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DISSERTATION

**GENDER AND GENDER ROLE IN RELATION TO
ANGER AND ANGER EXPRESSION**

Submitted by

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In partial fulfillment of the requirements

for the Degree of Doctor of Philosophy

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Fort Collins, Colorado

Summer 2000

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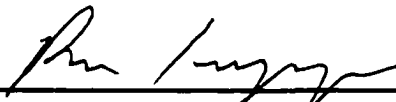
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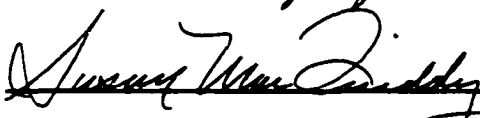
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May 11, 2000


WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY MICHELLE HAINES ENTITLED GENDER AND GENDER ROLE IN RELATION TO ANGER AND ANGER EXPRESSION BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.


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ABSTRACT OF DISSERTATION
GENDER AND GENDER ROLE IN RELATION TO
ANGER AND ANGER EXPRESSION

This study explored the relationships among gender, gender role identity, anger, and anger expression. College undergraduates (219 male and 228 female) completed questionnaires measuring gender role identity, trait anger, anger expression, and anger discomfort. Trait anger correlated positively with anger arousal, range of anger-eliciting situations, anger suppression, negative outward expression, and anger discomfort and correlated negatively with anger control. Outward negative expression and controlled expression correlated negatively. Anger suppression revealed small correlations with outward expression and anger control. Anger discomfort correlated positively with anger suppression and outward negative expression and correlated negatively with control. Effect sizes were small for all these relationships.

Men scored higher on anger proneness, anger reactivity, anger arousal, range of

anger-eliciting situations, and negative outward expression. Women scored higher on angry temperament. There were no gender effects on anger suppression, control, and anger discomfort. Again, gender effect sizes were small.

The variance accounted for by gender role beyond that accounted for by gender ranged from small to large. Angry temperament and negative outward expression were related to high masculinity, anger arousal with low femininity, and anger proneness, angry reactivity, and responding to a broad range of situations with anger with low femininity in men only. Controlled expression was related to high femininity, and anger suppression to low masculinity. Anger discomfort was related to low masculinity for both genders, but also with more femininity for women.

When comparing gender role groups, the majority of significant differences were between the masculine and feminine groups, with the androgynous and undifferentiated groups falling in between. The masculine group was more prone to anger and more likely to express their anger outwardly in a negative fashion. The feminine group was more likely to control the expression of their anger. There were no significant differences between the gender role groups in anger suppression, discomfort with one's own anger, anger reactivity, anger arousal, and range of situations that elicit anger. Gender role

effect sizes were small to moderate.

Small gender effects and somewhat larger gender role effects were found in this study. However, relationships were not large and not always consistent with gender role stereotypes.

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I used to think acknowledgment pages were goofy. However, the further I got into this project, the more I understood the meaning behind the words.

My deeply felt gratitude goes to my doctoral committee. Jerry Deffenbacher consistently and persistently reeled me in as I would go wandering, and gave me the opportunity to successfully accomplish this oh, so daunting task, for which I am very grateful. Not only did Jim Banning help me find my own voice as an instructor, my experience with him also taught me that just because something “is” doesn’t mean it is necessarily so. Susan MacQuiddy introduced me to the existential framework; her humanness helped me to value my own as a therapist. Russell Cropanzano has been infectiously enthusiastic from my first association with him in Social Psychology class.

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DEDICATION

This completed dissertation is lovingly dedicated to my brothers and sisters:

Toni, who walked beside me and knew it was a big deal

Andy, who would have laughed

Nancy, who found meaning in this when I couldn't, and knew it was real

And Richard, who more than any other person, understood my experience and knows what all of this means.

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CHAPTER 1

INTRODUCTION

Throughout Western society, popular beliefs and assumptions abound about the differences between women and men in the experience and expression of anger. The most widely held of these assumptions is that women have more difficulty acknowledging and expressing anger than do men. In contrast, men are more comfortable with their anger and tend to express it aggressively (Tavris, 1989). These commonly held beliefs and assumptions have been advanced on a theoretical level as well (Sharkin, 1993).

Theoretical Perspectives on Women's and Men's Anger

Women's anger. The common theme running through the theoretical literature regarding women's anger is that women are socialized to be expressive of all emotions, except anger--which is taboo. For women, the very experience of anger is threatening and the expression of it is inhibited; they have been socialized to believe open expression of anger will result in dire social consequences ranging from physical punishment (Crawford, Kippax, Onyx, Gault & Benton, 1990) to having their anger invalidated, trivialized, or pathologized. For example, the terms used to describe angry women by the psychiatric community ("castrating") or by society ("nag", "bitch", "shrew") are derogatory and convince women that their anger is pathological and a sign that something

is wrong with them personally, rather than wrong with the situation (Bernardez, 1988; Crawford et al., 1990; Miller, 1985; Shields, 1987).

In addition, these theorists hypothesize that the experience and expression of anger threatens a woman's sense of identity. Much of a woman's identity results from her ability to maintain and nourish relationships, and anger can be seen as a source of disruption to those relationships (Kaplan, Brooks, McComb, Shapiro & Sodano, 1983; Lerner, 1977; Miller, 1985; Miller & Surrey, 1990). Further, women have the capacity to bear and nurture life, and have been the primary caretakers. The "maternal ideal" to which women are socialized is selfless, ever-nurturing, and devoid of even healthy anger (Bernardez, 1988; Lemkau & Landau, 1986; Miller, 1985). Miller and Surrey (1990) believe this reflects a deep cultural belief that anger and nurturance cannot co-exist, a belief which many women have internalized.

To many feminist writers, the proscriptions against female anger are best understood within the broader context of women's subordinate role in a patriarchal society. Women are dependent on the support of men for their economic and emotional survival, which increases the probability that their anger would not be expressed openly (Bernardez, 1988; Kaplan et al., 1983; Miller, 1985). Greenspan (1983) believes the lessons learned by most girls in most families are "be sweet--passive, compliant, and obedient. Never be angry, aggressive or assertive. Respect male authority and power. Turn all your anger inward, against yourself" (p. 177). As Miller (1985) states, "in the face of this, there is only one way women's anger could go: into indirection and confusion" (p. 4). Many studies have shown that women are depressed and suffer from

eating disorders at significantly higher rates than men, which has led to theorizing about the role of anger in both disorders. The general view has been that unexpressed anger is at the root of a large proportion of female depression and is at least a contributing factor in eating disorders (Gordon & Allen, 1990; Wills-Brandon, 1989).

Men's anger. Theorists postulate that the experience of anger is different for men than it is for women, again as a result of socialization. While women have been taught to be expressive of all emotions except anger, men have traditionally been taught to conceal emotions and vulnerabilities. However, anger is often exempt from this rule. In fact, anger is one of the few emotions permitted to men, and the one strong emotion men typically express (Allen & Gordon, 1990; Gordon & Meth, 1990; Kaplan et al., 1983; Pasick, Gordon, & Meth, 1990; Silverberg, 1986). In addition, the “masculine ideal” in our society is rather rigidly characterized by toughness, competitiveness, anger, aggressiveness, and physical courage. Traits such as tenderness, compassion, empathy, dependency, and vulnerability are clearly forbidden for men. Men who fail to subscribe to this masculine value system may be stigmatized as immature, lacking masculinity, or effeminate (Silverberg, 1986).

According to many theorists, anger appears to serve two primary functions in men. First, as implied above, it protects him from the vulnerability inherent in tender feelings, such as sadness, loss, and intimacy. Second, it is a way to intimidate, manipulate, or control others in his environment, and helps him to maintain a dominant role in his family (Bernardez, 1988; Gordon & Meth, 1990; Miller & Surrey, 1990; Pasick, Gordon et al., 1990; Silverberg, 1986). This is not to say that all male anger is

acceptable. When anger reaches violent intensity, such as in domestic abuse, it is considered a problem.

These assumptions and theories about the ways women and men experience and express anger differently persist despite being challenged (Tavris, 1989) and having little empirical support (Sharkin, 1993). Moreover, biological sex does not seem to predict these dimensions of anger well. Kopper and Epperson have suggested that gender role identity--the pattern and level of masculine or feminine characteristics adopted by an individual--may be a more sensitive predictor (Kopper, 1993; Kopper & Epperson, 1991, 1996). This study reviewed the empirical literature regarding anger and gender, and then explored the potential relationships between dimensions of the experience and expression of anger and gender role identification.

Anger, Hostility, and Aggression

The terms anger, hostility, and aggression are frequently used interchangeably in the research literature, often with ambiguous or even contradictory definitions (Spielberger, Jacobs, Russell & Crane, 1983). Collectively, they have been called the AHA! (Anger-Hostility-Aggression) Syndrome.

Anger is at the core of this syndrome and is generally considered to be a simpler and more fundamental concept than either hostility or aggression (Spielberger et al., 1985). Anger is an emotional state that consists of feelings that vary in intensity from mild irritation or annoyance to fury and rage, and is comprised of subjective affect, cognitions, and physiological arousal. It can be either a momentary feeling state or a personality trait (Spielberger et al., 1983; Spielberger, 1988).

Hostility, which usually relates to angry feelings, is a pervasive set of negative, destructive attitudes such as cynicism, hatred, bitterness, suspicion, animosity, resentment, and holding a grudge. This hostile need for revenge and retaliation can lead to aggressive and vindictive behavior (Spielberger et al., 1983, 1985).

Aggression generally implies destructive or punitive behavior directed towards other persons or objects, and can be verbal or physical. Aggression often has its roots in anger. For example, hostile aggression is behavior motivated by anger which is intended to bring about harm, such as hitting, shoving, or making sarcastic comments. However, the study of violent crimes such as robbery, arson, terrorism, and kidnapping, and of athletic events, shows that not all aggression stems from anger or hostility. Instrumental aggression is aggressive behavior used as a means to an end. It can have many non-angry motivations such as greed, the removal of problems, a search for excitement, or the acquisition of property. In addition, both hostile and instrumental motives can operate simultaneously in aggressive behavior. For example, parents disciplining their children may be both expressing anger and attempting to modify their children's behavior (Megargee, 1985; Spielberger et al., 1983; Spielberger, 1988).

Many behaviors of a person who is angry are non-aggressive; anger can be present with a wide variety of impulses and behaviors. For example, in Averill's study (1983), while subjects felt like aggressing verbally or physically (82 percent and 40 percent of episodes, respectively), direct physical aggression occurred in only 10 percent of episodes. So, though aggressive thoughts and impulses occur frequently, aggressive actions are infrequent. It is important to note that the desire to talk things over with either

the instigator (59 percent) or a neutral party (52 percent) was more common than the impulse towards physical aggression. In summary, anger can have many outcomes other than aggression, and aggression can have causes other than anger (Kemp & Strongman, 1995).

Frequency. Anger is a common emotion, with most people reporting becoming mildly to moderately angry anywhere from several times a day to several times a week (Averill, 1983). In Burrows and Halberstadt's (1987) research, the majority reported being angry one to five times a week. In general, no gender differences have been reported in the frequency of becoming angry (Averill, 1983), although Biaggio (1989) reported men become angry 11 percent more often than women.

At what and whom. Anger is often an interpersonal emotion. It typically involves a close affectional relationship between the angry person and the target (Averill, 1983), such as in intimate or family relationships (Lerner, 1985; Mace, 1976; Scherer & Tannenbaum, 1986). In Averill's (1983) research, more than 75 percent of anger episodes involved a loved one, someone who was well-known and liked, or an acquaintance. The majority of teenagers identified their mother, siblings, friends and teachers as the persons who made them angry most often (Jones & Peacock, 1992). College students, who often live away from home, reported more angry episodes with non-family such as roommates and friends than with family. This finding is consistent with the notion that anger occurs in one's closest relationships (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996). However, anger is not always confined to situations that involve another person.

One may become angry at injustices that violate deeply held values or beliefs (Thomas, 1993), or at one's self or objects as well.

Functions of anger. Averill (1983) argued that anger would not be so central to Western culture if it did not serve important functions within the social system. It preserves and protects private and social norms (Torestad, 1990) by signaling that something is wrong and needs correction, such as one's rights or values being compromised or others doing too much or too little (Lerner, 1985; Miller & Surrey, 1990). Anger also mobilizes resources towards the attainment of goals, enhances feelings of personal control, defends against feelings of vulnerability, provides information regarding the psychological significance of a situation (Novaco, 1976), and enables assertive confrontation of injustice or provocation (Averill, 1983; Bernardes, 1985; Novaco, 1976). In addition, it serves the evolutionary function of mobilizing energy for self-defense, and angry looks or verbal retorts may protect one's physical or psychological boundaries (Burrows & Halberstadt, 1987; Izard, 1977).

Despite all of its positive functions, anger is often seen as a sin (Campbell, 1975) and as "bad", harmful, ineffective, and a substitute for intelligent action (Shibles, 1991). Anger can interfere with task performance by causing behavior to become disorganized and impulsive (Novaco, 1976). Mace (1976) believes anger is invariably generated in intimate relationships, and the inability to resolve it is the fundamental cause of marital discord. Ellis (1976), on the other hand, believes that anger itself exacerbates, if not directly creates, difficulties. Other researchers have identified ills stemming, at least in part, from anger that include damage to interpersonal relationships, physical assaults,

property damage, personal injury, health problems, and legal difficulties (Deffenbacher, 1992; Deffenbacher & Hazaleus, 1986; Deffenbacher, Lynch & Oetting, 1998; Deffenbacher, Oetting, Lynch & Morris, 1996; Deffenbacher, Oetting, Thwaites et al., 1996). In addition, anger has been associated with increased alcohol and substance abuse (Carter, 1995; Leibsohn, Oetting, & Deffenbacher, 1994; Walfish, Massey, & Krone, 1990), child abuse (Nomellini & Katz, 1983), domestic violence (Deschner, 1984), and heart disease (Diamond, 1982; Engebretson, Matthew, & Scheier, 1989; Johnson, Spielberger, Worden, & Jacobs, 1987).

Averill (1983) found anger to be useful and beneficial. He observed that only a small percentage of anger incidents resulted in negative and destructive consequences. Though unpleasant, the consequences for most episodes of anger were evaluated positively. He reported the ratio of beneficial to harmful consequences to be about 3:1 for the angry person and 2.5:1 for the targets of anger. The majority of the targets (76 percent) reported they came to realize their own faults, claimed the relationship was strengthened more often than weakened (48 percent versus 35 percent), and more often gained rather than lost respect for the angry person (44 percent versus 29 percent). However, Baumeister, Stillwell, and Wotman (1990) found anger to be much less beneficial. When they analyzed descriptions of “especially important and memorable anger events,” they found that less than 7 percent of autobiographical narrative stories (from both angry people and targets) contained positive consequences, perhaps because “memorable” equated with most intense and negative.

These apparent inconsistencies between anger's beneficial and harmful effects may possibly be explained by looking at the levels of anger experienced. For example, Averill (1983) studied the everyday experience of anger, while Baumeister and his colleagues (1990) studied more serious incidents. Apparently when a person is very angry, it is harder to engage in constructive behavior (Deffenbacher, Oetting, Thwaites et al., 1996). In addition, these findings do not take into account individual differences in proneness to anger (trait anger) and means of anger expression.

Elements of Anger

Trait anger. Historically, the phenomenological experience of anger was largely ignored in the psychological literature, as it was subsumed under hostility and aggression research or confounded with the behaviors or modes through which it is expressed. In an attempt to clarify this situation, and recognizing that anger is a transitory emotional state and that there are individual differences in anger proneness as a relatively stable personality trait, Spielberger and his colleagues adapted state-trait personality theory to anger and developed the State-Trait Anger Scale (Spielberger et al., 1983).

State anger is defined as a temporary emotional state or condition consisting of subjective feelings ranging from tension, annoyance, or irritation to fury and rage with concomitant activation or arousal of the autonomic nervous system. State anger occurs in response to an immediate situation, varies in intensity, and fluctuates over time as a function of perceived affronts, injustices, or frustration (Spielberger et al., 1983; Spielberger, Krasner, & Solomon, 1988).

Trait anger is defined in terms of individual differences in the frequency that state anger is experienced over time. Trait anger is the disposition to perceive a wide range of situations as annoying or frustrating, and the tendency to respond to such situations with more frequent and more intense elevations in state anger (Spielberger et al., 1983).

Trait anger can be broken down into two highly correlated but distinct factors, Angry Temperament and Angry Reaction. Angry Temperament reflects individual differences in the disposition to experience anger, without specifying provoking circumstances, such as being a hot-headed person. Angry Reaction reflects angry feelings in response to frustrating and/or negatively evaluative situations, such as when one is criticized in front of others. Although these two factors have been replicated (Fuqua et al., 1991; Van der Ploeg, 1988), they are not often used in research.

Research supports the construct of trait anger. Those high in trait anger are more easily angered; they perceive a wider range of situations as anger-provoking than those low in trait anger (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger et al., 1983, 1988). They experience more frequent and intense state anger in response to provocation (Deffenbacher, 1992; Deffenbacher, Demm, & Brandon, 1986; Deffenbacher, Oetting, Thwaites et al., 1996) and greater physiological arousal when angered (Deffenbacher et al., 1986; Deffenbacher, Oetting, Thwaites et al., 1996; Lopez & Thurman, 1986).

Having an angry disposition takes its toll. Those high in trait anger experience more frequent and severe consequences for their anger than those low in trait anger. They report more anger-related physiological symptoms (Deffenbacher, 1992) and anxiety

(Deffenbacher, 1992; Deffenbacher et al., 1986; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger & Snyderman, 1993). They are more likely to experience poor self-esteem and negative emotions such as shame, embarrassment, depression, and feelings of “being dumb” (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996). High trait anger respondents report greater use of drugs and alcohol (Carter, 1995; Deffenbacher, Oetting, Thwaites et al., 1996; Leibsohn et al., 1994), more tendencies to be verbally and physically aggressive, and are less likely to cope constructively. Not surprisingly, their relationships and physical objects suffer more severe damage (Deffenbacher, 1992; Deffenbacher et al., 1986; Deffenbacher, Oetting, Thwaites et al., 1996).

Trait anger and gender. In general, Deffenbacher and his colleagues found few gender differences in their series of trait anger studies (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996). In one large study, men were higher in trait anger than women, although the effect size for gender was less than 1 percent, and this effect was not replicated in other studies. When high and low trait anger students were compared, no gender differences were found in the frequency and intensity of anger, physiological symptoms, or range of anger provoking incidents. With few exceptions, men and women were equally as likely to experience negative consequences for their anger. High anger men were twice as likely to assault people or objects on a day to day basis, and women were more likely to experience negative emotions stemming from their anger. When the most negative anger incidents were examined, high anger men reported more severe damage to objects and other people than did high anger women; however,

when the second most negative incident was examined, there were no gender differences in the severity of damage to objects, personal relationships, self-esteem and overall cost. Given the large number of comparisons among the several studies, relatively few gender differences were noted.

Spielberger (Spielberger, Reheiser, & Snyderman, 1995) reported that men were higher in trait anger than women, primarily due to higher scores on the Angry Temperament subscale. This difference was small, though statistically significant. There were no significant gender differences on the Angry Reaction subscale, although there were significant differences on three of the four items (men were more angry when not given recognition for good work and when slowed by others' mistakes, and women were more angry when criticized in front of others). Men scored significantly higher on two items which were not included in the subscales (i.e., saying nasty things and feeling like hitting someone when angered). These two items also contributed to the higher trait anger scores reported by men. As with the Deffenbacher studies mentioned above, the sample size of this study was very large, which can make small differences statistically significant. Fischer and her colleagues (Fischer et al., 1993) reported that men scored significantly higher on both Angry Temperament and Angry Reaction than women, but did not compute a total trait anger score.

If viewed in isolation, the above differences could lend support to the widely held notion that men are more angry than women. However, these results must be looked at in the larger research context. It is important to note that most studies show no gender differences in the frequency and intensity of anger (Deffenbacher et al., 1986; Kopper &

Epperson, 1991; Stoner & Spencer, 1986; Thomas & Williams, 1991; Unveragt & Schill, 1989; Zwemer & Deffenbacher, 1984). While it is possible that men may be slightly higher in trait anger, this difference is relatively minor in terms of the variance accounted for. The few gender differences found in trait anger are not consistent across studies and may be dependent upon the nature of the sample and sample size.

Anger expression. How anger is expressed must be distinguished from the experience of anger as an emotional state, and from individual differences in anger-proneness as a personality trait. It is not just the amount of anger that affects everyday life, but also the behaviors engaged in when people feel angry or furious (Deffenbacher, Oetting, Lynch et al., 1996; Spielberger, 1988; Spielberger et al., 1985, 1988).

Anger expression has been assessed in a variety of ways, and measurement instruments have evolved over time. In one of the earliest studies of anger expression, Funkenstein and his colleagues (Funkenstein, King & Drolette, 1954) provoked subjects in the lab and assessed their physiological arousal. Anger expression was categorized as “anger-out” (anger directed toward the source of frustration), “anger-in” (anger directed towards the self), or “anxiety” (feelings of anxiety, fear, and apprehension in response to the experimental frustration). When provoked, the “anger-in” and “anxiety” groups had significantly faster pulse rates than the “anger-out” group.

Harburg and his associates (Harburg, Blakelock & Roper, 1979; Harburg, Erfurt et al., 1973) presented hypothetical vignettes--such as being treated unfairly by a supervisor, a landlord, or a police officer--to individuals and classified them on the basis of how they said they would express their anger. Those who reported they would either not get angry

or would suppress their anger were classified as “anger-in”, those who said they would get angry and show it were classified as “anger-out”, and those who said they would suppress their initial anger and direct their attention to problem-solving were classified as “reflective”. Gentry built upon Harburg's “anger-in” and “anger-out” classifications, further characterizing respondents as high, medium or low anger expression based on the proportion of their “anger-out” responses (Gentry, Chesney, Gary, Hall, & Harburg, 1982).

Several problems arise with Harburg and Gentry's procedures. The hypothetical situations were developed for adults living in a large city, a context potentially inappropriate for other groups. Respondents were categorized as “anger-in” even if they reported they did *not* feel angry in a particular situation, which put in the same category both those who did not experience anger and those who experienced but suppressed it. “Anger-in” and “anger-out” response strategies were not always stable and could be influenced by situational factors. Lastly, the high, medium, and low categories were discrete rather than continuous measures (Spielberger et al., 1985).

Other measures of anger have been used as well. The Reaction Inventory (Evans & Stangeland, 1971) and the Novaco Anger Inventory (Novaco, 1975) present respondents with different stimulus situations and ask them the degree of anger that they would experience. While these may quantify an overall level of anger experienced, they also are situation dependent and do not reflect differences in expression styles. The Anger Self-Report (Zelin, Alder, & Meyerson, 1972) assesses both the experience and expression of anger with seven subscales: awareness of anger, general, physical and

verbal anger expression, condemnation of anger, mistrust, and guilt. This instrument is heavily weighted on overt negative expression, is rarely used, and the validity has not been firmly established (Biaggio, Supplee, & Curtis, 1981).

The Framingham Anger Scales (Haynes, Feinleib, & Kannel, 1980) were developed for use in the well-known study of heart disease. These scales assess the likelihood of different anger reactions when an individual is really angry or annoyed: anger suppression (anger held in and kept to the self), anger-out (anger directed outwardly in a manner that attacks or blames others), anger-discuss (anger talked over with friends), and anger symptoms (such as headache). The use of these scales is often reported in the literature, usually denoting “anger-discuss” as a form of prosocial, constructive behavior. However, this scale is comprised of only two items (“talk to friends” and “get it off chest”) and does not differentiate whether this discussion is in fact constructive or whether it is done in a whiny, backbiting, or otherwise negative way.

Implicit in early studies was the idea of anger expression as a unidimensional construct, varying from extreme inhibition or suppression to outward expression in a variety of aggressive or destructive behaviors. Spielberger and his colleagues (Spielberger et al., 1985) addressed these concerns with the development of the Anger Expression Inventory (AX), which assesses how often an individual responds in a particular manner across a variety of anger-provoking situations, rather than how he or she responds to a particular situation. Their research demonstrated that anger-in and anger-out were two relatively independent factors. A third factor, anger-control, was later identified. The Anger Expression Inventory, which is being further expanded and refined

(Deffenbacher et al., 1998; Deffenbacher, Oetting, Lynch et al., 1996; Spielberger et al., 1995), is the most widely used and psychometrically sound approach to measuring anger expression thus far.

In addition, styles of anger expression have been coded from laboratory observations during anger-provoking situations and from descriptions of anger responses recorded in daily logs. Data regarding anger expression has been extrapolated from ongoing focus groups and from therapeutic interactions as well.

While the variety of methods adds to the richness of anger expression study, it at times can create an “apples and oranges” situation and complicates the interpretation of results. This is exemplified in a report of two studies by Biaggio (1989). In the first study, students recorded anger-provoking incidents and their responses to them over a two-week period, which were then to be coded according to three predetermined categories: verbal antagonism; physical antagonism; and constructive action. However, data did not fit neatly into these categories, so four more categories were added: indirect aggression, passive response/withdrawal, passive consent, and no action. Gender differences were found in this study; men reported more anger-arousing incidents and more verbal and physical antagonism, while women reported more passive consent. However, in the second study in which students reported their responses to an insulting letter in a laboratory situation, no gender differences were found on any categories. Biaggio attributes these discrepant findings to different demand characteristics of “real life” interactions where women may be more inclined to inhibit angry feelings, and lab studies where aggression is allowable and possibly expected. However, this same

discrepancy may be attributed to the difference in the anger-provoking situations (i.e., an insulting letter versus the situations that abound in “real life”) used in the two studies.

Regardless of the specific method of assessment, most of the behaviors people engage in when angry or furious can be classified into one of three categories: suppression of angry feelings (anger-in), outward, negative expression (anger-out), and attempts to decrease the level of anger (anger-control).

Anger-in refers to angry feelings that are experienced but not expressed; the individual is aware of feeling angry but overt expression of that anger is suppressed. This is different from the psychoanalytic concept of anger turned inward, where angry feelings as well as angry thoughts and memories are repressed rather than experienced, resulting in guilt and depression. Anger-in involves the experience of angry affect, during which the individual stays aroused cognitively through activities such as harboring grudges and being critical (Deffenbacher et al., 1998; Spielberger et al., 1985, 1995). Anger-in is not just another form of anger control. In one study, it did not correlate with prosocial forms of expression and had a small but significant correlation with both verbal and physical expressions of anger (Deffenbacher, Oetting, Lynch et al., 1996).

Anger-out refers to angry feelings that are experienced and directed outward toward other people or objects in the environment in verbally or physically aggressive ways. Verbal expressions can include things such as criticism, insults, threats, or the use of profanity. Physical expressions may include assaulting others, destroying objects, slamming doors, and the like. These verbally and physically aggressive behaviors can be directed toward the provoking source, or indirect and symbolic, toward individuals or

objects associated with the source of provocation. Anger-out is similar to hostile aggression, which was described earlier (Spielberger et al., 1985, 1995).

Anger-control also involves the experience of anger; however, anger-control refers to the individual's attempts to engage in calming behaviors that lower anger arousal. It is the tendency to be calm and patient, and demonstrate emotional and behavioral control (Deffenbacher, Oetting, & Lynch et al., 1996; Spielberger, 1988).

Styles of anger expression have been correlated with certain outcomes. Not surprisingly, the more aggressive forms of anger expression increase the chances of negative consequences, including verbal and physical fights, property damage, damaged relationships, alcohol use, and legal and vocational difficulties (Deffenbacher, Oetting, Lynch et al., 1996). Suppression of anger does not necessarily result in avoidance of these negative consequences. In fact, suppression correlates with many adverse outcomes, such as verbal fights and damaged friendships, although not to the same degree as outward expression. Experiencing negative emotions as a result of anger was most associated with anger suppression and not being able to control anger expression. In fact, anger control has been related to a reduction of most negative consequences of anger expression (Deffenbacher, Oetting, Lynch et al., 1996).

Anger expression and gender. Sex role stereotypes about anger commonly suggest that men and women typically express their anger in different ways, with men expressing their anger directly and outwardly and women suppressing their anger or expressing it indirectly through symptoms such as depression and headaches. Gender

stereotypes also suggest that women are more prosocial and constructive in anger expression.

Several studies have indeed found that men are more likely to express anger in aggressive ways. Jones and Peacock (1992) found that male teenagers were significantly more likely to feel like killing or being violent when angry. College men scored higher than college women on scales measuring total expression of anger, physical and verbal expression, verbal hostility, and assault scales (Biaggio, 1980). In Biaggio's report of two studies, men reported more physically and verbally antagonistic reactions to "real life" situations than women, although this was not replicated in the anger-arousing laboratory situation (Biaggio 1989). Men reported more physical assault on persons and objects and were more likely to use verbal intimidation and make sarcastic remarks (Deffenbacher, Oetting, Lynch et al., 1996). However, mean differences between the genders were small, and gender accounted for only 2 to 7 percent of the variance. Two studies using Spielberger's Anger-Out scale also reported that men scored higher than women (Fischer et al., 1993; Spielberger et al., 1995). Women were not entirely unrepresented in outward expression, however. One study reported that they were more likely than men to express anger through body language, such as making faces and sighing (Deffenbacher et al., 1998).

Other studies have reported different results. Deffenbacher reported no significant gender differences in physical assault on people or objects, arguing with others, or use of dirty looks to express anger in one of his studies (Deffenbacher et al., 1998). No gender differences in anger-out were found in a high school sample (Spielberger, Johnson, &

Jacobs, 1982), a midlife sample (Thomas, 1989), or in several other studies (Harburg et al., 1979; Kopper, 1993; Kopper & Epperson, 1991; Müller, 1991; Stoner & Spencer, 1987; Thomas & Donnelan, 1991). Biaggio (1989) found no differences in indirect aggression.

A few studies support the notion that women are more likely to suppress their anger. Women were higher on anger-in (Haynes, Levine, Scotch, Feinleib, & Kannel, 1978), significantly more likely to “keep it to self” (Malatesta-Magai, Jonas, Shepard, & Culver, 1992), and reported more passive consent reactions in real life situations (Biaggio, 1989). However, Biaggio (1980) found that men scored higher on resentment and mistrust, and in two studies men scored significantly higher on anger-in (Spielberger et al., 1982, 1995). Other studies have found no gender differences in anger suppression (Deffenbacher, Oetting, Lynch et al., 1996; Deffenbacher et al., 1998; Fischer et al., 1993; Harburg et al., 1979; Kopper, 1993; Kopper & Epperson, 1991; Müller, 1991; Stoner & Spencer, 1987; Thomas, 1989), or in passive response/withdrawal (Biaggio, 1989).

Gender stereotypes suggest that women should be able to modulate their anger better than men. However, no gender differences have been reported in anger control (Deffenbacher et al., 1998; Deffenbacher, Oetting, Lynch et al., 1996; Fischer et al., 1993; Kopper, 1993; Kopper & Epperson, 1991; Spielberger et al., 1995).

With regard to other, more constructive forms of anger expression, Harburg's research suggests that women are more likely than men to use a reflective problem-solving style (Harburg et al., 1979). Thomas reported that women are more likely to discuss their anger with a friend (Thomas, 1989; Thomas & Donnelan, 1991), though

Malatesta-Magai and her colleagues reported that it was men who were more likely to talk it out (Malatesta-Magai et al., 1992), and Müller reported no differences on this variable (Müller, 1991). In addition, no gender differences were reported in more prosocial forms of anger expression, such as thinking before responding (Deffenbacher et al., 1998), direct expression, reciprocal communication, taking a time-out (Deffenbacher, Oetting, Lynch et al., 1996; Deffenbacher et al., 1998), or in constructive action (Biaggio, 1989).

Women do have more anger-related physiological symptoms (Haynes et al., 1978; Thomas, 1989; Thomas & Donnelan, 1991). It is interesting that women who exhibited more physical symptoms were not suppressors of their anger but directed their anger outward (Thomas & Donnelan, 1991). In addition, women are more likely to cry when angered (Averill, 1982; Crawford et al., 1990; Jones & Peacock, 1992.)

Consistent with gender stereotypes, men experienced getting into physical fights and damaging property more frequently as a consequence of their anger, and women experienced more negative feelings, such as being ashamed or embarrassed. Men and women were fairly equal in the damage done to their friendships, however (Deffenbacher, Oetting, Lynch et al., 1996).

In summary, studies generally support the stereotype of men expressing their anger more aggressively than women, although this is not consistent across all studies, and the amount of variance accounted for by gender is small. There is little consistent support for the notion that women tend to inhibit their anger more than men or to utilize more positive, prosocial forms of anger. Although women do report more physical

symptoms resulting from their anger, these symptoms are found more in women who express their anger outwardly, rather than suppress it. Again, while some differences have been found, most research supports Averill's findings that men and women have fairly similar expressions of anger (Averill, 1982).

Anger discomfort. Sharkin and Gelso (1991) have hypothesized that the degree to which people feel uncomfortable with their own anger could have a significant association with both anger experience and expression. For example, being anger-prone may lead to discomfort about that anger; conversely, being uncomfortable with anger may lead to its suppression. Anger discomfort can be both intrapsychic (such as being threatened by one's own anger) and interpersonal (such as being concerned about others' reactions to one's anger).

Sharkin and Gelso (1991) conceptualize anger discomfort as being closely related to trait anxiety, which may help explain the frequently noted relationship between anxiety and various aspects of anger. For example, significant anxiety has been reported in high anger respondents (Deffenbacher, 1992; Deffenbacher et al., 1998; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger & Sydeman, 1993; Wickless & Kirsch, 1988). Spielberger (Spielberger et al., 1985) found small but significant correlations of anxiety with anger-in and anger-out, and Deffenbacher (Deffenbacher, Oetting, Lynch et al., 1996) found a moderate correlation between anger-in and trait anxiety.

The Anger Discomfort Scale (Sharkin & Gelso, 1991) is the only instrument to directly measure this construct, and its use has been reported just once in the literature. Anger discomfort has small positive correlations with anger suppression and negative

outward expression, and a small negative correlation with anger control. The correlation between anger discomfort and trait anxiety is considerably stronger. The relationship between anger discomfort and anger proneness or trait anger has not been researched thus far.

Anger discomfort and gender. Indirect evidence suggests that women may be more likely to experience discomfort with their own experience or display of anger. Anger expression is perceived more negatively for women than for men (Shields, 1987), and women more frequently report feeling shame, embarrassment, and depression stemming from their anger than do men (Deffenbacher, Oetting, Thwaites et al., 1996). From a developmental perspective, Perry, Perry and Weiss (1989) affirmed that boys expect less parental disapproval for behaving aggressively than girls do, and girls are more likely to expect guilt and upset feelings following aggression. Malatesta-Magai and her colleagues (1992) reported that women are more conflicted about anger expression than men, in that while women expressed more anger during a structured interview, they also demonstrated more facial masking of it. Contrary to the above findings, college men, who scored higher than women on indices of overt aggression, also scored higher on guilt and condemnation of anger (Biaggio, 1980). Despite these findings, no significant gender differences were found on the Anger Discomfort Scale (Sharkin & Gelso, 1991).

Gender Role Identity and Anger

The research literature reviewed above suggests, as Averill (1983) asserts, that women and men are more similar in their experience and expression of anger than they are different. Clearly, biological gender is not a good predictor. We cannot look at

people and determine their intensity and expression of anger by their biological sex, although our stereotypes suggest this is possible. Despite these findings, beliefs among the general population and clinicians persist that men and women experience and express anger very differently.

Thomas (1991) and Sharkin (1993) suggest that the discrepancy between the research findings and theoretical perspectives on men's and women's anger may be the result of the different populations studied. The theories developed by therapists have been based primarily upon their clinical experiences with clients, rather than on research. The research is based on non-clinical samples, a very different population. These clinician's theories thus may not reflect the way the average person experiences anger, but more the experience of people who are troubled enough to seek therapy.

Kopper and Epperson have proposed another explanation. Beliefs about gender differences in anger may not be based on biological sex, but may be a result of socialized gender role (Kopper, 1993; Kopper & Epperson, 1991, 1996). For example, irrespective of sex, those who have identified with the stereotypical masculine role, with its emphasis on dominance and toughness, may experience and express their anger differently from those who have identified with the stereotypical sweet, "ladylike" role.

Gender role identity and anger research. In an early laboratory study that did not measure anger directly, Hoppe (1979) explored the relationship between gender role and aggression (retaliation with an electric shock) under conditions of provocation. All individuals tended to retaliate to some extent when provoked. Males with a masculine orientation aggressed more than any other group, regardless of sex of opponent or degree

of provocation. Females with a masculine orientation also showed a high level of aggression, but only against male opponents.

Three recent studies (Kopper, 1993; Kopper & Epperson, 1991, 1996) have directly explored the relationship of gender role identity to the experience and expression of anger. Gender role identification was measured with the short form of the Bem Sex-Roles Inventory, which yields four categories: masculine, feminine, androgynous (a mixture of masculine and feminine characteristics), and undifferentiated (a relative lack of either masculine or feminine characteristics). Different anger instruments were utilized in each of the three studies.

In the first study (Kopper & Epperson, 1991), anger experience and expression were assessed using the Trait Anger Scale and the Anger Expression Inventory. There were no significant gender effects; all significant relationships were accounted for by gender role identity. Those with a masculine identity scored significantly higher on trait anger than those with feminine, androgynous, or undifferentiated identities. In addition, those with masculine identity scored significantly higher than those with androgynous identity on anger-out, and both of these types scored significantly higher than either feminine or undifferentiated types. Feminine and undifferentiated types were more likely to suppress their anger than the androgynous group; they were not more likely to suppress it than those with a masculine identity. Androgynous and feminine types were significantly more likely to control their anger than were masculine types; undifferentiated types were not significantly different from any of the other groups.

While these gender role differences were significant, the amount of variance accounted for by gender role was not reported.

Stated differently, in this first study masculine types were more prone to anger, more likely to express their anger outwardly, and less likely to attempt to control it than the other groups. Feminine and androgynous types were most likely to attempt to control their anger, and feminine and undifferentiated types were more likely to suppress their anger than androgynous types. Androgynous types were more likely to express their anger outwardly than feminine and undifferentiated types, though less so than masculine types. Undifferentiated types were similar to feminine types, with less trait anger and anger-out, more anger suppression, and no significant difference from any of the other types on anger-control.

Kopper's second study (Kopper, 1993) lent support to the first findings. This expanded study again utilized the Trait Anger Scale and Anger Expression Inventory, and added several mental health variables, including anger-related scales from the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957) and the Interpersonal Behavior Survey (Mauger, Adkinson, Zoss, Firestone, & Hook, 1980). Consistent with the first study, there were no gender main effects for either trait anger or forms of anger expression. Findings for gender role identity were again consistent with the first study. Those with a masculine identity were more prone to anger. They were again most likely to express anger outwardly than the other groups, although in this study only significantly more than the feminine group. Those with a feminine identity were least likely to express anger outwardly. The feminine group was most likely to suppress their anger, but only

significantly more than the androgynous group. The feminine group was also most likely to attempt to control or modulate their anger, significantly more than all the other groups, which did not differ from one another.

With regards to the other anger-related variables, neither gender nor gender role was associated with suspicion or negativism. Men and those with a masculine identity scored significantly higher on aggressiveness and assault. Women and those with feminine identity scored significantly higher on dependency. Although women scored significantly higher on indirect hostility, there was no significant gender role association. In addition, although women scored significantly higher on irritability, it was those with a masculine role who scored significantly higher. Several factors were associated with gender role alone. The masculine role was associated with significantly more total hostility, verbal hostility, and assertiveness. The feminine role was associated with significantly higher guilt and conflict avoidance scores, and androgyny was associated with more resentment. As with the first study, amount of variance accounted for by gender, and gender role identity, was not reported.

In her third study, Kopper and Epperson (1996) utilized the same anger and hostility measures as in the second study (Trait Anger Scale, Anger Expression Inventory, Buss-Durkee Hostility Inventory, and Interpersonal Behavior Survey), as well as several other mental health measures. They factor analyzed the anger measures. Three highly correlated ($r = .43$ to $.67$) composite scores were identified: (1) aggressive acting-out, including physical aggressiveness; (2) a high level of acknowledged, poorly controlled anger expressed more verbally or indirectly (trait anger, anger-out, and an inverse anger-

control were included in this factor); and (3) anger suppression, with related resentment, suspiciousness, irritability, and passive aggressiveness. Gender was strongly related to aggressive acting out, with men scoring significantly higher (accounting for 16 percent of the variance). Although gender was statistically significant (men scored higher) with poorly controlled anger, the variance accounted for was only 3 percent. No significant gender differences were noted for anger suppression. Gender role, however, added significantly to the variance on all three composite scores, 18 percent, 17 percent, and 5 percent, respectively. The masculine gender role had small, positive correlations with aggressive acting out and with high levels of poorly controlled anger ($r = .18$ and $.23$, respectively), and was not significantly related to anger suppression. The feminine gender role had larger negative correlations with aggressive acting out and poorly controlled anger ($r = -.49$ and $-.34$, respectively), and was not significantly related to anger suppression. The androgynous gender role was unrelated to all three composite factors. The scoring method utilized in this study did not account for the undifferentiated type.

Taken together, findings across all three of Kopper's studies suggest that, consistent with gender stereotypes, the masculine role was associated with higher levels of anger expressed through both verbal and physical aggression, and fewer attempts at control. Also consistent with gender stereotypes, the feminine role was associated with less anger proneness, less aggressive acting out, and greater attempts to control anger. Contrary to the stereotype that femininity would be associated with anger suppression, no significant difference was found between the masculine and feminine roles on this

variable. Androgyny was associated with anger-control in the first study, but not in the second or third. Androgyny was also associated with less anger suppression in the first two studies, but not in the third. While this may be a scoring artifact, in that androgyny was determined by the median split method in the first and second studies and as the product of masculinity and femininity in the third, this gender role clearly needs more study. As reported in the first study, undifferentiated types scored similar to feminine types in trait anger, anger-out, and anger suppression.

Clearly, the influence of gender role socialization on the everyday experience and expression of anger deserves further investigation. In order to more fully explore this influence, it is necessary to review definitions of commonly used terms, the content of stereotypical masculine and feminine characteristics, and theories and measurement of gender role identification.

Gender Role Identification

Definitions. The words sex and gender do not have the same meaning. *Sex* refers to biological maleness and femaleness, usually decided at birth on the basis of genitals, while *gender* refers to the nonphysiological aspects of sex, such as the cultural expectations for femininity and masculinity. These two terms are often used interchangeably, however. *Gender-identity* refers to an awareness of and level of comfort with one's biological sex (Lips, 1988; Sedney, 1987).

Gender role, on the other hand, is the set of personality traits and behaviors socially defined as appropriate for one's sex in a given culture. These traits and behaviors represent the cultural construction of femininity and masculinity, and are

multidimensional. *Gender typing* (sometimes called *sex typing*) refers to the acquisition of gender role behaviors, and *gender typed* (also called *sex typed*) refers to the degree to which an individual conforms to the prescribed gender role. *Gender role identity* refers to the pattern and level of masculine and feminine characteristics adopted by an individual (Bem, 1981; Cook, 1985; Lips, 1988; Sedney, 1987).

Masculine and feminine characteristics. The nature of the characteristics stereotypically associated with each sex in Western society has been well-documented and appears repeatedly throughout the research. Though often called by different names, common threads run through each set or “cluster”.

Communion and expressivity form the core of the femininity cluster. Females are concerned with feelings and interpersonal relationships. Characteristics typically associated with communion/expressivity include: affectionate, submissive, emotional, cooperative, sympathetic, gentle, nurturing, selfless, concerned for the welfare of others, warmth, and sensitive to others (Bem, 1974; Cook, 1985; Lips, 1988; Lueptow, Garovich, & Lueptow, 1995; Spence & Helmreich, 1978).

Instrumentality and agency form the core of the masculinity cluster. The emphasis is on “getting the job done” and generally takes a cognitive, impersonal, and individualistic form. Characteristics typically associated with instrumentality/agency include: action, accomplishment, dominance, assertiveness, aggressiveness, independence, self-reliance, self-development, goal-orientation, and adventurousness (Bem, 1974; Cook, 1985; Lips, 1988; Lueptow et al., 1995; Spence & Helmreich, 1978).

Cross and Markus (1993) argue that the key feminine attributes of communion and expressivity require another person for their expression, which suggests that relationships with others will be important. In contrast, the key masculine attributes of instrumentality and agency suggest a separation from others.

In general, there is more agreement about the stereotypical masculine attributes than there is about the feminine (Lueptow et al., 1995).

Stability of gender role stereotypes. There is considerable evidence that gender role attitudes and behaviors regarding work, politics, and to a lesser extent family roles, have become less traditional in the past decades (Lueptow, 1985; Lueptow et al., 1995). Given these changes, one would expect a reduction in both gender stereotyping and stereotypic differences in personality traits reported by men and women. However, this has not been borne out in the empirical literature.

Lueptow and his colleagues (Lueptow et al., 1995) meta-analyzed 18 longitudinal studies and found remarkable stability in gender stereotypes and self-ratings along masculine and feminine lines. Their own longitudinal research encompassing the years 1974 through 1991 showed stability in perceptions of gender stereotypes. Although there was a slight tendency for both sexes to perceive the “typical male” to have become relatively more masculine and less feminine over the years, neither sex perceived change in femininity or masculinity for the “typical female”. Self-ratings of masculinity and femininity were also remarkably stable. Although both male and female students increased the level of their self-ratings on both masculinity and femininity, the difference

between males and females remained constant, and the balance of femininity and masculinity for either sex did not change significantly over the seventeen years.

These results were bolstered by Feingold's (1994) meta-analysis of gender differences reported in the literature from 1958 through 1992, and from standardized personality inventories from 1940 through 1992. His analysis also suggests that sex differences have remained constant. Males were found to have slightly higher self-esteem than females and to be more assertive. Females were higher than males in anxiety, extraversion, trust, and especially, tender-mindedness (nurturance). The personality dimensions that most strongly differentiated between the sexes were assertiveness and tender-mindedness, which are consistent with the stereotypes of instrumentality and expressiveness, respectively. These gender differences were generally constant across ages, years of data collection, educational levels, and nations.

In summary, it appears that despite the changes in U.S. culture, both gender stereotypes and self-ratings along gender lines are surprisingly stable. Moreover, while stereotypes--by their nature--tend to exaggerate or distort the actual degree of differences between groups, "the idea that gender stereotypes exaggerate reality has yet to receive convincing empirical support" (Eagley, 1995, p. 154).

Theories of gender role identification. Several theories attempt to account for gender role identification and the acquisition of gender-typed behavior. They are: sociobiology, psychoanalytic, social learning, cognitive-developmental, and gender schema.

Sociobiology theory. Wilson (1975) proposes that all animal behavior, including human social behavior, has a biological basis and has evolved over eons of time in order to maximize the probability of reproductive success and thus the survival of one's own genes. According to this theory, men and women face substantially different reproductive challenges, and as such have developed different characteristics in order to successfully attract and compete for access to desirable mates. For women, reproduction involves a greater and more time-consuming commitment than for men, so women faced the problem of securing a reliable supply of resources to carry them through pregnancy and lactation. They evolved with the tendency to be warm and nurturing, to prefer communal groups that can aid in the rearing of their young, and to be skilled at smoothing over relationships so as not to be abandoned during the vulnerable reproductive years. On the other hand, men faced the problems of uncertain paternity and potentially investing their resources in children who were not their own. They thus evolved with more emphasis on mastery and aggression as ways to attract mates and keep them within their control so as to maximize the chances that their own genes would survive (Buss, 1995; Lips, 1985).

In contrast to the strict biological foundations of sociobiology, other theories place more emphasis on the psychosocial origins of gender differences.

Psychoanalytic theory. Freud located the origins of gender differences in anatomy and early parent-child relationships. According to this theory, boys and girls pass through several psychosexual stages. In each stage, the developing child needs to harness libidinal (sexual) energy and express it in socially acceptable ways. Gender role identification occurs during the phallic stage, between the ages of three and five.

A little boy makes two important discoveries during this stage; his penis is a source of pleasure, and girls do not have one. With some vague notion of what a penis is for, he develops a sexual interest in his mother and competes with his father for her affections. This creates anxiety, for he fears his more powerful father may retaliate by castrating him (“castration anxiety”). This conflict between desiring mother and fearing father is the Oedipal conflict. In order to retain his penis, the young boy eventually gives up competing with his father. He keeps his mother as a love object by identifying with the father and striving to become like him. In the process, the young boy incorporates many of his father's values and attitudes about masculinity.

The development of gender role identification is more complex for little girls. The little girl realizes she lacks a penis and responds with feelings of loss and envy (“penis envy”). She turns away from her mother (who is seen as inferior since she also lacks a penis), and transfers her energy to her father as a love object, which constitutes the Electra complex. The resolution of her Electra complex occurs as she gradually gives up hope her father will give her the penis she wants and replaces it with a passive, feminine relationship to him. Her wish for a penis is then transferred to a wish for a child, especially a male child. She is able to keep her father as a love object, but gains him through identification with her mother. However, since she does not have a penis to lose, she does not fear her mother's retaliation, and her identification is not as strong as a boy's is to his father (Basow, 1992; Golombok & Fivush, 1994; Lindsey, 1997; Lips, 1988).

According to traditional psychoanalytic theory, male development is seen as superior to that of female development, since castration anxiety is considered stronger

and harder to resolve than penis envy. In addition, based on the biological aspects of sexual union, masculinity is identified with activity and femininity with passivity. More recent formulations of this theory, however, have posited that it is the ability of the girl to identify with her mother that brings about the desirable female traits of relatedness and connection (Chodorow, 1978).

Social learning theory. Bandura (1977) and Mischel (1966) view the acquisition of gender-typed behaviors as products of learning and stress the importance of the environment. Children's behavior is shaped by the rewards and punishments that they directly receive for sex appropriate or inappropriate behaviors, as well as by vicarious learning provided by observation and modeling. Modeling and reinforcement may interact, with modeling involved in the acquisition of behaviors, and reinforcement determining whether the learned behavior is performed or not (Golombok & Fivush, 1994; Lindsey, 1997; Lott & Maluso, 1997).

Girls inhibit aggression and are more communal than boys, and boys are more instrumental and aggressive than girls, because each sex is reinforced for different behaviors. Right from birth, parents have different perceptions and expectations of their sons and daughters (Golombok & Fivush, 1994) and treat them accordingly. This differential treatment--from clothes to toys--has far-reaching effects on children. Boys' toys encourage invention, manipulation, and understanding of the physical world, while girls' toys encourage imitation of and proximity to the caretaker, and understanding of the interpersonal and social world. Boys have a greater opportunity to explore the physical world, which gives them a greater sense of competence and mastery than girls (Block,

1983). Also present early in life are conditions for learning an association between gender and expectations for aggressive behavior. Parents discourage aggression more in girls (Lytton & Romney, 1991), and there are few aggressive female models available (Eron, 1980). However, both sexes can learn aggressive responses. In a classic example by Bandura (1965), boys were more likely to act aggressively after viewing an aggressive model. Yet, when incentives for behaving aggressively were introduced, the gender difference disappeared, emphasizing the importance of the differential reinforcement histories boys and girls have.

Although often criticized for portraying children as passive recipients of socialization (Lips, 1988), contemporary social learning theory emphasizes children's cognitive skills, such as the ability to classify males and females into distinct groups, and to recognize personal similarity to one of these groups (Bandura, 1986; Bussey & Bandura, 1984). Children do not then simply imitate same sex models. Instead, they learn which behaviors are appropriate for each sex by observing differences in the frequencies with which males and females perform certain behaviors in given situations. They form concepts of masculinity and femininity and then use these abstractions of sex appropriate behaviors as models for their own behavior (Perry & Bussey, 1979).

Cognitive-developmental theory. Kohlberg (1966) emphasized maturational changes in thinking processes and the active role children take in organizing their social worlds. Children try to make sense out of the world around them and construct ideas and hypotheses about how it works. "Schemas", networks of associations that impose structure and meaning on the vast array of incoming stimuli, are developed. That which

is associated with the self becomes a well-valued, central part of identity and invested with strong emotional attachment.

Children as young as one or two years of age can distinguish between male and female. By the age of three, children recognize gender is an important category and use it for dividing up the world. They can consistently label themselves as male or female, often accurately apply gender related labels to others, and begin to associate particular activities and traits with one gender or the other. However, it is a firm sense of gender constancy, which occurs at around age five, that accounts for gender typing. At this time children identify with their own sex, prefer their own sex, and are motivated to engage in gender appropriate activities and develop gender appropriate qualities.

Though external reinforcements are important in cognitive developmental theory, children are essentially directed by the need to perform roles congruent with their own sense of self and structure their experiences to be consistent with how they have categorized themselves. Information about which attributes are to be linked with their sex, and hence themselves, comes from a variety of sources, such as adults, peers, stories, television, and so forth (Basow, 1992; Cook, 1985; Golombok & Fivush, 1994; Lindsey, 1997).

These traditional theories of gender role identification differ from each other in the processes they emphasize for gender role development. Sociobiology emphasizes reproductive success and the survival of one's genes, psychoanalytic theory emphasizes identification with the same-sex parent, social learning theory emphasizes the importance of rewards and learning through observation and modeling, and cognitive developmental

emphasizes the child's developing cognitive skills and self-schemas. Although social learning and cognitive developmental theories leave more room for diversity, these theories are similar, in that the desired end of normal development is the adoption of a masculine gender role for males and a feminine gender role for females. More recent androgyny theories, as represented by Bem's gender schema theory, account for both masculine and feminine characteristics in the normal adult.

Gender schema theory. Bem (1974, 1981) builds upon cognitive developmental and social learning theories, positing that gender-typing is both mediated by the child's own cognitive processing and is a learned phenomenon. Children invariably learn society's cultural definitions of femaleness and maleness and encode and organize information around these definitions into gender schemas. Gender schema theory, however, acknowledges that there are wide individual differences in the importance placed on gender as a way of understanding the world and the extent to which one's personality and behavior are measured against these idealized standards.

According to this theory, gender-typed individuals ("gender schematic") are seen as differing from other individuals primarily in terms of whether or not their self-concepts and behaviors are organized on the basis of gender, rather than primarily in terms of how much masculinity or femininity they possess. Gender-typed individuals have internalized society's sex-appropriate standards, are strongly motivated to keep their behavior consistent with them, and use these standards to evaluate their adequacy as people. Their self-concept, in fact, becomes assimilated into the gender schema and subordinated to it, and "...self-esteem becomes its hostage" (Bem, 1981, p. 355). In addition, reliance on

gender schemas as prescriptive guides results in a limited range of behaviors, which may cause problems in adjusting to certain situations (Bem, 1974, 1981).

In contrast, individuals who are not gender-typed are less inclined to process information about themselves in terms of gender schema (“gender aschematic”). They are much less sensitive to masculinity- and femininity-based definitions of desirable behavior and thus are freed from the need to conform to them. Bem believes this results in a more flexible adaptation to a variety of situations (Bem, 1981; Cook, 1987).

The emphasis of gender schema theory is on the *how* of thinking, rather than the specific content (Bem, 1981). The presence of gender schema presumably acts as a lens, shaping how one perceives, and then reacts to a range of information. As mentioned previously, Cross and Markus (1993) argue that those with the feminine gender schema, with its emphasis on communion, will attend to connection with others, while those with the masculine gender schema, with its emphasis on separateness, will pay less attention to the interpersonal world. These two gender schemas will be “tuned” to different kinds of information and process it differently (Markus & Oyserman, 1989). Markus and Cross (1993) further contend that the feminine gender schema explains what Belenky, Clinchy, Goldberger and Tarule (1986) have called “women's ways of knowing”. This feminine form of processing is based on connection and avoids behaviors that would violate it, such as disagreeing, arguing, or making negative judgments. In contrast, processing that is based on separation and autonomy would see doubting, challenging, arguing, and looking for errors as necessary and desirable.

Bem's early theorizing saw androgyny as the desired outcome of development in that it provided a "liberated and more humane alternative to the traditional, sex-biased standards of mental health" (Bem, 1981, p. 362). The concept of androgyny could also be applied equally to both men and women, encouraging individuals to embrace both the masculine and feminine within themselves, thereby providing a greater set of behaviors from which to draw. More recently, she has seen the ideal of androgyny as yet another tyranny, in that it has replaced a prescription to be masculine *or* feminine with a prescription to be *both*, thereby giving the individual not one but two potential sources of inadequacy with which to contend. She now sees the ideal as a gender aschematic society (Bem, 1981).

Measurement of gender role identity. Early measures of masculinity and femininity were based on the assumption that they were bipolar ends of a single masculinity-femininity dimension. An individual would obtain a single summative score, placing him or her somewhere along a continuum between extreme masculinity and extreme femininity. Masculinity and femininity were seen as logical reversals, with high masculinity meaning low femininity and low femininity meaning high masculinity. Sex-linked characteristics were seen as most desirable. These early measures were inadequate to measure the reconceptualization of masculinity and femininity as separate dimensions which could vary independently of each other, as well as to represent between and within sex differences and similarities (Bem, 1974; Constantinople, 1973; Cook, 1985, 1987).

Current androgyny instruments reflect these changes in conceptualization. An individual receives both a masculine and a feminine score, and both scores are free to

vary independently. The notion of sex-linked characteristics has also been reconceptualized; present-day scales imply that having both masculine and feminine characteristics is most desirable for both sexes (Cook, 1985).

Of the several instruments available to measure gender typing, the Bem Sex-Roles Inventory (BSRI) (Bem, 1974) and the Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1975) are the most widely used. Each instrument is based on different assumptions, and each classifies individuals into one of four gender role categories: feminine (high feminine, low masculine), masculine (high masculine, low feminine), androgynous (high feminine, high masculine), and undifferentiated (low feminine, low masculine).

The Bem Sex-Roles Inventory was designed to discriminate individuals who restrict their behavior to culturally defined sex-appropriate behavior (gender-typed) from individuals who do not (androgynous and undifferentiated). It is based on two theoretical assumptions. First, the traditional categories of masculinity and femininity are desirable and well understood by all members of the culture. Second, "...individuals vary in the extent that they use these cultural definitions as idealized standards of femininity and masculinity for evaluating their own personality and behavior" (Bem, 1979, p. 1048). The BSRI is comprised of items judged to be more desirable in American society for one sex than the other. Bem attempted to make the absolute social desirability of the feminine scale similar to that of the masculine scale by including a number of feminine attributes somewhat lower in social desirability, such as "gullible" (Bem, 1974; Payne, 1985).

The BSRI has been criticized on several counts. Spence (Spence, 1991; Spence & Helmreich, 1981) contends that the BSRI cannot simultaneously measure a single, unitary construct such as gender schemas, and two independent constructs, such as masculinity and femininity. She also contends that global masculine and feminine self-images cannot be measured. Bem counters that the BSRI is not intended to serve as a measure of gender schematic processing per se. Its purpose is to discriminate between gender-typed individuals and those who are not, for the purpose of further research (Bem, 1981b).

The BSRI has been criticized for neither defining the domains of masculinity and femininity (Pedhazur & Tetenbaum, 1979) nor for covering the full range of the ways men and women stereotypically differ in American society (Payne, 1985). Bem asserts that these domains do not need definition because gender-typed individuals will conform to whatever definitions the culture happens to provide (Bem, 1979, 1981b, 1985).

A further criticism is that the BSRI is not factorially pure (Payne, 1985). Factor analytic studies typically identify two masculinity factors (assertiveness and self-sufficiency), one femininity factor (interpersonal sensitivity and warmth), and a fourth factor correlated with biological sex comprised of three items (“masculine”, “feminine”, and “athletic”) (Lippa, 1985; Bem, 1981c). Bem (1981b, 1985) argues that this is not necessarily inconsistent with her original rationale for developing the scale, in that society's stereotypes are not necessarily consistent.

A short form of the Bem Sex-Roles Inventory, containing half of the items of the long form, was developed to increase internal consistency. Items with poor correlations were deleted, as well as “feminine”, “masculine”, and “athletic”. The relatively socially

undesirable items of the feminine scale, such as “gullible” and “childlike” were also deleted (Bem, 1979). While psychometrically improved, the short form of the BSRI more accurately reflects instrumental and expressive traits (Payne, 1985). Although the BSRI short form scales correlate with the corresponding original scales around .90, the BSRI short form feminine score is often significantly higher than on the original BSRI (Lippa, 1985). Bem herself does not use the BSRI short form in her research; Lubinski, Tellegen, and Butcher (1983) concluded that it and the PAQ are interchangeable, and Spence (1983) referred to it as “in essence, another PAQ.”

In contrast to the BSRI, the Personal Attributes Questionnaire (Spence et al., 1975) is based on the more narrow trait conception of masculinity and femininity, of which instrumentality and expressiveness are but two. It is comprised of socially desirable instrumental and expressive items (Spence et al., 1975). While these trait dimensions have implications for many kinds of socially important behaviors, Spence and Helmreich (1979) are firm in their belief that they are not corollaries of global masculinity and femininity; the focus of this instrument is specific to instrumentality and expressivity.

Wilson and Cook agree with Spence, stating that the PAQ may be the more precise measure of instrumental and expressive trait dimensions. The more heterogeneous BSRI may represent a broader range of personality characteristics and behaviors however, and thus is the measure of choice for studies exploring stereotypic gender role behavior (Wilson & Cook, 1984), such as this study.

Both the BSRI and the PAQ are most commonly scored using the median split method, which produces a four-fold classification: masculine, feminine, androgynous (above the median on both) and undifferentiated (below on both). This method has been criticized as imprecise, particularly in classifying individuals whose scores fall close to the median (Pedhazur & Tetenbaum, 1979; Sedney, 1981). Other researchers have suggested that utilizing an upper and lower quartiles approach (Sedney, 1981) or scoring masculinity and femininity as continuous variables in analyses of variance or regression equations may be more appropriate choices (Cook, 1987; Kalin, 1979). However, Bassoff and Glass (1982) have reported that the average correlations between the BSRI and numerous measures of psychological health were similar for several scoring methods. Therefore, this study will utilize the method most commonly employed, the median split.

Models of gender role and mental health. Three models deal with the relationship between gender role stereotypes and mental health: congruence, androgyny, and masculinity.

The *congruence model*, based on traditional theories of gender-typing, suggests that normal development leads to the acquisition of sex-appropriate characteristics. Any behavior not congruent with the same-sex role is evidence of pathology (Bem, 1985; Lips, 1988). This model has not been supported in the empirical literature and may be antithetical to good adjustment, especially for females. For example, the landmark Broverman study (Broverman, Broverman, Rosenkrantz & Vogel, 1970) found that a preponderance of mental health professionals held one set of ideals for healthy, functioning adults and men and another for healthy, functioning women. Healthy women

were described as being less independent and adventurous and more submissive, emotional, easily hurt and influenced than healthy adults and males. Broverman argued that these ideals put women in a double-bind; if they met the mental health standards for women, they did not meet them for the general adult population. If they met the standards for healthy adults, they would be characterized as unfeminine--not congruent with their same-sex role--and thus poorly adjusted.

The *androgyny model*, introduced by the pioneering works of Bem (1974) and Spence (Spence et al., 1975) and fueled by the women's movement, argued that strict adherence to traditional gender roles could restrict behavior in unnecessary and dysfunctional ways (Robinson & Green, 1981). This model offered an alternative conceptualization that suggested the blending of both masculine and feminine traits within an individual might lead to greater psychological health. The association of androgyny with mental health is a "newly discovered old concept" (Cook, 1985, p. 18). For example, Jung (1933) postulated that masculinity and femininity exist in everyone, and both traits strive for recognition and integration within the individual. He saw integration of these cross-sex characteristics, as well as other opposing forces within the individual, as essential to personal wholeness.

The benefits of the androgyny model and its subtypes have been studied extensively, with research most often focusing on flexibility of behavior and psychological health. Early studies generally corroborated Bem's argument that androgynous individuals exhibit better psychological health and adjustment. Androgyny was related in both sexes to high levels of independence and nurturance (Bem, 1975),

behavioral flexibility (Orlofsky & Windle, 1978), interpersonal flexibility (Wiggins & Holzmuller, 1981), personal adjustment (Flaherty & Dusek, 1980), and tolerance for ambiguity (Rotter & O'Connell, 1982). Androgynous individuals scored higher than their counterparts on ego development (Prager & Bailey, 1985), although Schwarz and Robins (1987) were unable to replicate this finding. Androgynous men reported less depression, anxiety, and social distress than all other groups, and androgynous women reported less depression and anxiety than feminine-typed women (O'Heron & Orlofsky, 1990). Teachers with an androgynous identification reported greater job satisfaction and less stress than gender-typed and undifferentiated individuals (Eichinger, Heifetz, & Ingraham, 1991). Androgynous women who adhered to a "superwoman ideal" (desired to excel in many roles) had relatively low potential for eating disorders when compared to those with masculine and feminine orientations (Thornton, Leo, & Alberg, 1991). For men, androgynous orientation was predictive of greater life satisfaction than a masculine orientation (Ramanaiah, Detwiler, & Byravan, 1995).

In contrast, strong masculine or feminine identification was associated with restricted behavior, behavioral inflexibility and a tendency not to adapt one's role to the requirements of unfamiliar situations (Bem & Lenney, 1976; Bem, Martyna, & Watson, 1976). Gender-typed and undifferentiated individuals demonstrated a more concrete cognitive style and intolerance for ambiguity (Rotter & O'Connell, 1982).

Undifferentiated individuals are widely described in negative terms (Cook, 1985). They demonstrated the lowest behavioral adaptability (Orlofsky & Windle, 1978) and scored below androgynous and gender-typed individuals in terms of ego development

(Prager & Bailey, 1985). Undifferentiated men report more depression, anxiety, and social distress, and are less secure in their gender identity (O'Heron & Orlofsky, 1990). It is interesting to note, however, that Thornton's study of eating disorders showed undifferentiated "superwomen" were similar to androgynous individuals in their lower risk for developing an eating disorder (Thornton et al., 1991). In general, however, systematic investigation of the undifferentiated individual is lacking (Cook, 1985).

Four meta-analyses of the androgyny and psychological health literature challenged the androgyny model and lent support to the *masculinity model*. According to this model, psychological well-being is a function of the extent of the masculine component of one's personality, regardless of one's sex. Taylor and Hall (1982) concluded that it was masculinity rather than androgyny that predicted psychological well-being. Bassoff and Glass (1982) also found a strong positive association between masculinity and mental health. Although androgyny was associated with higher levels of mental health than femininity, it was the masculine component of androgyny rather than the integration of femininity and masculinity that accounted for this. Whitley (1983) reported that while both masculinity and femininity were related to self-esteem in both sexes, it was the masculine component that carried the greater weight (27 percent versus 3 percent of the variance). Whitley found consistent results when he analyzed studies of androgyny and psychological well-being and adjustment (excluding self-esteem). Masculinity had a moderately strong relationship to both high general adjustment and lack of depression, while again, femininity had only a small relationship to general adjustment. Femininity appeared to be a largely irrelevant component of androgyny, at

least on measures of mental health (Whitley, 1984). In addition, in a review of the adolescent psychological literature, Markstrom-Adams (1989) found that it was masculinity and the masculine component of androgyny that was most associated with adolescent psychosocial well-being for both sexes.

Other studies have found similar results. McCann, Stewin, and Short (1991) found that masculinity was related to lower degrees of reported worry, while femininity showed no relationship. Elpern and Karp (1984) concluded that for males, higher masculinity scores are associated with less depression. Ramanaiah, Detwiler, and Byravan, (1995) reported that for women, the masculine orientation (either as masculine or as androgynous) was more predictive of life satisfaction than femininity, although androgyny was more predictive for men. Men and women in the Israeli military scoring high in masculinity had better self and peer ratings than did those low in masculinity. For both sexes, superior adjustment was associated with instrumental masculine qualities. Androgynous men and women, gender-typed men, and cross sex-typed women saw themselves as most likely to succeed. It is important to note that military service is compulsory for both sexes in Israel (Dimitrovsky, Singer, & Yinon, 1989).

Less well studied are the negative aspects of masculinity and femininity. High masculinity in males has been associated with less helping behavior (Siem & Spence, 1986), and androgynous and masculine typed men and women obtained significantly higher Type-A scores than feminine and undifferentiated individuals (Stevens, Pfof, & Ackerman, 1984). As mentioned earlier, the masculine role has been associated with

higher levels of anger expressed both verbally and aggressively, and fewer attempts of anger control (Kopper & Epperson, 1991, 1996; Kopper, 1993).

In a study of both clinical and non-clinical middle-aged women, depression scores were positively correlated with their femininity scores (Tinsley, Sullivan-Guest, & McGuire, 1984). Elpern and Karp (1984) found the greatest depressive symptomatology in feminine females, with masculine males and androgynous males and females reporting the lowest depression, although O'Heron and Orlofsky (1990) found no relationship between the feminine role in women and depression, anxiety, and social distress. These results are consistent with Whitley's (1984) meta-analysis, which found that the relationship between femininity and depression was largely unstable.

Summary of gender role models. The three prevailing models used to study the relationship between gender role and mental health--congruence, androgyny, and masculinity--have all made significant contributions to the gender role literature while also exhibiting significant flaws. The congruence model is clearly the most defective, with subsequent research soundly discrediting its argument that individuals who deviate from traditional gender role standards are unhealthy. Still, its basic concept pointed researchers in the direction of paying attention to the phenomenon of individuals' adherence or non-adherence to traditional gender roles and thus has residual value.

Research based on the androgyny model has yielded valuable information showing that a certain amount of flexibility in adopting both masculine and feminine gender role behavior is more healthy than rigid adherence to one end of the gender spectrum. Later studies, however, have shown that women benefit more from androgyny

than do men; that is, women who adopt masculine traits gain more than do men who adopt feminine characteristics. These studies challenged the androgyny model and have concluded that the ability to adopt behaviors considered masculine, regardless of one's sex, may be most predictive of psychological health.

Summary. Two bodies of empirical literature have been reviewed in this study, the experience and expression of anger, and gender role identification. Somewhat contrary to our cultural expectations and stereotypes, gender is not nearly as strong a predictor of anger as might be expected, the effect size for gender was small or non-existent, and the relationships were often contradictory. The exploratory research of Kopper and Epperson attempted to capture what was going on by examining the influence of gender role identification. They identified significant relationships between gender role and several anger variables. Their three studies became progressively more complex. The first study explored the relationship between basic elements of anger and gender role, the second and third studies added several other anger indices and explored their relationships with mental health variables, and the third study attempted to distill these anger elements into broad patterns.

However, although Kopper and Epperson contributed significantly to the literature, their studies were lacking in two respects. First, several basic dimensions of trait anger were not included in their studies, such as angry temperament and reaction, anger arousal (frequency, duration and intensity), and range of anger-eliciting situations. Further, assessing discomfort with one's own anger was omitted, in that the Anger Discomfort Scale had not been developed at the time of their first study. Second, they

utilized the short form of the Bem Sex Roles Inventory, which is a more narrow instrument that is confined to measuring instrumentality and expressiveness alone. While these are central constructs in the study of gender role, the more heterogeneous original Bem Sex-Roles Inventory is considered the instrument of choice when exploring stereotypic gender role behavior.

Purpose of this study

State-trait anger theory (Spielberger et al., 1983) suggests that people differ in the experience and expression of anger. Therefore, the following dimensions of anger were measured in this study: trait anger, angry temperament and angry reaction, anger arousal (frequency, intensity, and duration), modes of anger expression (negative outward expression, anger suppression, and the control of anger), and discomfort with one's own anger.

State-trait anger theory predicts positive correlations between trait anger and frequency, intensity, and duration of anger, range of anger-eliciting situations, negative outward expression of anger, and anger suppression. A negative correlation with anger control was anticipated. The relationship between trait anger and anger discomfort has not been reported in the literature; this relationship was explored in this study. It was anticipated that anger discomfort would form positive correlations with anger suppression and negative outward expression of anger, and a negative correlation with anger control.

This study also explored the relationship of gender and gender role identification to the above variables, and assessed the predictive ability of gender role identity over gender in regards to these variables.

CHAPTER II

METHOD

Participants

Participants were 447 (228 males and 219 females) undergraduate students recruited from Colorado State University introductory psychology classes. Ages ranged from 18 to 43 (M age = 20.20). Freshmen comprised 53.8% of the sample, sophomores 25.8%, juniors 10.5%, and seniors 9.9%. Breakdown by age, class standing, gender, and gender role is found in Table 1. Each student was given one of three required research credits for participation.

Instruments

Trait Anger Scale (TAS). The Trait Anger Scale (Spielberger, et al., 1983) is a 10-item, Likert-type questionnaire measuring the relatively stable personality dimension of proneness to anger. Respondents rate how they generally feel on a 4-point scale (1 = not at all to 4 = very much so). Total scores range from 10 to 40, with higher scores indicating a greater tendency to experience state anger and to perceive more situations as anger provoking (Spielberger et al., 1983). In addition to the total score, the Trait Anger Scale can be further divided into two 4-item subscales, Angry Temperament and Angry Reaction. Angry Temperament items describe individual differences in the disposition to express anger, without specifying any provoking circumstances, (e.g., "I have a fiery

Table 1**Number of Subjects per Group, Percentage in Sample, Mean Age, and Standard****Deviation of Subjects by Gender and Gender Role Categories**

Gender Role	n	Percent of Sample	M Age	SD
Males	228	51.0	20.50	2.83
Masculine	106	23.7	20.20	2.10
Feminine	15	3.4	22.07	3.61
Androgynous	52	11.6	21.17	4.05
Undifferentiated	55	12.3	20.02	2.17
Females	219	49.1	19.90	2.84
Masculine	18	4.0	20.61	3.87
Feminine	107	24.0	19.86	2.97
Androgynous	53	11.9	19.32	1.59
Undifferentiated	41	9.2	20.44	3.13

Note: Categories are based on median splits of 5.05 and 4.80 for masculine and feminine items.

temper.”) The Angry Reaction items describe anger responses in situations that involve frustration and/or negative evaluations (e.g., “When I get frustrated, I feel like hitting someone.”) Two items spread across both factors, and appear to describe reactions when someone feels angry or frustrated, but do not specify the anger-provoking circumstances (e.g., “When I get mad, I say nasty things”) (Spielberger et al., 1983.) Van der Ploeg (1988) has provided cross-cultural support for these two dimensions.

Alpha coefficients for the TAS range from .81 to .91 (Fuqua et al., 1991; Spielberger, 1988; Spielberger et al., 1983), and was .87 in this study. There is a pattern of increasing internal consistency for older, better-educated individuals (Spielberger et al., 1983). Test-retest reliability coefficients of .70 to .77 over a two week interval have been reported (Jacobs, Latham, & Brown, 1988). Alpha coefficients for the Angry Temperament subscale ranged from .81 to .95, and from .64 to .93 for the Angry Reaction subscale (Fuqua et al., 1991; Spielberger et al., 1983), and were .90 and .70, respectively, in this study.

The TAS correlates strongly with other anger and hostility measures, such as the Buss-Durkee Hostility Inventory total score and the Symptom Checklist-90-Revised (SCL-90-R) Hostility Scale, and moderately with the Hostility and Overt Hostility Scales of the Minnesota Multiphasic Personality Inventory (Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger, 1988; Spielberger et al., 1985). The TAS correlated essentially zero with curiosity and with the Eysenck Personality Questionnaire Extraversion scale (Spielberger & Snyderman, 1993). Trait anger has a strong positive correlation with the frequency of state anger; this relationship is stronger than trait anger's correlation with

other common emotions such as anxiety and depression, and behaviors such as drunkenness (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996). In addition, the Trait Anger Scale successfully discriminates high from low anger groups (Deffenbacher, 1992; Deffenbacher et al., 1986; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger, 1988). It also moderately correlates with trait anxiety (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger et al., 1985). The TAS has been criticized as being heavily weighted with negative evaluation situations (e.g., being criticized in front of others) rather than other types of anger provoking situations (Torestad, 1990). It also did not differentiate between angry and non-angry young offenders (McDougall, Venables, & Roger, 1991).

Multidimensional Anger Inventory (MAI) (Siegel, 1986). The 8-item Anger Arousal Scale from the MAI is a brief, factor analytically derived scale that measures frequency, duration, and intensity of the respondent's anger (e.g., "I tend to get angry more often than most people," and "When I get angry, I tend to stay angry for hours"). Respondents rate themselves on a 5-point Likert-type scale (1 = completely un-descriptive to 5 = completely descriptive). Alpha coefficients range from .82 to .83 (.86 for this study), and test-retest reliability for the total scale at three to four weeks was .75. The Anger Arousal scale correlated significantly with the Harburg Anger-In/Anger-Out Scale's duration and magnitude scores ($r = .23$ and $.34$, respectively), the Novaco Anger Inventory's magnitude score ($r = .21$), and the Buss-Durkee Hostility Inventory composite score ($r = .59$). A moderate correlation exists with trait anxiety ($r = .54$) (Siegel, 1986). In the present study, the Anger Arousal Scale was used to assess how men and women

experience anger. The 7-item Range of Anger-Eliciting Situations Scale is a brief factor analytically derived scale that spans several commonly-occurring provoking situations (e.g., “Some of my friends have habits that annoy me very much”). Respondents rate themselves on a 5-point Likert-type scale (1 = completely unresponsive to 5 = completely responsive). Alpha coefficients range from .77 to .80 (.75 for this study). This scale correlates highly ($r = .59$) with the Novaco Anger Inventory. A positive correlation exists with trait anxiety ($r = .29$). College students score significantly higher than factory workers on this scale (Siegel, 1986). In the present study, this scale was used as a brief measure of anger responsivity to a variety of situations. No gender differences have been reported for either of these scales.

Anger Expression Scale (AX). The Anger Expression Inventory (Spielberger, 1988; Spielberger et al., 1988) is a 24-item inventory which assesses how angry feelings are expressed. It is comprised of three 8-item subscales: (a) Anger-In (AX-In), which taps strong suppression of angry feelings (e.g., “I boil inside, but I don't show it”); (b) Anger-Out (AX-Out), the expression of anger toward other persons or objects in the environment (e.g., “I say nasty things”); and (c) Anger-Control (AX-Con), the frequency an individual attempts to lower or reduce angry feelings (e.g., “I keep my cool”). Subjects rate on a 4-point scale (1 = almost never to 4 = almost always) how often they generally react in the manner described when they feel angry or furious. Higher scores on the AX scales reflect greater reported tendencies to use each style in expressing anger.

Alpha coefficients range from .73 to .84 for the AX scales (Fuqua et al., 1991; Spielberger et al., 1985), and .74 to .82 in this study. Three-week test-retest reliabilities

range from .64 to .86 (Jacobs et al., 1988). In general, AX-In and AX-Out scores decrease and AX-Con scores increase as a function of age (Spielberger, 1988).

Correlations between AX-In and AX-Out are essentially zero for men and women, suggesting empirical independence and factorial orthogonality (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Fuqua et al., 1991; Spielberger, 1988; Spielberger et al., 1985). Correlations of AX-In and AX-Con are essentially zero (Deffenbacher 1992; Spielberger et al., 1985; Spielberger, 1988). Negative correlations ($r = -.47$ to $-.60$) of AX-Con with AX-Out have been consistently found (Collins & Hailey 1989; Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Fuqua et al., 1991; Spielberger et al., 1985). In summary, AX-In is unrelated to AX-Out and AX-Con, and AX-Out and AX-Con are significantly and inversely related to each other.

Significant positive correlations have been found between AX-Out and AX-In and the TAS ($r = .18$ to $.71$), while significant negative correlations have been reported between AX-Con and trait anger ($r = -.64$ to $-.58$). However, the overall strength of the correlations tended to be stronger for AX-Out and AX-Con with trait anger than for AX-In and trait anger (Collins & Hailey 1989; Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger et al., 1988).

AX-In has a strong correlation ($r = .57$ to $.72$) with the BDHI Covert Hostility Scale, and AX-Out has a strong correlation ($r = .44$ to $.56$) with the BDHI Overt Hostility Scale. AX-Con has a strong negative correlation with the BDHI Overt Hostility Scale ($r = -.53$ to $-.65$) and slightly smaller negative correlations with the BDHI Covert Hostility Scale ($r = -.44$ to $-.48$) (Schill, Ramanaiah & Conn, 1990).

Assertiveness correlated positively with AX-Out ($r = .34$) and was negatively correlated with AX-In ($r = -.12$) (Spielberger et al., 1988).

Higher diastolic blood pressures are associated with high AX-In scores, and there is also a trend for lower diastolic blood pressures to be associated with higher AX-Out scores (Spielberger et al., 1988).

The AX-In and AX-Out subscales have significant ($r = .15$ to $.50$) correlations with trait anxiety and an essentially zero correlation with curiosity (Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger et al., 1985). AX-In and AX-Out scores were not related to social desirability (Spielberger et al., 1988).

Anger Discomfort Scale (ADS). The Anger Discomfort Scale (Sharkin & Gelso, 1991) is a 15-item measure of how uncomfortable people feel about their own anger. Items are rated on a 4-point Likert-type scale (1 = almost never to 4 = almost always), in terms of how characteristic the items are for the respondent. Total scores range from 15-60, with higher scores reflecting greater discomfort. The Anger Discomfort Scale consists of four factors: (a) intrapersonal discomfort with one's own anger (e.g., "I am troubled by my anger"), (b) positive views of and comfort with one's own anger (e.g., "I feel comfortable with my angry feelings") (these items are reverse scored), (c) interpersonal discomfort with one's own anger (e.g., "I would prefer that people not see me when I am angry"), and (d) outcomes associated with being angry (e.g., "I create more problems for myself when I get angry").

The Anger Discomfort Scale total score has an alpha coefficient of .81 (.80 in this study). No alpha coefficients have been reported in previous studies for the four factors.

Because they were marginal or unacceptable (.48 to .72) for three out of four of the factors (interpersonal discomfort, positive views of one's own anger, and outcomes associated with being angry), only the total anger discomfort score was used in this study. Test-retest reliability of .87 over a one-week period has been reported. The total score correlates positively with AX-Out ($r = .20$) and AX-In ($r = .32$), and negatively with AX-Con ($r = -.16$). It also has a substantial positive correlation with trait anxiety ($r = .51$), and no significant correlation with social desirability or combined Scholastic Aptitude Test scores (Sharkin & Gelso, 1991).

Bem Sex-Roles Inventory (BSRI). The Bem Sex-Roles Inventory (Bem, 1981c) is a 60-item, Likert-type questionnaire developed to discriminate between those individuals who classify their behavior in accordance with one of two gender stereotypes (masculine and feminine) and those who do not. It consists of 60 personality attributes: 20 masculine items (e.g., assertive, dominant), 20 feminine items (e.g., gentle, understanding), and 20 filler, neutral items (e.g., happy, reliable). The respondent is asked to indicate on a 7-point scale from 1 (never to almost never) to 7 (always or almost always true) regarding how well each item describes him or her. Each respondent receives an average score (i.e., total score divided by number of items answered on that scale) for both masculinity and femininity. Higher scores reflect greater endorsement of masculine or feminine characteristics. Those who score above the median on the sex-congruent scale and below the median on the sex-incongruent scale are considered sex typed. Those who score above the median on both the masculinity and femininity scales

are considered androgynous, while those who score below the median on both scales are considered undifferentiated.

Alpha coefficients range from .84 to .90 (Bem, 1981c), and .87 (masculinity) and .82 (femininity) for this study. Test-retest reliabilities over a four-week period range from .76 for males with masculine gender identity to .94 for females with masculine gender identity (Bem, 1981c). Moderate reliability (.56 to .68) over a four-year period has been documented for female college students. This compares favorably with extended test-retest reliabilities for Spence, Helmreich, & Stapp's (1975) Personal Attributes Questionnaire (PAQ) (Yanico, 1985).

Correlations with other measures of gender role, such as the PAQ, Adjective Checklist (Gough & Heilbrun, 1965), and Andro Scale (Berzins, Welling, & Wetter, 1978) are in the expected directions: masculine with masculine scales range from .68 to .76, feminine with feminine scales range from .52 to .69, and masculine with feminine scales range from -.12 to -.30 (Wilson & Cook, 1984). In addition, Spence (1991), in a review of the literature, reported correlations between masculine scales of the BSRI and PAQ to be consistently high, ranging from .72 to .84. Correlations between the BSRI and PAQ feminine scales were still substantial but somewhat lower, ranging from .52 to .71. Additional validity information is reported in the introduction.

Procedures

Folders describing the questionnaire-type study, as well as location and times, were placed at a table that described a variety of available psychology experiments (see Appendix A). Separate folders were used for males and females. Questionnaires were

completed on five different occasions in classrooms holding approximately 100.

Participants were given typed packets upon arriving, and completed the questionnaires after reading and signing an informed consent form (See Appendix A). Participants kept a copy of the informed consent form for their records. The Bem Sex-Roles Inventory was first in the packet. It was believed that since the BRSI contains socially desirable items, it should be completed first in order to diminish any possible gender role bias. The remaining questionnaires were given in counterbalanced order. Upon completion, students signed a roll and were given both a debriefing sheet (see Appendix A) and experimental credit.

CHAPTER 111

RESULTS

In multivariate and univariate analyses, effect sizes are in terms of the eta square statistic. The categorization of effect sizes into small (1 to 5 percent), moderate (6 to 10 percent), and large (greater than 10 percent), is based on Cohen's least effect size (Cohen, 1988), and will be utilized when discussing the results of this study.

Correlations

Pearson correlations for all variables for the total sample are presented in Table 2. Correlations for each gender are summarized in Tables B1 and B2, Appendix B. The Trait Anger Scale had a strong positive correlation with its constituent parts, Angry Temperament and Angry Reaction, as well as all other variables except for Anger-Control, with which it had a negative correlation. As expected, Angry Temperament and Angry Reaction formed parallel patterns of correlations as those for the Trait Anger Scale.

Anger-In and Anger-Out correlated positively with each other, and negatively with Anger-Control. Anger-Discomfort also correlated negatively with Anger-Control, and positively with all other anger variables.

In exploring the correlations with gender, men were coded 1 and women 2. Therefore, negative correlations reflect higher values for men, whereas positive

Table 2

Correlations Between Variables for the Full Sample

Variable	2	3	4	5	6	7	8	9	10	11	12
1. TAS	.86	.86	.67	.47	.40	.67	-.52	.37	-.15	.12	-.26
2. Angry Temperament		.59	.61	.30	.25	.67	-.55	.30	-.10	.16	-.24
3. Angry Reaction			.54	.48	.41	.45	-.34	.31	-.12	.05	-.21
4. Anger Arousal				.49	.49	.51	-.46	.44	-.13	.01	-.23
5. Range of Anger-Eliciting Situations					.35	.28	-.27	.31	-.15	.03	-.14
6. Anger-In						.13	-.13	.40	-.04	-.19	-.02
7. Anger-Out							-.55	.14	-.14	.27	-.31
8. Anger-Control								-.19	-.02	.00	.29
9. Anger Discomfort									.01	-.14	.06
10. Gender										-.38	.52
11. Masculinity											-.10
12. Femininity											

Note. TAS = Trait Anger Scale. Male = 1, female = 2.
 $r > .10$, $p < .05$; $r > .12$, $p < .01$

correlations reflect higher values for women. Gender had a small negative correlation with all of the anger variables, except Angry Temperament, Anger-In, and Anger-Discomfort, with which gender was not significantly related. Masculinity and femininity had a small negative correlation ($r = -.10$) with each other, lending support to their orthogonality. Masculinity was positively correlated with the Trait Anger Scale, Angry Temperament, and Anger-Out, and negatively correlated with Anger-In and Anger-Discomfort. It was not significantly correlated with Angry Reaction, Anger Arousal, Range of Anger-Eliciting Situations or Anger-Control. Femininity was negatively correlated with the Trait Anger Scale, Angry Temperament, Angry Reaction, Anger Arousal, and Range of Anger-Eliciting Situations, as well as with Anger-Out, and positively correlated with Anger-Control. It was not correlated with Anger-In or Anger-Discomfort.

Regression Analyses

To explore the specific contribution of gender role above and beyond gender to the anger variables, a series of hierarchical regressions were conducted. Gender was forced on the first step in all the equations (see Table 3). This was done to evaluate the contribution of gender role above and beyond the contribution of gender. Since masculinity and femininity were minimally correlated ($r = -.10$), femininity was entered in on the second step and masculinity on the third step. (A comparison set of equations with masculinity on the second step and femininity on the third revealed minimal differences between the two sets of equations). Interaction terms (gender x masculinity and gender x femininity) were allowed to enter in their order of significant contribution

Table 3

Multiple Regression Analyses for the Anger Variables, Controlling for Gender

Variable		R ²
Trait Anger Scale	Gender (-.92, 2.2%), Femininity (-.64, 4.6%), Masculinity (.10, 0.8%), Gender x Femininity (1.19, 1.2%)	.089
Angry Temperament	Gender (.19, 1.0%), Femininity (-.29, 5.0%), Masculinity (.18, 2.7%)	.087
Angry Reaction	Gender (-.94, 1.5%), Femininity (-.56, 2.8%), Masculinity (.04, 0.1%), Gender x Femininity (1.17, 1.1%)	.055
Anger Arousal	Gender (-.03, 1.8%), Femininity (-.22, 3.6%), Masculinity (-.02, 0.0%)	.055
Range of Anger-Eliciting Situations	Gender (-1.05, 2.2%), Femininity (-.45, 0.5%), Masculinity (-.01, 0.0%), Gender x Femininity (1.18, 1.2%)	.040
Anger-In	Gender (-.97, 0.2%), Femininity (-.31, 0.0%), Masculinity (-.15, 2.2%)	.033
Anger-Out	Gender (.14, 2.0%), Femininity (-.36, 7.8%), Masculinity (.25, 5.1%)	.148
Anger-Control	Gender (-.22, 0.1%), Femininity (.34, 7.9%), Masculinity (-.05, 0.2%)	.081
Anger Discomfort	Gender (-1.06, 0.0%), Femininity (-.28, 0.4%), Masculinity (-.16, 2.4%), Gender x Femininity (1.20, 1.2%)	.040

Note. Standardized beta weights are in parenthesis after variables, followed by percentage variance measured.

on steps four and five. To be included in the equation, interactions had to be significant at $p < .05$ and contribute at least 1 percent of the variance (i.e., the bottom end of Cohen's (1988) small effect size). Gender and gender role were included in the equations regardless of significance level and effect size, in order to evaluate both the constructs and the interactions, (i.e., main effects must be included in equations in order for interaction effects to be assessed).

Overall, gender, the gender role constructs, and gender x femininity interactions contributed significantly to the variance on the anger variables. However, their effects varied widely from variable to variable.

Gender contributed a significant amount of variance, from 1.0 to 2.2 percent, on six out of the nine variables (i.e., Trait Anger Scale, Angry Temperament and Reaction, Anger Arousal, Range of Anger-Eliciting Situations, and Anger-Out). Gender did not contribute significantly to the variance on Anger-In, Anger-Control, and Anger Discomfort. Beta weights revealed it was men who scored higher on all but Angry Temperament and Anger-Out.

Femininity also contributed significantly to the variance, on six out of nine variables (i.e., Trait Anger Scale, Angry Temperament and Reaction, Anger Arousal, Anger-Out, and Anger-Control). It did not contribute significantly to Range of Anger-Eliciting Situations, Anger-In, or Anger Discomfort. The significant contributions ranged from 2.8 to 7.9 percent of the variance. Beta weights revealed that it was low femininity that contributed on all of the variables except Anger-Control, on which it was high femininity that was associated with more attempts at control.

Masculinity contributed significantly to the variance on four variables (Angry Temperament, Anger-In, Anger-Out, and Anger Discomfort). The significant contributions ranged from 2.2 percent to 5.1 percent of the variance. Beta weights revealed that high masculinity contributed to Angry Temperament and Anger-Out, whereas low masculinity was associated with Anger-In and Anger Discomfort.

The four significant gender x femininity interactions were found on the Trait Anger Scale, Angry Reaction, Range of Anger-Eliciting Situations, and Anger Discomfort. However, while they were significant, they accounted for only 1.1 to 1.2 percent of the variance. Correlations between femininity and the Trait Anger Scale, Angry Reaction, and Range of Anger-Eliciting Situations were significant for males ($r = -.29, -.25, \text{ and } -.18$), but not for females ($r = -.11, -.05, \text{ and } -.04$) (Table B3, Appendix B). Tests for differences between independent correlations revealed that these three correlations were all significantly stronger for males than for females (see Table B3). The correlation between femininity and Anger Discomfort was significant and stronger for women ($r = .19$) than for men ($r = -.05$), for whom it was not significant.

Gender by Gender Role Analyses

A series of 2 (Gender) by 4 (Gender role identity) MANOVAs was performed on conceptually related instruments. Significant main effects were followed by univariate ANOVAs. Tukey's HSD mean comparisons were used to explore significant gender role main effects and significant interactions.

The MANOVA on the Trait Anger Scale, Anger Arousal, and Range of Anger-Eliciting Situations (see Table 4) revealed significant multivariate effects for gender, $F(3,$

Table 4

Means and Standard Deviations for Anger Variables by Gender Role Identity

	<u>Masculine</u>		<u>Feminine</u>		<u>Androgynous</u>		<u>Undifferentiated</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Trait Anger Scale								
Male	21.70	6.33	16.53	2.75	19.75	6.03	21.47	6.59
Female	21.06	5.49	18.50	4.21	19.58	5.20	19.49	5.56
Angry Temperament								
Male	7.26	3.09	4.60	.74	6.46	2.74	7.07	3.28
Female	8.17	2.96	5.60	1.95	6.81	2.88	6.68	2.69
Angry Reaction								
Male	9.20	2.55	7.80	1.57	8.56	2.40	9.44	2.64
Female	8.67	1.85	8.46	2.14	8.38	2.21	8.44	2.12
Anger Arousal								
Male	19.34	6.87	17.53	3.87	17.13	6.73	19.40	6.99
Female	17.83	5.36	16.99	5.90	16.70	5.99	17.12	6.42
Range of Situations								
Male	24.04	4.97	22.73	4.65	23.02	5.36	24.35	4.03
Female	21.67	3.79	22.67	5.05	22.21	5.72	21.78	4.32
Anger-In								
Male	17.23	4.67	18.40	4.72	17.10	3.99	17.89	3.90
Female	15.89	3.74	17.97	4.61	16.09	4.32	16.24	4.54
Anger-Out								
Male	17.96	3.74	14.27	2.25	15.87	3.95	16.47	3.94
Female	18.33	3.92	14.56	2.98	16.87	3.79	16.51	4.51
Anger-Control								
Male	22.92	4.80	26.20	3.38	24.83	5.13	22.47	4.48
Female	21.28	3.29	24.05	4.63	22.96	4.26	22.32	4.99
Anger Discomfort								
Male	30.84	6.72	30.87	6.76	30.52	6.42	33.45	7.16
Female	28.50	5.12	32.44	6.44	32.11	7.06	29.80	5.84

437) = 2.85, $p < .05$, and gender role, $F(9, 1064) = 2.56$, $p < .01$, but not for the interaction, $F(9, 1064) = 0.77$. The gender multivariate main effect was due to Range of Anger-Eliciting Situations, $F(1, 439) = 6.28$, $p < .05$, effect size = 0.014, where men ($M = 23.79$) reported greater situational anger reactivity than women ($M = 22.31$). The multivariate main effect for gender role was due to the Trait Anger Scale, $F(3, 439) = 5.09$, $p < .01$, effect size = 0.033. The masculine group ($M = 21.60$) scored significantly higher on the Trait Anger Scale than androgynous ($M = 19.67$) and feminine groups ($M = 18.25$), but was not significantly different from the undifferentiated group ($M = 20.63$). The androgynous group did not score differently from any other groups, except the masculine group, and the undifferentiated group scored significantly higher than the feminine group.

A follow-up MANOVA exploring the effects on the components of the Trait Anger Scale (i.e., Angry Temperament and Angry Reaction) showed significant multivariate effects for gender, $F(2, 438) = 3.59$, $p < .05$, and gender role, $F(6, 876) = 5.07$, $p < .001$, but not for the interaction, $F(6, 876) = 1.08$. When the univariate analyses were performed, no significant univariate gender effects were found. The univariate effect for gender role was found on Angry Temperament, $F(3, 439) = 9.04$, $p < .001$, effect size = 0.057. While not differing from one another, the masculine ($M = 7.40$), androgynous ($M = 6.64$), and undifferentiated ($M = 6.90$) groups scored significantly higher than the feminine group ($M = 5.48$).

In the MANOVA on anger expression variables (see Table 4), significant multivariate main effects were found for gender $F(3, 437) = 4.53, p < .01$, and gender role $F(9, 1064) = 5.17, p < .001$, but not for the interaction $F(9, 1064) = 0.40$. The gender multivariate main effect was due to Anger-In, $F(1, 439) = 4.37, p < .05$, effect size = 0.009, and Anger-Control, $F(1, 439) = 7.12, p < .01$, effect size = 0.015, where men reported more attempts at both suppressing and trying to control their anger ($M_s = 17.42$ and 23.46) than women ($M_s = 17.02$ and 23.23). Significant univariate main effects for gender role were found on Anger-Out, $F(3, 439) = 9.77, p < .001$, effect size = 0.059, and Anger-Control, $F(3, 439) = 5.89, p < .001$, effect size = 0.038. On Anger-Out, the masculine group ($M = 18.02$) scored significantly higher than undifferentiated ($M = 16.49$), androgynous ($M = 16.37$), feminine ($M = 14.52$) groups. The androgynous and undifferentiated groups also scored higher than the feminine group, but were not significantly different from each other. On Anger-Control, the feminine group ($M = 24.31$) scored significantly higher than the masculine ($M = 22.68$) and undifferentiated ($M = 22.41$) groups and was not significantly different from the androgynous group ($M = 23.89$). No other between-groups differences were significant.

A 2 (Gender) by 4 (Gender role) ANOVA on the total Anger Discomfort score revealed a significant interaction, $F(3, 439) = 3.47, p < .05$, effect size = 0.023, but no effect for gender, $F(1, 439) = 0.83$, or gender role $F(3, 439) = 1.33$. Although the interaction was significant, post hoc testing revealed no gender differences across gender role groups.

CHAPTER IV

DISCUSSION

Limitations

Prior to discussing the results of this study, limitations will be addressed. The first limitation concerns the generalizability of the data. The sample population of this study was undergraduate students at a predominantly white state university. College students are generally not representative of the population at large because of their youth, education, race, and privilege (Thomas, 1993), and their experience may be substantially different from that of other adults, children and adolescents (Tafrate, 1995). They are, however, the population upon whom most anger research is conducted, and represent a large, meaningful group in themselves. Therefore, caution must be exercised when generalizing these results beyond the college student population.

The second limitation concerns the use of self-report measures. Anger is a value-laden emotion (Averill, 1982; Campbell, 1975) and as such, the desire to present a positive image may influence responses. In addition, responses in this study were not validated by physiological measures or behavioral observations. This study attempted to minimize this response bias by assuring anonymity and confidentiality, but findings are based entirely on self-report.

The last major limitation involves the specific questionnaires utilized in this study. Gender role identification is a somewhat vague construct, with both reliability and validity concerns, as well as differences in scoring procedures. This study utilized the most widely used inventory, as well as the most widely accepted method for scoring it. Nonetheless, it is not without its weaknesses. There is some question of whether the richness of emotional experience can be accurately captured with pencil and paper Likert-type questionnaires, rather than open-ended questions. In addition, the range of anger experiences measured was limited by the specific questionnaires utilized. Although they were the best tools available at the time of the study, more recently researchers have expanded upon the anger constructs to include several aspects of anger control and other forms of expression (Deffenbacher, Oetting, Lynch et al., 1996; Spielberger et al., 1995).

Findings Related to State-Trait Anger Theory

The results of this study lend further support to findings on state-trait anger theory. As found by others (e.g., Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Lopez & Thurman, 1986; Spielberger et al., 1983, 1988), trait anger was positively correlated with its subcomponents, angry temperament and angry reaction, which were also positively correlated with each other. Trait anger was also positively correlated with anger arousal (higher frequency, intensity, and duration of angry episodes) and with a greater range of anger-eliciting situations. It appears that those who are high on a personality trait of anger proneness are also disposed to respond with anger to a wider variety of situations and to experience anger more often, more intensely, and for longer periods of time.

Previous research has shown anger suppression to be unrelated to both outward negative expression and attempts at control, which are inversely related to each other (e.g., Collins & Hailey, 1990; Deffenbacher, 1992; Deffenbacher, Oetting, Thwaites et al., 1996; Fuqua et al., 1991; Spielberger et al., 1985; Spielberger, 1988). Outward negative expression of anger and attempts at control were inversely related to each other in this study also. However, anger suppression revealed small correlations with the outward expression of anger and anger control ($r = .13$ and $-.13$, respectively); these results could be easily over-interpreted without examining the effect size (0.018), which was small.

As found by others (e.g., Collins & Hailey, 1989; Deffenbacher, Oetting, Thwaites et al., 1996; Spielberger et al., 1988), trait anger correlated positively with both anger suppression and negative outward expression of anger, and negatively with attempts at control. It appears that those with a propensity towards anger are more likely to suppress it, or express it outwardly in negative ways, and less likely to attempt to control it than those who are lower in trait anger.

Discomfort with one's own anger was positively correlated with both anger suppression and outward negative expression of anger, and negatively correlated with attempts to control it, as found in Sharkin and Gelso's (1991) research. Those who are most comfortable with their anger seem to make more attempts to control its expression, whereas those who experience discomfort with their anger are more inclined to either suppress it or express it outward in negative ways. The strength of the correlations of

anger discomfort with anger out, anger control, and anger suppression ($r = .14, -.19,$ and $.40,$ respectively) were similar to those found in the earlier research.

In an extension of the research, the relationship between anger discomfort and trait anger and other anger variables was explored. Positive correlations were found among all of these variables. Those who are higher on trait anger and who experience anger more frequently, intensely, for longer periods of time and across more numerous situations are also more uncomfortable with it; they may feel more troubled by it, evaluate it negatively, do not want it to be seen by others, and create more problems for themselves by being angry. Thus, this study extended the relationships of anger discomfort to a number of other anger variables.

Findings Related to Anger and Gender

Gender stereotypes hold that men and women are different in their experience and expression of anger. Men are thought to be more angry and express their anger outwardly in negative ways more often than women; conversely, women are thought to suppress their anger and attempt to control its expression more often than men. Perhaps the most fundamental of gender stereotypes regarding anger is that women experience more discomfort with it than do men. This study found significant correlations between gender and six out of nine anger variables, as measured in this study. Consistent with gender stereotypes, men scored higher on anger proneness, anger reactivity, anger arousal, range of anger-eliciting situations, and negative outward expression. Contrary to gender stereotypes, women scored higher on angry temperament, and there were no significant gender-related correlations with anger suppression, attempts at anger control, and anger

discomfort. These results were similar to those of a number of other studies that found either small gender differences (e.g., Deffenbacher, 1992; Deffenbacher, Oetting, Lynch et al., 1996; Deffenbacher, Oetting, Thwaites et al., 1996; Sharkin & Gelso, 1991; Spielberger et al., 1995) or none at all (e.g., Deffenbacher et al., 1986; Kopper & Epperson, 1991; Sharkin & Gelso, 1991; Stoner & Spencer, 1986; Thomas & Williams, 1991).

The significant relationships between the anger variables and gender could easily be over-interpreted. First, gender stereotypes were not confirmed for anger suppression, anger control, and anger discomfort, for which some of the largest differences might be expected. Second, contrary to expectations, women were higher on angry temperament, rather than lower. Third, when found at all, the gender effect sizes were small and accounted for only 1.0 to 2.2 percent of the variance. Based on these data, it would appear that men and women are more alike than different in their experience and expression of and discomfort with anger.

Findings Related to Anger and Gender Role

Discussion of this section is divided into two parts. The first section examines the unique variance contributed by gender role, above and beyond that contributed by gender. The second section examines the relationships between the gender role groups and the anger variables.

When the variance accounted for by gender role above and beyond that of gender alone was examined, the significant gender role relationships did not appear to follow a consistent pattern. For example, angry temperament and outward negative expression

were best predicted by low femininity and high masculinity. This pattern did not hold for proneness to anger and angry reactivity, which were best predicted by low femininity and a gender x femininity interaction. Anger arousal was best predicted by low femininity only. Attempts at control were best predicted by high femininity. Moreover, anger suppression was predicted primarily by low masculinity, and discomfort with one's own anger were predicted primarily by low masculinity and a gender x femininity interaction.

Gender role stereotypes predict that anger proneness, angry temperament, angry reactivity, anger arousal, responding with anger to a broad range of situations, and negative outward expression of anger would be associated with high masculinity and low femininity. However, only two of these variables, angry temperament and negative outward expression, fit this pattern. Contrary to expectations, anger proneness, angry reactivity, and anger arousal were associated with low femininity only; however, the relationships between low femininity and anger proneness and angry reactivity were significant for men (effect sizes = 0.084 and 0.065, respectively), but not for women (effect sizes = 0.012 and 0.003, respectively). Responding with anger to a broad range of situations was associated with neither masculinity nor femininity in general, although for men it was significantly related to low femininity (effect size = 0.032).

Gender role stereotypes also predict that suppression of anger, attempts at its control, and anger discomfort would be associated with high femininity. Attempts at anger control were, in fact, significantly related to high femininity in this study (effect size = 0.084). However, discomfort with one's own anger was related to low masculinity for both men and women, and with more femininity for women (effect size = 0.036) but

not for men (effect size = .003). Contrary to gender stereotypes, anger suppression was associated with only low masculinity, for both women and men.

The total variance accounted for by gender role (masculinity, femininity, and gender by gender role interactions) was large for outward negative expression, moderate for anger proneness, angry temperament, and attempts at control, and small for angry reaction, anger arousal, range of anger-eliciting situations, anger suppression, and anger discomfort. As with the relationships between gender and anger discussed earlier in this study, it would be easy to over-interpret these results. Although gender role was a more sensitive predictor overall than gender alone, the total variance accounted for by gender role, above and beyond that accounted for by gender, ranged only from 1.9 to 12.8 percent, with the largest found on outward negative expression. In addition, the patterns were complex, in that different relationships were found among masculinity and femininity and the anger variables.

The median splits for masculinity and femininity in this study were generally comparable to those of Bem's normative work on Stanford undergraduates (Bem, 1981c). The percentage of respondents in each gender role category also varied from Bem's normative work; this study had fewer feminine men and androgynous women, and more feminine women. Differences in the distributions are expected as long as the BSRI is scored utilizing the particular median split of each given sample, rather than some other way that would allow for a more clear basis of comparison.

Significant differences occurred among the gender role groups on only four of the nine anger variables— anger proneness, angry temperament, outward negative

expression, and attempts at control. The results were consistent with gender role stereotypes, in that the majority of the significant differences were between the masculine and feminine groups, with the androgynous and undifferentiated groups falling somewhere in between. The differences were also in the direction predicted by the gender role stereotypes. For example, those with a masculine identity were significantly more prone to anger than the androgynous and feminine groups. The masculine group was significantly more likely to express their anger outwardly in a negative fashion than the androgynous and undifferentiated groups, who in turn were more likely to utilize that method of anger expression than the feminine group. The feminine group was more likely to attempt to control the expression of their anger than the androgynous, masculine, and undifferentiated groups. These results were consistent in direction with those of Kopper (Kopper, 1993; Kopper & Epperson, 1991) and suggest that there may be general trends when comparing gender role groups. Angry temperament, which was not studied by Kopper, was also consistent with gender stereotypes; the masculine, undifferentiated, and androgynous groups scored significantly higher than the feminine group. The gender role main effect sizes in this study ranged from 0.033 to 0.059, with the largest effect size found on outward negative expression.

The androgynous group was similar to the feminine group on anger proneness, which was significantly lower than the masculine and undifferentiated groups. On outward negative expression, it was similar to the undifferentiated group, which was significantly less than the masculine group but higher than the feminine group. The

androgynous group was not significantly different from any of the other groups when it came to attempts at control.

The undifferentiated group was not significantly different from the masculine group on anger proneness, angry temperament, and attempts at control. It was similar to the androgynous group on outward negative expression, which was significantly lower than the masculine group but more than the feminine group.

This study did not find significant differences between the gender role groups in the suppression of anger, whereas Kopper found the feminine group to be significantly higher in this style of anger expression than the other groups in her first and second studies, but not her third (Kopper, 1993; Kopper & Epperson, 1991, 1996). In addition, in an extension of the research, no significant differences were found among the gender role groups when assessing the level of their discomfort with their own anger, anger reactivity, anger arousal, and range of situations that elicit anger.

Several conclusions can be drawn from these comparisons. First, there were significant differences among the four gender role groups on only some of the anger variables. This alone is not consistent with strong gender stereotypes. Second, where significant differences were found, they were consistent with gender stereotypes, with masculinity being associated with more anger and outward negative expression of it, and femininity being associated with more attempts at control. Third, it appears that femininity provides some protection against the more negative aspects of anger, such as anger proneness, having an angry temperament, and expressing anger outwardly in a negative fashion. This protection provided by femininity appears to help those in the

androgynous group; the lack of this protection is apparent in the undifferentiated and masculine groups. Fourth, the notion that femininity would be associated with more anger suppression and discomfort with one's own anger was not supported.

Conclusions and Directions for Future Research

It appears that while there are some gender differences in the experience and expression of anger, these differences are relatively small. Men and women were far more alike than they were different.

Gender role contributes a small to moderate amount to our understanding and does so more than gender alone. The masculine role was associated with more anger proneness, an angrier temperament, and more outward negative expression of anger, when compared with the other gender roles. Low femininity was associated with more anger arousal. For men in this study, low femininity was associated with more anger proneness, angry reactivity, and responding with anger to a broad range of situations. Stated differently, for men, high femininity was associated with less proneness to anger, less angry reactivity, and less responding with anger to a broad range of situations. Femininity was associated with more attempts at control of anger expression, but was not associated with anger suppression. In women, however, femininity was associated with more discomfort with their own anger.

While gender role contributed to our understanding of anger beyond that which we knew from gender alone, caution must be exercised before drawing sweeping conclusions. These patterns were complex and differed by anger variables, and the effect

sizes were generally moderate to small. Future research is necessary to see if these patterns hold up over other samples and measures.

The results of this study supported neither the congruence model of mental health, nor the masculinity model, but lent indirect support to the androgyny model, in that it appears that the addition of feminine qualities provides some protection against the more negative aspects of anger. Future research might explore which of the feminine characteristics provide the protection, and which of the masculine characteristics are associated with more negative experiences of anger.

To the previous reports of more depression, anxiety, and social distress (O'Heron & Orlofsky, 1990), we can add that those with an undifferentiated gender role are more prone to anger, angrier temperaments, and lessened anger control. This group still needs further exploration.

Future research into the relationships of anger, gender, and gender role identification should also address the primary limitations of this study. One possible explanation for the difference between the results of this study and the strong cultural stereotypes regarding anger and gender, is that the instruments utilized were not adequate to capture the differences that the stereotypes claim are there. New instruments that enlarge upon our understanding of the experience and expression of anger are currently being developed. For example, anger control has been expanded to include both the calming down to reduce the intensity of suppressed angry feelings, and the controlling of outward expression of angry feelings towards persons or objects in the environment (Spielberger et al., 1995). Deffenbacher and his colleagues have expanded anger

expression to include four outward, aggressive forms (two verbal and two physical), two non-aggressive forms (assertive, problem-oriented communication and appropriate leave-taking and disengagement) and another measure of direct and forthright expression (Deffenbacher, Oetting, Lynch et al., 1996). The relationship between these additional measures of anger expression and gender role should be explored. In addition, as initially developed, the Anger Discomfort Scale had four subscales that assessed dimensions of both intrapersonal and interpersonal discomfort, for which this study did not find acceptable alpha reliabilities. This instrument warrants further development and research.

Although the most widely used instrument to assess gender role development, scoring the Bem Sex Roles Inventory by the median split method for each individual sample creates numerous interpretive problems. For example, there is little difference among individuals whose scores cluster around the mean. Depending upon the sample's particular median scores, an individual could be placed in any of the four gender role categories. A better categorization procedure would be welcomed.

The results of this study may also be an artifact of the college population studied. The relationships among anger, gender and gender-role identification should be explored with populations other than the college undergraduate. For example, does gender role have a more significant impact on the style of anger expression in cultures where masculinity and femininity are more polarized than in the white U.S. population? How do the relationships compare in older populations, or in community samples?

In addition, Thomas (1991) and Sharkin (1993) have suggested that the difference between theoretical perspectives on men's and women's anger, which are consistent with

our gender stereotypes, and research findings, which do not support the stereotypes, may be the result of research on non-clinical samples. It would be interesting to explore whether the relationship between anger experience and expression and gender role identification is stronger in a clinical population.

It is possible that to understand the everyday experience and expression of anger, we need to look at influences other than gender and gender roles. Again, while gender and gender roles contribute somewhat to our understanding, their contribution is not overwhelming.

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APPENDIX A

INFORMATION FOR RESPONDENTS

CONSENT FORM

DEBRIEFING STATEMENT

Anger, Gender, and Gender-role Identification Study
Michelle Haines, M.S.
491-6877

Thank you for your interest and participation in this study. Please read carefully and follow the instructions given below.

- 1. Read, sign, and date the consent forms provided. Please note that you have the right to terminate your participation in this study at any time.**

- 2. Complete the questionnaires in the order they are given and according to the instructions for each section. Please DO NOT skip or leave any items blank.**

- 3. When you leave, please be sure to PRINT your name and student I.D. number on the credit list for the PY 100 section in which you are enrolled. Please note that some instructors teach more than one section, so be sure to sign the correct list. This is the only record of your participation your instructor will have so it is VERY important that you sign the correct list.**

If you have any questions please ask the research assistant.

COLORADO STATE UNIVERSITY

Consent to Serve as a Subject in Research

I, _____ (print name) consent to serve as a subject in the research investigation entitled:

Anger, Gender, and Gender-role.

The nature and general purpose of the experimental procedure and the known risks involved have been explained to me by

_____.

.He or she is authorized to proceed on the understanding that I may terminate my service as a subject in this research at any time I so desire.

I understand the known risks are: **No known risks.**

I understand also that it is not possible to identify all potential risks in an experimental procedure, but I believe that reasonable safeguards have been taken to minimize both the known and the potential, but unknown, risks.

Signed _____
Subject Date

If a subject is injured in the course of the research investigation and he/she contends that Colorado State University or an employee thereof is at fault for the injury, the subject must file a claim within 180 days of the date of the injury with the State Attorney General and the State Board of Agriculture. The University's legal and financial responsibility, if any, for such injuries is controlled by state law. Your claim will be referred to the Risk Management Liaison Office for review, and you should direct your inquiries to that office (303/491-5257). The University cannot otherwise compensate subjects for their injuries, and subjects must depend on their own health and disability insurance for compensation for injuries sustained in the course of the research investigations which are not the fault of CSU or its employees.

Debriefing Statement

The goals of the study designed to explore the role of gender-role identity with the experience and expression of anger. The study attempts to ascertain the predictive ability of gender-role identity for the levels of general anger and anger discomfort, and styles of anger expression. Little is currently known about how the experience and expression of anger are related to gender-role identity.

Gender-role identity is the pattern and level of masculine and feminine characteristics adopted and exhibited by an individual that may or may not be the same as one's biological sex. For example, a man may describe himself as male and have many male characteristics. However, in addition to the male tendencies there may be characteristics considered socially feminine by nature. The converse may be true for females as well.

The procedures of the study were straightforward and involved no deception. Responses to the questionnaires will be tallied and then related statistically to general anger characteristics.

It is expected that the results of this study will be available in the Fall semester, 1992. You may contact Michelle Haines, Department of Psychology, at that time for a summary of the study results.

APPENDIX B

CORRELATIONS BETWEEN VARIABLES FOR THE MALE SAMPLE

CORRELATIONS BETWEEN VARIABLES FOR THE FEMALE SAMPLE

CORRELATIONS BETWEEN VARIABLES FOR THE COMBINED SAMPLE

Table B1

Correlations Between Variables for the Male Sample

Variable	2	3	4	5	6	7	8	9	10	11
1. TAS	.88	.88	.69	.48	.52	.67	-.54	.50	.01	-.29
2. Angry Temperament		.65	.62	.35	.40	.65	-.55	.47	.03	-.22
3. Angry Reaction			.59	.48	.53	.50	-.37	.42	-.01	-.25
4. Anger Arousal				.50	.56	.56	-.49	.50	-.02	-.24
5. Range of Anger-Eliciting Situations					.38	.32	-.30	.36	.00	-.18
6. Anger-In						.30	-.25	.43	-.09	-.10
7. Anger-Out							-.56	.28	.09	-.35
8. Anger-Control								-.27	.09	.30
9. Anger Discomfort									-.15	-.05
10. Masculinity										.20
11. Femininity										

Note. TAS = Trait Anger Scale. Male = 1, female = 2.

$r > .14, p < .05$; $r > .17, p < .01$

Table B2

Correlations Between Variables for the Female Sample

Variable	2	3	4	5	6	7	8	9	10	11
1. TAS	.83	.82	.62	.45	.25	.65	-.52	.21	.13	-.11
2. Angry Temperament		.49	.58	.23	.08	.69	-.58	.08	.26	-.23
3. Angry Reaction			.45	.47	.28	.37	-.31	.18	.02	-.06
4. Anger Arousal				.47	.42	.43	-.44	.38	-.07	-.13
5. Range of Anger-Eliciting Situations					.31	.22	-.26	.26	-.06	.04
6. Anger-In						-.05	-.02	.36	-.20	.11
7. Anger-Out							-.57	-.02	.29	-.20
8. Anger-Control								-.10	-.11	.26
9. Anger Discomfort									-.15	.19
10. Masculinity										.05
11. Femininity										

Note. TAS = Trait Anger Scale. Male = 1, Female = 2.

$r > .14, p < .05$; $r > .17, p < .01$

Table B3

Correlations Between Variables for the Combined Sample

Variable	2	3	4	5	6	7	8	9	10	11
1. TAS	.88 ^a	.88 ^b	.69	.48	.52 ^c	.67	-.54	.50 ^c	.01	-.29
	.83 ^a	.82 ^b	.62	.45	.25 ^c	.65	-.52	.21 ^c	.13	-.11
2. Angry Temperament		.65 ^a	.62	.35	.40 ^c	.65	-.55	.47 ^c	.03 ^b	-.22
		.49 ^a	.58	.23	.08 ^c	.69	-.58	.08 ^c	.26 ^b	-.23
3. Angry Reaction			.59 ^a	.48	.53 ^c	.50	-.37	.42 ^c	-.01	-.25 ^a
			.45 ^a	.47	.28 ^c	.37	-.31	.18 ^c	.02	-.06 ^a
4. Anger Arousal				.50	.56 ^a	.56	-.49	.50	-.02	-.24
				.47	.42 ^a	.43	-.44	.38	-.07	-.13
5. Range of Anger-Eliciting Situations					.38	.32	-.30	.36	.00	-.18
					.31	.22	-.26	.26	-.06	.04
6. Anger-In						.30 ^c	-.25 ^b	.43	-.09	-.10 ^a
						-.05 ^c	-.02 ^b	.36	-.20	.11 ^a
7. Anger-Out							-.56	.28 ^c	.09 ^a	-.35 ^a
							-.57	-.02 ^c	.29 ^a	-.20 ^a
8. Anger-Control								-.27	.09 ^b	.30
								-.10	-.11 ^b	.26
9. Anger Discomfort									-.15	-.05 ^a
									-.15	.19 ^a
10. Masculinity										.20
										.05
11. Femininity										

Note. TAS = Trait Anger Scale. Male correlations are the upper listed, whereas female are the lower of the pair.

Tests for difference between independent correlations (Brunig & Kintz, 1977) revealed several significant differences between correlations for men and women. a = $p < .05$; b = $p < .01$; c = $p < .001$.