody's being a homosexual."

*p < .05. **p < .01. ***p < .001

CHAPTER IV

DISCUSSION

This research investigated how military and civilian college environments might differentially affect the undergraduate socialization of military cadets, specifically their attitudes about masculinity and women's gender roles and their level of authoritarianism. Since changes in socialization can be expected to be most dramatic at the beginning and end of the undergraduate educational process, this study focused on cross-sectional differences between first-year and fourth-year college students.

Primary Findings

Hypothesis One

Hypothesis one predicted that for male cadets in a military college environment there would be a positive relationship between attitudes about masculinity ideology and authoritarianism and a negative relationship between women's gender role attitudes and authoritarianism. The first part of the hypothesis was supported, but the second half was not.

The first result is not surprising and is consistent with the literature. Researchers (Altemeyer, 1981, 1988; Thompson & Pleck, 1995; Thompson, Pleck, & Ferrera, 1992) have noted that masculinity ideology and authoritarianism have a shared component, traditionality, which is evident in both the definition and measurement of both constructs. Authoritarianism involves the interrelationship of three primary attitudinal clusters. One cluster, conventionalism, is defined as

"a strong acceptance of and commitment to the traditional social norms in our society" (Altemeyer, 1988, p. 5). Altemeyer stated that traditional social norms are associated with Judeo-Christianity and fundamental beliefs and that individuals who are more authoritarian would adhere to traditional roles for men and women as a function of their religion, not because of the gender roles themselves. Therefore, individuals who are more authoritarian are expected to be more traditional with respect to gender roles.

This component of traditionality is also evident in masculinity ideology as it "refers to beliefs about the importance of men adhering to culturally defined standards for male behavior at both the individual and structural level" (Peck, 1995, p. 19). Pleck pointed out that, in particular, instruments assessing masculinity ideology need to consider the extent to which cultural belief systems regarding masculinity ideology and gender are accepted by a person. This explanation of masculinity ideology echoes Altemeyer's (1988) explanation of conventionalism—accepting and committing to traditional standards.

Authoritarian submission is the second inherent attitudinal cluster. Altemeyer (1981, 1988) defined this as "a high degree of submission to the authorities who are perceived to be established and legitimate in the society in which one lives" (p. 2). The relationship between masculine ideology and authoritarianism is consistent with the valuing of this aspect of authoritarianism by the military and with the characteristics of the military college environment. Air Force Academy (AFA) cadets have voluntarily submitted to authority in

order to obtain a four-year degree and a commissioned officer designation. A few examples of this intense submission to a legitimate authority include: obedience to the military code of justice; acceptance of a standardized agreement to a four-year, on-campus dormitory life; participation in marching and eating regimens, conformity to weight and physical fitness requirements; and adherence to a challenging, technical core of math, science, and engineering requirement for all majors. The military training program demands submission to an established organizational structure of authority. Its leadership and followership expectations and a dichotomous personnel system based on rank (i.e., officer and enlisted personnel) also suggest authoritarian submission. The most dramatic indication, however, may be adhering to the military principle of placing military needs above personal needs. Consequently, it is a shock to an AFA cadet when the leave request to attend the funeral of an aunt, uncle, or grandparent, who are not considered as immediate relatives by the Air Force, is denied because of needs of the Air Force. When one considers these aspects of military life and the overlap in constructs between masculinity and authoritarianism, the significant positive correlation between these two is readily understood.

The second part of hypothesis one predicted a significant negative relationship between women's gender role attitudes and authoritarian attitudes among male military cadets. The data revealed no relationship between these two constructs.

The literature is sparse with respect to attitudes held by male military cadets within a military college environment. In 1976, when 157 women entered the AFA for the first time (DeFleur, et al., 1978), upperclass male cadets from 20 squadrons were notified that the new female cadets would be assigned to their squadrons. These cadets had slightly less traditional attitudes toward women's gender roles than the upper class cadets from the other 20 squadrons not assigned women cadets (DeFleur et al., 1978). According to DeFleur et al. (1978), this difference in level of traditional attitudes may have occurred because "after these men had been informed about the assignment of women to their groups, and they knew integration had to be accomplished, they realigned some of their attitudes in order to reduce dissonance." (p. 612)

DeFleur et al. (1978) also noted that one factor contributing to increased traditional attitudes toward women's gender roles during their first year at the Academy was the segregation of sexes with regard to housing. "...this segregation resulted in minimal personal contact and little development of the neighbor, friend, or 'buddy' role, a role that was significant in changing attitudes towards Blacks in the military" (DeFleur et al., 1978, p. 618). The only segregation which occurs at the AFA today is that same-sex cadets share sleeping quarters. Due to the increased contact and interacting of the men and women, perhaps the men have become less traditional in their attitudes about women's gender roles.

Although it would be reasonable to think of the AFA as conservative or traditional and ASU as moderate or liberal, in actuality, they are both complex systems. For example, as an extension of the military, the AFA explicitly and diligently promotes the rights of women and other minorities. Even though events such as Tailhook occur, the military promotes a zero-tolerance of minority discrimination and attempts to discourage further incidents. Following Tailhook, many officers lost promotions or retired early as a result of related disciplinary actions. In contrast, it is not known to what extent civilian universities such as ASU educate staff and students about equal gender opportunities or to what degree they discourage improprieties. One recent change in colleges has been the reconsideration of whether affirmative action programs for minorities, including women, are legitimate policies.

Authoritarian attitudes have a paradoxical quality when compared to attitudes about women's gender roles in the context of a military college environment. On one hand, highly authoritarian individuals must submit to the demands of the established authority. On the other hand, when the authority strongly and explicitly demands equitable integration of women, the authoritarian member is obedient without question (Altemeyer, 1981, 1988) Would years of obedience affect male cadets' nontraditional attitudes toward women's gender roles?

In 1978 , DeFleur et al. offered an answer to this dilemma when they suggested that incongruency (i.e., males who initially hold traditional

stereotypes about women's gender roles, and then observe women successfully accomplishing nontraditional gender role behaviors) would promote male cadets' development of new thoughts, beliefs, and attitudes. However, Mathews (1992) found a trend among male service academy cadets which indicated these cadets are very conservative in their attitudes concerning women's roles. He suggested that barriers to liberalizing attitudes among male cadets in a military college environment include: selection bias, importance of tradition, and conformity among cadets. Conformity is basically an authoritarian concept. Some military demands for conforming are conflicting, however. For example, which is stronger—conforming to traditional values such as the "development of disciplined officers who are physically competent, competitive, and aggressive...'maleness'" (DeFleur et al. , 1978, p. 608) or conforming to the institution's policy change for using female combat pilots. It would appear that male cadet's attitudes about women's gender roles may be in a state of flux due to unresolved mixed messages. This could help to account for the nonsignificant finding.

Hypothesis Two

Hypothesis two posited no relationship between AFA cadets' attitudes about masculinity ideology and women's gender roles. The data revealed a significant positive relationship between the constructs. As male AFA cadets reported traditional attitudes about masculinity ideology, they also reported traditional attitudes about women's roles.

As stated earlier, the literature is inconsistent with regard to men's and women's gender constructs. For example, some studies found that masculinity ideology, attitudes toward women, and attitudes toward gender relationships were empirically different constructs (Gradman, 1990; Pleck, Sonenstein, & Ku, 1993; Thompson & Pleck, 1986). While not denying that some connections may exist among the various gender constructs, Thompson and Pleck (1992, 1995) suggested that a person could hold a nontraditional attitude for one gender and a traditional attitude for the other.

Thompson and Pleck (1992, 1995) reported concerns about the historical use of the AWS as an instrument to assess attitudes toward women's gender roles: "Consequently, items making simultaneous assessments of men and women are measuring gender attitudes in general. Thus, many scales labeled as assessing attitudes toward women or attitudes toward men may actually assess the broader construct of gender attitudes (e.g., of the 25 items in the short form of the AWS, 15 explicitly compare the sexes, and several others do so implicitly)" (p. 133). This overlap could account for the significant finding in the current study.

It is also possible that the positive relationship between traditional attitudes for masculinity ideology and for attitudes about women's gender roles resulted from traditional maleness, a term used by DeFleur et al. (1978) to describe the resistance of a previously all-male institution to integrate females. This possibility gains legitimacy when the overwhelming majority of Caucasian

males among the sample is considered. This AFA sample was 85% Caucasian, and the AFA population hovers around 85-87% total males. Although this AFA sample of cadets included a portion of first-year cadets, these cadets were potentially already influenced by the military college environment. Specifically, the first-year group was not surveyed until they had been immersed 7-8 months in the AFA's military college environment. Consequently, the actual correlation score may have been affected by the late timing of survey packages—a serious limitation to hypothesis two. Additionally, it is not clear as to what extent the antifemininity cluster of the MRNS contributed to the traditional score on the AWS. Finally, it needs to be noted that although the correlation was significant, it was small (r = -.26, p = .01).

Hypothesis Three

Hypotheses three and four involved a series of a priori t-tests. Hypothesis three predicted no differences in attitudes about masculinity ideology and authoritarianism between first-year and fourth-year AFA cadets but also predicted differences for those same constructs in a comparison of first-year and fourth-year ROTC cadets. There were no significant differences between the two groups of AFA cadets and no differences between the two groups of ROTC cadets.

The assumption underlying hypothesis three was that military and civilian college environments would have differential effects on cadet attitudes as a result of being socialized in that environment for four years. Weidman's

(1989a, 1989b) framework of undergraduate socialization accounts for personality variables (i.e., aptitude, aspirations, and values), relational influences (i.e., parents, peers, teachers, and employers), environmental variables (e.g., institutional mission, quality, and curriculum), socialization processes, and probable outcome. Cecil's (1996) model is an adaptation of Weidman's framework and additionally accounts for the variable of military training. Military training is the primary factor differentiating a military college environment from a civilian one. It was expected that this element would contribute to differences in undergraduate socialization and integration outcomes.

Altemeyer (1981, 1988) has extensively studied authoritarianism among undergraduate populations. He has found cross-sectional and longitudinal attitude differences between first-year and fourth-year college students. Specifically, he found significant decreases in authoritarianism for fourth-year college students. The decreases correlated with program of study; liberal arts majors evidenced the largest drop in authoritarian attitudes. Altemeyer (1988) suggested that, "The atmosphere of a university as a forum for open and free discussion, as well as a giant saloon, is important here. Quite probably lit (sic), history, philosophy, psych (sic), sosh (sic), anthro (sic), and so on, play a liberalizing role, especially among liberal arts students, who have the greatest opportunity to take all courses" (p. 95). He further explained that such courses can be expected to provide class discussions about specific topics such as

premarital intercourse, homosexuals, atheists, and obedience and respect. These topics have corresponding items on the Right-Wing Authoritarian Scale (RWAS); therefore, the likelihood of observing change among these items after four years of college is increased.

As indicated earlier, the military training element in the undergraduate model of socialization (Cecil, 1996) is expected to affect the socialization process outcomes of authoritarianism and masculinity ideology. Submission to authority, a factor of authoritarianism, is an outstanding characteristic of a military college environment. Another reason to expect a different longitudinal outcome for authoritarian attitudes among military college students is related to major programs of study. All cadets must take a core of courses which include math, science, engineering, and computers, as the Air Force has a primarily technological mission. This situation contrasts with Altemeyer's (1981,1988) finding that liberal arts majors, as compared to other majors, report significantly decreased levels of authoritarianism. Additionally, the AFA environment is geographically isolated and restrictive in nature. The vast majority of an AFA cadet's time is spent on campus. For example, first-year cadets are not allowed to have cars on campus. Those upperclassmen who do eventually have one have to obey restrictions in their use. All cadets must reside in the on-campus dormitories. Cadets have 30 days during the summer when they can take personnel leave; otherwise, they are committed to the AFA's education and military training requirements. Overall, this intense immersion into military life

for a span of four years is in sharp contrast to the experiences of students in a civilian college environment.

Masculinity ideology was expected to follow the same pattern as authoritarianism for AFA cadets because of these variables' relationship mentioned earlier in the discussion for hypothesis one. Primarily, traditionality is a factor shared by masculinity ideology and authoritarianism; however, more factors were considered. For example, characteristics such as aggression and toughness inherent in traditional masculinity ideology are also associated with the conceptualization of authoritarianism. One item on the Male Role Norm Scale (MRNS) stated, "A man should always try to project an air of confidence even if he really doesn't feel confident inside" (Thompson & Pleck, 1986, p. 537). Inherent in this MRNS item is the belief about how important strength and power are to the masculinity script; this is also related to authoritarian aggression as it assumes some level of strength and power. The MRNS item, "A good motto for a man would be, 'When the going gets tough, the tough get going'" (p. 538) has a similar aspect of aggression, as does, "In some kinds of situations a man should be ready to use his fists, even if his wife or his girlfriend would object" (p. 538). Only the first item of these MRNS items discussed comes from the MRNS cluster of status norm items. The other two items belong to the cluster of toughness norms—clearly, a concept close to the aggression component of authoritarianism.

Relatedly, one example of an authoritarian item from the RWAS considered a respondent's attitude about homosexuality. This RWAS item was mentioned earlier in a discussion about negative attitudes toward homosexuals, homophobia, and its correlation to masculinity ideology, all-male institutions, and gender. This RWAS item showed a relationship with antifemininity and toughness subscales of the MRNS as shown by a correlational analysis (see Table 3).

The second part of hypothesis three predicted a change for ROTC cadets; however, no differences were found. It was expected that ROTC cadets in a civilian college environment would respond as did the civilian undergraduates in Altemeyer's (1981, 1988) studies. Specifically, it was expected that decreases in traditional scores of masculinity ideology would parallel decreases in authoritarianism.

Three characteristics of the ROTC cadets and two limitations of the study help to explain the nonsignificant finding. First, very few ROTC cadets were liberal art majors. Seventy-one per cent of the ROTC cadets' majors were majoring in math, science, engineering, computer, or business, paralleling AFA college major choices. Therefore, the consideration related to Altemeyer's (1988) finding of liberal arts majors having lower levels of authoritarianism was not a factor for these ROTC cadets. Second, ROTC cadets participated in a military training program. Although ROTC cadets were at a civilian college environment, they were also influenced by military training, although to a lesser

intensity than that of AFA cadets. Third, a high attrition rate by ROTC cadets suggests that only those cadets who perceived a "good fit" with military regimen remained in the four-year ROTC program. Furthermore, it may be that those who did drop out of the ROTC program would have shown attitudinal differences in masculinity ideology and authoritarianism. A study limitation was the timing of the distribution of survey packages to ROTC cadets. As first-year cadets had already spent six months on campus, baseline data for a college student just beginning the socialization process was likely confounded. Finally, a second limitation of this study which may be related to this finding was the small sample size for first-year ($\underline{n}$ = 18) and fourth-year ($\underline{n}$ = 24) ROTC cadets. This may have been a skewed sample.

Hypothesis Four

Hypothesis four compared same-year military and civilian college cadets on attitudes about masculinity ideology and authoritarianism. No differences were expected between the two groups of first-year cadets, and no differences were found. Although differences were predicted between the two groups of fourth-year students, none were found.

The findings of no differences between first-year AFA and ROTC cadets reflect the assumption that first-year students at most major colleges are fairly homogenous. The demographic data revealed that the AFA and ROTC cadets were similar. Age is particularly important because of its developmental implications. In this study, the first-year AFA cadets' and ROTC cadets' mean

ages were identical (18.68 and 18.56 years, respectively). Developmentally, young first-year college students can be expected to score higher on authoritarianism as a result of having been dependent on many authority figures for the past 18 years (Altemeyer, 1981, 1988; Weidman, 1989a, 1989b). In other words, many recent high school graduates have experienced years of authoritarian submission. Authority figures have been pervasive in their life, having been associated with home (i.e., parents and older siblings), school (i.e., principals and teachers), church (i.e., church leaders), and community (i.e., police officers, government leaders, Girl and Boy Scout leaders, doctors, etc.). Being relatively young in age, having a minimal level of education, and probably having limited life experiences, they very likely will have adhered to the social conventions which their community endorsed. In other words, entering first-year college students have been in the mode of adhering to some level of authoritarian conventionalism, an attitudinal cluster on the RWAS (Altemeyer, 1981, 1988). This submission may be particularly evident among young men seeking careers as military officers as any deviation from the law could jeopardize their being accepted into officer training programs.

Unexpectedly, no differences were found between fourth-year AFA and ROTC cadets. The civilian undergraduate socialization process ideally provides opportunities for exposure to a diversity of people, ideas, and experiences, thus providing an opportunity for attitudes to be challenged and reconsidered (Altemeyer, 1981, 1988; Chickering, 1993; Lottes & Kuriloff, 1994; Newcomb,

1943; Perry, 1970, 1981). However, because of the restrictive nature of a military college environment (i.e., military training regimen, dormitory requirements, primary involvement of on-campus activities, etc.), it was expected that the four-year socialization experience at the AFA would limit the liberalization of attitudes. Thus, AFA cadets would maintain levels of masculine ideology and authoritarianism (Cecil, 1996; Weidman, 1989a, 1989b). Additional support for this contention comes from Bryant (1988) and Buron (1990) who suggested that rigorous early military training (i.e., Basic Cadet Training or BCT, often pronounced "Beast" because of its grueling nature) and the atmosphere of compliance at the AFA inhibit development of cognitive complexity among cadets. Cognitive complexity involves the development of reasoning which relates to such changes as moving from dualistic toward relativistic perspectives (Bryant, 1988). For example, persons who initially had a belief that only their religion was an acceptable choice would develop a new belief that adherence to a religion was relative to many factors such as up-bringing and culture. Attaining this level of cognitive complexity may be difficult for AFA cadets whose environment is rigidly structured and ordered.

It was expected that fourth-year ROTC cadets would be less authoritarian and have less traditional masculine ideology than the fourth-year AFA cadets. One explanation for the finding of no differences may have been related to the small sample size of fourth-year ROTC cadets ($\underline{n}$ = 24). Compounding the small fourth-year ROTC cadet sample size was the collapsing of the third-year ROTC

cadets (n = 14) with the original group of fourth-year ROTC cadets (n = 10). Although preliminary data analysis revealed no significant differences between the groups, it is not known what effect combining these groups had on the results, especially with the small number of senior ROTC cadets (n = 10). Also, another question might be, "Does the collapsed group better represent a third-year or fourth-year group?" If the combined group was more representative of third-year cadet attitudes, the probability of detecting differences would again be decreased.

Another explanation for finding no differences may be a self-selection factor. Weinrach and Srebalus (1990) reported that, "Environments are characterized by the people who occupy them" (p. 40). Similarly, Holland (1989) found that, "People search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles" (p. 4). Perhaps, the fourth-year ROTC cadets represented individuals who sought out a military environment and career because these "fit" who they are as individuals, and perhaps those ROTC cadets who had dropped out may not have had a quality match between their personalities and the demands of the ROTC environments. As a result, the remaining ROTC cadets were more like AFA cadets on the variables.

One other characteristic which may indicate that the ROTC cadets were more similar to AFA cadets than other civilian college students (i.e., other ASU students not in ROTC) was the proportion of students who had a parent(s) in the

military. The AFA cadets reported a 56.4% rate of parent(s) in the military, and the ROTC cadets reported a 71.4% rate. This may indicate a cultural background which included military life-style and parental support for a military career and values.

Summary of Findings

This study found significant relationships between attitudes about masculinity ideology and authoritarianism and between attitudes about masculine ideology and women's gender roles but not between attitudes about women's gender roles and authoritarianism among cadets in a military college environment.

Although the findings indicated no differences in attitudes toward masculinity ideology or authoritarianism between first-year and fourth-year cadets in a military college environment, these findings are inconclusive due to when first-year cadets had an opportunity to report their attitudes. In other words, first-year students' attitudes are better operationalized and more consistent with the undergraduate socialization framework (Cecil, 1996; Weidman, 1989a, 1989b) when college students can identify their attitudes at the time they begin their experience in the college environment, not months later. Although the findings indicated no differences in attitudes about masculinity ideology and women's gender roles between first-year and fourth-year ROTC college cadets, the findings are also inconclusive due to timing of the survey.

A self-selection factor must also be considered. This is a powerful consideration for all military cadets because the self-selection process is both a match for environment and occupation as the military is both a social context and an occupational choice. Military cadets need to be willing to be an officer first with field of expertise (i.e., college major) secondary. Of the fields recommended for the Air Force, the majority are in technology, resulting in the high rate of math, science, engineering, and computer college majors. Ultimately, military officers are expected to be leaders for various occupational areas with fewer officer positions requiring specific occupational training. Some consideration must be made for differences in consequences between AFA cadets and ROTC cadets when deciding to leave the program because of "poor fit" with military training requirements. Whereas, AFA cadets who choose to disenroll from their military training program must also disenroll from their college (i.e., 100% of AFA cadets are on scholarship), ROTC cadets who choose to disenroll from their military training do not have to disenroll from the college (i.e., ROTC cadets may or may not be on a military scholarship). When AFA cadets disenroll, they are removed from the regular cadet environment during their out-processing—maybe a week or two. In other words, the consequences for disenrolling from the AFA program verses the ROTC program are different. Perhaps those who would most likely report differences in authoritarian and masculinity ideology attitudes have already resigned from the military cadet

training, while those who stayed in ROTC are adhering to the requirements of the military--an authoritarian institution.

Limitations of the Study

Three major limitations potentially affected the outcomes of this study. The first limitation was the timing in the distribution of survey packages to first-year participants. Using the undergraduate frameworks of Cecil (1996) and Weidman (1989a, 1989b), the first-year students should have reported their attitudes when they enter the college environment. In the case of the first-year AFA cadets, their ideal time would be Day 1 of Basic Cadet Training which takes place in June prior to the beginning of the freshmen year. For first-year ROTC cadets, Day 1 would be close to the first day of their fall semester. Because of the lengthy process of gaining approval for the research topic and instrumentation by both the Air Force and Air Force Academy, distribution of survey packages was delayed. In addition, the data distribution and collection process involved intermediate steps which also delayed the time at which participants received packages and the time the researcher received the completed packages. A related issue was the events occurring when the AFA cadets did receive their survey packages. They were in the midst of studying for end-of-semester finals, taking finals, and departing for Christmas break. Cadets may not have had the energy or motivation to complete the survey, resulting in the low response rate.

A second limitation was sample size. The ROTC fourth-year group was extremely small ($n = 10$). Collapsing the third-year cadets with the fourth-year

cadets may have compromised results. Although the AFA sample had sufficient size ($\underline{n}$ = 94), there is concern about the 20% return rate which included survey packages from female cadets. Such a low return rate draws attention to the characteristics of those who did not volunteer for the study and how that might interact with the results found. According to the Office of Research at the AFA, cadets historically have responded at a low rate to internal surveys conducted on the computer network. It was not known what their response rate would be for a paper and pencil test distributed to their dormitory address. One potential reason for noninvolvement for research may be due to the number of surveys which are already conducted at the Academy. This was a factor which the AF and AFA considered in giving authorization for the cadets to be recruited for this study. Relatedly, another may be the intense and demanding academic and military schedules. Responding to extra paper and pencil requests may have involved a decision of priorities with respect to "surviving" at the Academy; as it was not necessary, it may not have been considered important by the cadets.

The last limitation related to sample selection. Delineation of the student samples was related to the delineation of a military college environment from a civilian college environment. For example, the ROTC cadet sample was from a civilian college environment and had the corresponding opportunities for more diverse exposure to people, ideas, and experiences. On the other hand, the ROTC cadets' concurrent participation in a reduced level of military training

limited the opportunity to identify all the possible differences and the extent of those differences.

Implications for Future Research

This study used a cross-sectional comparison of cadets. Ideally, a longitudinal comparison of the same cadets over their four-year college experience would strengthen the findings. In addition, data could be collected for those who did not complete the AFA or ROTC programs so that those groups' results could be used to strengthen the findings.

Altemeyer has recently developed, but has not yet published, an updated version of the RWAS. Future researchers using the RWAS would be encouraged to consider contacting him for a copy of the new instrument as some items, generally related to social issues, have become outdated. For example, one item with the survey used in this study addressed the concern for Communism. With recent changes in the Soviet Union, this item may not be as effective in assessing authoritarianism.

The last recommendation would be to involve three groups in the study. One group would represent students from a civilian college environment, another group would represent students from a military college environment, and the third group would represent students in a military training unit within a civilian college environment. These three groups would allow for optimum differences to be detected and provide insight about the impact of the civilian environment when the students are also in a military training program.

Overall, this study contributed to the literature by beginning to fill the research gap in the area of authoritarianism and its relationship to the important social issue of gender constructs. This study identified many characteristics of a military career that require a long-term commitment not only to an institution and its customs, but to an institution which is highly authoritarian in nature due to its mission to society. Whereas ROTC cadets can be observed functioning in a civilian college environment, their primary commitment is to the conventions of the military—to do otherwise results in serious consequences and is not tolerated by the military. The match is not only made by the person for a congruent person-environment fit, but involves the environment demanding a match also.

In addition, this study is the first effort to consider the attitudes of male AFA cadets toward male gender roles (i.e., masculinity ideology). When one considers the large proportion of males at the AFA, it is a great oversight to ignore their male gender roles. The effect of having such a large proportion of males in comparison to females may be a significant factor which influences attitudinal considerations such as gender roles that, in turn, influence behaviors.

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APPENDIX A

COVER LETTER

College of Education
Division of Psychology in Education

Arizona State University

Box 870611
Tempe, AZ 85287-0611
602/965-3384 FAX: 602/965-0300

November, 1995

Dear Cadet,

I am a doctoral student at ASU under the direction of Dr. Robinson Kurpius. I am seeking your help in gathering information about views about gender roles which are held by college students enrolled in a military academy. You were selected in a random sample of USAFA cadets to participate in this study. The information you and other AFA cadets provide will be used to compare the views of civilian college students with the views of military college students.

Enclosed is your copy of the survey, "1995 Military College Students Survey: Views about Gender Roles." Completing this questionnaire should take about 15 to 30 minutes.

Sometimes concern is expressed about the risks of responding frankly to such surveys. I assure you that your response to the survey will be ANONYMOUS and only group statistics will be reported. I will know your identity only in order to provide you survey materials. There is no way to identify who chooses to return any of the completed survey packets.

All respondents in the survey need to be 18 years old or older. Return of the survey materials will be considered your consent to participate in the survey. Please return your completed survey in the enclosed envelope at your earliest convenience. Your participation is appreciated.

If you should have any questions regarding the research design, please call me at (602) 706-0455 or Dr. Robinson Kurpius at (602) 965-6339.

Sincerely,

Ardis G. Cecil, Capt, USAF

APPENDIX B

SURVEY COVER PAGE

1995-96 MILITARY COLLEGE STUDENT SURVEY: VIEWS ABOUT GENDER ROLES

USAF SCN 95-100

SURVEY PURPOSE

This is a scientific survey of how college students at the USAFA view gender roles. The purpose of this survey is to ask you about your observations, opinions, and experiences which may be related to your views.

PRIVACY NOTICE

In accordance with the Privacy Act of 1974 (Public Law 93-579), this notice informs you of the purpose of the survey and how the findings will be used. Please read it carefully.

AUTHORITY: 10 United States Code, Sections 136 and 2358.

PRINCIPAL PURPOSE: Information collected in this survey will be used to sample information, attitudes, and perceptions of military college students related to or about gender roles. Also, this information will be used to compare to the views of civilian college students. Reports will be provided to the Division of Psychology (CPY) in Education at Arizona State University, to the Department of Behavioral Sciences and Leadership at USAFA, and to the USAFA Office of Institutional Research. Some findings may be published by Arizona State University, USAFA, or professional journals, or presented at conferences, symposia, and scientific meetings.

ROUTINE USES: None.

DISCLOSURE: Providing information on this survey is voluntary. There is no penalty if you choose not to respond. However, maximum participation is encouraged so that the data will be complete and representative. Your survey will be completed and returned ANONYMOUSLY. Only group statistics will be reported.

INSTRUCTIONS

1. USE A NO. 2 PENCIL ONLY
2. THIS IS NOT A TEST, SO TAKE YOUR TIME.
3. DIFFERENT SECTIONS OF THE SURVEY MAY HAVE DIFFERENT INSTRUCTIONS, SO READ ALL INSTRUCTIONS CAREFULLY
3. SELECT ANSWERS THAT BEST FIT YOU.
4. MARK ONLY ONE ANSWER FOR EACH QUESTION.
5. MAKE HEAVY BLACK MARKS THAT FILL THE RESPONSE CIRCLES.
6. DO NOT MAKE ANY MARKS OUTSIDE OF THE RESPONSE CIRCLES/BOXES
7. IF YOU CHANGE YOUR MIND, ERASE OLD MARKS COMPLETELY.

APPENDIX C

DEMOGRAPHIC SURVEY SECTION

1995-96 MILITARY COLLEGE STUDENT SURVEY: VIEWS ABOUT GENDER ROLES

USAF SCN 95-100

SECTION A

1. Are you: o Male o Female

2. What is your age as of today?

o 17
o 18
o 19
o 20
o 21
o 22
o 23
o 24
o 25
o 26

3. What is your current status at the AFA?

o 4th Class Cadet
o 3rd Class Cadet
o 2nd Class Cadet
o 1st Class Cadet

4. Do you consider yourself to be of Spanish/Hispanic origin or descent? *Mark one.*

o No, (not Spanish/Hispanic)
o Yes, Mexican, Mexican-Amer., Chicano
o Yes, Puerto Rican
o Yes, Cuban
o Yes, other Spanish/Hispanic

5. If you marked "No" in # 4, what other race/ethnicity do you consider yourself to be? *Mark one.*

o White
o Black or African-Amer.
o Native Amer., Eskimo, or Aleut
o Asian or Pacific Islander
o Other Race/Ethnicity (Please indicate*)

*

6. Please indicate your religious faith.

o Catholic
o Islamic
o Jewish
o Latter Day Saints
o Protestant
o None
o Other (Please indicate*)

*

7. Indicate your program of study/ college major:

o I'm enrolled or planning to enroll in:

o Undecided at this time

8. Which best describes the population you experienced during your adolescence?

o Rural
o Town
o City
o Large City

9. Which best describes the number of years of education your mother has completed?

o less than 8 years
o 8 years
o 9 years
o 10 years
o 11 years
o 12 years
o 13 years
o 14 years
o 15 years
o 16 years
o 17 years
o 18 years
o more than 18 years

10. Which best describes the number of years of education your father has completed?

o less than 8 years
o 8 years
o 9 years
o 10 years
o 11 years
o 12 years
o 13 years
o 14 years
o 15 years
o 16 years
o 17 years
o 18 years
o more than 18 years

11. Have either of your parents been members of the military?

o Yes
o No

12. Which best describes the U.S. region which you experienced during your adolescence?

o WEST COAST (CA, OR, WA)
o ROCKY MOUNTAIN STATES (AZ, NE, UT, ID, WY, CO, MT, NM)
o SOUTHWEST (TX, OK, AK, LA)
o MIDWEST (ND, SD, NE, KS, MN, WI, IL, IN, OH, MO, IO, MI)
o SOUTHEAST (KY, TN, MI, AL, GE, FL, NC, SC)
o MID-ATLANTIC (WV, VI, PA, MD, DE, NJ, DC)
o NEW ENGLAND (NY, CT, MA, NH, VT, RI, ME)
o ALASKA OR HAWAII

APPENDIX D

CONSENT FORM - RWAS

THE UNIVERSITY OF MANITOBA DEPARTMENT OF PSYCHOLOGY Winnipeg, Manitoba
Canada R3T 2N2

February 24, 1996

Ardis G. Cecil
3228 E. Ashurst Dr.
Phoenix, AZ 85044

Dear "Ardy":

Thank you for your letter of February 8, which managed to get here this past week. You of course have my permission to use the RWA Scale in your interesting research program.

I'm afraid I can't give you the information you requested, because it does not exist as such. The RWA Scale changes every year, so the "means for the four most recent years" would be for four somewhat different scales. (The means also change systematically during the school year among first-year students, becoming somewhat lower as the year progresses.) In addition, I have only one sample of any fourth-year students--the one reported in Enemies of Freedom that you mentioned in the mini-version of your proposal. It is very difficult to get as representative a sample of "seniors"--who take hundreds of different courses at my university--as we get from the heavily enroled Introductory Psychology.

I am enclosing the current version of the RWA Scale, which is also the version that will come out this fall in my next book. It will probably be the most heavily used version for some time, and is the one I would recommend for your research. The mean for our intro psych students in the fall of 1996 will probably be in the 120's. A tighter guess would be 125 to 130. If there is a difference between men and women, it will the be first one ever in this population. The variance will be about 1200. The mean age of our intro students is about 19. The test should have an alpha of .90 or better. There are no "cluster means" for the RWA Scale, as you can't get cluster scores. The items usually measure at least two of the three underlying attitudes.

Just in the way of incidental information, I tried to come up with masculinity-femininity trait scales some years ago. I was unsuccessful, but more to the point, I found any correlation with RWA. But there has been pretty solid association with the Spence & Helmreich scale: RWA correlated .59 with having traditional attitudes toward women among 200 female intro psych students, and .60 among 135 males in 1991. This past fall I found a correlation of .59 among 265 mothers of intro psychs, and .52 among 230 fathers. Vernon Quinsey at Queens University in Ontario found an RWA correlation of .78 with Kalin & Tilby's (1978) Sex Role Ideology Scale among 157 student and 41 nonstudent males. But Leak & Randall (1995) found much smaller correlations (.28-.42) with Burt's (1980) Sex-Role Stereotype scale.

Anyway, I wish you good hunting. I only know of one RWA study of military types, a longitudinal one I did of Canadian Armed Forces recruits at the beginning and end of their basic training. They did not score particularly high either time, and the scores did not go up over the course of training. I also know of a dissertation that found Halifax policemen did not score particularly highly as a group on the test. So I shall be fascinated by whatever you find. Please let me know.

Best wishes,

Bob Altemeyer

APPENDIX E

CONSENT FORM - WEIDMAN MODEL

7 May 96

Ardis G. Cecil
3228 E. Ashurst Dr.
Phoenix, AZ 85044
(602) 706-0455

Editor
Agathon Press
New York
Fax: (718) 543-6207 please 6211

Dear Editor,

Per our telephone conversation this morning, I am requesting written permission to use J. Weidman's figure, "A Conceptual Model of Undergraduate Socialization," from J. Smart's book, "Higher Education Handbook of Theory and Research," Vol. 2, 1989, in my dissertation.

Appreciatively,

Ardis G. Cecil
(Arizona State University Doctoral Candidate)

OK to use with appropriate credit.

AGATHON PRESS
5648 Riverdale Ave.
Suite 50
Bronx, NY 10471-2106

APPENDIX F

CONSENT FORMS - ADAPTATION OF WEIDMAN'S MODELS

ADB (Asian Development Bank) TA No. 2907-LAO:
Private Sector Education Development Project
Dr. John C. Weidman, Professor, University of Pittsburgh, USA, Team Leader
Dr. Roberto T. Borromeo, Vice-President, FAPE (Fund for Assistance to Private Education), Manila, Philippines
Dr. Song-Sak Srikaisaem, Vice-President for Academic Affairs, Sripatum Private University, Bangkok, Thailand
Lane Xang Hotel, Room 221, Fa Ngum Road, PO Box 342, Vientiane, Lao PDR
Telephone: (856-21) 214102, 214103, FAX: (856-21) 214103
Ministry of Education, Bureau of Private Education, Telephone (856-21) 212132, FAX: (856-21) 216006

Date: 26 June 1999

To: Ardis G. Cecil
Doctoral Program in Counseling Psychology
Arizona State University, USA

FAX No. 1-800-800-0682 1-412-624-2609

From: John C. Weidman John C. Weidman

Re: Conceptual Model of Undergraduate Socialization

I am impressed that you went to the trouble of tracking me down half way around the world! You may, most certainly, use my conceptual model. I am pleased that you found it useful for your study. If you have not already come across it, I would also encourage you to take a look at Goffman's chapter on total institutions in his classic book, Asylums. Please send me the abstract of your dissertation, after you have finished. It sound like a very intriguing study!

With best regards.

June 14, 1996

3228 E. Ashurst Dr.
Phoenix, AZ 85044
(602) 706-0435

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Ms. Louise Decker,

I am a doctoral candidate (Counseling Psychology) at Arizona State University, Tempe, Arizona, and would like permission to use:

> Figure 1, pg. 93, "Socialization in Higher Education: A Conceptual Framework," (Weidman, Contributing Author)
> in "Social World of Adolescents: International Perspectives" (1989)
> by Klaus Hurrelman and Uwe Engle (Editors)

This figure would be for use in my dissertation, "Comparing Male Military Cadet Attitudes for Masculine Ideology Within Civilian and Military College Environments."

Your consideration is appreciated. Your response can be faxed to 1-800-603-0862.

Sincerely,

Ardis G. Cecil

Permitted with the presupposition that the source is correctly quoted.
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Berlin, 20 June, 1996

CHRISTOPH SOMMER
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COMPARING MALE CADET ATTITUDES FOR MASCULINITY IDEOLOGY WITHIN CIVILIAN AND MILITARY COLLEGE ENVIRONMENTS

by

Ardis G. Cecil, Capt, USAF

106 pp. (includes preliminary pages)

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

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ABSTRACT

This study was designed to explore the interrelationships of masculinity ideology, attitudes toward women, and authoritarianism among cadets in military and civilian college environments. In addition, it tests whether cadets would change their attitudes as a result of being socialized in their respective college environments for four years. Cadets from two settings were recruited as subjects, first and fourth-year cadets from the Air Force Academy and first and fourth-year cadets from the Air Force Reserve Officer Training Corps program at Arizona State University. These cadets completed three research instruments—the Male Role Norm Scale, the Attitudes Toward Women Scale, and the Right-Wing Authoritarian Scale. Correlational analyses revealed significant relationships between attitudes about masculinity ideology and authoritarianism and between attitudes about masculinity ideology and women's gender roles but no relationship between attitudes about women's gender roles and authoritarianism. A priori t-tests further indicated that first-year and fourth-year military cadets at both military and civilian college environments reported similar attitudes about masculinity ideology and authoritarianism, in spite of differences in socialization factors. Three instruments were chosen to test the hypotheses that: 1) there would be a positive relationship between attitudes in masculinity ideology and authoritarianism and a negative relationship between attitudes about women's gender roles and authoritarianism for cadets in a military college environment; 2) there would be no relationship between

attitudes about masculinity ideology and women's gender roles; 3) there would be no differences in attitudes about masculinity ideology and authoritarianism between first-year and fourth-year cadets in a military college environment but differences on those same constructs would be reported between first-year and fourth-year cadets in a civilian college environment; and 4) there would be no attitudinal differences in masculinity ideology and authoritarianism between first-year cadets from military and civilian college environments but differences would occur between fourth-year cadets from military and civilian college environments. The findings are consistent with the fact that cadets from both college environments evidenced a self-selection factor and a "best fit" for a military environment, along with a singular occupational choice—that is, a military officer—which transcends environmental and related socialization differences.

Key Primary and Secondary Sources

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