DIFFERENCES IN MEN'S EMOTIONAL EXPRESSION AS A FUNCTION OF GENDER BELIEFS AND CONTEXTUAL VARIABLES: PARTNER GENDER AND CUES.

by

Kaye Saurer Hermanson

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APPROVED:

R. M. Eisler, Chairman

D. K. Axsom

H. J. Crawford

B. Foti

R. S. Stephens

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Blacksburg, Virginia
DIFFERENCES IN MEN'S EMOTIONAL EXPRESSION AS A FUNCTION OF GENDER BELIEFS AND CONTEXTUAL VARIABLES: PARTNER GENDER AND EXPECTANCY.

by

Kaye Saurer Hermanson

Committee Chairman: Richard M. Eisler
Psychology

(ABSTRACT)

Men's emotional expression was assessed using Deaux and Major's (1987) interactive model of gender-related behavior as a theoretical framework. This model explains gender differences in behavior as a function of proximal forces and contextual variables such as, activated gender-related schemata regarding oneself and others, and situational cues. Male college students, categorized as high and low on the Masculine Gender Role Stress (MGRS) scale (Eisler & Skidmore, 1987), interacted consecutively with a male and a female confederate. Confederates portrayed either gender-consistent (GC) or gender-inconsistent (GI) cues regarding their desire for emotional expression from subjects. Verbal and nonverbal measures were rated from videotapes of the interactions. Speaking and listening roles were analyzed separately.

It was hypothesized that men who appraise violations of the traditional masculine role as stressful (high MGRS) would demonstrate less emotionally expressive behavior than other men (low MGRS). Specifically, under GC cue conditions (i.e., emotional expression more appropriate to female than male confederates), high MGRS men were expected to be more expressive to female
than male confederates, while low MGRS men were expected to be equally expressive to both confederates. Under GI cue conditions (i.e., emotional expression more appropriate to male than female confederates), it was hypothesized that low MGRS men would become more expressive to male than female confederates, while high MGRS men would be equally expressive to male and female confederates.

Results indicated that under GC conditions, both high and low MGRS men were more expressive to female than to male confederates. As predicted, under GI conditions, this pattern was attenuated or reversed, confirming that contextual variables impact displays of emotional expression. Furthermore, anxiety expression also varied with cue conditions and MGRS level. Verbal results demonstrated support for the attenuation of expressive differences under GI conditions, but this did not vary as a function of MGRS level. Patterns of expression varied as a function of speaking and listening roles, particularly for low MGRS men. This study lends support to the Deaux and Major's hypothesis that gender-related behaviors are influenced by contextual and proximal factors. Implications for this model, as well as the MGRS construct, are discussed.
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# TABLE OF CONTENTS

Abstract

Acknowledgments

Table of Contents

List of Tables

List of Figures

Introduction

Literature Review

- Gender Differences in Verbal Expression
- Gender Differences in Nonverbal Expression
- Gender Differences in Emotionally Expressive Relationships
- Differences in Men's Emotional Expression as a Function of MGRS Level
- Emotional Expression Inconsistent with Gender Roles

Deaux & Major's Model as a Framework for the Literature Reviewed

Definition of Schema as Applied to this Study

Conceptualization of Independent Variables

- Gender-related Self Schema in Men
- MGRS--an Indirect Measure of Gender-related Self Schema
- Gender-related Other Schema
- Situational & Partner Cues
Implications for the MGRS Construct ........................................... 93
Implications for the Deaux & Major Model ................................. 95
Implications for Other Areas of Research ................................... 100
Conclusion .............................................................................. 102
References ................................................................................ 104
Figures ..................................................................................... 119
Appendices ................................................................................ 130
A: MGRS Scale ........................................................................ 130
B: Consent Form #1 ................................................................. 132
C: Post-Experimental Questionnaire ......................................... 133
D: Consent Form #2 ................................................................ 134
E: Subjects Script Forms .......................................................... 135
F: Personality Profiles ............................................................. 136
G: Confederate Prompts ........................................................... 137
H: Confederate Nonverbal Cues ................................................. 138
I: Nonverbal Expression Criteria ............................................... 139
J: Verbal Expression Criteria ..................................................... 140
K: Anxiety Expression Criteria ................................................ 141
L: Confederate Scripts .............................................................. 142
M: Confederate Reliability Data ............................................... 144
N: Rater Reliability Data ........................................................... 146
O: Manipulation Check Data ...................................................... 147
P: Nonverbal Expression Data .................................................... 148
LIST OF TABLES

Table 1: MGRS Descriptive Statistics ................................................................. 30
Table 2: Descriptive Statistics, Nonverbal Confederate Behavior ............ 41
Table 3: Descriptive Statistics, Confederate Deviations from Script .... 43
Table 4: Descriptive Statistics, Subject Expression w/confederates ..... 44
Table 5: Kappa Statistics, Reliability of Nonverbal Ratings ............... 53
Table 6: Descriptive Statistics, Anxiety & Verbal Expression Ratings ... 56
Table 7: Descriptive Statistics, Subject Perception of Cues ................. 58
Table 8: Descriptive Statistics, All Repeated Measures ANOVAs ....... 63
Table 9: Mean Length of Subject Speech w/o Prompt ......................... 64
Table 10: Means for Hypothesis Three ........................................................... 66
Table 11: Means for Hypothesis Four ............................................................. 67
Table 12: Means for Hypothesis Five ............................................................. 68
Table 13: Descriptive Statistics, Anxiety Expression & MGRS Level ...... 69
Table 14: Descriptive Statistics, Anxiety Expression & Cue Condition ... 70
Table 15: Mean Expression as a Function of Confederate Order ......... 71
LIST OF FIGURES

Figure 1: Model by Deaux and Major.............................................................. 12
Figure 2: Experimental Design...................................................................... 32
Figure 3: Mean Nonverbal Expression displayed by Confederates.............. 119
Figure 4: Mean Subject Perception of Confederate Cues............................ 120
Figure 5: Interaction for Nonverbal Expression while Listening............... 121
Figure 6: Interaction for Nonverbal Expression while Speaking............... 122
Figure 7: Interaction for Verbal Expression.................................................. 123
Figure 8: Nonverbal Expression while Listening, GC condition................. 124
Figure 9: Nonverbal Expression while Speaking, GC condition.................. 125
Figure 10: Verbal Expression, GC condition............................................... 126
Figure 11: Interaction for Length of Speech................................................ 127
Figure 12: Anxiety Expression as a Function of MGRS level....................... 128
Figure 13: Anxiety Expression as a Function of Confederate Gender........... 129
Differences in Men's Emotional Expression as a Function of Gender-role Beliefs and Contextual Variables: Partner Gender and Cues.

Introduction

Gender has long been an important research variable. Men and women have been assessed for similarities in aggression (Averill, 1983; Eagly & Steffen, 1986), social influence, power, and dominance behavior (Davis & Gilbert, 1989; Dovidio, Brown, Heltman, Ellyson, & Keating, 1988; Eagly, 1983; Klein & Willerman, 1979; Mulac, 1989), cardiovascular reactivity and a variety of physiological responses (Stoney, Davis, & Matthews, 1987; Matthews, Davis, Stoney, Owens, & Caggiula, 1991), incidence of psychological disorders (Kessler, Brown, & Broman, 1981; Warren, 1983), group behavior and leadership roles (Eagly & Johnson, 1990; Wood, 1987) and a host of other factors. Some (Maccoby & Jacklin, 1974) have reported that differences between the genders are few and often unstable; others (Deaux, 1984; Eagly, 1987; Eagly & Wood, 1991; Locksley, Borgidda, Brekke, & Hepburn, 1980) have stated that gender is an important factor and that differences occur regularly.

In view of this large body of literature detailing differences between the sexes, it is difficult to deny that they do exist. One area in which gender differences may be stable and enduring involves the expressive-instrumental dimension (Deaux & Major, 1987), with expressivity being considered a relatively more feminine attribute (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Ruble, 1983). Further review of the self-disclosure,
nonverbal expression, and social support literatures, described next, appears to demonstrate clear differences between the genders on emotionally expressive behaviors. However, the position maintained in this study is that demonstrating gender differences in behavior is not enough. It is necessary to attempt to understand the complexities of social interaction. In this way, research demonstrating findings that are consistent, as well as inconsistent with the "gender model" might be better understood, and individual variation in emotional expression, as well as other dimensions, might be fostered.

Deaux and Major (1987) offer a model that explains gender differences in behavior as a function of proximal causes and contextual variables. This model is used here to explain research demonstrating differences in men's emotional expression (Saurer & Eisler, 1990) and to explore further, factors that may inhibit or foster men's emotionally expressive interactions with male and female partners. Ekman and Friesen (1969) in studying spontaneous facial expression across two cultures, demonstrated that display rules inhibited the expression of certain emotions. It is posited here that "display rules" in the form of gender-related schemata and cues conveyed by interaction partners differentially inhibit the expression of emotion by men within our culture.

Furthermore, Levenson, Ekman and Friesen (1990) outline a definition of emotion that includes “. . . phenomenological experience, a distinctive expression in the face and/or the voice, physiological activation, cognitive appraisal, and some form of coping behavior” (p. 375). This definition provided a useful theoretical base for conceptualization of the present study of men’s emotional expression.
Literature Review

Gender Differences in Verbal Expression

The majority of findings citing gender differences in expressive behavior imply that women exceed men in expressions of tender emotions. On self-report questionnaires, women, significantly more than men, rated themselves as disclosing (Highlen & Gillis, 1978) and as emotionally expressive, both verbally and nonverbally (Allen & Haccoun, 1976). Reisman (1990) reported that subjects believed that women disclosed more personal information in their friendships than men. In studies measuring behavioral differences in disclosure, similar results have been found. For instance, Papini, Farmer, Clark, Micka, & Barnett (1990) reported that young women disclosed more emotional information to friends and parents than young men. These authors viewed this as a sign of women's more "emotionally interdependent" relationships. Also, women were more expressive of love and intimacy than men (Critelli, Myers, & Loos, 1986); women disclosed more than men in role-play situations (Highlen & Gillis, 1978); and, in dating couples, women were identified as more disclosing, although total disclosure by couples varied as a function of their sex role attitudes (Rubin, Hill, Peplau, & Dunkel-Schetter, 1980). On the other hand, Mulac (1989) demonstrated that men in mixed-sex dyads talked more than women, however he did not measure disclosure content during this time. Mulac posited that this difference in talk length was a marker of social power. Interestingly though, from either a power or a disclosure perspective, his male subjects talked more to female partners than male partners.
Some research has suggested that men are more comfortable disclosing to women than to other men. Blier and Blier-Wilson (1989) demonstrated that women felt more comfortable than men expressing liking/affection to men. Aukett, Ritchie and Mill (1988) showed that men derived emotional support from self-disclosure in opposite-sex more than same-sex relationships, while the opposite pattern was reported for women. Reisman (1990) reported that young men expected to disclose more in opposite-sex than in same-sex relationships. These expectancies about self-disclosure in friendships seem to influence patterns of interaction, as well. Mazur (1989) found that men had lower affiliation motive and value. She found women's relationships displayed more self-disclosure, higher involvement, and more one-to-one interactions than men's relationships, which tended to involve group interactions. She posited that:

- Men with higher affiliation motivation may be expressing...their affiliation needs with female friends...and may be self-disclosing with female rather than male friends. The presence of a male friend may be an inhibiting influence on conversation and involvement for both men and women, encouraging friendship with a man to occur in a group situation and during structured activities. (p. 288)

Lending further support to this notion, Snell, Miller, Belk, Garcia-Falconi, and Hernandez-Sanchez (1989), in a questionnaire study exploring the targets of disclosure, found that women reported greater willingness to disclose than men, and all subjects reported greater willingness to be open about their feelings to women. Eagly and Wood (1991), in their attempt to explain sex differences from a social role perspective, reviewed some of the seminal
works in this literature and concluded that: "... these sex differences in social behaviors appear consistent with the widespread belief in our culture that women are more socially skilled, emotionally sensitive, and expressive than men, as well as more concerned with personal relationships" (p. 307).

**Gender Differences in Nonverbal Expression**

Similar findings in the nonverbal expression literature suggest that women exceed men in expression and interpretation of emotional messages. In a meta-analysis of literature reporting gender differences, Hyde (1990) found that gender differences in nonverbal behavior were larger than those reported for cognitive abilities and social behaviors (aggression and helping behaviors). Not all nonverbal behaviors reflect an expression of emotion. However, extensive research on nonverbal expressions (Hall, 1984; Zuckerman, Lipets, Hall-Koivumaki, & Rosenthal, 1975) demonstrated that women encode their nonverbal emotional expressions more accurately than men (i.e., break points, facial movement, facial activity/mobility, and number of reactions for both posed and spontaneous expressions). Similar findings have also shown that, overall, men's faces are less expressive than women's (Cherulnik, 1979), and men smile less than women (Duncan & Fiske, 1977) even as babies (Freedman, 1974).

Furthermore, Hall and colleagues (Hall, 1984; Hall & Halberstadt, 1986; Zuckerman, Hall, DeFrank, & Rosenthal, 1976; Zuckerman, Larrance, Hall, DeFrank, & Rosenthal, 1979; Zuckerman, Lipets, Hall-Koivumaki, & Rosenthal, 1975) demonstrated that women are better decoders of other's nonverbal emotional expressions than are men. In a study exploring the influence of nonverbal behavior on attractiveness, Raines, Hechtman, and
Rosenthal (1990) replicated the finding that female judges were more accurate decoders of nonverbal cues than male judges. Furthermore, this decoding advantage held up even during participation in a stressful task (Keeley-Dyreson, Burgoon, & Bailey, 1991). These authors reported that women decoded expressions with more accuracy than men, especially for facial cues; however, this advantage dissipated with practice.

Reports of accuracy differences in encoding and decoding expression are important in light of studies (Hodgins & Zuckerman, 1990; Noller, 1980, 1981; Sabetelli, Buck & Kenny, 1986) indicating that higher decoding ability was related to more positive social interactions in both same-sex and mixed-sex dyads. Hodgins and Zuckerman (1990) found, in their study of same-sex interactants, that individuals low on decoding ability rated interactions with high-ability decoders more positively than did the high decoders. This suggests that there is an advantage to interacting with individuals high in decoding ability that is absent in interactions with low decoders. They suggested that high decoders were more likely to understand and respond to low decoding partners' cues than vice versa. This has some interesting implications for mixed-sex interactions. Primarily, this suggests that men should be more likely to seek out women for expressing and receiving emotional information, while women should also seek out other women rather than men for the same type of interactions. Interestingly, this is exactly what the social support literature demonstrates, as reviewed below.
Gender Differences in Emotionally Expressive Relationships

Findings from the social support literature have shown that both women and men cite women as their primary source for emotional support (Antonucci & Akiyama, 1987; Aukett, Ritchie & Mill, 1988; Belle, 1987; Burda & Vaux, 1987; Kessler, McLeod & Wethington, 1985). Men were more likely to list their wives as their only confidants, but women relied on friends and spouses equally for emotional support (Antonucci & Akiyama, 1987; Lowenthal & Haven, 1968; Powers & Bultena, 1976), as well as their children (Butler, Giordano & Neren, 1985; Depner & Ingersoll-Dayton, 1988; Hirsch, 1979). For provision of support, women were more likely than men to report that they were sources of emotional support to network members (Kessler et al., 1985) and to their parents (Troll, 1987).

However, the benefits of social support (i.e., satisfaction with relationships and stress buffering) are not so easily divided along gender lines. Burda, Vaux and Schill (1984) have shown that individuals with androgynous or feminine sex roles report superior support resources than those with masculine and undifferentiated sex role orientations. Furthermore, recent research demonstrated that extremely high, as well as extremely low social support resources may be linked with increased risk of mortality. Multiple factors, including gender, appear to contribute to the social support-physical health interaction (see Schumaker & Hill, 1991 for a review of this literature).

Differences in Men's Emotional Expression as a Function of MGRS Level

In summary, the literature finds that men are less expressive of tender emotions than women, and when men choose to be expressive, they more
often choose female targets for their disclosures. Why is it that men appear to offer less emotional expression? Since considerable within-group variance in levels of emotional expression exists (e.g., Saurer & Eisler, 1990), the study of factors influencing individual differences in emotional expression is extremely important. Such differences in emotional expression among men may be the result of various levels of commitment to masculine gender role norms.

Eisler, Skidmore and Ward (1988), in investigating the concept of masculine gender role stress (MGRS), found evidence that “men committed to the traditional masculine role might find situations that require expression of tender emotions more stressful and be less adept at coping with emotional events, than women in the same situations” (p. 134). Their construct of MGRS differentiated men on five factors, one of which is emotional inexpressiveness. This factor deals with situations that require expression of love, fear, and sad feelings: high MGRS men appraise emotional expression as more stressful than low MGRS men. Saurer and Eisler (1990) demonstrated that men who appraised gender-role violations as particularly stressful (high MGRS men) exhibited significantly fewer nonverbal and verbal expressions while role-playing positive emotional interactions with another man than did low MGRS men. However, during interactions focusing on expression of negative emotions (which should not be a violation of traditional masculine role norms), no significant difference was noted between high and low MGRS men. It was posited that, due to lack of alternate coping skills to deal with the stress encountered during violations of their role norms, high MGRS men might limit their emotional expression to
avoid gender role stress. Others (low MGRS men) may have the coping skills to handle violations of their role norms, or simply may not consider emotional expression a violation of their norms.

In summary, two premises have been stated: one, that men are generally the less expressive of the two genders, but that there exists within-group variability in their expressive capacity; and two, that men tend to chose women as recipients of emotional expressions when they choose to be expressive. It is likely that men’s individual predispositions to be expressive may, to some extent, dictate the range of individuals considered as targets for expression.

**Emotional Expression Inconsistent with Gender Roles**

The implication in the literature previously reviewed, regarding stable gender differences in emotional expression, is that one’s gender appears to be the best predictor of emotionality. However, gender is a "marker" variable and does not explain the process by which emotion is expressed. Therefore, it cannot explain research demonstrating individual variability in expression of emotion or results counter to often reported gender differences. Under certain, rare circumstances, some men disclosed more intimately than women (Derlega, Winstead, Wong & Hunter, 1985). These authors demonstrated that under "first date" circumstances, men were more emotionally expressive than women. They hypothesized that the men were trying to appear attractive/sensitive to the women, and that the men may have felt that it was part of their role to take the initiative under those circumstances.
Similarly those individuals with sensitivity to their own or others' emotional cues are reported to exhibit gender-inconsistent patterns of emotional expression. For instance, high self-monitoring men were more spontaneously expressive of emotion than high self-monitoring women or low self-monitoring men (Cherulnik & Evans, 1984). And, Hodgins and Zuckerman (1990) demonstrated that overall, women were more emotionally sharing in their same-sex interactions than men, but for same-sex pairs with both partners rated high on nonverbal decoding ability, male pairs rated themselves higher than female pairs on levels of emotional sharing. These authors suggested that "nonverbally sensitive subjects may be more aware of messages that are not consistent with expected sex-role behaviors.

Specifically, the HH males [both men rated high on nonverbal decoding ability] may be more likely to recognize and respond to emotional sharing" (pp. 167-168). If gender is the best predictor of expressiveness, how are these gender-role-inconsistent results explained by the "gender" model? Eagly and Wood (1991) stated that:

...the ability of a theory of sex differences to explain such inconsistencies across studies provides a test of its adequacy...Specifically, it should suggest social settings and subject groups for which the sex difference is attenuated and other settings and groups for which the difference is accentuated. (p. 310)

Deaux and Major (1987) proposed such a model. Their model, discussed next, allows for such variation from the norm by viewing gender-linked behaviors as proximally-mediated. The present study tested hypotheses...
formed from their model in effort to better understand some of the factors implicated in men's emotional expression.

**Deaux and Major's Model as a Framework for the Literature Reviewed**

Deaux and Major (1987) proposed a model (Figure 1) that delineates the proximal forces and situational variables influencing the display of gender-related behavior. This model can be used to understand stable gender differences while also explaining variability in emotional expression among the genders. They "...conceptualize gender as a component of ongoing interactions in which perceivers emit expectancies, targets (selves) negotiate their own identities, and the context in which interaction occurs shapes the resultant behaviors" (p. 369). In other words, these authors suggest that sex differences in any given behavior, expressive or not, can be expected to change across situations due to the interaction of individual differences with various contextual factors and norms made salient within that environment.

However, their model can also be used to explain variability within one or both genders in terms of emotional expressiveness. According to this model, contextual and partner variables interact with subject variables to influence the behavioral outcome of social interactions. These factors could be utilized to predict differences in men's behavior, as well as differences between genders. Among the factors that Deaux and Major present as important considerations in determining likely outcomes are: gender-related self-schema, gender-related schema regarding others, and cues conveyed by the interacting partner within the situational context. These factors are discussed
FIGURE 1
Model by Deaux and Major (1987)
here as they apply to differences in men's emotionally expressive behaviors in social interactions.

Definition of "schema" as Applied to this Study

Two of the factors delineated by Deaux and Major as influencing behavior in social interactions include the term "schema." Schemata are defined as "...hypothetical cognitive structures which order information on specific topics or themes" (Archer, 1991). From this overall idea of schema, two groups of researchers have proposed the application of schema structures to gender-related information. Bem (1981) suggested that a gender schema was an anticipatory cognitive network that structured incoming information about the self and the social world in terms of gender-relevant information, and the consequent social perception was an interaction between that new information and the pre-existing schema. Others (Markus, 1977; Markus, Crane, Bernstein & Siladi, 1982) suggested that self-schemata organize past experiences regarding the self to guide the information processing of current social experiences. To them, the gender schema is an important component of each individual's self-concept that assists with processing information about gender, in general, and in reference to aspects of the self.

There has been some controversy in the literature about the difference between gender schema and self schema, and whether one's own gender dictates the realms of one's gender schematicity (Bem, 1982; Crane & Markus, 1982). For the purposes of this study, gender schemata are considered general cognitive structures about the behavior of men and women in general, which aid information processing (hereafter called
gender-related other schema). As these rules are applied to the self, perhaps in a more limited fashion, they are referred to as gender-related self-schema. Furthermore, it is assumed here, in accord with Markus et al. (1982) that all individuals develop schemata regarding central and highly available aspects of behavior, such as gender-related behaviors. Markus et al. referred to gender as an example of a "universal schema" (p. 39).

**Conceptualization of the Independent Variables: Gender-related Self Schema, Gender-related "Other" Schema, and Partner Cues**

**Gender-related Self Schema in Men**

Gender roles have been defined as "those shared expectations about appropriate conduct that apply to individuals solely on the basis of their socially identified sex" (Eagly & Wood, 1991, p. 309). The traditional masculine gender role is purported to encourage "...emotional intimacy...but closely restricted to romantic heterosexual relationships and excluded elsewhere" (Pleck, 1976, p. 156).

However, individual self-concepts appear to influence adherence to these gender role norms. As Bem (1974) demonstrated, while most men have incorporated some measure of masculine role attributes into their gender-related self schemata, the number of masculine attributes incorporated clearly differs among individuals, and some men appear relatively "aschematic" for masculine role attributes. While most individuals have reported that the masculine image incorporates, among other things, the restricted expression of vulnerable emotions (Broverman, Vogel, Broverman,
Clarkson & Rosenkrantz, 1972; Ruble, 1983), there should be individual differences among men in the degree to which this factor is central to their masculine self-concept.

These variations in the importance of the masculine role to each man's self-concept might affect individuals' behaviors. For instance, if a man is very committed to a stereotyped masculine role (gender-related self schema) and is stressed by violations of these norms (high MGRS), certain situational factors should be more salient for him than for others. For such a man, avoiding emotional expressions may be made salient by the self-presentational desire to demonstrate a masculine image to others. Other men (low MGRS) may feel less stressed by violations of masculine role norms, or may not appraise certain behaviors, such as expression of vulnerable emotions, as a violation of their role norms. For these men, expression of emotion may access their self-schemata in an ego-syntonic fashion. These men should be less likely to avoid, and may even seek out, opportunities to give or receive emotional feedback.

**MGRS as an Indirect Measure of Gender-related Self Schema**

The MGRS scale assesses men's stress appraisal in situations which violate the traditional masculine role norms (Eisler & Skidmore, 1987). If a man is not very committed to upholding these norms (low MGRS), he should experience less stress by their violations than should a man highly committed to these norms (high MGRS). High commitment to these role norms, with consequent vigilance against their violations, may be an indicator of the importance of masculine role norms to each subject's self-concept. In other
words, those men who appraise more stress from violations of their role norms may experience more stress because adherence to these norms is central to their self-concept, so violations are more threatening. Saurer and Eisler (1990) found that high MGRS men reported significantly more than low MGRS men that it was important to behave as other men would, perhaps signifying a need to behave in a socially appropriate, or "normative" manner. It is posited here that measurement of gender role stress may indirectly indicate the importance of traditional norms in men's self-schemata.

The MGRS scale may only access some dimensions of the masculine role. However, it appears to access those aspects that are necessary for predicting emotionally expressive behavior. For instance, Saurer & Eisler (1990) demonstrated that men's expression of positive emotions in role play situations varied as a function of MGRS level. Because participation in the present study involved some level of emotional expression, and because MGRS is believed to tap aspects of men's self-systems that allow or inhibit emotional expression, MGRS was used as an indirect measure of gender-related self-schema.

Gender-related "Other" Schema

In Deaux and Major's model, gender-related schemata are activated not only by the subjects' beliefs about themselves, but they may also be activated by the target individual's characteristics. Deaux and Major stated that "certain features of a target such as...nonverbal gestures may cause a perceiver to invoke particular gender subtypes and their associated beliefs" (1987, p. 374). Thus, subjects' behaviors should be influenced, not only by highly
individual self-schemata, but also by more "universal" gender schemata that invoke stereotyped beliefs about others. The literature on self-disclosure and social support has demonstrated that men appear to be more expressive to women than to other men (Antonucci & Akiyama, 1987; Aukett, Ritchie, & Mill, 1988; Belle, 1987; Blier & Blier-Wilson, 1989; Burda & Vaux, 1987; Kessler, McLeod, & Wethington, 1985; Snell et al., 1989), a pattern hereafter referred to as the "normative" pattern of expression. This pattern may be a function of adherence to the traditional masculine role wherein men are supposed to express emotional expression to women, and restrict such expression with other men (Pleck, 1976). However, it may also be due to more global schemata (i.e., applicable to both men and women) indicating that it is appropriate to be emotionally expressive with female partners, but less so with male partners. After all, Aukett et al. (1988) and Reisman (1990) reported that women, as well as men, were more disclosing to women. Alternately, it may be a combination of these two explanations. It is hypothesized here that the combination of gender-related self schemata (i.e., level of adherence to the masculine role) and gender-related other schemata are responsible for the often-observed, normative pattern of gender differences in emotional expression to men and women. However, in social interactions, the provision of additional information about an interacting partner may alter these normative patterns of expression, as discussed next.

**Situational and Partner Cues**

Situational cues may also play a role in the decision to be (or not to be) expressive. Lupfer, Clark, and Hutcherson (1990) stated:
...one action may be enough for us to reach a conclusion regarding the dispositional characteristics of a new colleague...First meetings, however, rarely occur in an informational vacuum...other information regarding the causes of his or her behavior are often used to determine what this new colleague is like. (p. 239)

Research (Kahneman & Tversky, 1973; Lupfer et al., 1990) has demonstrated that individuals use multiple sources of information to categorize and make attributions about the behavior of others. Kahneman and Tversky's (1973) seminal research demonstrated that subjects use base-rate information in the absence of other sources of information. However, if given additional information (usually in the form of personality profiles), subjects abandoned statistical prediction rules in favor of intuitive predictions based on the representativeness of the additional data. Recently, Lupfer et al. (1990) demonstrated that background information designed to facilitate dispositional or situational inferences did exactly that. However, dispositional inferences were made more automatically and with less effort than situational inferences. Therefore, additional information about another individual is likely to be assessed and weighed in deciding how to act toward that individual.

One potential source of additional information could be partners' cues. Research has demonstrated the influence of partner cues on the behavior of other interactants. For instance, Highlen and Johnston (1979) found that men and women exhibited more self-disclosure in a respondent than in an initiator role. This suggests that subjects may have been responding to cues from partners' behaviors that made emotional expression acceptable. Others
(Zanna & Pack, 1975) found that some women were more attentive to the expectancies of unfamiliar, desirable men, and tried to present images consistent with these expectancies. This was true even when the women had to display behaviors inconsistent with their self-reported gender beliefs.

In many instances, partner cues may maintain gender role norms (e.g., Zanna & Pack, 1975). Derlega and Chaiken (1976) demonstrated that both men and women rated a male target as more mentally healthy when he failed to disclose personal information than when he revealed such information. It is likely that, given these findings and the broadly accepted gender role attributes (Broverman et al., 1972; Ruble, 1983), men may consistently receive cues indicating that emotional expression is unacceptable. Cherulnik (1979), who found that low disclosing women were disliked, stated that there was support for "...the notion that our culture differentially reinforces the expression of personal information in males and females" (p. 1002).

However, others believe that given the appropriate social cues, more flexible adherence to roles can be achieved. For instance, Deaux and Major (1987) suggest that the gender beliefs and expectations of the interacting other, as conveyed to the perceiver, may influence the willingness of the perceiver to violate his or her own gender role beliefs. These cues may allow the perceiver to override his or her customary gender "role" when other "roles" take precedence.

Some (e.g., Eagly, 1987) argue that individuals' behaviors are dictated by the performance of many, required social roles. For instance, a man might be expected to play the roles of son, husband, father, and employee on any given day. For each of these, there is likely some pertinent gender-related
belief about the self, but the role adopted in a situation might depend on any number of factors. For instance, his boss might expect different behavior than do his children and so the expectations of the participating other may influence his behavior. Second, the role adopted is modified by the salience of gender-related issues to the specific role. The traditional male role norm of competitiveness may be more salient during a tennis match than while caring for a sick parent. Third, the social role adopted is also dependent on the impression one is attempting to convey. For instance, does one want to be viewed as a hard-nosed businessman or a sensitive lover? Finally, the role adopted by an individual will be chosen to fit the feedback one is attempting to elicit. All of these factors should work together to produce the end result--behavior that may or may not conform to certain roles, including "gender" roles.

It was hypothesized that under certain circumstances, partner cues may allow some men to become more emotionally expressive. Furthermore, it was hypothesized that all of the factors discussed above--gender-related self schema, gender-related other schema, and partner cues--work in combination to influence men's levels of emotional expression.

Deaux and Major's Model as a Framework for this Study

Perhaps due to partner cues, some situations promote the expression of vulnerable emotions (Derlega et al., 1985; Highlen & Johnston, 1979), however the literature in this area is limited. More commonly, similar behaviors among individuals of one gender have been investigated. These
may be the result of frequently relayed partner cues, or similar role pressures impacting one gender more than the other. As such, gender often is a useful "marker" variable. However, one can also understand that gender, itself, should be a poor predictor of such behaviors at an individual level. The Deaux and Major's model can be used to modify the relatively well accepted notion that men are globally less expressive than women (Allen & Haccoun, 1976; Cherulnik, 1979; Critelli et al., 1986; Duncan & Fiske, 1977; Freedman, 1974; Highlen & Gillis, 1978; Highlen & Johnston, 1979; Mazur, 1989; Papini et al., 1990; Rubin et al., 1980; Snell et al., 1989).

Hypotheses formed from this model were tested here, in a study exploring changes in men's expressive levels as a function of the factors previously discussed: (a) individual differences in MGRS level (a measure akin to gender-related self-schema); (b) the activation of gender belief systems by immediately observable characteristics of the interaction partners (labeled as gender-related "other" schema); and (c) cues conveyed by the interaction partners.

Rationale for the Current Study

Three factors delineated by Deaux and Major (1987) and thought to mediate the expression of gender-linked behaviors were discussed in the preceding text. These were gender-related self schema, gender beliefs regarding others, and conveyed cues. This study aimed to demonstrate that these factors moderate men's levels of verbal and nonverbal emotional expression.
First, this study attempted to replicate the findings of previous research (Saurer & Eisler, 1990) demonstrating differences among men's emotional expression as a function of the stress appraised by violations of the masculine gender role (MGRS level).

Second, men's emotional expressions were expected to differ based on the activation of gender-related schema regarding others. It was expected that the gender of a person is more salient than most other category dimensions, causing gender belief system activation "...before other potentially contradictory information can be introduced" (Deaux & Major, 1987, p. 384). Immediate categorization of someone based on gender was assumed to activate one's belief system regarding sex-role stereotypes. These stereotypes, about how to interact with men and women and the differences between these interactions, should direct the individual's behavior toward the interacting partner. For instance, expression of tender emotions has been considered a relatively more "feminine" than "masculine" characteristic (Broverman et al., 1972; Ruble, 1983). One might assume then that women are more comfortable with such emotional disclosures than are men. As discussed earlier, people have generally acted in accordance with these proposed expectations about others by being more expressive to women than to men (Aukett, Ritchie, & Mill, 1988; Blier & Blier-Wilson, 1989; Snell et al., 1989). As such, this study expected to demonstrate differences in men's expressive behavior to women and men. It was also hypothesized that subjects' own gender-related self schemata (or MGRS levels) would interact with the activation of the "other" schemata to dictate expressive behavior.
Lastly, in interactions, one often has information about one's partner that goes beyond gender categorization, and might contradict these sex-role stereotypes. Even when interacting with someone for the first time, cues and ideas are gathered about the partner from his/her behavior. Research, reviewed earlier (Kahneman & Tversky, 1973; Lupfer et al., 1990), demonstrated that additional information is used, when available, in making judgments about others. This information is often obtained from partner cues. If partner cues are consistent with gender beliefs/base-rate gender information (i.e., women give and receive emotional expressions, men do not), subjects are expected to continue to use their gender schemata to make decisions about their own and other's behavior. If these cues are inconsistent with the assumptions made in a quick and general fashion from gender-based beliefs, subjects are expected to alter their behaviors accordingly.

If partners conveyed gender-inconsistent expectancies, then subjects, left without the aid of the gender-related "other" schema, must decide how to proceed based on partner's cues and their own comfort levels with these expectations given the current environment. Katz, Silvern, and Coulter (1990) demonstrated that the recall of physical characteristics of a stimulus person was influenced by the additional trait information provided, but was also influenced by the gender-schema of the individual. It was hypothesized that men's levels of emotional expression to men and women would vary as a function of cues conveyed and their processing of these cues, as dictated by their self-schemata.
It was expected that expressiveness should be most inconsistent with the self-schemata of men who experience expressions of emotion as violations of their gender role (High MGRS). Still, they should be more likely to express emotions in order to validate a partner's expectations than under other conditions where they should be unlikely express emotion. In other words, if a man felt that expression of emotion violated his gender beliefs, then he should avoid such expressions, particularly around other men with whom he competes to be more "masculine". If however he were interacting with a man who expected him to be expressive, his gender beliefs might become less salient at that time, allowing him room to show his emotions. Conversely, a man interacting with a woman who conveyed a dislike of expressive behavior might be more likely to remain stoic regardless of his own beliefs concerning emotional expressions.

Emotional expressiveness should be least inconsistent with the self-schemata of men who appraise less stress under emotionally expressive situations (Low MGRS). In such a case, validating partners' expectancies might be more salient. Due to these expected differences in the flexibility of men's behavior based on self-schemata rules, low MGRS subjects were expected to conform to partners' cues to a greater degree than high MGRS men.

In summary, it was hypothesized that by changing cues in men's interactions, it should be possible to show that gender is only part of a complex set of factors influencing the emotional expression of men.
Specific Hypotheses

1. Under gender-consistent conditions, low MGRS men should be similarly expressive to both male and female confederates, relative to high MGRS men who should demonstrate more emotional expression to female confederates than to male confederates.

2. Under gender-inconsistent conditions, high MGRS men should be similar in emotional expression to the genders, while low MGRS men should demonstrate more expression to male confederates than to female confederates in response to gender-inconsistent partner cues.

3. Men who appraise violations of the traditional masculine gender role as stressful (high MGRS), should be less verbally and nonverbally communicative than low MGRS men.

4. High MGRS men should be more anxious than low MGRS men.

5. All men should be more anxious with men than with women.
Methodological Issues in the Measurement of Emotion

Now that the groundwork has been laid concerning factors that potentially influence emotional expression, it is necessary to discuss this variable itself.

Nonverbal versus Verbal Expression

Capella and Palmer (1989) recommend both the verbal and nonverbal expressive channels must be studied in order to be fully aware of messages sent. While a complete analysis of what is being expressed entails a comparison of simultaneously expressed verbal and nonverbal behaviors, as well as the valence of these expressions, this was beyond the scope of the present study. Rather than exploring what was being expressed by subjects, this research focused instead on the amount of expression, and the subjects' abilities to suppress or express emotions as a function of the variables under study. As Ekman, Friesen, and Ancoli (1980) theorized:

...in social situations, people wittingly and unwittingly manage their facial expressions of emotions following culturally based display rules specifying who can show what emotion to whom and when...It is likely that in some social situations, at least some people may amplify while others may conceal or disguise their expressions... (p. 1133)

This study attempted to delineate situations under which men amplify or conceal their verbal and nonverbal expressions of emotion. Emotional expression was measured as: (a) verbal expression of love, sadness, fear, hopelessness, and other vulnerable emotions; (b) nonverbal facial expression while speaking; and (c) nonverbal facial expression while listening.
**Speaking and Listening Roles**

Nonverbal expression, as a means of communicating to a partner, may differ based on the expresser's concomitant tasks. What are the reasons to believe that nonverbal expression differs across subject role? Much research (Bouhuys, Jansen & van den Hoofdakker, 1991; Dovidio et al., 1988; Gilbert & Krull, 1988; Gilbert, Pelham & Jones, 1987; Gilbert, Pelham & Krull, 1988) suggests that differences in behavior exist as a function of speaking or listening roles. Two studies have demonstrated differences in the nonverbal behaviors of individuals who were speaking or listening. Bouhuys et al. (1991) reported that aspects of speaking and listening behaviors were differentially correlated with psychomotor agitation in depressed patients. Dovidio et al. (1988) demonstrated that, during masculine gender-linked and non-gender-linked tasks, men looked less at partners while listening and more while speaking than women. Women showed this pattern of differential looking more than men on feminine gender-linked tasks. Given this, differences in men's nonverbal behavior as a function of their listening or speaking status were likely.

Furthermore, research by Gilbert and colleagues (Gilbert & Krull, 1988; Gilbert et al., 1987; Gilbert et al., 1988) have shown that subjects' abilities to process perceptual information are impaired by the addition of concomitant tasks. They suggest that active perceivers do several things at once, while passive perceivers may only focus on the task at hand. According to this research, subjects in the speaking role should be less likely than those in the listening role to correct dispositional attributions and, again, behavioral
differences stemming from the subject role might have been expected. However, as each subject in this study encountered both roles, and perceptual corrections may have already taken place by the time they reached the speaking role, no hypotheses were put forth regarding potential differences in subjects' behaviors as a function of their roles. Any information gained should be used merely to obtain hypotheses for future studies.
Method

Subjects

Two hundred and twenty college-aged men were recruited from the introductory psychology pool. They were asked to participate in a study of impression formation in acquaintance relationships.

Screening. Potential subjects were mass tested with the Masculine Gender Role Stress Scale (MGRS; Eisler & Skidmore, 1987; Appendix A), the Social Support Questionnaire-Short Form (SSQ; Sarason, Sarason, Shearin, & Pierce, 1987), the Affect Intensity Measure (AIM; Diener, Sandvik & Larsen, 1985), and the Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975). Information from the MGRS and the EPQ were the only data pertinent to this study. Furthermore, the EPQ was used only to support the suggestion that personality profiles used in the study were drawn from these questionnaires, however this data was not assessed for the purposes of this study. Prior to completing the questionnaires, subjects filled out informed consent sheets (Appendix B).

Division of MGRS scores into high, low and medium categories was completed in the fashion consistent with previous research (S. Lash, personal communication, Spring 1989; Saurer and Eisler, 1990). Cut-off scores used in this study were based on previous test data which set cut-offs at one standard deviation from the mean. In the present study, the mean and standard deviation for the entire study were 89.66 and 17.33 respectively. These are consistent with descriptive statistics found in previous research (S. Lash, personal communication, Spring 1989; Saurer and Eisler, 1990). These cutoff scores were not consistent with one standard deviation in the
present study's sample, but re-evaluation of the sample with cutoffs set at one standard deviation (72.33 and 106.99) revealed no significant changes in results. On the basis of previous cut-off scores (100 and above being "high" MGRS, and 80 and below being "low"), 46 high and 47 low MGRS subjects returned to participate in the actual experiment. One low MGRS subject refused to allow the use of his videotape following debriefing, and all results reported hereafter are for 92 total subjects. Descriptive statistics for the participant MGRS levels are shown in Table 1.

Table 1  
MGRS descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>σ</th>
<th>range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low MGRS</td>
<td>57.44</td>
<td>13.49</td>
<td>30-79</td>
</tr>
<tr>
<td>High MGRS</td>
<td>124.11</td>
<td>12.25</td>
<td>101-141</td>
</tr>
</tbody>
</table>

*Note.* n = 46 for each row.

**Scales**

**Masculine Gender Roles Stress (MGRS) Scale.** This 40-item scale (Eisler, Skidmore, & Ward, 1988) was developed to measure masculine gender-role stress based on the hypothesis that stress appraisal is gender related (Appendix A). A validation study with 173 college undergraduates showed that (a) men score higher than women on experience of masculine gender-role stress, (b) the MGRS construct is distinct from that of masculinity which appraises the healthy aspects of the male gender role, and (c) high scores on the MGRS are correlated with increased anxiety and anger, and poor healthcare habits. Further analysis (Eisler & Skidmore, 1987) found that the scaled items produced 5 factors: physical inadequacy, emotional inexpression,
subordination to women, intellectual inferiority, and performance failure. Test-retest reliability was .92 over a two week period.

**Eysenck Personality Questionnaire (EPQ).** This 90-item questionnaire (Eysenck & Eysenck, 1975) was designed to measure personality along four axes. The E Scale is reported to measure extroversion/introversion with higher scores indicating an extroverted personality. The N Scale is reputed to measure "neuroticism." Individuals scoring high on the N Scale are described as being "anxious, worrying individual[s], moody and frequently depressed" (p. 5). The P Scale is known as the psychoticism scale, but is not believed to measure pathology and "it may be premature to attempt a verbal description of the high P scorer" (p. 5). Finally, the Lie Scale is designed to measure the tendency of some test takers to "fake good."

The data from the EPQ was not analyzed. The scale was given to subjects during the mass testing to support the statement made later, during the experiment, that subjects and confederates received each other's personality profiles at the beginning of each experimental condition.

**Design**

The study was a 2 X 2 X 2 mixed model, factorial design with repeated measures; subjects categorized into one of two groups (high MGRS men and low MGRS men) were asked to interact with each of two confederates (male and female confederate) under one of two cue conditions (gender-consistent or gender-inconsistent confederate cues). The first and last factors (MGRS level and cue condition) are between-subjects variables, while the remaining
factor (confederate gender) is the repeated, within-subjects variable. This
design is depicted in Figure 2.

FIGURE 2
Experimental Design.

<table>
<thead>
<tr>
<th>Within Subjects Variable (counter balanced)</th>
<th>Confederate Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variables included levels of verbal and nonverbal expression,
and amounts of anxiety displayed. A post-experimental questionnaire
(Appendix C) assessed the subjects' experience of anxiety, attraction to
confederates, perceptions of confederate cues (manipulation check), and
suspicion of the real purpose of the study.

Four confederates (male 1, male 2, female 1, and female 2) were trained to
ensure that any differences seen in expression to male or female partners
were not based on the individual characteristics of the confederates. Each
confederate was trained to portray both gender-consistent and gender-
inconsistent cues (see confederate training section). Assignment to
confederates was random and the order of interaction (male then female vs.
female then male) was counterbalanced. Order effects were also examined
to ascertain whether order of interaction had a significant effect. Confedrate
effects were examined and are discussed under the confederate reliability
section.
Procedure

Subjects were randomly assigned to the gender-consistent or the gender-inconsistent cue condition. Upon arrival, subjects were introduced to the confederate (either male or female) whom they believed to be another student. The two individuals received the following written explanation of the study:

I am interested in understanding how relationships form between same-sex and opposite-sex pairs. Research (Levinger, 1980) has shown that there are stages in the development of a relationship. I am attempting to study the first stage of forming impressions in acquaintance relationships.

Therefore, each of you will be asked to spend some time getting to know a male student and a female student. You need to let me know if this is someone with whom you are already acquainted.

Lastly, because I am interested in your impressions, you will be asked to fill out questionnaires at the end of the experiment. Also, I want to be able to study how you formed these impressions, so your interactions will be videotaped. These tapes are strictly confidential, but I need to have your consent to videotape these sessions.

Next they asked any questions, and signed an informed consent (Appendix D) if they agreed to participate. All subjects agreed to participate.

Confederates and subjects were then given instructions regarding the topic for their discussion based on the expressive-demand situations used by LaFrance and Carmen (1980).

I want you to think back to your first few days and weeks at college and to share with each other your feelings and memories about these times. This situation should be familiar to you both. Students often report that the confusion of finding classrooms, and strangeness associated with leaving their families, and meeting roommates was difficult and that it made them feel better to share such reactions.

The subjects were then asked to write down what they might say in the interaction. Because each subject repeated his interaction, allowing a
subject to "script" what he wanted to say was an effort to overcome practice
effects that might have made the second performance distinct from the first.
The experimenter framed this as an opportunity to rehearse, ostensibly so
that subjects could concentrate on the actual interaction (see Appendix E).

Lastly, before beginning the interactions with the confederate, the subjects
and confederates received "profiles" (see Appendix F), allegedly describing
the personality of the interacting other, and they were told:

Because I want to make this as similar as possible to an
"acquaintance" relationship, you will receive a personality profile
describing your partner. These are based on the questionnaires you
filled out in one of the mass testing sessions a few weeks ago.
Please read these carefully.

The purpose of the profile was to make the confederate's expectancies
clear regarding expression in interactions with friends and acquaintances.
In the gender-consistent condition, the profiles given to subjects portrayed
the confederate women as expressive and the confederate men as
relatively less expressive. In gender-inconsistent conditions, the opposite
was true of the profiles read by subjects--women were described as
relatively less expressive than men. The confederates were trained to
emit cues consistent with the profiles for both conditions. For instance,
while portraying expressive roles (e.g., gender-consistent women,
gender-inconsistent men), subjects' emotional expressions were met by
smiles and nods from the confederate. While portraying inexpressive
roles (e.g., gender-consistent men, gender-inconsistent women),
confederates would break eye contact and shift in their chairs when a
subject reported detailed emotional experiences.
Confederates also received profiles ostensibly describing the personality of the subjects to bolster the subjects' beliefs that the confederate was also a subject. Subjects were led to believe that the profiles were based on the scales they filled out during mass testing, while in actuality, the profiles were fictionalized, standard profiles. Finally, the interaction pairs were instructed:

You may begin when I leave the room and please continue your discussion until I return to stop you.

The confederate began by telling his or her story. This served two purposes. First, according to Highlen and Johnston (1979), subjects are more likely to feel comfortable expressing themselves in a respondent rather than an initiator role. Second, the time of the confederate's story was standardized so that the remaining, standardized amount of time was allotted to the subject's story. Confederates' stories were standardized to 3 minutes, leaving 3 minutes for the subject to tell his story.

After 6 minutes the experimenter returned, thanked them, and stated that the next interaction subjects had arrived. At this point the experimenter asked the confederate to go to another room where his or her next partner was supposedly waiting, and introduced the next confederate to the subject. They were then given the same instructions and asked to participate in the same discussion with their new partner.

Following the discussion, the subject and confederate were separated and the subject filled out one post-experimental questionnaire for each interaction. The post-experimental questionnaire assessed the following areas: anxiety ("how tense/anxious were you in the situations"); attraction to confederate ("how interested would you be in getting to know the student you
interacted with," "describe your partner," "would your interaction have been different if this person were of the other sex"); social desirability ("did you respond as you think most people would," "how important is it for you to respond as others do"); manipulation check on confederate cues ("how did your partner expect you to respond and did you respond that way," "do you think your partner expected you to express your feelings"); and suspicion of the experimental purpose ("what do you think the purpose of the experiment was," "how natural did the interaction feel to you"). All subjects filled out one questionnaire about the female confederate and one about the male confederate.

Finally, they were then allowed to ask any questions and were then debriefed by the experimenter, who told them:

You were instructed that this was an experiment to assess impression formation and that the entire interaction was to be videotaped. Actually, this was not true. Both of the people you interacted with were confederates—that is, part of the experiment. The real purpose of this study was to assess men's levels of verbal and nonverbal expression in interactions with men and women who give off different behavioral cues. This is what is actually being assessed on the tape—your verbal and nonverbal responses.

We were interested in the cues given off by the different genders and whether consistency/inconsistency with traditional gender roles would influence your behavior. For this reason, we needed you to believe that this person was a student also, so that you would not discount any "weird" behavior as part of the experiment.

There is no risk to you. These tapes will be seen only by my raters and myself. All materials (tapes and questionnaires) will be identified only by a subject number, and your name will not appear anywhere. Still, if you wish to refuse the use of your tape for this experiment, it will be erased.

We feel this research is beneficial because it teaches us about communication skills. This has implications for marital therapy,
interpersonal interactions, and potentially for social support, and physiological and mental health. Thanks for your participation.

Only one subject refused the use of his tape, and it was deleted. Because so many subjects asked to see their personality profiles, a line was added to the debriefing explaining that the profiles were not taken from the questionnaires filled out at the screening session, but were standardized ones.

Confederate Training and Reliability

Screening. Sixteen undergraduate students from an advanced Personality Psychology class who had indicated interest in gaining research experience for credit (independent of the personality course), were screened with the Bem Sex Role Inventory (Bem, 1974) and the MGRS (Eisler, Skidmore and Ward, 1988) or Female Gender Role Stress (FGRS) Scale (Gillespie & Eisler, in press). Four individuals (2 women and 2 men) with average gender role orientation and medium gender role stress appraisal levels were chosen as confederates.

Initial training. They received three months of instruction on the roles they would play, meeting twice a week for 3 hours each time (total of 72 hours, approximately). Each confederate dressed in blue jeans, sneakers, and a sweater. Identifying information and emblems (i.e., sorority/fraternity letters, sports teams) were expressly forbidden.

Training included learning to be consistent with both scripts (all confederates learned two scripts) and with verbal prompts in the listening role (Appendix G). Consistency was measured as less than 5 sentence deviations from the memorized standard. They spent time at home memorizing the scripts and were expected to perform to a reasonable
standard before training began. However, the standard scripts underwent some changes initially based on the confederates' suggestions about actual undergraduate behavior on the Virginia Tech campus.

Next confederates learned nonverbal behaviors to correspond with the scripts. One confederate practiced nonverbal behavior and verbal prompts in the listening role, while another confederate practiced script memorization and nonverbal behavior in the speaking role. Consistency with nonverbal cues was also measured (Appendix H). Confederates were expected to be consistent within each condition (gender-consistent and gender-inconsistent) with the confederate of the same gender. For instance, the two female confederates were expected to demonstrate similar levels of expressive behavior under the gender-consistent condition. However, the two male confederates were not expected to match the women's levels of expression when the men were in the gender-inconsistent roles. However, both male and female confederates were expected to display levels of expression that were significantly different for the levels shown under inexpressive roles. This was an attempt to make the situations naturalistic.

Confederates were also timed while learning the role plays. They were expected to maintain a 3-minute presentation of the scripted roles. This was the most difficult factor. After many attempts it was decided that if each confederate remained reliable with his or her own presentation, and if each confederate remained consistent with the script (i.e., nothing left out, nothing added), that small variations in time would be allowed. Two confederates were able to remain relatively consistent at the 3-minute mark. However, one woman spoke consistently more quickly ($M = 2$ minutes, 35 seconds), and
one man spoke consistently more slowly ($M = 3$ minutes, 40 seconds). To maintain a standard speaking time for subjects, given somewhat unequal confederate presentations, all confederate and subject speeches were timed by the experimenter who was observing from the taping room. After allowing the subject his 3 minutes, the experimenter ended the interaction.

**Subsequent training of confederates.** After approximately 60 hours of practice among themselves, other students volunteering to role play, gave the confederates the opportunity to practice their roles with unfamiliar individuals. These interactions were not taped, but shortly thereafter all confederates were taped with a graduate student volunteer. Each confederate was taped in each condition twice (i.e., four taped interactions for each confederate).

These tapes were rated by independent raters (2 raters coded each tape) for accurate portrayal of each role across confederates, and consistency with the script. With the graduate student volunteer, they also practiced difficult situations, such as a very nervous subject, or one who does not follow the instructions.

**Confederate reliability.** Based on initial reliability calculations, one confederate was given additional training and rated again. Reliability data reported hereafter is based on reliability scores following additional training. Confederates continued to be observed over the course of the study with reminders given as needed. Each confederate was rated four times in each condition, or 8 more times over the course of the study. Ratings performed during the course of the study (as opposed to those done initially) were based on live observation rather than taped interactions.
The reliability data reported next is based on the combination of the data collected initially and that collected over the course of the study. Each confederate was rated 6 times for each condition, or 12 times overall. For each confederate, raters coded total nonverbal behavior, and consistency to the script/verbal prompts (i.e., if a confederate gave an unacceptable prompt, it was coded as a script deviation). Reliability was measured in a 4 (individual confederate: male 1, male 2, female 1, female 2) X 2 (gender-consistent cue condition vs. gender-inconsistent cue condition) ANOVA.

For total nonverbal confederate behavior, there were no main effects of individual confederate [confed. main effect: $F(1, 40) = 2.08, p < .15$] or of cue condition [condition main effect: $F(1, 40) = 1.55, p > .15$]. This was consistent with reliable role portrayals. No difference by confederate was expected, even between the men and women, because each confederate was more expressive under one condition (gender-consistent or gender-inconsistent depending on the confederate's gender) and less expressive in the opposite condition. The same was true for cue condition--half the confederates were more expressive under gender-consistent conditions (i.e., the women), and the other half were more expressive under gender-inconsistent conditions (i.e., the men). Given these two factors, an interaction between individual confederate and cue condition was expected, and the 4(individual confederate) X 2 (cue condition) ANOVA results were consistent with this hypothesis [confederate x condition interaction: $F(1, 40) = 114.02, p < .001$]. Post hoc comparisons allowed further examination of the data (Fig. 3), revealing that male confederates under gender-consistent conditions did not significantly differ from female confederates under gender-inconsistent
conditions (i.e., both expressive roles) \( p < .05 \). Similarly, male and female confederates did not differ in their portrayals of inexpressive roles \( p < .05 \). However, levels of expression in expressive roles did differ significantly from levels of expression in inexpressive roles \( p < .05 \). Because the cell size is low, the reliability data must be interpreted cautiously. Descriptive statistics are displayed in Table 2, and ANOVA results are reported in Appendix M.

### Table 2

**Descriptive Statistics for Total Nonverbal Behavior of Confederates**

<table>
<thead>
<tr>
<th>Individual Confederates</th>
<th>Cue Condition</th>
<th>( M )</th>
<th>( \sigma )</th>
</tr>
</thead>
<tbody>
<tr>
<td>male 1</td>
<td>GC(^a)</td>
<td>4.42</td>
<td>0.92</td>
</tr>
<tr>
<td>male 1</td>
<td>GI(^b)</td>
<td>10.33</td>
<td>1.37</td>
</tr>
<tr>
<td>male 2</td>
<td>GC</td>
<td>5.21</td>
<td>1.36</td>
</tr>
<tr>
<td>male 2</td>
<td>GI</td>
<td>11.08</td>
<td>1.11</td>
</tr>
<tr>
<td>female 1</td>
<td>GC</td>
<td>11.67</td>
<td>1.63</td>
</tr>
<tr>
<td>female 1</td>
<td>GI</td>
<td>6.33</td>
<td>1.63</td>
</tr>
<tr>
<td>female 2</td>
<td>GC</td>
<td>10.33</td>
<td>0.81</td>
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<tr>
<td>female 2</td>
<td>GI</td>
<td>6.17</td>
<td>1.17</td>
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</tbody>
</table>

\(^a\)GC = gender-consistent \(^b\)GI = gender-inconsistent

**Note.** \( n=6 \) for each row.
Similar statistical analysis was performed for consistency to the script/verbal prompts. Raters coded the number of deviations from the standard. Because each individual confederate was responsible for maintaining this standard, and because there was no reason to believe that the expressive script differed from the inexpressive script in difficulty of memorization or portrayal, no main effects or interactions were expected. A 4 (individual confederate: male 1, male 2, female 1, female 2) X 2 (cue condition) ANOVA assessed this hypothesis. Consistent with good reliability of the confederates' verbal behavior, no significant differences were found [confederate main effect: $F(1, 40) < 1.00$; cue condition main effect: $F(1, 40) < 1.00$; confederate x condition interaction: $F(1, 40) = 3.06, p < .15$]. Again, these results must be interpreted cautiously due to low statistical power. Descriptive statistics are reported in Table 3, and the ANOVA data are found in Appendix M.
Table 3
Descriptive Statistics for Confederate Deviations\textsuperscript{a} from Scripted Material

<table>
<thead>
<tr>
<th>Individual Confederates</th>
<th>Cue Condition</th>
<th>$M$</th>
<th>$\sigma$</th>
</tr>
</thead>
<tbody>
<tr>
<td>male 1</td>
<td>GC\textsuperscript{b}</td>
<td>1.50</td>
<td>0.84</td>
</tr>
<tr>
<td>male 1</td>
<td>GI\textsuperscript{c}</td>
<td>2.83</td>
<td>1.47</td>
</tr>
<tr>
<td>male 2</td>
<td>GC</td>
<td>2.17</td>
<td>1.17</td>
</tr>
<tr>
<td>male 2</td>
<td>GI</td>
<td>1.33</td>
<td>1.03</td>
</tr>
<tr>
<td>female 1</td>
<td>GC</td>
<td>1.00</td>
<td>0.89</td>
</tr>
<tr>
<td>female 1</td>
<td>GI</td>
<td>2.00</td>
<td>1.67</td>
</tr>
<tr>
<td>female 2</td>
<td>GC</td>
<td>1.67</td>
<td>0.82</td>
</tr>
<tr>
<td>female 2</td>
<td>GI</td>
<td>1.50</td>
<td>1.23</td>
</tr>
</tbody>
</table>

\textsuperscript{a}consistency was judged as less than 5 deviations.

\textsuperscript{b}GC = gender consistent. \textsuperscript{c}GI = gender-inconsistent.

Note. n=6 for each row.

Further evidence of confederate reliability may be found from subjects' behavior. Subjects' nonverbal and verbal behavior was assessed as a function of individual confederate to assess whether subjects responded differently to various confederates. To assess this, 2 (confederate team: team 1, team 2) X 2 (cue condition) X 2 (confederate gender) ANOVAs with repeated measures on the confederate gender variable were run for the three dependent variables. Consistent with reliable portrayal, subjects' behavior did not significantly differ in any of the dependent variables as a function of
the individual confederate partner [3-way ANOVAs: nonverbal expression while listening, \( F(1,88) < 1.00 \); nonverbal expression while speaking, \( F(1,88) < 1.00 \); verbal expression \( F(1,88) < 1.00 \)]. Descriptive statistics are reported below in Table 4 and ANOVA results are given in Appendix M.

Table 4

Descriptive Statistics for Subjects' Expressions as a Function of Individual Confederate

<table>
<thead>
<tr>
<th>cue condition</th>
<th>nonverbal expression while listening</th>
<th>nonverbal expression while speaking</th>
<th>verbal expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>male 1</td>
<td>7.92</td>
<td>9.40</td>
</tr>
<tr>
<td>gender-consistent</td>
<td>male 2</td>
<td>8.00</td>
<td>10.71</td>
</tr>
<tr>
<td>female 1</td>
<td>10.76</td>
<td>12.00</td>
<td>5.48</td>
</tr>
<tr>
<td>female 2</td>
<td>12.33</td>
<td>12.76</td>
<td>5.86</td>
</tr>
<tr>
<td></td>
<td>male 1</td>
<td>9.67</td>
<td>11.91</td>
</tr>
<tr>
<td>gender-inconsistent</td>
<td>male 2</td>
<td>8.68</td>
<td>11.16</td>
</tr>
<tr>
<td>female 1</td>
<td>9.52</td>
<td>9.05</td>
<td>4.95</td>
</tr>
<tr>
<td>female 2</td>
<td>8.16</td>
<td>9.24</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Note. \( n = 23 \) subjects per cell
Measures

All interactions in both conditions were videotaped to be rated later. They were coded for verbal expression, nonverbal expression in the speaking and listening roles, and anxiety expression in the speaking and listening roles. Coding was performed by trained raters, blind to the experimental purpose, who met acceptable reliability standards (see section on training and reliability below). Rating of videotapes is reported to be as reliable as live observation (Eisler, Hersen, & Agras, 1973).

Nonverbal expression. Nonverbal expressions were coded using Mehrabian's criteria (1972) of "any movement of the facial muscles to a non-neutral expression..." (p. 195). Two of three raters coded the occurrence or non-occurrence of nonverbal expression for each subject's interactions. Raters could not see confederates and could only see subjects' faces. The audio portion of the videotape was turned off and only observation of the subjects' nonverbal behavior was coded.

Observers recorded the occurrence/non-occurrence of each subject's expressions (see Appendix I) in 10-second intervals. Each subject was taped in the listening role for 3 minutes and, therefore, had 18 coding intervals in the listening role. Each subject was also instructed to speak for 3 minutes and, therefore, had another 18 coding intervals for the speaking role. The decision to record nonverbal expression for speaking and listening roles separately, was based on the notion that individuals may be differentially expressive in these roles. The number of occurrences recorded during the 18 intervals was totaled for each role to provide a nonverbal expression while listening score and a nonverbal expression while speaking score. Each
subject received two scores for his interaction with the male confederate and another two for his interaction with the female confederate, rendering four scores for each subject--nonverbal expression while listening with a male confederate, nonverbal expression while listening with a female confederate, nonverbal expression while speaking with a male confederate, and nonverbal expression while speaking with a female confederate. Scores potentially ranged from 0 to 18, however, as rater discrepancies were settled by averaging the totals (Horowitz, Inouye, & Siegelman, 1979; Strahan, 1980), "half occurrences" could be recorded.

Verbal expression. Verbal expression was based on global ratings of expression (Appendix J). Observers blind to the purpose of the study rated the question "how verbally expressive is this subject" on a 5-point Likert scale from inexpressive to extremely expressive, with higher scores indicating greater expression. Verbal expression was coded by two raters independently for each subject. Raters could neither see nor hear the confederate, and were instructed to make their observations based only on the audio portion of the videotape depicting the subject.

For each subject, raters coded the allotted 3 minutes of speaking time in three, 1-minute intervals. These intervals were totaled to achieve the verbal expression score for each subject's interaction. Each subject had two verbal expression scores--one for interaction with the male confederate and one with the female confederate. Given a 5-point Likert scale, total scores could range from 3 to 15 points. Discrepancies between raters were settled by averaging the scores (Horowitz et al., 1979; Strahan, 1980).
Subjects' length of speech was timed during the allocated 3 minutes. Differences among MGRS levels were assessed in order to rule out length of speech as a confounding variable in verbal expression. No differences were expected between the groups.

Anxiety expression. Anxiety expression was based on global ratings of anxiety (Appendix K). Observers blind to the purpose of the study rated how anxious each subject appeared. The raters used a 5-point Likert scale, ranging from "appears natural" to "appears extremely anxious," with higher scores indicating greater anxiety. Previously (Saurer, 1989), this method has been found to correlate with subjects' self-reports of anxiety in expressive situations. These ratings correlated significantly with self-reports of low MGRS men \([r (23) = .22, p < .05]\) and showed a trend toward correlation for high MGRS men \([r (23) = .19, p < .08]\). In this previous research, men were asked how anxious they felt. It was suggested that men, particularly high MGRS men, may respond to the label "tension" rather than "anxiety." This was explored in the present study.

The anxiety expression of each subject was independently coded by two raters. Raters coded anxiety for each subject in listening, as well as speaking roles. Thus, it was somewhat more difficult for these raters to avoid information about the confederate. Raters could not see the confederates, but needed to hear the subject, even in the listening role, in order to code the anxiety expression. Therefore, raters of the anxiety variable were likely to know the gender of the confederates. They were blind to the hypotheses regarding anxiety and its interaction with confederate gender, however.
For each subject, raters coded 3 minutes of listening time and 3 minutes of speaking time. Anxiety was coded in each role in three, 1-minute intervals. The scores in these intervals were totaled to achieve an anxiety score while listening and an anxiety score while speaking. Therefore, subjects received two anxiety scores for each interaction. Subjects interacted with a male and a female confederate, thereby receiving four anxiety scores overall. These were anxiety expression while listening to a male confederate, anxiety expression while listening to a female confederate, anxiety expression while speaking with a male confederate, and anxiety expression while speaking with a female confederate. Given the 5-point Likert scale, scores could range from 3 to 15 points. Discrepancies between raters were settled by averaging the scores (Horowitz et al., 1979; Strahan, 1980).

Rater Training and Reliability

Screening. Fifteen undergraduate students from an advanced Personality Psychology class who had indicated interest in gaining research experience for credit (independent of the personality course), were screened as raters by completing preliminary ratings on tapes from previous research (Saurer & Eisler, 1990). Seven individuals were chosen for their ability to most consistently agree with the experimenter's independent ratings of the same tapes. All but two of the raters were women. Hall (1984) reported that women were generally, significantly more accurate in understanding others' facial expressions than men.

Rating teams were organized based on scheduling constraints and rating ability. Two individuals (one man and one woman) were trained to code
anxiety expression. Two individuals (one man and one woman) were trained to rate verbal expression. Three individuals (all women) were trained to rate nonverbal expressions. More raters were chosen to perform the nonverbal coding because this was the most time-consuming protocol. In order to evaluate interrater reliability, each tape was rated by two individuals, therefore having three raters coding nonverbal behavior was the most time-effective. Time keeping was provided by volunteers, or the experimenter so that raters could concentrate on the coding task. (Refer to the measures section for a description of the rating protocols.)

**Initial training of raters.** Each team of raters received training only on the dependent variable they coded in order to optimize expertise on that variable. Each team was originally scheduled to receive 24 hours of training (8 meetings over the course of three months; each meeting lasting 3 hours). However, at the end of this time period, the verbal expression rating team was not sufficiently reliable in their ratings and they received another eight hours of training. Reliability estimates reported hereafter were calculated following this final training session.

Training consisted of a series of tasks. First, each rater memorized the protocol he or she would be using. Raters were instructed in proper coding behavior (i.e., do not look at the other team members' rating sheets; when rating nonverbal behavior, turn off the sound; when rating verbal behavior, do not look at the picture screen; try to find exemplars of expressive and inexpressive behavior on the tapes to use as anchors). Next, team members began rating tapes from the experimenter's thesis project. The 50 subjects and 24 pilot subjects from the thesis research provided plenty of hours of
practice rating for each group (i.e., 24 hours for each group, plus eight additional hours for the verbal rating team). Initially, team members and the experimenter rated a section of a tape, turned off the tape, and discussed any discrepancies. Then the tape was wound to the problem area, if applicable, and ratings were repeated until all were in agreement about the original discrepancy.

**Subsequent training of raters.** After approximately six hours of this method (for each rating team), raters were allowed to code tapes without the experimenter present. Later they were instructed to rate tapes when the other team member was not present, to ascertain that the consistency in ratings was not confounded by simultaneous rating. Finally, near the end of training, raters were shown three tapes they had rated initially and were asked to rate these again to allow analysis of their consistency over time. Each rater re-coded tapes for nine subjects. All three raters were above .70 when Kappa statistics were calculated for reliability of nonverbal codings within each rater. Verbal and anxiety scores were significantly correlated for re-codings by these four raters and are reported in Appendix N: [verbal reliability: \( r(7) = .97, p < .001 \); anxiety reliability: \( r(16) = .98, p < .001 \)].

Specific measures of interrater reliability are discussed in the following sections. Nonverbal reliability during training is presented separately. For verbal and anxiety measures, training data was combined with experimental data (other than that described above), and reliability was calculated in total.

**Interrater reliability for nonverbal expressions.** Nonverbal ratings were based on data coded for occurrence or non-occurrence of expression. As
this protocol was nominal rather than ordinal, reliability was calculated using Cohen's Kappa (Cohen, 1968) to assess reliability apart from chance agreement. Nonverbal ratings were gathered during the speaking and listening role. Each subject's behavior was independently coded by two raters. However, as three raters collected the nonverbal data, each rater coded 61 or 62 subjects' tapes.

Scores used for reliability calculations were the totals of the intervals judged for each role. For example, subject one was rated for nonverbal expression while he listened for three minutes to the female confederate. During this time, he received 18 ratings of occurrence or non-occurrence of nonverbal expression, one at each 10-second interval. The occurrence ratings were summed to form one rating of total nonverbal expression while listening. Subject one would have one total nonverbal expression while listening score from rater one and one from rater two (or, perhaps from rater 3, as order of rater was counterbalanced). He would also have a total nonverbal expression while speaking score from each rater, calculated in the same manner. This comprises one "set" of scores to compare for reliability. Subject one also has another "set" of scores for interactions with the male confederate. For the purposes of estimating reliability, subjects' interactions with male confederates and female confederates were treated as if they were unrelated.

Reliability was calculated separately during training. Each rater coded the behavior of 40 of the possible 50 subjects. Reliability scores calculated from the training data are based on groups of 21 subjects rated in common by each possible pairing (i.e., R1 and R2, R2 and R3, R1 and R3). In the training
tapes, subjects were shown in speaking and listening roles, similar to the current study. Kappa statistics were based on comparisons between raters' codings at the 10-second interval level across multiple subjects. Kappa statistics, shown in Table 5, demonstrated adequate reliability among pairs of raters.

Reliability was also calculated from raters' codings of experimental subjects. In order to ensure against observer "drift," reliability was calculated from the ratings performed on tapes of the first 36 subjects, as well as the ratings from the last 36 subjects. Each pair of raters coded data for 12 subjects in common. For each subject, there were two interactions to code (one with a man and one with a woman). For the purposes of estimating reliability, subjects' interactions with a male confederate and with a female confederate were treated as if they were unrelated. Kappa statistics were based on comparisons between raters' codings at the 10-second interval level across multiple subjects. Kappa statistics, shown in Table 5, demonstrated adequate reliability among pairs of raters.
Table 5

**Kappa Statistics for Reliability of Nonverbal Ratings**

<table>
<thead>
<tr>
<th></th>
<th>R1 and R2</th>
<th>R2 and R3</th>
<th>R1 and R3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kappa (K)</strong></td>
<td>.76</td>
<td>.75</td>
<td>.77</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

**DURING TRAINING**

**EARLY STAGE OF EXPERIMENT**

<table>
<thead>
<tr>
<th></th>
<th>R1 and R2</th>
<th>R2 and R3</th>
<th>R1 and R3</th>
</tr>
</thead>
<tbody>
<tr>
<td>K for nonverbal</td>
<td>.74</td>
<td>.70</td>
<td>.76</td>
</tr>
<tr>
<td>while listening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K for nonverbal</td>
<td>.72</td>
<td>.70</td>
<td>.77</td>
</tr>
<tr>
<td>while speaking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LATE STAGE OF EXPERIMENT**

<table>
<thead>
<tr>
<th></th>
<th>R1 and R2</th>
<th>R2 and R3</th>
<th>R1 and R3</th>
</tr>
</thead>
<tbody>
<tr>
<td>K for nonverbal</td>
<td>.74</td>
<td>.72</td>
<td>.74</td>
</tr>
<tr>
<td>while listening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K for nonverbal</td>
<td>.74</td>
<td>.73</td>
<td>.76</td>
</tr>
<tr>
<td>while speaking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a.* N = 12 subjects (per pairing) X 2 confederate interactions = 24 ratings in common per pairing.
**Interrater reliability for verbal expression.** Verbal ratings were based on scaled score protocols. Pearson correlations were performed to assess the reliability of coding between raters. Verbal ratings were only gathered during the speaking role, and therefore, the reliability was based on fewer comparisons than for ratings of the other measures. Each subject’s behavior was independently coded by two raters. Comparisons were made on total verbal expression per interaction. For example, subject one was rated on his verbal behavior during the three minutes of allotted speaking time. During this time, he received three ratings, one at each minute interval. These ratings were summed to form one rating of total verbal expression. Subject one would have a total for his verbal expression with a male confederate, and another total for his expression with a female confederate. This would comprise a "set" of two scores from rater 1, but he would also have another set from rater 2. For the purposes of estimating reliability, subjects' interactions with male confederates and female confederates were treated as if they were unrelated.

Pearson correlations were performed comparing interrater reliability on total scores across all subjects. Pearson correlations indicate a high degree of interrater reliability for the verbal expression coding across subjects \[ r (182) = .78, p < .001 \]. Descriptive statistics for verbal ratings are reported in Table 6.

**Interrater reliability for anxiety expression.** Anxiety ratings were based on scaled score protocols. The anxiety variable was assessed as anxiety while speaking and anxiety while listening. As such, reliability was calculated between the raters’ scores for anxiety while speaking, and between their
scores for anxiety while listening. Each subject's behavior was independently coded by two raters.

Scores used for reliability calculations were the totals of the intervals judged for each role. For example, subject one was rated for anxiety while he listened for three minutes to the female confederate. During this time, he received three ratings, one at each minute interval. These ratings were summed to form one rating of total anxiety while listening. Subject one would have a total anxiety while listening rating and a total anxiety while speaking score from each rater. This comprises one "set" of scores to compare for reliability. Subject one also has a similar "set" of scores for interactions with the male confederate. For the purposes of estimating reliability, subjects' interactions with male confederates and female confederates were treated as if they were unrelated.

Pearson correlations were performed comparing interrater reliability on total scores across all subjects. Pearson correlations for anxiety while speaking and anxiety while listening demonstrated that raters met acceptable standards of reliability across subjects. Correlations for anxiety while speaking \( r (182) = .81, p < .001 \) and for anxiety while listening \( r (182) = .80, p < .001 \) demonstrated significant interrater reliability. Descriptive statistics are reported in Table 6.
Table 6
Descriptive Statistics for Raters' Codings of Anxiety and Verbal Expressions

<table>
<thead>
<tr>
<th></th>
<th>Anxiety while Speaking</th>
<th>Anxiety while Listening</th>
<th>Verbal Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1</td>
<td>R2</td>
<td>R1</td>
</tr>
<tr>
<td>M</td>
<td>6.89</td>
<td>6.78</td>
<td>6.73</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>1.72</td>
<td>1.68</td>
<td>1.68</td>
</tr>
</tbody>
</table>

Note 1. R1 and R2 are the same two individuals for the anxiety ratings, but a different two individuals for the verbal ratings.

Note 2. $n=184$ for each column, which represents 92 subjects $\times$ 2 interactions per subject.

Data Reduction and Analysis

Analyses of nonverbal expression while listening and while speaking, verbal expression, and anxiety expression while listening and while speaking were conducted in a series of 2 (high versus low MGRS) $\times$ 2 (cue condition) $\times$ 2 (confederate gender) mixed model analyses of variance (ANOVAs) with repeated measures on the confederate gender factor. Separate repeated measures analyses of variance (ANOVA) were also run to assess order effects. Where appropriate, post hoc comparisons were run on the significant interactions. T-tests and Pearson correlations were run on the self-reported measures from the post-experimental questionnaire.
Results

Manipulation Check

Before the results can be reported and discussed, it must be demonstrated that the manipulation, posited by theory, worked in actuality. It was essential that the subjects accurately perceived the cues set forth by the confederates and via the personality profiles. To assess the effectiveness of this manipulation, subjects were asked, prior to debriefing, to complete a post-experimental questionnaire about their interactions with each confederate. Specifically, subjects were asked to state whether each of their partners expected an expression of feelings.

A 2 (confederate gender) X 2 (cue condition) repeated measure ANOVA with confederate gender as a repeated measure was performed to assess responses to this question. A significant interaction (Figure 4), consistent with the hypothesized manipulation, was found [gender x cue interaction: $F(1, 90) = 40.05, p < .001$]. Tukey comparisons ($p < .05$) indicated that in the gender-consistent condition, subjects reported that female confederates expected more expression of feelings than male confederates. However, in the gender-inconsistent condition, subjects reported that male confederates expected greater expression of feelings than female confederates. Descriptive statistics are depicted in Table 7 with higher scores indicating that subjects perceived greater confederate expectations of emotional expression. The ANOVA table is given in Appendix O.
Table 7

Descriptive Statistics Assessing Subject Perceptions of Confederate Cues

<table>
<thead>
<tr>
<th>Confederate Gender</th>
<th>Cue Condition</th>
<th>M</th>
<th>σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>GC</td>
<td>2.15</td>
<td>0.89</td>
</tr>
<tr>
<td>male</td>
<td>GI</td>
<td>2.48</td>
<td>0.94</td>
</tr>
<tr>
<td>female</td>
<td>GC</td>
<td>2.72</td>
<td>0.81</td>
</tr>
<tr>
<td>female</td>
<td>GI</td>
<td>1.83</td>
<td>0.82</td>
</tr>
</tbody>
</table>

*aGC = gender-consistent; GI = gender-inconsistent.

Note.  n=46 for each row.

General Results

Specific hypotheses were stated in the introduction for behavior in gender-consistent and gender-inconsistent conditions. The results to follow are outlined in terms of these hypotheses.

High and low MGRS men were posited, in hypotheses one and two, to differ in expressive behavior as a function of cue condition and partner gender. A series of 2 (MGRS level) X 2 (cue condition) X 2 (confederate gender) repeated measures ANOVAs with confederate gender as the repeated measure were run on the nonverbal and verbal measures of expression to assess these hypotheses. Significant 3-way interactions were found for both of the nonverbal measures (Figures 5 and 6): nonverbal expression while listening [MGRS x gender x cues: F(1, 88) = 4.30, p < .05] and nonverbal expression while speaking [MGRS level x gender x cues: F(1,
Analysis of the verbal expression data did not reveal a significant 3-way interaction \( F(1, 88) < 1.00 \). However, there was a significant 2-way interaction [cue \( \times \) gender: \( F(1, 88) = 5.76, p < .05 \)] that is discussed below and depicted in Figure 7. Expression means for the three dependent variables are listed in Table 8 and the ANOVA tables are displayed in Appendices P and Q.

Post hoc analyses, in conjunction with Bonferroni adjustments (Hays, 1981; Howell, 1982), were performed comparing cells that were of interest. These are the main foci of the sections to follow and are based on the significant interactions described above. All post hoc analyses reported below were performed using the Tukey HSD test.

**Hypothesis one (gender-consistent condition).** It was expected that, under gender-consistent conditions, low MGRS men would be similarly expressive to men and women, while high MGRS men would demonstrate significant differences in emotional expression to men and women. For nonverbal expression in the listening role, post hoc comparisons of means from the significant 3-way interaction revealed that in the gender-consistent condition, low MGRS men were significantly more expressive to women than to men \( (p < .05) \). High MGRS men were also significantly more expressive to women than to men under this cue condition \( (p < .05) \). These results are displayed in Figure 8.

The same pattern was displayed by both MGRS groups for nonverbal expression while speaking (Fig. 9). Post hoc analyses revealed significantly greater expression to women than to men by low MGRS men \( (p < .05) \), and
high MGRS men \( p < .05 \). Following Bonferroni tests \( t = 3.30, p < .001 \), all comparisons of nonverbal expression means remained significant.

Subjects' verbal expression did not differ as a function of MGRS level in the ANOVA. In the 2-way interaction reported above, expression differed as a function of confederate gender and cue condition (Figure 10). Post hoc analyses again revealed that all subjects were more expressive to women than to men in the gender-consistent condition \( p < .05 \), and these analyses were significant according to Bonferroni tests \( t = 2.66, p < .005 \).

In these analyses of gender-consistent conditions, three expression variables exhibited a clear pattern of "normative" expression to partners. That is, all subjects were more expressive, verbally and nonverbally, to women than to men under gender-consistent cue conditions. This is the "normative" pattern because it is the pattern usually studied and reported in the literature. These findings were consistent with the hypothesis regarding the expressive behavior of high MGRS subjects but were not consistent with the hypothesis regarding expression by low MGRS men. Low MGRS men were not expected to follow the normative pattern of expression. The implications of these findings, in light of the results of hypothesis two, are explored in the discussion section.

**Hypothesis two (gender-inconsistent condition).** It was expected that under gender-inconsistent conditions, high MGRS men would be similar in their levels of expression to men and women relative to their expression levels under gender-consistent conditions. At the same time, it was expected that, in response to gender-inconsistent confederate cues, low MGRS men would demonstrate more expression to men than to women. Again, post hoc
analyses (Tukey's HSD) allowed closer examination of the significant ANOVAs discussed previously.

For nonverbal expression in the listening role (Fig. 5), post hoc analyses of expression under gender-inconsistent cue conditions demonstrated no evidence that high MGRS men were significantly different in their expression to men and women. Despite means demonstrating a reversal in the pattern of nonverbal expression by low MGRS men (i.e., more expression to men than to women), post hoc analyses did not reveal a significant difference in the expression of low MGRS men to male and female partners in the listening role.

Data from nonverbal expression in the speaking role supported hypothesis five (Fig. 6). Both high and low MGRS men demonstrated normative expressive patterns under gender-consistent conditions (most expressive to women, and least expressive to men). However, this pattern of expression changed under the gender-inconsistent expectancy condition. Post hoc analyses revealed: (a) no evidence that high MGRS subjects differed in expression to men and women under inconsistent conditions; and (b) that low MGRS men in the gender-inconsistent condition evidenced a reversal of the stereotypical expression pattern. Specifically, low MGRS subjects under gender-inconsistent conditions were more expressive to men than to women, as predicted [Tukey HSD, \( p < .05 \)]. In order to assess how their expression changed over conditions, further post-hoc analyses were performed, demonstrating no evidence that low MGRS men were significantly more expressive to men under gender-inconsistent conditions than to men under gender-consistent conditions. They were significantly less expressive to
women under gender-inconsistent conditions relative to their performance under gender-consistent conditions \( [p < .05] \). The variation in expression due to the subject role is explored further in the discussion section, as is the variation from the normative pattern seen under gender-consistent conditions.

As reported previously, analysis of the verbal data revealed only a significant 2-way interaction between cue condition and confederate gender (Fig. 7). While means demonstrated more verbal expression for all subjects to men than to women under gender-inconsistent conditions, these did not differ significantly when analyzed with post hoc comparisons \( [p < .05] \).

All post hoc comparisons reported above remained significant with Bonferroni tests [nonverbal expression: \( t = 3.30, p < .001 \); verbal expression: \( t = 2.66, p < .005 \)].
Table 8
Descriptive Statistics for the Repeated Measures ANOVAs

<table>
<thead>
<tr>
<th></th>
<th>Low MGRS</th>
<th></th>
<th>High MGRS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender-Consistent</td>
<td>Gender-Inconsistent</td>
<td>Gender-Consistent</td>
<td>Gender-Inconsistent</td>
</tr>
<tr>
<td>w/men</td>
<td>w/women</td>
<td>w/men</td>
<td>w/women</td>
<td>w/men</td>
</tr>
<tr>
<td>Nonverbal Expression while Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>7.57</td>
<td>12.00</td>
<td>9.26</td>
<td>8.65</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>2.02</td>
<td>3.57</td>
<td>3.83</td>
<td>4.61</td>
</tr>
<tr>
<td>Nonverbal Expression while Speaking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>10.48</td>
<td>13.22</td>
<td>11.91</td>
<td>9.04</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>4.01</td>
<td>4.04</td>
<td>3.45</td>
<td>3.30</td>
</tr>
<tr>
<td>Verbal Expression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>5.22</td>
<td>5.78</td>
<td>5.13</td>
<td>4.83</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>1.95</td>
<td>2.21</td>
<td>2.18</td>
<td>1.64</td>
</tr>
</tbody>
</table>

Note. N's for all cells = 23.

Further analysis, run on the length of speech variable, revealed a significant three-way interaction [MGRS X gender X cue: $F (1, 88) = 5.70, p < .05$]. This interaction (Figure 11) appeared to be due mainly to the variation among high MGRS subjects. Post hoc analyses demonstrated that length of speech means did not differ significantly for low MGRS men as a function of confederate gender or cue. However, high MGRS men had to be prompted much earlier in the gender-inconsistent condition when speaking to women.
than: (a) when speaking to men \([p < .05]\); and (b) when speaking to women under gender-consistent condition \([p < .05]\). However, there were no significant differences in high MGRS men's length of speech to inexpressive women (inconsistent cue condition) and inexpressive men (consistent cue condition). Mean expression is listed in Table 9 and ANOVA results are reported in Appendix Q.

Table 9

Mean Length of Subjects' Speech without a Prompt (in Seconds).

<table>
<thead>
<tr>
<th>Partner Gender</th>
<th>LOW MGRS Gender-Consistent</th>
<th>LOW MGRS Gender-Inconsistent</th>
<th>HIGH MGRS Gender-Consistent</th>
<th>HIGH MGRS Gender-Inconsistent</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>177.39</td>
<td>170.96</td>
<td>168.78</td>
<td>174.13</td>
</tr>
<tr>
<td>female</td>
<td>176.70</td>
<td>169.26</td>
<td>174.00</td>
<td>156.09</td>
</tr>
</tbody>
</table>

*Note.* Each cell is based on an N of 23.

To assess the hypothesis that high MGRS men's limited length of spontaneous speech to inexpressive women was a function of anxiety level, correlations were run between length of speech and behavioral measures of anxiety. Behavioral measures of anxiety were significantly correlated only with high MGRS subjects' length of speech to women in the inconsistent cue condition \([r (21) = -.36, p < .05]\). If inexpressive women greatly heightened the anxiety of high MGRS men, this might have led to lower spontaneous speaking times. However, lower spontaneous speaking time might have
been the result of something entirely different and this loss of words, in an interaction with a stranger, might have resulted in increased anxiety. Furthermore, the anxiety results to be discussed below, demonstrate that subjects were rated as experiencing anxiety in situations other than with inexpressive women—situations where spontaneous speech was not significantly abbreviated. This does not appear to explain the variation in length of speech.

Other possible explanations were explored. Length of speech to inexpressive women cannot be explained by a lack of attraction, as post-experimental questionnaire items attempting to address this issue did not correlate with the length of speech variable \( r(44) = -.11, p > .05 \). Length of speech to inexpressive women did not correlate with subjects’ perceptions of these women as less feminine, either \( r(44) = -.10, p > .05 \). Further hypotheses are addressed in the discussion section.

**Hypothesis three.** Men who appraise violations of the traditional masculine gender roles as stressful (high MGRS) were expected to be less verbally and nonverbally expressive than low MGRS men. This hypothesis posited a main effect of MGRS level. No main effects of MGRS level were found for ANOVAs performed on the dependent variables (Appendices P and Q). The MGRS level was a significant factor in the 3-way interactions found for nonverbal expressions while listening and speaking, and for length of speech, perhaps suggesting that MGRS is part of a more complex set of factors involved in predicting emotional expression. Expressive means for the dependent variables as a function of MGRS level are reported in Table 10.
Table 10

**Dependent Variable Means for Hypothesis Three**

<table>
<thead>
<tr>
<th></th>
<th>Nonverbal Expression</th>
<th>Verbal Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Listening Role</strong></td>
<td><strong>Speaking Role</strong></td>
<td></td>
</tr>
<tr>
<td>High MGRS</td>
<td>9.30</td>
<td>10.17</td>
</tr>
<tr>
<td>Low MGRS</td>
<td>9.45</td>
<td>11.26</td>
</tr>
</tbody>
</table>

**Note.** n=184 for each column, which represents 92 subjects \( \times 2 \) interactions per subject.

**Hypothesis four.** High MGRS men were expected to demonstrate more anxiety expression than low MGRS men. This hypothesis posited a main effect of MGRS level. A 2 (MGRS level) \( \times \) 2 (cue condition) \( \times \) 2 (confederate gender) repeated measures ANOVA with confederate gender as the repeated measure was performed on the anxiety expression data (Appendix R). The main effect results are reported from these analyses and depicted in Figure 12. No main effect of MGRS level was found for anxiety expression in the listening role \([F (1, 88) < 1.00]\). But a significant main effect of MGRS was found for anxiety expression in the speaking role \([F (1, 88) = 5.75, p < .02]\). This suggests, in combination with many of the other results reported previously, that the speaking and listening roles may have very different characteristics for men. Anxiety expression means are reported as a function of MGRS level in Table 11.
Table 11

**Dependent Variable Means for Hypothesis Four**

<table>
<thead>
<tr>
<th></th>
<th>Anxiety Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>While Listening</td>
</tr>
<tr>
<td>High MGRS</td>
<td>6.71</td>
</tr>
<tr>
<td>Low MGRS</td>
<td>6.76</td>
</tr>
</tbody>
</table>

Note. n = 184 for each column, which represents 92 subjects x 2 interactions per subject.

**Hypothesis five.** All subjects were expected to express more anxiety in their interactions with men than with women. This hypothesis posited a main effect of confederate gender. Again, main effects reported here are taken from the 2 (MGRS level) X 2 (cue condition) X 2 (confederate gender) repeated measures ANOVAs listed in Appendix R. Two significant main effects of gender were found in the anxiety expression data (Fig. 13). Men were rated as significantly more anxious in interactions with men than with women in both the listening role \[F (1, 88) = 8.56, p < .005\] and the speaking role \[F (1, 88) = 10.77, p < .005\]. Both of these main effects were qualified by 2-way interactions between confederate gender and another factor. These are discussed next.
Table 12

Dependent Variable Means for Hypothesis Five

<table>
<thead>
<tr>
<th>Anxiety Expression</th>
<th>While Listening</th>
<th>While Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions with Women</td>
<td>6.49</td>
<td>6.50</td>
</tr>
<tr>
<td>Interactions with Men</td>
<td>6.98</td>
<td>7.03</td>
</tr>
</tbody>
</table>

Note. n = 184 for each column, which represents 92 subjects x 2 interactions per subject.

For the anxiety while listening data, there was a significant interaction of MGRS level and confederate gender [MGRS x gender interaction: $F(1,88) = 7.11, p < .001$]. This suggested that, not only were men more anxious in interactions with other men, but high MGRS men were significantly more anxious with men than with women, while low MGRS men did not differ in anxiety expressed in interactions with men and women [Tukey's HSD, $p < .05$].

Analysis of anxiety expression in the speaking role demonstrated a significant interaction of confederate cue condition and gender [$F(1, 88) = 5.50, p < .05$]. This qualified the main effect of confederate gender, suggesting that subjects demonstrated significantly more anxiety in interactions with gender-consistent men than with gender-consistent women [$p < .05$]. Under gender-inconsistent cue conditions however, expression of anxiety was not significantly different to men and women [$p < .05$]. This finding regarding anxiety expression was opposite in direction to the results of the nonverbal expression while speaking data. This suggests that
nonverbal expression measures were not confounded by anxiety
expressions, at least in the speaking role. Mean anxiety expression as a
function of confederate gender and MGRS level is listed in Table 13, and
mean anxiety expression as a function of confederate gender and cue
condition is listed in Table 14. The ANOVA results discussed above are
listed in Appendix R.

Table 13

Descriptive Statistics for Anxiety Expression Interactions

<table>
<thead>
<tr>
<th></th>
<th>ANXIETY WHILE LISTENING</th>
<th>ANXIETY WHILE SPEAKING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WITH MEN</td>
<td>WITH WOMEN</td>
</tr>
<tr>
<td>High MGRS</td>
<td>7.17</td>
<td>2.04</td>
</tr>
<tr>
<td>Low MGRS</td>
<td>6.78</td>
<td>1.62</td>
</tr>
</tbody>
</table>

Note. All cells are based on N's of 46.
Table 14
Descriptive Statistics for Anxiety Expression Interactions

<table>
<thead>
<tr>
<th></th>
<th>ANXIETY WHILE LISTENING</th>
<th>ANXIETY WHILE SPEAKING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WITH MEN</td>
<td>WITH WOMEN</td>
</tr>
<tr>
<td>Gender-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistent</td>
<td>6.89</td>
<td>1.71</td>
</tr>
<tr>
<td>Gender-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconsistent</td>
<td>7.07</td>
<td>1.94</td>
</tr>
</tbody>
</table>

Note. All cells are based on N's of 46.

Order effects. Order effects for confederate presentation (e.g., male confederate first, female confederate second, or vice versa) were assessed for all dependent variables. A series of 2 (confederate order) X 2 (confederate gender) repeated measures ANOVAs with confederate gender as the repeated measure were performed. No interactions of confederate order with confederate gender were found [nonverbal expression while listening: $F(1,90) = 1.54, p > .05$; nonverbal expression while speaking: $F(1,90) < 1.00$; verbal expression: $F(1, 90) < 1.00$]. There was one main effect of confederate presentation for nonverbal expression while speaking. All subjects were more nonverbally expressive to both partners when their first interaction was with a woman. The effect of this finding on outcome measures should be insignificant since order of presentation was
counterbalanced across all conditions. Mean expression is displayed in Table 15 and ANOVA results are reported in Appendix S.

Table 15

Expression Means as a Function of Order of Confederate

<table>
<thead>
<tr>
<th>Confederate Order</th>
<th>M --&gt; F</th>
<th>F --&gt; M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonverbal Expression/Listening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/male partner</td>
<td>9.93</td>
<td>11.24</td>
</tr>
<tr>
<td>w/female partner</td>
<td>9.91</td>
<td>11.59</td>
</tr>
<tr>
<td>Nonverbal Expression/Speaking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/male partner</td>
<td>8.57</td>
<td>8.26</td>
</tr>
<tr>
<td>w/female partner</td>
<td>9.93</td>
<td>10.78</td>
</tr>
<tr>
<td>Verbal Expression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/male partner</td>
<td>5.00</td>
<td>5.15</td>
</tr>
<tr>
<td>w/female partner</td>
<td>5.09</td>
<td>5.54</td>
</tr>
</tbody>
</table>

Note. F -> M = female first, then male; M -> F = male first, then female.

Analysis of the post-experimental questionnaire. On the post-experimental questionnaire, three differences were found as a function of MGRS level. High MGRS subjects reported that it was more important to them to respond as other people would in a similar situation in their interactions with women [t (90) = 2.12, p < .05]. Low MGRS subjects reported less interest in getting to know their female partners than did high MGRS subjects [t (90) = 2.73, p < .01]. Finally, high MGRS subjects rated their female partners as expecting
greater expression of feelings than did low MGRS participants, although all subjects reported confederate expectations consistent with the cue manipulation \( t(90) = 2.31, p < .05 \).

Analysis revealed no difference as a function of MGRS level in the use of the term "anxious" to describe interactions with women \( t(90) = .99, p > .05 \) or with men \( t(90) = .65, p > .05 \). Similarly, there was no difference as a function of MGRS level in the use of the term "tense" to describe interactions with women \( t(90) = .12, p > .05 \) or with men \( t(90) = 1.39, p > .05 \). The hypothesis that high MGRS men might respond more to the term "tense" was not supported.

Lastly, subjects' self-reports of their anxiety from the post-experimental questionnaire were correlated with the anxiety expression measures to assess congruence among these methods. Subjects were asked to report how "anxious" they had felt and how "tense" they had felt during interactions. Anxiety expression while speaking measures were significantly correlated with self-assessments of anxiety \( r(182) = .15, p < .05 \) and of tension \( r(182) = .18, p \leq .01 \). Measures of anxiety expression while listening did not correlate with self-reports of anxiety \( r(182) = .05, p > .05 \) or self-reports of tension \( r(182) = .02, p > .05 \). Subjects may have interpreted the instruction to rate their anxiety/tension during the interaction as pertaining only to their active role in the interaction. Alternately, they may have been more aware of their feelings in an active role, than in a passive role. These correlations are reported in Appendix T.
Discussion

Summary of Results

Research demonstrates that men rely primarily on women as recipients of their emotional expression (Aukett et al., 1988; Blier et al., 1989; Snell et al., 1989). The central hypothesis here, that this reliance is a function of proximal cues and can be attenuated given different cues, was strongly supported by the nonverbal and verbal expression data.

Specifically, it was hypothesized that gender-consistent cues, those indicating that female confederates are more comfortable with emotional expression than are male confederates, would be followed closely by high MGRS men. The nonverbal behavior of these men matched partner cues; they were more expressive to female than to male confederates across all subject roles. Under the same cue conditions, low MGRS men were expected to adhere less to these conveyed cues. Primarily, they were expected to show equally expressive behavior with male and female confederates. However, the results demonstrate that low MGRS men followed partner cues under gender-consistent conditions, just as high MGRS men. That is, across all subject roles, low MGRS men were more nonverbally expressive to female than to male confederates. While this was an unexpected finding that requires further elaboration later in this section, it clearly supports research in the self-disclosure literature (Aukett, Ritchie & Mill, 1988; Blier & Blier-Wilson, 1989; Reisman, 1990) that men are more likely to be expressive in their opposite-sex than in their same-sex relationships.
However, as stated previously, this pattern was expected to dissipate given a different set of situational cues regarding the appropriate display of emotion. Under gender-inconsistent cue conditions, those indicating that male confederates are more comfortable as the recipients of expression than female confederates, high MGRS men were expected to display similar amounts of expression to male and female confederates. The results were consistent with this hypothesis across all subject roles. While this is a null finding, it does appear to demonstrate a change from gender-role directives, wherein men are taught to limit their expressions of emotion to opposite-sex interactions (Pleck, 1976).

The results for the low MGRS subjects under these gender-inconsistent cue conditions, are the most striking. Under the speaking role, low MGRS men were more nonverbally expressive to other men than to women, as predicted. Although the means by which this pattern was achieved were different from initial expectations and require further elaboration, this finding demonstrates that men's behavior relies on cues that are proximal and, hence, variable. Therefore, given a variety of cues, men's behavior should also be variable. Under the listening role, low MGRS men demonstrated the same pattern of greater expression to male than to female confederates, but this did not reach significance in post hoc analyses.

These data suggest several revisions to the initial hypotheses. First, high and low MGRS men may differ in their response patterns only when conveyed cues dictate violations of one group's role norms. So, under gender-consistent conditions no behavioral differences were seen between groups, because greater expression to women should not violate norms of
either group. While under gender-inconsistent cue conditions, low and high MGRS men differed in nonverbal expression of emotion due to differing needs for adherence to the traditional role. Second, perhaps because of such variations, low MGRS men were able to demonstrate more flexibility in responding fully to partner cues under gender-inconsistent conditions. However, counter to initial predictions, low MGRS men's role norms do not appear to dictate equal expression to men and women unconditionally. Rather, low MGRS men's behavior appears flexible, due to partner cues, not in spite of partner cues. In other words, low MGRS men appear to follow traditional masculine norms, but allow themselves more leeway in violating these norms without stressful repercussions when situational factors require less traditional behavior. Analyses of the anxiety expression data demonstrated that high and low MGRS men are differentially anxious or "stressed" by these expressive interactions. These findings require further elaboration and are discussed in detail below.

Furthermore, analysis of the verbal expression data lends support to the central hypothesis regarding the impact of contextual variables. All subjects demonstrated the normative pattern of verbal expression under gender-consistent conditions, displaying more expressive content with female confederates. Under gender-inconsistent cue conditions, means suggested that all subjects were more expressive to male confederates, but these data did not reach significance in post hoc tests. These tests indicated that under inconsistent cue conditions, all subjects were equally expressive to male and female confederates.
Furthermore, it should be added that the order effect found in nonverbal expression suggests that interacting first with a woman may set up a different experimental context than interacting initially with a man. Also, this effect carried over into the next interaction, increasing the amount of nonverbal expression displayed.

Overall, these data lend support to the Deaux and Major model. The data demonstrate that proximal forces and situational cues impact the social behavior of individuals, and that as these forces change across environments, so do the behaviors of individuals. Furthermore, the data demonstrate that Deaux and Major's model, in accord with Eagly and Wood's (1991) description of a useful model of gender differences "suggest(s) social settings and subject groups for which the sex difference is attenuated and other settings and groups for which the difference is accentuated" (p. 313). This study was not a test of sex differences in the usual sense of studying men's behavior versus women's behavior. Complete support for Deaux and Major's model of gender-related behaviors cannot be assessed from this study. A study comparing the social behavior of men and women as a function of factors such as partner cues and subjects' self-schemata is necessary to explore further the efficacy of their model.

In the following discussion, data from the present study are explored in detail and the conceptual implications of these data for the MGRS construct and the Deaux and Major's model are addressed. In addition, the findings regarding subject role (speaking versus listening), methodological considerations regarding the verbal expression measure, limitations of this study, and implications for other areas of research are all explored.
Nonverbal Expression of High MGRS Subjects supports Hypotheses

As predicted, high MGRS men were more expressive to female confederates than male confederates under the gender-consistent condition, while demonstrating no differences in expression to confederates under gender-inconsistent conditions. This finding held for the data collected during the speaking, as well as the listening roles. These patterns suggest, consistent with the Deaux and Major's model, that proximal forces, such as partner cues, shape the gender-related behaviors of individuals. Furthermore, this meets the criteria set forth by Eagly and Wood (1991), that an adequate theory of sex differences should "suggest social settings and subject groups for which the sex difference is attenuated and other settings and groups for which the difference is accentuated" (p. 313).

High MGRS men report that situations that violate the traditional masculine role norms are stressful for them. One such norm dictates that men restrict expressions of emotion, particularly in the presence of other men (Pleck, 1976). High MGRS men should not be expected to voluntarily inflict stress on themselves, and so, were expected to avoid the expression of emotion to other men. Consequently, they upheld the traditional norms under gender-consistent conditions, expressing less emotion to male confederates than to female confederates. In the gender-inconsistent condition, however, they were faced with a dilemma. Clear cues were given indicating that their male partners expected more emotional expression than their female partners. In this circumstance, the differences seen under the gender-consistent cue condition were attenuated, theoretically due to self-presentational pressures.
However, high MGRS men's commitment to traditional masculine norms (self-verificational pressures) appeared to inhibit their ability to comply exactly with their partners' cues.

Given that the results of the gender-inconsistent condition are based on accepting the null hypothesis, they must be viewed with caution, and future studies should attempt to address the same issues from other angles to provide convergent validity.

Nonverbal Expression of Low MGRS Subjects--

Gender-consistent Conditions

Under gender-consistent cue conditions, low MGRS men were more expressive to female confederates than to male confederates under both subject roles (speaking and listening). Although these findings are consistent with the behavior of the high MGRS men and, taken together, replicate the normative pattern of expression found in a considerable amount of literature (Aukett, Ritchie, & Mil', 1988; Blier & Blier-Wilson, 1989; Snell et al., 1989), they are inconsistent with the stated hypotheses for low MGRS men. Low MGRS men were expected to exhibit the same amount of emotional expression to female and male confederates under the gender-consistent conditions.

To understand the prediction as well as the findings, a review of the conceptualization is necessary. By their definition, low MGRS men appraise violations of traditional role norms as less stressful than high MGRS men. Potentially, these violations are less stressful because, while they are violations of the traditional role norms, they may not be violations of low
MGRS men's role norms, or schemata. In other words, if a man has a gender schema defining appropriate behavior for all men, then his own behavior would need to fulfill some of these gender schema "rules" in order for him to feel satisfied with his ability as a man (i.e., feel satisfied with his gender-related self schema). Gender role stress might come about if his behavior does not live up to his gender-related self schema, such as during violations of his role norms. Now, if this man has a restrictive gender-related self schema (high MGRS), it would be more difficult for him to be free of stress because there would be many more opportunities to violate a restrictive schema. However, for a man who has more flexible notions about appropriate behavior for men (i.e., low MGRS), fewer events would actually constitute violations of the gender-related self schema and this should result in less role stress. So, based on their lower rates of stress appraisal during violations of the traditional masculine role, low MGRS men were hypothesized to have less restrictive self-schemata regarding their gender roles.

This theorizing provided the basis for the hypothesis that low MGRS men, under gender-consistent conditions, would not uphold the normative pattern of expression. Because low MGRS men might be more comfortable with emotional expression due to less restrictive schemata, they were expected to be expressive to both men and women under gender-consistent conditions, rather than following the traditional pattern of expression displayed by high MGRS men (i.e., more expressive to women, less expressive to men). What this hypothesis failed to take into account was the influence of partners' expectations under this cue condition. Under gender-consistent conditions,
confederates conveyed traditional expectations (i.e., women were comfortable with emotional expression, men were relatively less comfortable with such expression). Low MGRS men responded to these cues, displaying greater expression of emotion to women.

Based on theory set forth above, there is no reason that low MGRS men should not display "normative" behavior in response to partner cues. Just because they may have less restrictive self schemata, they are still likely to respond to social cues. In other words, a better hypothesis may have been that low and high MGRS men should demonstrate different patterns of expression to the genders when confederate cues require behavior that violates the gender schemata of high MGRS men, but not of low MGRS men. When conveyed cues do not violate the role norms of either MGRS group (i.e., under gender-consistent conditions), differences in behavior should be unlikely. With this hypothesis, albeit a post hoc hypothesis, one might argue that low MGRS men responded appropriately to partner cues.

Nonverbal Expression of Low MGRS Subjects--

Gender-inconsistent Conditions

The same conceptualization was the basis for the prediction that under gender-inconsistent conditions, low MGRS men would be more emotionally expressive to male confederates than female confederates—a reversal of the normative pattern of expression. Because low MGRS men were theorized to have a less restrictive gender-related self-schema, one that is less invested in upholding the traditional masculine role norms, they were not expected to face a dilemma under gender-inconsistent conditions. Their self-
presentational needs were expected to correspond fairly well with their self-verificational needs, letting them respond fully to partner cues.

Under the speaking role, low MGRS men were more expressive to other men than to women, as predicted. While this finding must be interpreted cautiously as it was not replicated under the listening role, it appears to lend further confirmation to Deaux and Major's assertion that proximal cues influence the behavior of interacting individuals. While it cannot be stated that gender differences were attenuated as women were not included in this study, these results suggest that within reported global patterns there may be dramatic variation. It adds support to an accumulating body of literature (Derlega et al., 1985; Hodgins et al., 1990) demonstrating such variations in culturally-accepted gender role behaviors. Derlega et al. showed a circumscribed setting in which men were more emotionally expressive than women. And, although they did not correct for baseline judgments of what constitutes intimacy, Hodgins and colleagues presented data suggesting that on self-reports of emotional sharing, pairs of nonverbally sensitive men give themselves higher ratings than pairs of nonverbally sensitive women. The present study suggests another type of variation--a situation in which men were more expressive to other men than to women.

No specific hypotheses were stated for how this reversal in expression pattern by low MGRS men would occur. However, some combination of a decrease in expression to women and an increase in expression to men was expected. It appears that the significant difference in expression to men versus women under gender-inconsistent conditions was due largely to
decreased expression to women, rather than to significant increase in expression to men.

Many possible implications could be drawn from this last finding. First, it is possible that low MGRS men are no more expressive to other men than are high MGRS men. However, Saurer and Eisler (1990) demonstrated clear nonverbal expression differences between high and low MGRS men in interactions with other men. Alternately, it is possible that women's cues were more clearly understood than men's under gender-inconsistent conditions, so men responded more actively to them. Again, this is unlikely in view of subjects' reports on the post-experimental questionnaire, indicating good understanding of the cues of both partners. Furthermore, it is unlikely given the research of Sullins (1989), demonstrating that nonverbal cues from expressive individuals were more salient than those of inexpressive individuals.

Alternately, due to the presumed novelty of the situation given the normative pattern of expression, low MGRS men may have experienced heightened social monitoring, including a heightened awareness of partners' expression levels. Bugental (1986) suggested that subjects are more aware of "display rules" for nonverbal behaviors when attempting to manage impressions. And Gilbert et al. (1987) stated that active participants in social interactions are concerned with evaluation of their impact in these interactions. Their "appraisals constitute performance feedback that is crucial to the regulation of ongoing behavior" (p. 862). Furthermore, Gangestad, Simpson, DiGeronimo, and Biek (1992) proposed that "the validity and efficiency of cue utilization across traits should vary as a result of the
consequences of correctly or incorrectly evaluating a given trait accurately. When the consequences are relatively important, perceivers should use cues validly” (p. 689).

Perhaps, given that the traditional masculine role norms hold some importance, even for low MGRS men, they attend more closely to cues asking for violations of these norms. Low MGRS subjects then, while attempting to appraise their performance and manage impressions based on partner feedback, may have matched their levels of expression to those of the male confederates. In doing so, they may have experienced a ceiling effect. A review of the means in Table 2 reveals that male confederates under gender-inconsistent conditions demonstrated a mean of 10.71 nonverbal expression intervals per interaction (e.g., the average of male 1 mean + male 2 mean). This is similar to the amount of expression shown by subjects under the same condition.

So, low MGRS men may have been aware of male confederates' cues, but may have used them in an unexpected fashion. Low MGRS men may have demonstrated further expression of emotion to men under gender-inconsistent conditions if the confederate, as the "expressive prototype," had been more expressive. If this is possible, the decrease in expression to women may be exaggerated by comparison to a limited increase in expression to men. This should be relatively simple to test and warrants further investigation. Until such time, it must be given cautious consideration until it can be replicated or revised by future research.
As stated previously, low MGRS men did not display the predicted pattern of greater expression to men under gender-inconsistent conditions in the listening role. However, like the high MGRS men, they no longer displayed the normative pattern seen under gender-consistent conditions. Rather, their emotional expression to male confederates was equivalent to that of female confederates.

What differences between speaking and listening roles might account for low MGRS men's different patterns of expression under gender-inconsistent conditions? Three possibilities could explain this discrepancy. First, partner cues or expectations might have shaped subjects' behaviors more under the speaking role than under the listening role due to the nature of the cue presentation. Because confederates were following a scripted speaking presentation during the subjects' listening role, they did not change their behavior in response to subjects' behavior. Rather, their nonverbal behaviors had been planned to follow the script. Under the subject speaking role, listening confederates adhered to a set of appropriate responses and showed a reliably similar number of these responses. However, confederates could choose when to use their allotted number of nonverbal behaviors and these were displayed in direct response to subjects' speech, providing immediate feedback to the subjects. Some research (Bugental, 1986) has demonstrated that nonverbal expressive behavior is terminated more quickly with unresponsive than with responsive partners. So, subjects in the listening role, who received little response from their partners, may have terminated their nonverbal behavior quickly. In the speaking role, they
may have been expressive for longer amounts of time, thereby increasing their total nonverbal behavior to partners conveying expressive expectancies.

Second, the speaking role may have provided more opportunities for subjects to respond to confederate cues than did the listening role. Research (Fletcher & Fitness, 1990) demonstrates that verbal behavior is monitored more closely and is under more intentional control than nonverbal behavior. It is possible that subjects did not believe they had much ability to respond to cues under the listening role. Given the experimental set-up in which each partner presented his or her story as a monologue with limited verbal interaction, subjects may have thought of themselves as passive participants during the listening role because they could not speak yet. In other words, because nonverbal behavior is not so closely monitored, subjects may not have focused on it as a means of communication. If they felt limited in their ability to respond to partner cues, they may have waited to respond fully until it was their turn to speak. They may also have been more nonverbally expressive as a function of being verbally expressive in the speaking role.

A third alternative hypothesis is derived from the research of Gilbert, Pelham, and Kruli (1988). They demonstrated that active perceivers (subjects in the speaking role) are more cognitively busy than passive perceivers (subjects in the listening role). Because of the intentional nature of correcting for attributional biases, those who are cognitively busy are unlikely to do this. Therefore, subjects in the listening role should be less likely to make a fundamental attribution error than those in the speaking role. However, in this study, attempts were made to set up trait attributions about the confederates (i.e., this is an expressive man). Subjects in the listening role may have
discounted confederates' expression levels in favor of situational or environmental explanations. If they discounted cues as due to intervening variables, they may have limited their response to them. This alternative explanation may be less likely due to the fact that all subjects in the speaking role had already been in the listening role and so, should have already corrected their attributions. Unless situational attributions require effortful maintenance, resulting in the loss of the correction under the speaking role, the results are probably better explained by another alternative.

All of these theories suggest interesting avenues of pursuit for future research, and it is possible that some combination of these three hypotheses may have been responsible for the data presented here.

**Methodological Concerns regarding the Verbal Expression Data**

Patterns of verbal expression demonstrated in this study did not support the hypothesis that MGRS level contributes to differential expression of emotion by men. However, subjects appear to have responded to partner cues. All men were significantly more expressive in the content of their verbal self-disclosures to women than to men under gender-consistent cue conditions, supporting the normative pattern of self-disclosure (Aukett, Ritchie, & Mill, 1988; Blier & Blier-Wilson, 1989; Snell et al., 1989) and use of emotional supports (Antonucci & Akiyama, 1987). Under gender-inconsistent conditions, despite means suggesting more expressive content was disclosed to men than to women, no significant differences in expression to men and women were found in post hoc analyses.
Verbal expression data failed to show the differences in expression as a function of MGRS level that were seen in the nonverbal expression data. Further review of the means for verbal expression, listed in Table 8, suggest that while the scale was used reliably by raters, they may have had difficulty using the full scale. From their ratings, it appears that subjects' expression congregated within one section of the scale. It is possible that the global ratings picked up only the most global differences, and may not have delineated potential, subtle differences in men's expressive behavior.

Alternately, Highlen and Gillis (1979) reported that self-disclosing subjects relied on their vocal qualities rather than affective content to convey feelings. Although others (O'Sullivan, Ekman, Friesen, & Scherer, 1985) reported that voice quality was only important in combination with speech content, it is likely that the results of the present study are an incomplete assessment of the conveyed verbal affect.

One alternate assessment of the verbal data performed in the present study, the analysis of the length of subjects' speech, revealed limited spontaneous speech by high MGRS subjects to female confederates in the gender-inconsistent condition. In such situations, high MGRS subjects appeared to have difficulty reaching the criterion speaking length without receiving a prompt from the confederate. Although all theorizing about this variable is post hoc, some hypotheses regarding this finding are explored under the section on anxiety expression.
Anxiety Expression

The predictions concerning levels of anxiety expression were generally supported. High MGRS subjects were rated as significantly more uncomfortable overall than low MGRS subjects while speaking, however not while listening. Consistent with a priori hypotheses, all subjects were also rated as significantly more uncomfortable in interactions with men than with women in both speaking and listening roles.

Why would high MGRS subjects be more anxious than low MGRS subjects in speaking but not in listening roles? To address this, one must consider what might constitute a "violation" of traditional role norms. Men may find it uncomfortable to listen to someone else being expressive, but they may not actually have violated a traditional role norm, nor their own self-schemata directives, until they have become actively expressive (i.e., the speaking role). Perhaps, men's anxiety is not thoroughly heightened until they are actively violating their gender-related self schemata. These violations should be more stressful for high than for low MGRS men, hence the results demonstrating a difference in anxiety levels only under the speaking role.

The second finding, that all subjects were more uncomfortable with men than with women regardless of their role, can also be understood in terms of traditional role norms. Expressions of emotion are supposed to be restricted to heterosexual relationships according to traditional masculine norms (Pleck, 1976). Therefore, emotional expression to/from a man should be highly anxiety-provoking relative to emotional expression to/from a woman. However, this result was qualified by two interactions. The first demonstrates that in the listening role, this pattern (more anxious with men than women)
was true for high but not for low MGRS men. The second demonstrates that in the speaking role, this pattern held for the gender-consistent, but not the gender-inconsistent condition.

Another possible indicator of anxiety was the length of subjects' speech. As reported previously, analysis of this variable revealed limited spontaneous speech by high MGRS subjects to female confederates in the gender-inconsistent condition. In such situations, high MGRS subjects appeared to have difficulty reaching the criterion speaking length without receiving a prompt from the confederate. This was initially hypothesized to be a measure of anxiety, however given that subjects in the gender-inconsistent condition were equally expressive of anxiety in interactions with male and female confederates, this seems an unlikely explanation. There was a significant correlation between high MGRS subjects' behavioral anxiety and the decrease in speaking time in this condition. But, this correlation may have been the result of finding oneself with nothing to say in a timed interaction with a stranger.

An alternative suggestion is that subjects interacting with inexpressive women may have found them to be less appealing and may have limited their interactions with these women. However, this hypothesis was not supported by correlations between behavioral anxiety measures and post-experimental questionnaire items designed to explore attraction to one's partner or evaluation of one's partner as "feminine." Perhaps, some combination of the above hypotheses would explain this data. Alternately, the simplest explanation may be that high MGRS men merely followed the confederate cues that did not require a violation of traditional role norms. That is, they
might have decreased their expression (via shortened spontaneous speech) to women in response to gender-inconsistent cues, rather than increasing their expression to men in the same cue condition.

**Limitations of the Study**

MGRS was used as a measure of gender-related self schema. While it appears to tap many areas of gender-related self schema, there are some areas that are not addressed by this scale. It was proposed to assess some of the less positive aspects of the masculine gender role, as opposed to the positive attributes usually assigned to the masculine role on sex role inventories. Perhaps some combination of the positive and negative traits of the masculine gender role would have predicted men's behavior better. Winstead et al. (1984) found that sex-role orientation predicted intimacy and length of self-disclosure for men. Future research might consider investigating the predictive power of combinations of scores on the MGRS scale and the Bem Sex Role Inventory (Bem, 1974).

Another limitation of this study pertains to the assessment of nonverbal and verbal expression. The verbal ratings demonstrated poor discrimination of behavior along the full dimensions of the scale. Furthermore, the nonverbal and verbal data were both assessed but not as unit, where subtle nuances of one form of expression could be taken into account in judging the meaning behind the other form of expression. Bugental, Love, and Gianetto (1971) and others (Halberstadt, Hayes, & Pike, 1988) demonstrated that nonverbal behavior is often independent of verbal messages and may sometimes alter the meaning subtly. Furthermore, Rozensky and Feldman-
Honor (1982) suggest that the use of a combination of nonverbal coding systems eliminates some of the disadvantages of using singular systems. While this was beyond the scope of the present study, this suggestion is worth noting for future research.

Third, the valence of the expressions was not assessed. Predictions cannot be made regarding what emotions, specifically, these men revealed under certain circumstances. This study merely analyzed the frequency with which a "vulnerable" emotion was expressed.

A fourth limitation concerns the use of confederates as interaction partners. In a study exploring men's empathic accuracy, Stinson and Ickes (1992) demonstrated that friends were significantly better than strangers in inferring their partners' thoughts and feelings during unstructured exchanges. Moreover, male friends "sat closer.... talked to, looked at, smiled at, and gestured toward each other significantly more than did the male strangers" (p. 795). This suggests that structured, laboratory interactions between male strangers, as in the present study, may not sufficiently tap men's ability to be expressive and to understand the expressions of their partners.

Another limitation regarding these data concerns the heterogeneous nature of the subject pool. The specific patterns of results, reported here, may not generalize beyond a mostly white, middle to upper class college student population. Ekman and Friesen (1969) noted that different cultures obey different "display rules" for the presentation of affect. Furthermore, there is evidence (Reilly & Muzekari, 1986) that older adults rely more on nonverbal cues and younger adults rely on verbal cues in decoding another's behavior, especially if messages from these two channels are discrepant. Perhaps, this
is due to the incorporation of different "rules" for the encoding and decoding of expressive behavior as a function of age or membership within a certain cohort/generation. Their research might be used to argue that differences in patterns of expression could occur as a function of socio-demographic factors. However, none of this indicates that Deaux and Major's model would be less effective with other groups of individuals, but merely that different patterns of displayed expressions might be seen with different groups.

Future studies should address all of these limitations: assessing expression among culturally diverse populations with a wider range of age; exploring nonverbal and verbal expression as a "unit" expression using multiple coding systems; exploring the best measures of the masculine gender-related schema; exploring the influence of unstructured interactions between friends on the amount of emotion expressed; and demonstrating which emotions allow men the most freedom of, or flexibility in expression.

Finally, the interpretation of the results of this study may be limited by the choice of statistical analyses. It has been suggested that, given the three dependent variables, multivariate analysis could be performed to control the overall alpha level at .05, and to explore mean differences among the dependent variables simultaneously, while controlling for intercorrelations (Bray & Maxwell, 1985). Rather, an alternate method (Timm, 1975; Keselman & Keselman, 1988) was used to control the alpha level (i.e., separate univariate analyses with Bonferroni adjustment). However the ability to look at combined patterns in the data is lost by using this method instead of MANOVA.
Implications for the Conceptualization of the MGRS Construct

Current conceptualization of the high MGRS man appears to be fairly accurate, at least insofar as it predicts his behavior well. It is apparent from this study, however, that the low MGRS man is more than merely the inverse of the high MGRS man. There may, in fact, be several variations of the low MGRS man.

It was posited here, that the MGRS scale may be an indirect measure of gender-related self-schema. It is, perhaps, more accurate to consider it an incomplete measure of gender-related self-schema. To understand this, it is necessary to recall that the MGRS scale was developed, in part, as an alternative to sex-role inventories that posed the masculine role as the healthy, desirable role. The authors of the MGRS scale (Eisler & Skidmore, 1987) were questioning why, if the male role is so healthy and desirable, men appear to be at much greater health risk than women? Therefore, they delineated aspects of the masculine role that were separate from other measures of masculinity. They demonstrated that MGRS scores were not significantly correlated with masculinity as measured by the PAQ (Spence, Heimreich & Stapp, 1974) but they only calculated the masculinity score (Eisler et al., 1988). Endorsing a large number of masculine attributes can merit a categorization as masculine or as androgynous (in combination with high feminine attributes). So, a lack of correlation between MGRS scores and masculine attributes on the PAQ does not undermine the possibility that MGRS could be an indirect measure of gender-related self-schema, it merely asserts that high and low MGRS men do not endorse differential amounts of masculine attributes.
Again, the MGRS scale was intended to measure different aspects of the masculine role than traditional sex role inventories such as the PAQ (Spence et al., 1974) and the BSRI (Bem, 1974). Eisler et al., stated that sex role inventories categorize individuals "...as 'masculine' to the degree that their global self-perceptions include traditional male attributes. The concept of masculine gender role stress, on the other hand, refers to the cognitive appraisal of specific situations as stressful for men" (p. 125). Given that cognitive appraisal appears to be a major facet of the Deaux and Major's model, this scale seemed an adequate choice for judging subjects' self-systems. However, two things are clear from the present findings. First, judging something as stressful may dictate avoidant behavior (high MGRS men), however judging something as 'not stressful/less stressful' does not necessarily indicate approach behavior. So, the use of a scale based on appraisal of stress may predict anxiety expression well (and did so), but may not predict all realms of other expressive behavior. Second, low MGRS men may appraise situations as similarly stressful, but this does not mean they have a unified schema categorization. Many of the typically proposed gender-related self schemata might account for such cognitive appraisals. For instance, undifferentiated individuals (low masculine and feminine attributes) may appraise the expression of emotion as relatively less stressful because they are aschematic with no role norms to violate; feminine schematic individuals may appraise emotional expression as congruent with their self-schemata; and, androgynous individuals (high masculine and feminine attributes) may appraise emotional expression as relatively stressful but have a more versatile range of coping behaviors which may mediate this
stress (Folkman & Lazarus, 1988). Markus et al., (1982) described their theory about the differences between two such groups:

...the flexibility that has been attributed to the high androgynous individual...may be both an antecedent and consequence of this multiple categorization or definition of the self. The high androgynous individual...has knowledge about both masculine and feminine behavior. Presumably both of these knowledge structures are equally available for processing of information...Low androgynous [undifferentiated] subjects do not seem to have integrated many potentially stereotypic masculine or feminine terms into their self-structures...their behavior reflects a lack of organizing structure." (p. 49)

If it could be demonstrated that low MGRS men are a relatively diverse group in their schema identities, one would expect that their behavior might be more difficult to predict. Prior to this study, most MGRS research (Saurer et al., 1990; Lash, Eisler & Schulman, 1990) has predicted differences between high and low MGRS men, but has only predicted, specifically, the reactions of high MGRS men. And, while there appears to be a good deal of useful information about high MGRS men, perhaps the low end of the scale merits more attention now.

**Implications for Deaux and Major's Model of Gender Differences**

The results discussed above lend some support to Deaux and Major's (1987) basic hypothesis that gender-related behaviors are a function of proximal causes and often depend on the context of the situation. However,
this study cannot be considered, nor was it intended to be, a complete test of
their theoretical model. Future studies may address actual "gender
differences" by exploring men's emotional expression in comparison to that of
women. This study was intended to explore and, perhaps, supplement
aspects of their theoretical model as discussed below.

The nonverbal expression results consistently showed men responding to
partner cues. In the clearest example of this under the speaking role, low
MGRS men were more nonverbally expressive to other men than to women
under gender-inconsistent conditions. In other situations, men showed no
difference in expression to men and women. Both of these findings differ
from the results reported in the body of literature (Aukett, Ritchie, & Mill, 1988;
Blier & Blier-Wilson, 1989; Snell et al., 1989; Antonucci & Akiyama, 1987)
stating that men choose women as targets of expression, and are more
expressive in interactions with women than men.

At the same time, this study supports this literature which expounds gender
of partner as a marker variable for men's emotional disclosures. This data
demonstrates that under gender-consistent conditions men do, indeed,
express more to women than to other men. It replicates this research into
normative patterns of expression, assuming that in previous research
contexts, gender-consistent expectations were provided to subjects,
intentionally or otherwise. Still, these findings are in keeping with the partner
cues displayed under gender-consistent conditions, and with Deaux and
Major's model which was intended not only to question these normative
gender-related behavior patterns, but to explain them.
In applying their model to emotionally expressive behavior, it becomes clear that social interactions are even more complex than their highly specific model indicates. As such, the data presented here can be used to suggest some adjustments to the model.

The model's separation of the tasks of "target" and "perceiver" seems arbitrary in considering subjects' behavior. In conceptualizing this study, it seemed that subjects would be likely to fulfill both roles during an interaction, and would often perform appraisal tasks in both roles simultaneously. That is, while subjects are made aware of their own gender-related self schemata and act in accord with these, they are also categorizing partners on the basis of the partners' gender attributes. This model lends itself to conceptualizing interactions as dynamic processes, and itself must be used in a dynamic fashion to be most effective. Deaux and Major do acknowledge the need for "interchangeability" of the perceiver and target positions. It was certainly clear here that even "targets" (i.e., subjects in the listening role) were perceiving partner cues.

A further comment regarding the model pertains to the broad umbrellas of "modifying conditions" and "self system of the target". While Deaux and Major do not claim that the model is exhaustive, there are likely to be many modifying conditions in social interactions, some of which have not been addressed. Forgas (1987) demonstrated that attractiveness of the partner influences the interpretation of their behavior and nonverbal cues. Folkman and Lazarus (1988) demonstrated in two studies that type of coping mechanism used mediates emotion in stressful situations, but that the effectiveness of each strategy may vary as a function of age. Given that a
certain percentage of social interactions will inevitably be stressful, some mention of coping strategies seems relevant. Furthermore, Eagly and Wood's (1991) plea to assess the effects of concomitant roles that may compete with or replace the gender-related schemata could be addressed as a modifying condition.

It also seems likely that these conditions modify the context and interaction at a number of points in the model, rather than just at the two points indicated. For instance, social desirability may become important as soon as the target's attributes are evaluated. Furthermore, in this experiment, concerns with self-verification and self-presentation were presumably experienced by subjects before the partner acted toward the subject. While this may have been an unusual kind of social interaction, with the profiles presumably setting up the gender-schema prior to the interaction, there would appear to be other interactions where individuals might be concerned with such issues before the first words are spoken or actions taken. For instance, prior to a job interview, or on a blind date, individuals may be concerned with issues of self-presentation or self-verification prior to the actual interaction.

Similarly, the label "target self-system" covers a wide variety of differences that may have direct bearing on gender-related behavior, and, in particular, on emotional expression. Among these are personality differences such as affect intensity (Diener, Sandvik & Larsen, 1985; Ekman, Friesen & Ancoli, 1980), introversion-extroversion, and cultural and familial differences in the expression of emotion (Ekman & Oster, 1979; Ekman et al., 1987; Halberstadt, 1986), to name a few. Furthermore, as the MGRS literature suggests, the self system of the target may have direct bearing on the
formation, activation, and centrality of an individual's self schema. The model
does allow such factors to be taken into account under "self system of the
target" but it is important to realize the breadth of this label.

Implications for Other Areas of Research

These data also provide room for conjecture about the function of
speaking and listening roles within the complex weave of the "context".
Research on gender-related nonverbal displays of power revealed that
opposite findings are often seen in the speaking role in comparison to the
listening role (Dovidio & Elyson, 1985; Dovidio et al., 1988). Others, studying
the behavior of depressed patients, have shown that amounts of behavior are
different during speaking than listening roles (Bouhuys & Alberts, 1984;
Bouhuys, Jansen, & van den Hoofdakker, 1991). As discussed in the
introduction, these roles could be considered active and passive perceiver
roles in accord with the work of Gilbert, Pelham, and Krull (1988). These
researchers have demonstrated a variety of differences that are fundamental
to social interaction in perceiver roles. Given their descriptions, the listening
role in this experiment was considered a passive perceiver role, and the
speaking role, an active perceiver role. Even this is open for debate. The
listening role may have been similar to their cognitive busyness
manipulation. That is, subjects in the listening role may have actively
rehearsed what they would say next. If so, Gilbert et al. posit that the high
order processing, assumed to be performed under passive perception roles,
would be disrupted. The data from the present study, which demonstrated
differences in the dependent variables as a function of subject roles, should
be considered a source from which to generate hypotheses for future research.

The present data may also have implications for the areas of stress and coping, effective use of social support, and potentially, for therapist-client relationships. In this experiment, men were given the task of talking with a stranger about a personal life experience. This would be a stressful experience for many people, but based on the MGRS literature, it should be especially so for some men and less so for others. Low MGRS men, by their definition, are less likely to appraise such situations as stressful. Here, they demonstrated greater flexibility in nonverbal expression than high MGRS men within certain roles. If low MGRS men are less stressed by this emotional expression, and are more flexible in their behavioral responses, they may be more likely to cope successfully with expressive demand situations. On the other hand, high MGRS men, who should report the most stress in emotionally expressive situations, had the smallest range of expressive behaviors in response to such situations. This makes sense as a means of limiting their stress, but may limit their available coping resources as well.

Among the resources that men may lack are sufficient social support interactions--either from a lack of recruiting and maintaining such systems, or from difficulty utilizing the system when necessary. If a man is distressed but has difficulty expressing emotional needs, the social support network may be unaware of his distress and may overlook opportunities to assist with coping. Likewise, if a high MGRS man decides to seek such support, but he is limited in his range of expressive behaviors, it may be difficult to accurately express
emotional needs for support to those who may be aware of his distress. Lastly, if emotionally-laden situations are too stressful, the receipt of emotion-focused social support may be stressful as well. As a result, such men may avoid emotionally supportive interactions, thereby omitting an effective coping resource from their repertoire of responses.

Clearly, social support is not the solution in every stressful situation. Problem-focused coping is often equally or more effective, depending on the problem (Costanza, Derlega, & Winstead, 1988). However, having a range of skills is essential to effective coping. In a review of studies exploring coping flexibility, Somerfield (1992) reported that coping flexibility (i.e., the extent to which different coping strategies can be implemented across stressors or across time), a good fit between one's appraisal of the stress and one's choice of a coping strategy, and a good fit between the objective circumstance and the coping mechanism chosen were all associated with adaptive psychological functioning.

When adaptive psychological functioning is not achieved, what happens? Most men are unlikely to seek psychotherapy (Goldfried & Friedman, 1982). When they do reach a therapist's office however, it is likely that emotional issues will arise. As Ipsaro (1986) highlights "...the obstacles prohibiting a man from entering therapy, that is, lack of self-disclosure or restrictive emotionality, comprise the major issue that needs to be addressed in therapy" (p. 261). Furthermore, self-disclosure comprises one of the major means of achieving insight and progress in therapy.

The present study raises a number of issues that may need to be addressed by therapists with male clients. There are likely to be individual
differences among men in their comfort with emotional expression. While some level of anxiety is probably necessary to bring someone into therapy, anxiety surrounding the therapeutic interaction may result in early termination of therapy. It becomes necessary, then, to understand potential sources of anxiety and discomfort for clients, and which clients are most likely to respond to expressive situations with discomfort. Extrapolating from this study, one might argue that men in therapy will be least anxious with, and perhaps most disclosing to a female therapist. This would, however, be dependent on the therapist's own schema, her own level of comfort with emotional expression from men, and her ability to convey this comfort to the client. More importantly, however, the data from the present study might suggest that male clients may do very well with male therapists who are comfortable with expressions of emotion. In fact, if Ipsaro (1986) is correct that self-disclosure is one of the main issues needing to be addressed by men in therapy, a male therapist who can model comfortable, appropriate emotional expression may be the natural choice.

**Conclusion**

While not all the data presented here supported the original hypotheses, there is evidence from this study, that under certain conditions, men will respond to partner cues by increasing (or decreasing) emotionally expressive behavior. First, men followed the pattern of expression commonly reported in the literature, being more expressive to women than to men in situations where partners acted in accord with normative gender roles. Second, when partners gave cues that were discrepant from the norms, this appeared to give men "permission" to change expressive behaviors. In other words, when
other men or women appeared comfortable with expression of emotion, the subject men were much more likely to be nonverbally expressive. It was not true in all cases that subjects became more expressive to men than to women, but they no longer demonstrated the normative pattern. In these instances, no significant differences were seen in expression to men and women. Caution must be exercised in the interpretation of these data however, because these patterns were not found reliably across roles.

Furthermore, while this study replicated the emotional expression research (Aukett et al., 1988; Blier et al., 1989; Snell et al., 1989) demonstrating that gender of partner is an important marker variable, these data imply that expression of emotional material cannot be predicted solely on the basis of gender of partner. Rather, men's emotional expression was dependent on a number of factors including their comfort with such expression, the partner's expectations regarding emotional expression, and their partner's gender.

As a whole, the expression data presented can be taken in support of the Deaux and Major's hypotheses that gender-related behaviors are a function of a variety of factors including proximal causes and context variables. However, both the model and this study have limitations, and the results presented should be interpreted with caution until further research can support or revise the notions advanced here.
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Psychology, 62*, 688-698.


FIGURE 3
Mean Nonverbal Expression
Displayed by Each Confederate
FIGURE 4
Means for Subjects' Perceptions of Confederate Expectations Regarding Expression (Manipulation Check)
FIGURE 5
Significant 3-Way Interaction for Nonverbal Expression While Listening: Results of Hypotheses One and Two
FIGURE 6
Significant 3-Way Interaction for Nonverbal Expression While Speaking: Results of Hypotheses One and Two
FIGURE 7
Significant 2-Way Interaction for Verbal Expression:
Results of Hypotheses One and Two
FIGURE 8
Normative Expression Pattern.
Nonverbal Expression While Listening:
Results of Hypothesis One
FIGURE 9
Normative Expression Pattern.
Nonverbal Expression While Speaking:
Results of Hypothesis One
FIGURE 10
Normative Expression Pattern.
Verbal Expression:
Results of Hypothesis One
FIGURE 11
Significant 3-Way Interaction for
Length of Speech
(converted to minutes)
FIGURE 12
Anxiety Expression by MGRS Level: Results of Hypothesis Four
FIGURE 13
Anxiety Expression as a Function of Confederate Gender:
Results of Hypothesis Five
APPENDIX A

M.G.R.S. RATING SCALE

Directions: Please rate the following items according to how stressful the situation would be for you. Give each item a rating on the scale of 0 to 5, ranging from not stressful to extremely stressful. FOR EXAMPLE:

A. Driving a car __0__
   B. Discovering you have a serious illness __5__
   C. Losing your keys __2__

**************************************************************************

1. Feeling that you are not in good physical condition ______
2. Telling your spouse that you love her/him. ______
3. Being outperformed at work by a woman. ______
4. Having to ask for directions when you are lost. ______
5. Being unemployed. ______
6. Not being able to find a sexual partner. ______
7. Having a female boss. ______
8. Having your lover say that she/he is not satisfied. ______
9. Letting a woman take control of the situation. ______
10. Not making enough money. ______
11. Being perceived by someone as "gay." ______
12. Telling someone that you feel hurt by what he/she said. ______
13. Being married to someone who makes more money than you. ______
14. Working with people who seem more ambitious than you. ______
15. Finding you lack the occupational skills to succeed. ______
16. Losing in a sports competition. ______
17. Admitting that you are afraid of something.
18. Being with a woman who is more successful than you.
19. Talking with a "feminist."
20. Being unable to perform sexually.
21. Being perceived as having feminine traits.
22. Having your children see you cry.
23. Being outperformed in a game by a woman.
24. Having people say that you are indecisive.
25. Being too tired for sex when your lover initiates it.
26. Appearing less athletic than a friend.
27. Talking with a woman who is crying.
28. Needing your spouse to work to help support the family.
29. Having others say that you are too emotional.
30. Being unable to become sexually aroused when you want.
31. Being compared unfavorably to men.
32. Comforting a male friend who is upset.
33. Admitting to your friends you do housework.
34. Working with people who are brighter than yourself.
35. Getting passed over for a promotion.
36. Knowing you cannot hold your liquor as well as others.
37. Having a man put his arm around your shoulder.
38. Being with a woman who is much taller than you.
39. Staying home during the day with a sick child.
40. Getting fired from your job.
APPENDIX B
CONSENT FORM ONE

You are being asked to participate in a study entitled "The Formation of Impressions." This entails filling out some assessment scales: the first is a scale measuring your perception of gender-related situations as stressful or not; the second refers to the number and effectiveness of your supportive relationships. Everyone filling out the scales will receive one (1) extra point of class credit. This will take about 30 minutes. You may be contacted later in the semester and asked to participate in a 30 minute role-playing situation for more course credit (1 extra point of class credit).

The scales will be assigned a subject number and student names will be removed. In analysis and reporting of the data, subjects will be identified only by subject number codes. In addition, you have the right to discontinue your participation at any time without prejudice or penalty.

This project has been approved by the Human Subjects Research Committee; any questions should be directed to Kaye Saurer (951-5085) or Helen J. Crawford, Chairperson, Human Subjects Committee (231-6520) or Institutional Review Board Director, Ernest Stout (231-5712).

---I have read and understood the above information about the research project described. I hereby agree to voluntarily participate under these conditions.
APPENDIX C

POST-EXPERIMENTAL QUESTIONNAIRE

Please indicate whether this questionnaire refers to your interaction with a man or a woman. **Circle one MAN / WOMAN**

1 not at all   2 a little bit   3 somewhat   4 very much

Use this scale to answer the following questions:

1. How tense were you in the situations? How anxious were you?
2. How interested would you be in getting to know the student you interacted with?
3. Did you respond as you think most people would?
4. How important is it for you to respond as others do?
5. How natural did the interaction feel to you?
6. Did you respond the way your partner expected you to respond?
7. Do you think your partner expected you to express your feelings?
8. How masculine/feminine was your partner?
9. Would your interaction have been different if this person were of the other sex?

Write out your answers to the following questions:

1. How did your partner expect you to respond?
2. Describe your partner.
3. What do you think the purpose of this experiment was?
APPENDIX D
CONSENT FORM TWO

You will be asked to participate in a study entitled "The Formation of Impressions." This will entail interacting with two other students. Everyone participating in the interactional situations will receive one (1) extra point of class credit. This will take about 30-45 minutes.

The interactions will be videotaped so that we can rate the behavioral variables of interest in a consistent fashion. All videotapes will be strictly confidential. These tapes will be viewed only by the researcher and her assistants. The tapes will be securely stored during the experiment and will be erased at the termination of the experiment. All participants will be assigned a subject number and student names will not be identified anywhere on the tape. In analysis and reporting of the data, subjects will be identified only by subject number codes.

In addition, you have the right to discontinue your participation at any time without prejudice or penalty.

This project has been approved by the Human Subjects Research Committee; any questions should be directed to Kaye Saurer (951-5085) or Helen J. Crawford, Chairperson, Human Subjects Committee (231-6520) or Institutional Review Board Director, Ernest Stout (231-5712).

I have read and understood the above information about the research project described. I hereby agree to voluntarily participate under these conditions. I know that I will be videotaped while interacting with another student. I give permission to be videotaped under the conditions stated above, knowing that the tapes will be treated confidentially.
APPENDIX E

You have just heard an explanation of what you will be discussing in the following interactions. So that you may concentrate on the interaction, I would like to give you a few minutes to consider, or "rehearse" what you might say during the interactions. Take a few minutes and list 4-5 of the experiences you would like to share. Please write them below.

1. ____________________________
   ______________________________________
   ______________________________________
   ______________________________________

2. ____________________________
   ______________________________________
   ______________________________________
   ______________________________________

3. ____________________________
   ______________________________________
   ______________________________________
   ______________________________________

4. ____________________________
   ______________________________________
   ______________________________________
   ______________________________________

5. ____________________________
   ______________________________________
   ______________________________________
   ______________________________________

Thank you.
APPENDIX F

PROFILES

LOW EXPRESSIVE EXPECTANCY:
This is a very independent person who is confident in his/her abilities.
This person can be assertive and is not afraid to take a stand. This person is
very active and prefers doing things by his/herself. The person in question
tends to be uncomfortable with expressions of emotions from others. This
individual is seeking friends and a potential partner with similar goals and
desires.

HIGH EXPRESSIVE EXPECTANCY:
This is a very people-oriented person. This individual would rather be
surrounded by a lot of friends than be alone. Others may find him/her to be
creative and understanding, but assertive when necessary. Generally, this
individual is warm, aware of his/her own and other's feelings, and good at
sharing these emotions. This person looks for similar qualities in friends and
potential partners.

*profiles actually given to subjects did not read "his/her" but were specific to
the gender of their confederate partner.
APPENDIX G

Confederate prompts.

You need to make sure you respond to the subjects using **ONLY** the following prompts:

yeah
really?
wow!
um hmm
same here/me too
ok
I see
uh huh
neat!
right
no way

If the subject finishes speaking before I enter the room, you should say:
"I think we're supposed to keep talking until she comes back."
APPENDIX H

Confederate Nonverbal Cues

These roles will consist of the following cues (based on Hall 1984):

A) gender consistent for men (inconsistent for women):
   - less facial movement
   - fewer number of facial reactions
   - less smiling and laughing
   - less gazing/direct eye contact
   - verbally more businesslike and dominant (Hall & Braunwald, 1981)

B) gender consistent for women (inconsistent for men):
   - more facial movement
   - greater number of facial reactions
   - more smiling and laughing
   - more gazing/direct eye contact
   - verbally more friendly and less dominant
APPENDIX I

CRITERIA FOR CODING NONVERBAL FACIAL EXPRESSIONS: any movement of the facial muscles to a non-neutral position is scored as an occurrence. If the subject holds this position for more than 10 seconds it is scored again (as another occurrence). You will be scoring occurrence or lack of occurrence for 10 second intervals for the first 60 seconds of each role-play situation until the interviewer interjects a comment.

This includes: frowning, laughing (insofar as it changes facial musculature), smiling, smirking, raising eyebrows (one or both), squinting, twitching nose or eyes, closing one or both eyes, clenching teeth, licking or chewing on lips, pursing lips, flaring nostrils, pressing lips together, sucking in or obviously chewing on sides of cheeks, changing the shape of the mouth, and any other obvious manipulation of the face.

IT DOES NOT INCLUDE: blinking eyes, movement of the head (i.e., nodding yes or no), manipulation of face or lips with the hands, coughing or sniffing, any movement of the facial muscles that is due to talking only. Any subjects chewing gum will be asked to remove this before starting.
APPENDIX J

CRITERIA FOR CODING GLOBAL VERBAL EXPRESSION

5- subject discusses feelings in depth; extremely expressive

4- subject discusses feelings or emotions and gives details about feelings; very expressive of feelings (tender or angry)

3- subject discusses feelings but gives no details about feelings; moderately expressive

2- subject discusses feelings BRIEFLY but concentrates mostly on events or instrumental/factual information; mildly expressive

1- subject totally avoids the discussion of feelings and talks of only factual/instrumental things; inexpressive.
APPENDIX K

GLOBAL RATING OF SUBJECT'S ANXIETY

Rate how anxious this subject appeared in interactions:

ANXIOUS DEFINED AS:
- repeats self, says um, hmm, uh, etc...
- needs to be prompted by interviewer
- shifty eyes, frequently shifts body
- looks at camera
- says "this is hard"
- adds derogatory comments after nice comments (as if embarrassed)
- nervous laughter
- nervous smilling (i.e., when inappropriate)
- asks a lot of questions
- lots of pauses (one is ok unless it is a long pause at the end)
- stutters, or trouble expressing himself

USE THIS SCALE IN RATING ANXIETY:

5- exhibits symptoms throughout the entire minute; extremely anxious
4- exhibits one or more symptoms for more than 30 seconds; very anxious
3- one or more symptoms for at least 15 seconds; moderately anxious
2- one or more symptoms exhibited BRIEFLY for less than 15 seconds; mildly anxious
1- no symptoms present; appears natural

*time does not have to be continuous
**time is used in attempt to operationalize the global terms
APPENDIX L

Confederate scripts

Emotionally Expressive:

"Well, I guess I could start. I remember the night before I left for college, and everything in my room was packed. I was feeling really excited but also kind of scared. All in all though, I think I was more excited than scared. My mom came into my room and sat down with me. I could tell she was sort of sad that I was leaving but she didn't want to make me feel bad about it or anything. We talked about how this was gonna be a great time in my life and all (laughs); you know how parents always say how college is the best time of your life. She told me that she loved me and was really proud that I was going to college.

The next day my family moved me into ___. While we were moving I never thought of anything else but having to unpack all this stuff. I guess I get sort of crabby when I move. Anyway, my roommate wasn't there yet and that made me nervous. You know how it is when you're waiting for something that could either be good or bad...kind of like when you don't know whether you did good or bad on a test and the grades aren't posted yet. Anyway, my family took me out to dinner at Bogen's and then they left. That's when I started to feel really lonely. I didn't know anyone, and my roommate still wasn't here. I tried to unpack to take my mind off of the way I was feeling but I just got really bummed out and I remember wondering why I was so excited last night at home and not more worried about not knowing anyone or about leaving home and everything familiar. Then I started thinking about all those familiar things...my room, and my dog...my friends at home...I felt like crying so I decided I needed to get out of my room and do something, try to meet some new people or something.

I meet some people across the hall when we were moving in, but I was too worried then about getting all my stuff moved in. I went looking for them. They turned out to be friends from high school, but that was ok. I think they could tell that I was kind of lonely and they invited me to go out with them. We went to an apartment party and had a lot of fun.

It's kind of funny how things work out. I really liked those people that night, but I didn't end up being great friends with them. Then my roommate, who I hated at first, turned out to be very nice and helped me through some really rough times that first year. When he/she showed up, I thought he/she was a real snob. I kept asking him/her to go out and do things, but he/she never would. It kind of made me mad because I really wanted to make some friends right away so I would start to feel like I belonged here, or, you know, like this was my home rather than that I was just visiting.

Well, after, the first couple days of class, I wasn't so worried about being homesick, because then I started worrying about classes (laughs). Man! It was a big change from high school. I was an ok student in high school, I probably could have done better, but it didn't seem very important to me then. I remember walking around the campus feeling lost. I looked at
everyone and they all seemed to be seniors, you know, like they knew everything and I knew nothing. But as you can see I'm still here. Things got easier after the first few tests when I realized that it was harder than high school, but I could still do it, I guess I started to believe in myself more, and sort of started to that this was really gonna get me somewhere.

Emotional Inexpressive:

Let's see--what do I remember about the first week at college?? Well, I remember moving in and thinking how its a lot easier to move when you don't have a lot of stuff. When my roommate moved in he/she had soooo much stuff, it took forever. Anyway I did a lot of those moving in kind of things, I got a refrigerator. Then I had to find Kroger's so I could get some sodas and junk food--I didn't like Dietrich too much but I guess we all get used to it. I used to eat out a lot at first but that got too expensive. Then my roommate and I got a carpet for the room and then we had to move everything around again to put the carpet down and that was a hassle.

My roommate was pretty ok. It was kind of awkward at first, I mean living with someone you don't know at all and I never had to share a room with anyone before. He/she was always studying so I could never have the stereo on because he/she is one of those people who have to have perfect silence when he/she studies. But compared to some of the people on my hall, I guess he/she wasn't so bad. Of course, I didn't know that at first.

The first person I met was the RA. You know how when you move in the first thing you do is hook up the stereo so you can have some music while you unpack--even though the stations around here suck, for the most part--anyway, the RA came down and yelled at me for having the music so loud. So I turned it down, for a while anyway. Then the parents (who were dropping their kids off) stopped looking at me like I was gonna be a bad influence.

Then my class schedule had got all messed up cause I was transferring some AP credits from high school(???) and they screwed that up. So I kept trying to find out how to get my schedule changed. I learned early that scheduling is not very easy, especially with a bunch of idiots in charge. People kept saying "well you need to go here or there and do this" Like I knew where any of those places were!! I finally got it all straightened out but I got lost a few times and looked like a real fool probably.

I guess, other than that, I spent a lot of time doing things by myself. I guess I'm sort of a loner anyway. What I really liked about Blacksburg then was that I could get outdoors and there was so much to do, I could ride my bike or go hiking, or go to the Cascades. I did a lot those first few weeks, but I don't have as much time now. That was back before I realized how busy classes would keep me. I was signed up to take some pretty hard classes and I had to work my butt off, but it got easier after a while. You know, when I got the hang of it and all. Well, that's it. Your turn.
APPENDIX M: CONFEDERATE RELIABILITY DATA.

TOTAL NONVERBAL BEHAVIOR OF CONFEDERATES
ANALYSIS OF VARIANCE

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CONFEDERATE DEVIATIONS FROM SCRIPTED MATERIAL
ANALYSIS OF VARIANCE

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SUBJECTS’ NONVERBAL EXPRESSION IN THE LISTENING ROLE
AS A FUNCTION OF CONFEDERATE TEAM.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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### SUBJECTS' NONVERBAL EXPRESSION IN THE SPEAKING ROLE
AS A FUNCTION OF CONFEDERATE TEAM.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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### VERBAL EXPRESSION
AS A FUNCTION OF CONFEDERATE TEAM.
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APPENDIX N: RATER RELIABILITY DATA

PEARSON CORRELATIONS OF INTRARATER RELIABILITY DURING TRAINING: VERBAL EXPRESSION RATING.

Verbal Expression Ratings. \( r (7) = .97, p < .001^* \)

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PEARSON CORRELATIONS OF INTRARATER RELIABILITY DURING TRAINING: ANXIETY EXPRESSION RATING.

Anxiety Expression Ratings. \( r (16) = .98, p < .001^* \)

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APPENDIX O: MANIPULATION CHECK DATA.

SUBJECTS' PERCEPTIONS OF CONFEDERATES' CUES
REPEATED MEASURES ANALYSIS OF VARIANCE

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<tr>
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APPENDIX P: NONVERBAL EXPRESSION DATA

NONVERBAL EXPRESSION IN THE LISTENING ROLE. ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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NONVERBAL EXPRESSION IN THE SPEAKING ROLE. ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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<td>54.791</td>
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APPENDIX Q: VERBAL EXPRESSION DATA.

VERBAL EXPRESSION.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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LENGTH OF SPEECH.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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APPENDIX R: ANXIETY EXPRESSION DATA

ANXIETY EXPRESSION IN THE LISTENING ROLE.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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ANXIETY EXPRESSION IN THE SPEAKING ROLE.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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APPENDIX S: ORDER EFFECTS FOR CONFEDERATE PRESENTATION.

NONVERBAL EXPRESSION IN THE LISTENING ROLE AS
A FUNCTION OF ORDER OF THE CONFEDERATES.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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NONVERBAL EXPRESSION IN THE SPEAKING ROLE AS
A FUNCTION OF ORDER OF THE CONFEDERATES.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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VERBAL EXPRESSION AS A FUNCTION
OF ORDER OF THE CONFEDERATES.
ANALYSIS OF VARIANCE WITH REPEATED MEASURES.

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### APPENDIX T: DATA REGARDING CONGRUENCE AMONG ANXIETY MEASURES.

**PEARSON CORRELATIONS OF SELF-REPORT AND BEHAVIORAL MEASURES OF ANXIETY.**

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</thead>
<tbody>
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<td>$r (182) = .15$, $p \leq .05^*$</td>
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<tr>
<td><strong>Self-report</strong></td>
<td><strong>behavioral rating</strong></td>
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<tr>
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<td>number</td>
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</tr>
</thead>
<tbody>
<tr>
<td>$r (182) = .18$, $p \leq .01^{**}$</td>
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</tr>
<tr>
<td><strong>Self-report</strong></td>
<td><strong>behavioral rating</strong></td>
</tr>
<tr>
<td>mean</td>
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<tr>
<td>standard dev.</td>
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<td>number</td>
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<table>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td><strong>Self-report</strong></td>
<td><strong>behavioral rating</strong></td>
</tr>
<tr>
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<tr>
<td>standard dev.</td>
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<td>number</td>
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<th>Self-report of &quot;tension&quot; &amp; behavioral rating of anxiety while speaking</th>
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</thead>
<tbody>
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<td><strong>behavioral rating</strong></td>
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<td>standard dev.</td>
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<td>184</td>
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</table>
VITA

Kaye Sauer Hermanson

PERSONAL INFORMATION

Addresses: Rush-Presbyterian-St. Luke’s Medical Center
Department of Psychology and Social Sciences
1553 West Congress Parkway
Chicago, Illinois 60612
(312) 942-5932

3537 North Shefield Avenue
Apt. 1 North
Chicago, Illinois 60657
(312) 296-1418

Social Security Number: 374-80-1785

Birthdate: August 28, 1964

Marital Status: Married

Education:

Doctor of Philosophy Virginia Polytechnic Institute & State University,
Blacksburg, Virginia
May, 1992 (expected)
Major: Clinical Psychology (APA-approved)
Dissertation: Differences in Men’s Emotional
Expression as a Function of Gender Beliefs and
Contextual Variables: Partner Gender & Expectancy.
Chair: Richard M. Eisler, Ph.D.

Master of Science Virginia Polytechnic Institute
& State University
Blacksburg, Virginia
May, 1989
Major: Clinical Psychology (APA-approved)
Thesis: The Role of Masculine Gender Role Stress in
Expression and Social Support Network Factors.
Chair: Richard M. Eisler, Ph.D.

Bachelor of Science The University of Michigan
Ann Arbor, Michigan
May, 1986
Major: Psychology

Specialization:

Adult Clinical Psychology
Health/Behavioral Medicine (area of interest)
Academic Honors:
1986                Graduated with Distinction in Psychology
1984-1986           Psi Chi National Honor Society in Psychology
1983-1984,1982-1983 Honors Convocation Member
1982-1983           Regent's Alumni Scholar
1982-1983           University of Michigan Women's Scholar

Professional Associations:
American Psychological Association
Association for the Advancement of Behavior Therapy
Society of Behavioral Medicine

Research Experience:
1/92 - present            Psychology Resident, Rush Cancer Center, Rush-Presbyterian-St. Luke's Medical Center.
                         Research team member
                         -Recruited oncology in-patients and out-patients to participate in a quality of life (QOL) and treatment decision study. Conducted 30-minute structured interviews with participants, brief interviews with nursing staff and oncologists.
                         -Edited grant proposals for QOL and adherence studies
                         -Therapist in a study of QOL in fibromyalgia patients and efficacy of cognitive-behavioral psychotherapy in increasing QOL.

5/90-5/91               Research Consultant, Virginia Polytechnic Institute & State University.
                         Consulted and assisted in a research project entitled A. Reduction in Skin Cancer Risk Behavior: A peer-leader modeling approach.
                         Assistance included protocol development, research design development, and grant write-up (submitted Spring 1991).

7/89-5/90               Graduate Research Assistant,
                         Psychological Services Center, VPI&SU.
                         Therapist in treatment study of premenstrual syndrome. Group leader of four groups--two with an educational, support format and two with a dietary intervention. Responsibilities included subject recruitment and screening, implementation of an 8-week treatment protocol, data collection, weekly computerized feedback to subjects, organization and implementation of follow-up assessment, and treatment of the control groups.

7/89-8/90               Research Consultant, VPI&SU.
                         Participated in the development of a study exploring men's cardiovascular reactivity in situations requiring expressions of positive and negative emotions. Responsibilities included general protocol development, development of a videotaped rating protocol, and training undergraduate raters.
10/89-5/90

Graduate Research Assistant, VPI&SU.
Research assistant in NIMH-funded research project entitled A Family/Media Approach to AIDS Prevention. Responsibilities included collection of data from families with teens through telephone and in-home interviews, rating problem-solving ability from family role plays, and collection of information about teen risk-taking behavior.
Principal Investigator: Richard A. Winett, Ph.D.

10/89-5/90

Graduate Research Assistant, VPI&SU.
Research assistant in NCI-funded research project entitled Nutrition for a Lifetime. Responsibilities included subject recruitment at regional supermarkets, collection of dietary information pertaining to risk factors delineated by the National Cancer Institute, and instructing subjects in the use of a computerized nutritional information system.
Principal Investigator: Richard A. Winett, Ph.D.

9/85-5/86

Undergraduate Research Assistant, Institute for Social Research, Ann Arbor, MI.
Responsibilities included collection and assessment of data from studies in the field of environmental psychology. These emphasized lighting in the workplace, and a number of studies on housing for the elderly.
Supervisor: Robert Marans, Ph.D.

Clinical Experience:

7/91-6/92

Clinical Psychology internship (APA approved), Rush-Presbyterian-St. Luke's Medical Center Department of Psychology and Social Sciences Chicago, Illinois

Internship Rotations:

Psychosocial Oncology
(1) Provided services to inpatients/outpatients on a consultation basis. Responsible for assessment and treatment of patients and their partners/families as well as follow-up to referring physicians. Common referrals included difficulty adjusting to illness, communication problems between patient, family and staff, death and dying issues, treatment non-compliance, assessment of mental status changes, pain management, and conditioned symptoms (nausea, vomiting, food aversion).
(2) Provided consultation and assistance to medical center staff on the care and management of cancer patients and attended bi-weekly discharge rounds to allow for multidisciplinary input into patients' care.
(3) Conducted evaluations of candidates for renal transplantation.
(4) Assisted in medical student training on psychosocial aspects of oncology.
(5) Attended weekly oncology grand rounds/lecture series.
(6) Attended weekly psychosocial oncology research meetings.
(7) Ran a 10-week stress management program for employees of RPSLMC.
(8) Attended weekly Psychosocial Oncology Rounds.
(9) Gave multiple case presentations at Psychosocial Oncology Rounds.

Supervisors: David Cella, Ph.D
Suzanne Yellen, Ph.D.

Rotation dates: 7/91-1/92 (full time)
1/92-6/92 (elective rotation)

Sleep Disorders Service
(1) Worked on a inpatient/outpatient sleep disorders consultation service. Patients seen on this rotation included adults and children with narcolepsy, sleep apnea, REM behavior disorders, nocturnal penile tumescence, disorders of initiating and maintaining sleep, alveolar hypoventilation syndrome, and disorders of cardiac and pulmonary systems that are complicated by a sleep disorder.
(2) Consultations included chart review, clinical diagnostic interview, psychological evaluation, review of polysomnogram data, and follow-up with both the patient and referral source, carrying out treatment recommendations in some cases.
(3) Outpatient assessment and psychotherapy provided. Batteries included MMPI, Serence-completion, Multidimensional Health Locus of Control, Spielberger State-Trait anxiety measure, Holmes and Rahe Social Readjustment Rating Scale. Treatment cases included the above disorders.
(4) Attended and presented Grand Rounds.

Supervisors: Rosalind D. Cartwright, Ph.D., A.C.P.
Saul Rothenberg, Ph.D., A.C.P.
Ruzica Ristanovic, M.D., A.C.P.

Rotation dates: 7/91 - 1/92

Outpatient Behavioral Medicine/Marital Therapy
(1) Providing outpatient psychotherapy and inpatient consultations. Patients typically include those with lifestyle management problems (particularly in the preventive cardiology service), affective disorders, anxiety disorders, or patients whose family systems are complicating adjustment to an illness.
(2) Developing advanced skills in assessment including the use of psychophysiological methods, psychometric instruments and interview data.
(3) Co-leading an AIDS support group for inpatients with AIDS, or who are HIV-positive.
(4) Conducting psychological evaluations of heart transplantation candidates.
Supervisor: Tamara G. Sher, Ph.D. ; Rotation dates: 1/92 - 6/92

**Geropsychology and Rehabilitation**
(1) Providing assessment and treatment of acute and chronic disease, primarily in older adults. Emphasis placed on diseases most common in elderly: heart disease, cancer, stroke, diabetes, and degenerative joint disease. Additional opportunities include work with patients on "young adult rehabilitation", extended care and other medical units.
(2) Developing advanced skill in multi-faceted assessment including intellectual, personality, neurological and symptomatic domains.
(3) Providing consultation to staff on case management issues.
(4) Attending "statlings" providing multidisciplinary patient care.
(5) Attending and presenting at weekly case conferences.
Supervisors: Martita Lopez, Ph.D. 
Bruce Rybarczyk, Ph.D.

Rotation Dates: 1/92 - 6/92

**Multiple Sclerosis**
(1) Provided outpatient group psychotherapy to patients with a chronic and progressively degenerative illness. Group membership included individuals with multiple sclerosis and their spouses/partners, families and friends.
Supervisor: James Stewart, Ph.D.

Rotation dates: 9/91 - 5/92.

7/89-10/89
Sleep Disorders Clinic
Montgomery Regional Hospital,
Christiansburg, VA.

Responsibilities included co-facilitation of a sleep apnea support group for newly diagnosed patients and their partners, biofeedback and relaxation training, diagnostic interviews and screening, and individual, behavioral therapy focusing on sleep hygiene assessment and improvement for those patients with disorders of initiating and maintaining sleep.
Supervisor: Dorinda Miller, Ph.D.

9/90-5/91
Therapist and Supervisor,
Psychological Services Center,
Blacksburg, VA.

Responsibilities included cognitive-behavioral and family systems assessment and treatment for individual, marital and family cases. Also provided supervision of cases (under the direction of the team leaders) for the first- and second-year graduate students. Clients presented with a variety of problems including depression, anxiety disorders, marital conflict, and sexual dysfunction.
Supervisors: George A. Clum, Ph.D.
Laura Clarke, Ph.D.
Thomas H. Ollendick, Ph.D.

5/89-9/89
Veterans Administration Medical Center, Salem, VA.
Mental Hygiene Clinic, Behavior Therapy Clinic, & Biofeedback Clinic.
Clinical Externship.

Responsibilities included individual psychotherapy with outpatient psychiatric clients, co-facilitation of four therapy groups focusing on chronic pain, stress management, and disability issues, behavior therapy and biofeedback training with in-patients and out-patients, and testing assessments employing the Rorschach, MMPI, Draw-A-Person, mental status exam, Bender-Gestalt, WAIS-R, and PTSD interview protocols.
Supervisors: Jerome D. Gilmore, Ph.D & James L. Hughes, Ph.D.

9/88-5/89
Therapist,
Psychological Services Center,
Blacksburg, VA

Responsibilities included behavioral assessment and treatment for individual, marital and family cases. Clients presented with problems including mood and anxiety disorders, marital conflict, child conduct disorders, stress management, parenting issues, & substance abuse issues.
Supervisors: Richard M. Eisler, Ph.D.
Donald Oswald, Ph.D.

9/87-5/88
Therapist,
Psychological Services Center,
Blacksburg, VA.

Responsibilities included school and in-home assessments, cognitive-behavioral treatment for individual and family cases. Conducted social skills training, and parent training groups. Clients presented with attention deficit disorders.
Supervisors: Richard A. Winett, Ph.D.
Caryn L. Carlson, Ph.D.

Teaching Experience:

9/90-5/91
Course Instructor, VPI&SU,
Personality Psychology (upper-class undergraduates). Taught two semesters of the course. Responsible for administration, lecturing, test preparation, grading, and supervision of a teaching assistant.

9/89-12/89 & 9/88-12/88
Instructor, VPI&SU
Graduate Clinical Skills Seminar.
Responsible for an 8-week course including instruction, role
playing, and supervision of clinical psychology graduate students
in interviewing and assessment skills.

9/88-5/89
Graduate Teaching Assistant, VPI&SU
Graduate Intellectual Assessment Course.
Responsibilities included the supervision of testing practice
sessions, supervising students during initial testing sessions with
clients, and grading students' test reports. Reports graded
included WAIS-R, WISC-R, PPVT-R, WRAT-R, Woodcock-
Johnson, WPPSI, and Stanford-Binet.

9/87-5/90
Graduate Teaching Assistant, VPI&SU
Lab instructor for the Introductory Psychology Class.
Responsibilities included weekly meetings with lab sections of
approximately 40 students, teaching of research topics related to
main course lectures, assignments of weekly papers, and grading.
Taught 7 sections.

9/87-12/88
Graduate Teaching Assistant, VPI&SU
Teaching assistant for variety of courses including Environmental
Psychology, Child Psychopathology, and Behavior Modification.
Duties included class proctor, lecturer, test development, and
grading.
Course Instructors: Russell T. Jones, Ph.D.
Jack W. Finney, Ph.D.
Richard M. Eisler, Ph.D.

Invited Lectures:

Environmental Psychology (Undergraduate Course), VPI&SU. Environmental 'Issues in

Behavior Modification (Undergraduate Course), VPI&SU. Eating Disorder and Women:
How gender roles may be implicated. April, 1988.

Psychological Disorders of Childhood (Undergraduate Course), VPI&SU. School

Administrative Experience:

8/89-5/90
Graduate Assistant, Psychological Services Center, VPI&SU
Duties included client chart review on bimonthly basis,
coordination of services to the practicum teams, taking in-coming
client referrals, and obtaining third party payment information on
clients seen at the PSC.
Supervisors: Richard M. Eisler, Ph.D., Director,
Psychological Services Center,
& Jack W. Finney, Ph.D., Director,
Child Services Center.
Publications and Professional Presentations:


signature Kaye S. Hermanson