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IMPLICIT ATTITUDES TOWARD CHILDREN'S GENDER  
NONCONFORMING BEHAVIOR: THE MEDIATING  
ROLE OF STIGMA BY ASSOCIATION WHEN  
BLAMING MOTHERS

EMILY A. MORROW

153 Pages

This study was designed to examine the possible connection between a child's gender nonconformity and attitudes toward both the child and the mother of the gender nonconforming child. Specifically, this study explored the impact of gender nonconforming behavior on undergraduate student perceptions of the child and the parenting competence of the mother. Following social psychology theories examining stigma and stigma by association, this study represents an attempt to determine whether gender nonconforming behavior is a stigmatizing factor, and if that stigma is carried over to the mother. Findings from this study suggested that gender nonconforming behavior is indeed a stigma for children, and mothers of those children are at risk for stigma by association.

KEYWORDS: children, gender nonconforming behavior, implicit stigma, explicit stigma, stigma by association, mothers

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NONCONFORMING BEHAVIOR: THE MEDIATING  
ROLE OF STIGMA BY ASSOCIATION WHEN  
BLAMING MOTHERS

EMILY A. MORROW

A Dissertation Submitted in Partial  
Fulfillment of the Requirements  
for the Degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

ILLINOIS STATE UNIVERSITY

2020

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IMPLICIT ATTITUDES TOWARD CHILDREN'S GENDER  
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E. A. M.

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## CHAPTER I: THE PROBLEM AND ITS BACKGROUND

A staggering sixty-seven percent of LGBTQ youth report that they have heard family members make disparaging comments about the LGBTQ community (LGBTQ Youth Report, 2018). Additionally, transgender and gender nonconforming youth are over two times more likely to be taunted or mocked by family for their LGBTQ identity than cisgender LGBQ youth (LGBTQ Youth Report, 2018). Considering the high levels of rejection experienced by transgender youth, it is unsurprising that the American Academy of Pediatrics found between 30% and 51% of transgender adolescents have attempted suicide in their lifetimes, compared to 14% of their cisgender peers (Toomey et al., 2018). Additionally, transgender youth who identify as lesbian, gay, or bisexual are two-to-four times more likely to attempt suicide than transgender or gender nonconforming adolescents who identify as heterosexual (Toomey et al., 2018).

Homophobia, stigma, prejudice, and discrimination have all been found to negatively affect the mental health of the lesbian, gay, bisexual, and transgender (LGBT) population (USDHHS, 2012). Social stigma plays a part in LGBT adolescent suicidality by preventing the LGBT population from accessing health care that is responsive to LGBT health issues (American Psychological Association, 2008). Discrimination has also been associated with suicide, depression, substance abuse, posttraumatic stress disorder, anxiety disorders, HIV/AIDS and other sexually transmitted diseases (American Psychological Association, 2008). It has been theorized that sexual and gender minorities face these inequalities because of the extent to which they are targeted for stigma, marginalization, and discrimination throughout society.

One way in which the general public assesses whether or not an individual is a member of a sexual minority group is through the individual's appearance or behavior. Some research has found that sexual orientation could be identified more accurately than "chance levels" from samples of verbal and non-verbal behavior (Ambady et al., 1999; Carroll & Gilroy, 2002; Rieger et al., 2010), even when individuals attempted to conceal their sexual orientation (Sylva et al., 2010). A number of features have been studied as possible indications of sexual orientation, including eye gaze (Carroll & Gilroy, 2002; Nicholas, 2004), facial symmetry, shape, relations among facial features, sexual dimorphism (Freeman et al., 2010; Hughes & Bremme, 2011; Tabak & Zayas, 2012), body shape and motion (Johnson et al., 2007), posture and gesture (Ambady et al., 1999), and voice pitch (Linville, 1998; Smyth et al., 2003). Researchers have also suggested that gender atypicality (i.e., masculinity in a woman and femininity in a man) can be used as an accurate cue in sexuality judgment (Rieger et al., 2010).

Bailey and Zucker (1995) described gender nonconformity as the expression of characteristics that are socially and culturally associated with the opposite gender. The prevalence rates for gender nonconforming, or gender atypical behavior, vary between 2.4% (Van Beijstervelt et al., 2006) and 2.5% (Steensma et al., 2012) for boys and 3.3% (Van Beijstervelt et al., 2006) and 8.7% (Steensma et al., 2012) for girls. In fact, a large-scale study of children 6 to 10 years of age revealed that approximately 23% of boys and 39% of girls engaged in 10 or more different gender nonconforming behaviors. However, it is important to note that gender nonconforming or gender atypical behavior is not a black or white issue. Rather, it exists on a continuum with varying degrees of expression.

Although not all individuals who engage in childhood gender nonconforming behavior later identify as homosexual as adults, sexual orientation in adulthood is one outcome associated with childhood gender nonconformity. Both retrospective (Bailey & Zucker, 1995; Landolt et al., 2004; Lippa, 2008; Zucker et al., 2006) and prospective methods (Drummond et al., 2008; Green, 1987; Rieger et al., 2008; Steensma et al., 2012; Walien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995) have found that gay men and lesbians report greater childhood gender nonconformity than do heterosexual adults. For men in particular, the stigma and social rejection associated with childhood gender nonconformity appears to be related to depression, anxiety, and other difficulties of adjustment (Lippa, 2008; Skidmore et al., 2006). Research also suggests that adults believe such an association exists (Blashill & Powlisha, 2009; Kite & Deaux, 1987) and may well stigmatize gender nonconforming children on the basis of such beliefs (Hegarty, 2009).

Over the past several decades, a shifting social climate has led to an increase in legal rights, acceptance, and visibility for LGBT individuals in the U.S. Despite population changes in attitudes toward same-sex marriage, gay men and lesbian women are still perceived differently than heterosexual individuals. One's willingness to confer equal rights does not necessarily mean he or she is accepting or tolerant of nonconforming or atypical behavior. For instance, recent findings suggest that 32% of the U.S. respondents view gay and lesbian behavior as morally wrong (Gallup, 2020). In explaining these attitudes, researchers have pointed to a number of factors such as religious motivations (Altemeyer, 2003; Hunsberger, 1996), conformity to rigid gender scripts (Kilianski, 2003; McCreary, 1994; Whitley, 2001; Wong et al., 1999), beliefs

about the controllability of homosexuality (Sakalli, 2002; Sheldon et al., 2007), and authoritarianism (Whitley & AEgisdottir, 2000; Wilkinson, 2004). Whatever the causes, such attitudes tend to contribute to the stigmatization of these populations, increasing their risk for experiencing discrimination and even violence.

Some of the prejudice toward sexual minorities seems to focus specifically on gender nonconformity. Although studies with adults (Lippa, 2002; Skidmore et al., 2006) and youth (Blashill & Powlishta, 2009; D'Augelli et al., 2005) have found lesbian, gay, and bisexual populations to be more gender nonconforming than heterosexual individuals, those without a minority sexual orientation were also targets of harassment and discrimination for nonconforming gender expression. For instance, Horn (2007) found that gender nonconforming gay male targets were rated as more acceptable than gender nonconforming heterosexual male targets. This result suggests that norms regarding gender expression may be more salient than sexual orientation in individuals' perceptions of and attitudes toward peers.

Both heterosexual and homosexual individuals with a history of gender nonconformity experience similar types of environmental stressors related to gender atypical behavior and subsequently develop similar levels of depressive and anxious symptoms (Alanko et al., 2009). Based on the literature, it can be hypothesized that gender atypical behavior, or gender nonconformity, is a visible sign of a particular sexual orientation in a person and, as such, may yield more homophobic responses from the environment than does a covert homosexual orientation. Therefore, it can be hypothesized that it is gender atypical behavior, rather than sexual orientation *per se*, that is associated with a number of adverse outcomes.



Negative evaluations based on stereotype nonconformity occur when a person is deemed to have individually behaved in a gender discordant fashion but may also result when merely associating with someone who violates these scripts. This “courtesy stigma” or “stigma by association” appears to sully the identity of previously non-stigmatized individuals. For example, a number of studies have found that heterosexual men who associate with homosexual men risk negative evaluations from others (Neuberg et al., 1994; Seligman et al., 1991; Jefferson & Bramlett, 2010).

Based on existing literature, it is important to further identify how the reactions of the general public vary according to perceptions of gender conformity, including appearance, behavior, and interests. The large majority of studies to date have focused on adults and the impact their sexual orientation has on others’ perceptions. However, research also suggests that adults evaluate children’s gender conformity, and make judgments based on their own expectations. For example, Thomas and Owen Blakemore (2013) found that adults believed gender nonconforming children would experience pressure to change their behavior and would be on a path to adult homosexuality. This finding, in combination with other existing research about the controllability of homosexuality (Sakalli, 2002; Sheldon et al., 2007) and “stigma by association” (Neuberg et al., 1994, p. 196) provided the foundation for the current study.

Many in the lay community believe parents have a significant impact on their children’s development, which may cause observers to blame mothers for failing to actively discourage gender deviant behavior. The current study was designed to determine whether the stigma associated with children who engage in gender nonconforming behavior transfers to their mothers. Specifically, are mothers of children

who engage in gender atypical behavior potential victims of stigma by association? Are mothers of gender nonconforming children blamed for allowing their children to engage in gender atypical behavior? Do people believe that mothers should discourage their children from engaging in gender atypical behavior?

## CHAPTER II: LITERATURE REVIEW

The Human Rights Campaign (HRC) reported that 2017 was the year with the highest number of violent deaths of transgender and gender non-conforming people ever recorded. At least 33 transgender or gender non-conforming individuals were fatally shot or killed by other violent means in 2020. Unfortunately, these numbers could be an underestimate, as cases often go unreported or stories are misreported in the media. The dangers for those who do not conform to the traditional, binary gender norms are all too real.

Many gender nonconforming students experience harassment, discrimination, and even violence at school. In fact, the 2011 National Transgender Discrimination Survey (Grant et al., 2011) found that students who expressed a transgender identity in grade K-12 reported harassment. For example, 78% reported they were harassed; 35% reported they were physically assaulted; 12% reported sexual violence; and 15% reported that harassment was so severe that it required them to leave school. Furthermore, a 2018 LGBTQ Youth Report found that only 26% of LGBTQ youth reported feeling safe in the classroom. In many communities, it is dangerous to be a gender nonconforming individual or to have a transgender identity. Given the significant consequences associated with gender nonconforming behavior, as well as the controversial nature of gender expression that does not conform to stereotypical gender norms, this issue requires further study.

## Terminology

Several terms are used throughout this text: sex, gender, gender role, sexual orientation, gender expression, and transgender or gender nonconforming. These terms are defined in the scientific literature in various ways. For the purpose of the current study, the following definitions will be used: *Biological/Anatomical Sex* refers to a person's biological status and is typically categorized as male, female, or intersex (i.e., atypical combinations of features that usually distinguish male from female; APA, 2011). There are a number of indicators of biological sex, including sex chromosomes, hormones, internal reproductive organs, and external genitalia. Given the potential variation in all of these, many advocate for biological sex to be seen as a spectrum or range of possibilities rather than a binary set of two options (Understanding Gender, 2015). *Gender* implies the psychological, behavioral, social, and cultural aspects of being male or female (VandenBos, 2007). Gender is a complex interrelation between an individual's sex (gender biology), one's internal sense of self as male, female, both, or neither (gender identity), as well as one's outward presentations and behaviors (gender expression) related to that perception, including gender role. Although Western culture has come to view gender as a binary concept, with two rigidly fixed options (i.e., male or female), there is support for a model of gender that exists on a spectrum or continuum (Understanding Gender, 2015). However, for the purpose of this study, a binary model of gender will be used.

*Gender identity* is a person's internal sense of being male, female, or neither (APA, 2011). One's gender identity can be the same or different than the biological sex assigned at birth. *Gender role* refers to behaviors, attitudes, and personality traits that a

society, in a given period of time, labels as either masculine or feminine (Ruble et al., 2006). *Gender expression* refers how a person represents or expresses gender identity to others, often through behavior, clothing, hairstyles, voice, or body characteristics (NCTE, 2009). A person's gender identity is distinct from sexual orientation. *Sexual orientation* refers to an enduring pattern of emotional, romantic, and/or sexual attractions to men, women, both sexes, transgender individuals, no one, or all genders (APA, 2008; VandenBos, 2007). Finally, *transgender*, or *gender nonconforming*, refers to having a gender identity that differs from culturally determined gender roles and biological sex (VandenBos, 2007). It is an umbrella term that includes diverse identities and represents persons identifying as female-to-male, male-to-female, two-spirit, genderqueer, and other terms (APA, 2011). This study will focus specifically on issues relating to gender nonconformity.

### **Gender Nonconformity**

Although there is some variability in the literature regarding definitions, gender nonconformity is typically described as:

Gender expression (or outward appearance) [that] does not follow traditional gender roles: “feminine boys,” “masculine girls,” and students who are androgynous, for example. It can also include students who look the way boys and girls are expected to look but participate in activities that are gender nonconforming, like a boy who does ballet (Gay-Straight Alliance Network, 2004, p.1).

Bailey and Zucker (1995) describe gender nonconformity as the expression of characteristics that are socially and culturally associated with the opposite gender. Within the literature, *gender atypical* behavior and *gender variant* are terms that are used interchangeably with gender nonconformity. However, each of these terms refers to engaging in gender-typed behaviors that are typically associated with the opposite sex.

Characteristics observed in childhood that tend to be viewed as gender-typed include clothing and playmate preferences, role-play behavior, toy and activity preferences, activity level, role models, and frequency of rough and tumble play (Bailey & Zucker, 1995; Zucker et al., 2006).

### **Epidemiology of Gender Nonconformity and Sexual Orientation**

The prevalence of cross-gender behavior during childhood has been assessed using two items from the *Child Behavior Checklist* (CBCL; Achenbach & Rescorla, 2001): “behaves like the opposite sex” and “wishes to be the opposite sex.” If a parent or guardian endorses either of these two items, the child is coded as gender atypical or gender nonconforming for research purposes. Using this method, prevalence rates for gender nonconforming behavior vary between 2.4% (van Beijstervelt et al., 2006) and 2.5% (Steensma et al., 2012) for boys, and 3.3% (van Beijstervelt et al., 2006) and 8.7% (Steensma et al., 2012) for girls. In fact, some degree of gender nonconforming behavior in young children is common. For instance, a large-scale study of children 6 to 10 years of age revealed that approximately 23% of boys and 39% of girls engaged in at least 10 different gender nonconforming behaviors (Sandberg et al., 1993).

It would be difficult to peruse the literature on gender nonconforming behavior without encountering mention of sexual orientation. The most extensively studied early behavioral indicator of future sexual orientation is gender atypical or nonconforming behavior in childhood. A number of studies have reported that individuals with a homosexual sexual orientation recall significantly more gender atypical behavior than their heterosexual counterparts (Bailey & Zucker, 1995; Zucker, 2008). Although

significant findings are consistently reported, these retrospective studies have been criticized as vulnerable to memory bias (Gottschalk, 2003).

To address this concern with participant memory bias, Rieger and colleagues (2008) examined the predictive value of behavior rated in childhood home movies for both later gender nonconformity and adult sexual orientation. In this study, observer ratings of gender nonconformity in childhood home movies predicted adults' gender nonconformity, as well as the individuals who later identified as homosexual adults. In other words, children who subsequently identified as homosexual in adulthood tended to be more gender nonconforming than children who subsequently identified as heterosexual adults (Rieger et al., 2008).

Clinically referred samples provide another source of evidence demonstrating an association between gender nonconforming behavior in childhood and later sexual orientation in adulthood. Children included in these clinically referred samples typically demonstrate extreme gender nonconforming behavior that partially or fully meets the criteria for Gender Identity Disorder in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000, 2013). Evidence from a number of clinically referred samples suggest that over 30% of gender nonconforming girls and over 60% of gender nonconforming boys reported some same- or both-sex sexual fantasy or behavior in adolescence or adulthood (Drummon et al., 2008; Green 1987; Singh, 2012; Wallien & Cohen-Kettenis, 2008; also see Zucker & Bradley, 1995 for a summary of other studies). These percentages exceed figures reported for homosexual or bisexual fantasy or behavior reported in the general population, which is estimated as 3% of women and men (Bailey et al., 2016). However, given that these percentages are drawn

from a clinical sample, the degree to which these findings relate to the general population is unclear.

A small number of prospective studies have followed gender nonconforming boys into adulthood to assess their developmental trajectories, including sexual orientation outcomes (Green, 1985, 1987; Zucker, 1990; Zucker & Bradley, 1995). These prospective studies suggest that the presence of childhood gender nonconforming behavior is significantly associated with gender nonconformity in adolescence and a homosexual or bisexual sexual orientation in adulthood for clinically referred boys and girls (Drummond et al., 2008; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995).

The four largest prospective studies on clinically referred gender nonconforming children indicated an association with bisexual or homosexual sexual orientations in adolescence and young adulthood. For example, Green (1987) reported that 41% of the feminine boys at follow-up, reported a homosexual sexual orientation in fantasy and 44% in homosexual behavior. In Green's sample, 34% reported bisexual behavior. Zucker and Bradley (1995), with an initial sample of 45 clinically referred children (40 boys), found that 20% of the participants reported a homosexual sexual orientation in fantasy and 16% of the participants reported a homosexual sexual orientation in behavior at follow-up. In addition, 11% reported bisexual fantasies, and 2% reported bisexual behavior. Drummond and colleagues (2008) found a homosexual sexual orientation in fantasy and behavior in 24% of 25 girls, with 8% of the girls reporting a bisexual attraction in fantasy and none reporting bisexual behavior. Wallien and Cohen-Kettenis (2008), following 44 clinically referred gender-variant children in adolescence and young adulthood (31 boys),



found percentages for homosexuality in attraction, fantasy, sexual identity, and behavior for 62-68% of the boys and 60-73% of the girls.

Steensma and colleagues (2013) conducted a prospective study in the general population (i.e., non-clinical samples) to examine the association between childhood gender variance and sexual orientation in adulthood. Similar to prevalence studies, the researchers measured childhood gender variance using the previously mentioned two items from the CBCL (Achenbach & Rescorla, 2001) and assessed adult sexual orientation using four parameters (sexual attraction, sexual fantasy, sexual behavior, and sexual identity). For both men and women, the presence of childhood gender variance was significantly associated with homosexuality for all four parameters. Adult homosexuality was 15 times more prevalent for participants with a history of gender variance (10.2% to 12.2%) compared to participants without a history of gender variance (1.2% to 1.7%). However, in contrast to previous findings for clinically referred gender nonconforming children, the presence of a homosexual orientation in adulthood was lower (Steensma et al., 2013). Udry and Chantala (2006) conducted a six-year longitudinal study of 15,000 adolescents and found that for adolescent males, initial levels of masculinity-femininity (i.e., gender nonconformity) predicted several indices of sexual orientation six years later, including degree of same-sex attraction, number of same-sex partners, and reported homosexual orientation.

Although prospective studies are more informative than retrospective reports, there are methodological limitations associated with these studies. For instance, many researchers use only two parent-reported items (“Behaves like opposite sex.” and “Wishes to be of opposite sex.”) from the CBCL (Achenbach & Rescorla, 2001) to assess

childhood gender nonconformity. It is possible that gender atypical or gender nonconforming children were not identified by the use of such a limiting two-item measure. Additionally, of the 879 participants included in Steensma and colleagues' (2013) prospective study, only 51 children were identified as gender nonconforming or gender atypical. Further, of these 51 children, only 10 were male. Such a small sample of gender nonconforming children makes it difficult to draw conclusions regarding the association between childhood gender atypical behavior and adulthood homosexuality.

To address the issue of using two items to assess gender nonconformity, a population-based study by Li and colleagues (2017) used a more comprehensive measure of gender-typed behavior, the Preschool Activities Inventory (PSAI; Golombok & Rust, 1993a, 1993b) to examine gender-typed behavior and sexual orientation. The PSAI measure consisted of 24 items measuring children's preferences for toys, activities, and characteristics. Li and colleagues (2017) found that the levels of gender-typed behavior between the ages of three and four predicted adolescents' reported sexual orientation at age fifteen. Additionally, within-individual change in gender-typed behavior during the preschool years significantly related to adolescent sexual orientation, particularly in boys.

### **Gender Nonconformity as a Risk Factor**

As previously mentioned, individuals with a homosexual sexual orientation are, on average, more gender nonconforming than heterosexual individuals, both in childhood (Bailey et al., 2000; Bailey & Zucker, 1995; Dunne et al., 2000) and adulthood (Lippa, 2005). Sexual orientation is related both to gender nonconformity and to psychological distress, particularly in homosexual men. For instance, among homosexual men, those who recall more childhood gender nonconformity also report increased psychological

distress compared to those who recall less gender nonconformity (Bailey & Zucker, 1995). Specific symptoms of distress associated with childhood gender nonconformity include lower self-esteem and higher rates of depression, anxiety, and symptoms of Posttraumatic Stress Disorder (PTSD; D'Augelli et al., 2006). Gender nonconformity also appears to be associated with increased risk for suicide attempts in homosexual youth (Halpert, 2002; Kulkin et al., 2000; McDaniel et al., 2001; Remafedi, 1999). These findings have generally been stronger and more consistent among men than women (Skidmore et al., 2006).

Some researchers have theorized that gender nonconformity may, in part, explain why homosexual-oriented individuals report lower feelings of well-being than heterosexual individuals. Roberts and colleagues (2012) found that gender nonconforming children are at higher risk for physical, emotional, and sexual abuse and are at higher risk for adult PTSD, with about one-third of PTSD risk accounted for by being abused as a child. Additionally, coming out as transgender to family members often results in physical assault and expulsion from the family home (Ray, 2006). In one study, more than one-half of transgender youth reported initial parental reaction to coming out as “negative” or “very negative” (Grossman et al., 2011). Young adults who experience low family acceptance of gender nonconformity are at greater risk for depressive symptoms, substance abuse, and suicidal ideation and attempts (Ryan et al., 2010).

Among bisexual and homosexual men, gender nonconformity has been found to predict depression and anxiety (Skidmore et al., 2006), eating disorders (Meyer et al., 2001), body dissatisfaction (Strong et al., 2000), poor general psychological functioning (Sandfort et al., 2007), and suicide risk (Plöderl & Fartacek, 2009; Savin-Williams &

Ream, 2003). Additionally, Harry (1983) found that for men specifically, both childhood and adulthood gender nonconformity was negatively related to a sense of well-being, whereas sexual orientation was not. Further, Savin-Williams and Ream (2003) found that gender nonconformity, but not sexual orientation, was related to suicide attempts among male youth. In men, gender nonconformity, but not sexual orientation, was associated with body dissatisfaction (Strong et al., 2000).

Childhood gender nonconformity is related to increased distress in adulthood, particularly for homosexual men; however, the reasons for this relation are not well understood. Although factors that explain the gender nonconformity and distress association have not been clearly established, research on others' negative attitudes toward gender nonconformity provides some evidence. Gender nonconforming children, adolescents, and adults who violate societal expectation about how boys/men and girls/women are supposed to look and behave tend to elicit negative reactions from others (Maccoby, 1998). In fact, heterosexuals appear to hold negative attitudes toward gender nonconformity (Herek, 2000, 2002). However, heterosexual individuals are not the only ones who have been identified as having negative attitudes toward gender nonconformity. For example, Bailey and colleagues (1997) conducted a series of studies on the personal ads of homosexual and heterosexual men and women. Homosexual women and men were found to be much more likely than heterosexual women and men to claim and request sex-typical traits in their personal ads. Additionally, homosexual men tended to portray themselves as masculine looking and acting and to request partners who were masculine looking and acting. Although research indicates that homosexual individuals are, on average, more gender nonconforming than heterosexual individuals, some research

suggests that homosexual men and women portray and request sex-typical traits when seeking romantic relationships.

There is also strong evidence that gender nonconforming children and adolescents experience frequent ridicule and rejection from peers and parents (Smith & Leaper, 2006; Toomey et al., 2010). Child and adolescent peers tend to be critical and often bully individuals who engage in gender nonconforming behaviors. A number of researchers have found that boys mock such behavior in other boys (Young & Sweeting, 2004). Research also indicates that children who engage in gender nonconforming behavior are less accepted by same-sex peers than by opposite-sex peers (Wallien et al., 2010).

Based on the current literature, it is clear that regardless of sexual orientation, children, adolescents, and adults who engage in gender atypical or gender nonconforming behavior are at risk for a number of negative outcomes. Although the current study did not look at specific risk factors associated with gender nonconforming behavior, it is obvious that attitudes toward gender nonconforming children, adolescents, and adults have a significant impact on one's psychological well-being. Therefore, one purpose of the current study was to examine the attitudes of adults toward children who are gender nonconforming as well as their mothers.

### **Attitudes and Social Perception**

Social psychological phenomena, such as attitudes, prejudice, and stigma offer a theoretical framework through which gender atypical behavior and related issues can be explored. Several researchers examining gender nonconformity have focused on heterosexuals' attitudes toward gay men and lesbian women, based on whether or not they are gender nonconforming. For example, Simon (1998) found that gay men and

lesbian women are “less liked” if they are perceived as unmasculine or unfeminine, respectively.

### **Prejudice**

Whereas attitudes can be positive, neutral, or negative, prejudice is defined as “a negative bias toward a social category of people with cognitive, affective, and behavioral components,” (Paluck & Green, 2009, p. 340). One goal of this study was to explore attitudes toward gender nonconforming children and their mothers as potential instances of prejudice. Prejudice is often grouped with stereotyping and discrimination. Of the three, prejudice is considered an affective social phenomenon in that it deals with attitudes and does not directly involve behavior (Fiske, 1998). However, presence of prejudice can directly influence behavior, just as beliefs and perceptions can impact one’s experiences.

Negative evaluations based on stereotype nonconformity occur when an individual is deemed to have behaved in a gender deviant manner and also result from merely associating with someone who violates these schemas. It appears as though some of the prejudice toward sexual minorities focuses specifically on gender nonconformity. Although studies with adults (Lippa, 2002; Skidmore et al., 2006) and youth (Blashill & Powlishta, 2009; D’Augelli et al., 2005) have found that lesbian, gay, and bisexual populations were more gender nonconforming than individuals who identify as heterosexual, harassment and discrimination targeting nonconforming gender expression are not restricted to those with a minority sexual orientation. For example, Horn (2007) found that heterosexuals can be targets for bullying and verbal or physical abuse based on their gender expression.

Researchers have begun to consider gender nonconformity in relation to prejudice, bullying, and school climate (Bochenek & Brown, 2001; Cianciotto & Cahill, 2003; Gay-Straight Alliance Network, 2004; Harris Interactive & Gay, Lesbian, and Straight Education Network [GLSEN], 2005). For example, D'Augelli and colleagues (2002) found in a sample of lesbian, gay, and bisexual youth that gender nonconforming individuals had experienced more verbal and physical victimization in high school. Although homosexuality has become more socially acceptable, gender transgression in appearance or behavior remains widely stigmatized and targeted for discrimination and violence (Bornstein, 1998; Lombardi et al., 2001; Wilchins, 2004).

### **Bullying and Peer Relationships**

Bullying has been described as repeated, intentionally aggressive acts perpetrated by an individual who is more powerful than the victim (Olweus, 1993). Crick and colleagues (1999) defined relational aggression as “behaviors that harm others through damage (or threat of damage) to relationships or feelings of acceptance, friendship or group inclusion” (p. 77). In contrast to physical aggression that involves bodily injury, relational aggression involves interpersonally manipulative behaviors (Crick & Grotpeter, 1995). These behaviors include direct control (e.g., “You can’t be my friend unless ...”), social alienation (e.g., the silent treatment), rejection (e.g., telling rumors or lies so others reject him or her), and social exclusion (e.g., excluding a peer from a group; Crick et al., 2002). With regard to gender differences in peer relations, girls report more relational aggression stress, whereas boys report more physical aggression stress (Rose & Rudolph, 2006).

Being bullied is more likely among those who are less physically attractive, are overweight, have a disability, or perform poorly at school (Sweeting & West, 2001). Gender nonconformity may be an additional way of deviating from the norm that increases one's vulnerability for victimization. Peer reactions to gender nonconforming behavior are often negative, ranging from verbal questioning of the individual's biological sex to physical abuse (Grossman & D'Augelli, 2006). The abuse experienced by gender nonconforming adolescents frequently occurs at school (D'Augelli et al., 2006; Henning-Stout et al., 2000). The school context is one of the primary settings where social interactions occur during adolescence, and for gender nonconforming and LGBT youth, school can be one of the most painful and traumatizing social contexts (Morrow, 2004).

Research documents the high prevalence rate of harassment that occurs in schools because of actual or perceived lesbian, gay, or bisexual status (Kosciw et al., 2008; Lasser & Tharinger, 2003; Russell, 2005; Ryan & Rivers, 2003; van Wormer & McKinney, 2003). Negative reactions toward gender nonconforming adolescents may actually be related to the perpetrator's perceptions that the adolescent is lesbian, gay, or bisexual (D'Augelli et al., 2006; Friedman et al., 2006; Pilkington & D'Augelli, 1995). For example, in Pilkington and D'Augelli's (1995) sample of lesbian, gay, and bisexual adolescents, students who were gender atypical and more open to peers about their lesbian, gay, or bisexual status were more likely to report victimization than those students who conformed to stereotypical gender norms.

Gender nonconforming youth have reported that school was the location of their first experience of physical victimization more than any other context, including home



and community contexts (D'Augelli et al., 2006). Research findings consistently reveal high rates of harassment and assault experienced by gender nonconforming students. For example, the National Transgender Discrimination Survey (Grant et al., 2011) found that 78% of transgender and gender nonconforming youth reported harassment by students, teachers, or staff, and 35% experienced physical assault by either peers or teachers. In addition, Kosciw and colleagues (2008) found that nearly two-thirds of gender nonconforming youth reported experiencing verbal harassment in school, and nearly one third reported experiencing physical harassment at school. Similarly, Sausa (2005) found that 96% of transgender participants experienced physical harassment, and 83% experienced verbal harassment at school.

Given the frequency with which gender nonconforming children experience victimization in the school setting, the current study also added a relational aggression component to each of the vignettes to make the hypothetical gender nonconforming children more credible. Participants viewed a brief conversation between a teacher and a counselor prior to an impending parent-teacher conference. In all videos, the teacher described a child who experienced relational aggression. However, the teacher in the videos attributed the bullying to either the child's gender nonconforming behavior or to the fact that the student is new to the school.

### **Stigma**

Stigma is defined as “an undesired differentness from what we had anticipated,” which can lead to thoughts that the individual is a lesser human (Goffman, 1963, p. 5). Dovidio and colleagues (2000) defined stigma more broadly as a social construction that involves the recognition of difference based on some distinguishing characteristics or

mark and the devaluation of the person. These distinguishing characteristics or marks may include skin color (i.e., race or ethnicity), body size (e.g., obesity), and mental health conditions (Larson & Corrigan, 2008; Corrigan et al., 2000). Further, Dovidio and colleagues (2000) argued that stigmatization often includes dehumanization, aversion, and depersonalization of others. Therefore, stigmatization is considered a variable with an interpersonal component and involves both a labeling of deviance in an individual or group as well as socially sanctioned marginalization of the individual or group based on deviance.

Studies consistently demonstrate that individuals with stigmatizing conditions are more likely to experience psychological effects than those without stigmatizing conditions (Baumbauer & Prigerson, 2006; Fife & Wright, 2000; Mak et al., 2007). *Self-stigma* is the process by which these individuals internalize negative views about themselves (Bos et al., 2013). Individuals with stigmatizing conditions often develop harmful perceptions of themselves, experience negative emotions, withdraw and avoid others, and attempt to conceal their stigmatizing condition (Corrigan & Watson, 2002).

### **Stigma and Gender Nonconformity**

Stigmatization of gender nonconformity occurs at very young ages. Gender nonconforming children, particularly feminine boys, may suffer ridicule and rejection by parents and peers early in childhood (Bailey, 2003; Beard & Bakeman, 2000; Landolt et al., 2004; Smith & Leaper, 2006; Zucker et al., 1995). For instance, boys referred to clinics for treatment of gender identity issues are also likely to experience disruptions in their relationships with both parents and peers (Cohen-Kettenis et al., 2003; Fridell, 2001; Zucker et al., 1997). Studies of non-referred children have documented similar findings

(Carver et al., 2004; Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004).

Specifically, Carver and colleagues (2004) found among a non-clinic sample that sexual questioning children tended to report being less traditionally sex-typed than children with a heterosexual identity.

Stigmatization of gender nonconformity also occurs during adolescence. For instance, D'Augelli and colleagues (2002) found that more than one-half of their sample of gay and bisexual youth under the age of 21 reported verbal abuse in high school. A greater risk for being verbally and physically victimized was associated with more gender nonconformity. Consistent with other research, D'Augelli and colleagues (2002) also found that male adolescents were more often targets of abuse than female adolescents. In a follow-up study, D'Augelli and colleagues (2006) assessed 528 homosexual adolescents' recalled childhood gender nonconformity, experiences of stigmatization, and current psychological distress. Nearly 80% of their sample reported verbal victimization, and boys (87%) reported more than girls (69%). Additionally, participants who recalled more childhood gender nonconformity reported more verbal and physical victimization and current psychological distress. Physical victimization also began at an earlier age for more gender nonconforming participants, and level of victimization was related to measures of distress (D'Augelli et al., 2006).

The disproportionality in the strength of gender boundaries for girls versus boys may also partially explain the increased stigmatization and distress found among gender nonconforming boys. Young boys tend to reject other boys who act in feminine ways, but, in general, girls are more accepting of other girls' tomboyish behavior (Maccoby, 1998). Reactions to violations of gender norms tend to be more pronounced for gender

nonconforming boys and men than gender nonconforming girls and women (Diekman et al., 2004). Previous research has also documented that adults are more concerned with socializing male children to conform to gender norms than female children (Egan & Perry, 2001; Thomas & Blakemore, 2013). Similarly, parents, especially fathers, tend to be more concerned about gender nonconformity in their sons than their daughters (Friedman & Downey, 1999; Kane, 2006; Maccoby, 1998). Thus, a further purpose of the current study was to examine the effect of child sex on stigma. Do boys who behave in a feminine manner face greater stigmatization than girls who behave in a masculine manner?

### **Dual Process Model**

Pryor and colleagues (2004) proposed a theoretical model for individual reactions to perceived stigma. This dual-process model suggests that people respond to perceived stigma in both reflexive and rule-based ways. These responses are also governed by the amount of time the individual spends processing the stigmatizing condition before providing a response. Pryor and colleagues (2004) found that an individual's initial reaction to a perceived stigma was controlled by a reflexive system, and later responses were governed by a rule-based system (Pryor et al., 2004). Hebl and Kleck (2000) also found that when participants verbally reported their attitudes toward stigmatizing conditions, they used rule-governed or reflective processes to provide socially acceptable responses. However, despite providing socially acceptable verbal responses, participants often demonstrated nonverbal behaviors that suggested they possessed different attitudes. This discrepancy between verbal and nonverbal responses indicates that nonverbal

behaviors may be a demonstration of separate reactive processes (i.e., reflexive, automatic processes; Hebl & Kleck, 2000).

In contrast to reflexive reactions to stigma, deliberative reactions feel controllable and effortful to the person who is engaged in them (Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004). For example, people may consciously apply certain rules when determining whether it is socially appropriate or desirable to react negatively to a stigmatized person (Crandall & Eshleman, 2003). One such rule seems to be that one should react less negatively to people whose stigmas are due to forces beyond their personal control (Weiner, 1995). For example, Pryor and colleagues (2004) found that participants reacted less negatively to stigmas perceived to have uncontrollable onsets (e.g., blindness) than those perceived to have controllable onsets (e.g., drug addiction). Consistent with the notion that reactions to uncontrollable-onset stigmas involved a deliberative application of rules, participants were more likely to approach those with uncontrollable-onset stigmas after time had passed for considering their reactions. Thus, psychological reactions to stigmatized persons seem to involve dual processes with an interplay between reflexive and deliberative processes over time. Initial reactions to stigmas are likely to involve reflexive processes, and delayed reactions are likely to bring deliberative processes into play. The dual process model depicts an interplay of immediately activated reflexive processes and later activated deliberative processes, in which the ultimate reaction to a stigmatized person is likely to be affected both by the initial reactions and those that are more reflective (Pryor et al., 2004).

## **Stigma by Association**

Similar to a contagious disease, stigma can be spread from one individual to another who is, in some way, affiliated with the person who possesses a stigmatizing condition. Family, friends, and even acquaintances can experience stigma simply by knowing or associating with someone “marked” with a stigmatizing condition. Therefore, the current study also aims to explore whether a child who engages in gender atypical behavior can bias others toward his or her mother. If the child’s gender nonconforming behavior is stigmatizing, one way to assess a biasing factor toward the mother is by examining the situation as an occurrence of “stigma by association.” Research suggests that an individual can be “marked” or have a stigma simply by associating with another stigmatizing person. Goffman (1963) referred to this as “courtesy stigma,” but this phenomenon is also known as *stigma by association* (Goldstein & Johnson, 1997; Neuberg et al., 1994; Ostman & Kjellin, 2002; Pryor et al., 2012). Pryor and colleagues (2012) defined stigma by association as the process by which associates of stigmatized persons are shunned by others. Stigma by association has been found to be significantly related to perceived public stigma and predicts poor overall well-being (Pryor et al., 2012). Thus, stigma by association not only motivates personal reactions to the stigma itself, but also causes reactions to a person who is associated with someone marked with a stigmatizing condition.

Goffman (1963) noted that there are two types of people who experience stigma: “the own” and “the wise.” The “own” are those individuals who share the stigmatizing condition. The “wise” are those individuals who are not marked with the stigmatizing condition but those who are closely and intimately connected to stigmatized individuals.

Goffman (1963) discussed how “the wise” are often treated in a similar manner to those who experience stigma directly:

Thus the loyal spouse of the mental patient, the daughter of the ex-con, the parent of the cripple, the friend of the blind, the family of the hangman, are all obliged to share some of the discredit of the stigmatized person to whom they are related. (pp. 28-31).

In societies where heterosexuality is considered the norm, any deviation is stigmatized. Research indicates that this is true for gay and lesbian individuals (Herek, 2004). Conforming to gender stereotypes appears to be associated with more positive evaluations for gay and lesbian individuals (Storms, 1978). Not only can negative evaluations occur when a person is perceived as violating gender norms, these negative evaluations also result from merely associating with someone who is gender nonconforming. This phenomenon has been documented in platonic relationships between gay and heterosexual men. For example, Neuberg and colleagues (1994) found that the evaluation of a heterosexual man was influenced both by his social status (i.e., high or medium) and the sexual orientation of the individual with whom he was paired (i.e., gay or heterosexual). Respondents judged the heterosexual men as less likeable when paired with gay man rather than a heterosexual partner. Additionally, gay partners were viewed more negatively, particularly when the individual was paired with a high-status heterosexual. Sigelman and colleagues (1991) also found that when target characters were perceived as more likely to be gay or gay-friendly, likeability for the individual decreased significantly. However, the researchers found that this effect was moderated by the respondents’ level of anti-gay prejudice, with those evaluators who endorsed anti-gay prejudice providing more negative evaluations.

According to the literature, a variety of factors predict whether an individual is more likely to experience stigma by association, including both physical and emotional proximity to the stigmatized person, the nature of the stigmatizing condition, perceived burden, demographics, and cultural views (Phelan et al., 1998). Pryor and colleagues (2012) examined whether the type of relationship of the stigmatized individual to the affiliated individual had an effect on the attitudes toward the associated individuals. Undergraduate students viewed pictures of men with either overweight or thin women, and associations were described as either arbitrary acquaintances or meaningful relationships. After viewing the photos, participants rated the attractiveness of the associated male individual. Findings demonstrated that those with implicit negative weight-related attitudes devalued the companions of overweight women regardless of whether the relationship was arbitrary or meaningful. Participants with explicit negative weight-related attitudes also engaged in greater amounts of stigma by association when relationships were meaningful. Thus, individuals who are engaged in meaningful relationships with stigmatized persons may be more likely to experience stigma by association than arbitrary acquaintances.

van der Sanden and colleagues (2013) examined the relation between stigma by association and outcome factors, such as perceived closeness. This study included family members of those with mental illnesses. Relations between stigma by association, perceived closeness, public stigma, and psychological distress were assessed. The type of family relationship (i.e., immediate vs. extended family) moderated the associations among these variables. For instance, immediate family members experienced stigma by association that was significantly and negatively related to perceived closeness. In



contrast, the stigma by association experienced by extended family members was not significantly related to perceived closeness. This finding indicates that relationship type may play a role in how much stigma by association family members experience.

Immediate family members were more likely to report lower perceived closeness with the stigmatized individual than extended family members.

Stigma by association also varies depending on the role of the family member (e.g., child, sibling, parent). Corrigan et al., (2006) found that children worried about being “contaminated” by their parents’ mental illness, that siblings were criticized for not assuring that their relative with mental illness adhered to treatment plans, and that parents were thought to be responsible for causing their child’s mental illness. Thus, a further purpose of the current study was to explore participant attitudes toward mothers who apparently allow or encourage their children to deviate from gender norms by engaging in gender atypical behavior.

### **Effects of Stigma by Association**

There are significant consequences to being on the receiving end of stigma by association. When individuals feel devalued due to their connection to someone with a stigmatizing condition, associated behavioral tendencies have been observed.

Stigmatizing reactions have been shown to affect mental well-being, social life, and social networks (van der Sanden et al., 2014). One way individuals react to the experience of stigma by association is to conceal their relationship with the stigmatized person or avoid interactions with the stigmatized person. There is a body of work addressing stigma by association experienced by family members whose relatives are affected by cognitive disabilities, HIV/AIDS, and psychiatric illness (Corrigan & Miller,

2004; Gray, 2002; Green, 2003; Khamis, 2007; Thomas, 2006). Studies of parents of children with a disability highlight how stigma by association, much like direct stigma, contributes to impaired and negative social interactions because parents may perceive judgment and blame with regard to their child's disability or behavior, or the manner in which they care for their children (Green, 2003; Norvilitis et al., 2002; Turner et al., 2007). Stigma by association places strain on the relationship between marked individuals and their family members, ultimately affecting the capacity for social support in this context (Green, 2004). Additionally, in a study of family caregivers of those with mental illness, 20% reported that they had personally felt stigmatized; 50% reported that stigma affected their family's quality of life; 43% reported that stigma affected their own ability to interact with other relatives; and 28% reported that stigma affected their family's ability to make or keep friends (Stuart et al., 2005). In an effort to minimize the effects of a stigmatizing condition, many individuals attempt to psychologically distance themselves from their stigmatized relatives (Pryor et al., 2012).

### **Implicit and Explicit Measures of Stigma**

#### **Implicit Measures of Stigma**

To identify the reflexive and rule-based responses described by Pryor and colleagues' (2004) dual-process model, researchers are encouraged to use both implicit and explicit measures (Fazio & Olson, 2003). Whereas explicit measures assess an individual's reflected, rule-governed, or controlled responses, implicit measures are designed to elicit associative or reflexive responses to stimuli (Payne et al., 2008). Researchers have utilized implicit measures to assess prejudice, stigma, and other psychological constructs. By using indirect measures to assess attitudes that are

considered socially undesirable, researchers may avoid obtaining biased or socially desirable responses from direct reports (Fazio & Olson, 2003).

Although a number of implicit measures are available, the most commonly used is the *Implicit Apperception Test* (IAT) developed by Greenwald and colleagues (1998). The IAT assesses the strength of an association between a target concept and an attribute dimension by considering the time it takes for participants to choose between two response keys when each has been assigned a dual meaning (Fazio & Olson, 2003). Participants are required to categorize stimuli as they appear on the computer screen. For example, Greenwald and colleagues (1998) examined racial attitudes by requiring participants to categorize names as typical of blacks versus whites. In this example, race is the target concept, and the keys are labeled “black” and “white.” Participants then categorized a variety of words (e.g., “poison” or “gift”) as pleasant or unpleasant, which constitutes the attribute dimension. The researchers then combined the two categorization tasks. Greenwald and colleagues (1998) found that it was much easier for participants to associate “black” with the attribute “unpleasant” than with the attribute “pleasant.” The IAT allowed the researchers to estimate the racial associations of participants without asking for their verbal reports. In fact, participants were unaware that their implicit attitudes were being assessed.

Although the IAT is a commonly used implicit measure, other implicit measures have been developed to assess participants’ initial, reflexive responses to stimuli. Another example of a widely used measure is the *Affect Misattribution Procedure* (AMP; Payne et al., 2008; Payne et al., 2005) In the AMP, participants are exposed to a prime, followed by an abstract image, and then asked to rate the pleasantness of the abstract image while

disregarding the prime as simply a spacing item. The AMP is considered implicit in that it is indirect and measures attitudes or associations that are present despite participant attempts to disregard the prime (Payne et al., 2008). The AMP was utilized in the current study as an implicit measure of participant attitudes toward children who are gender conforming or gender nonconforming. The hypothetical children in the stimulus materials vary by gender (i.e., male vs. female). Participants are not explicitly asked to report their attitudes as part of the AMP procedure; rather, their report is gathered indirectly as they rate the degree of pleasantness of abstract images or pictographs.

For the procedure to work as an implicit measure, two things must occur: First, misattribution must take place. For the purposes of this study, misattribution was defined as the mistaking of an effect of one source for the effect of another. In other words, misattribution is linking a feeling or attitude about one phenomenon that is actually attributed to another. Payne and colleagues (2008) referred to this misattribution to an external phenomenon as a projection. Second, affect, or a basic positive or negative reaction to stimuli (Russell, 2003), must be elicited by the prime. Although affect and emotion are frequently used interchangeably, affect is necessary for this procedure because basic affect can occur without linking it to a specific context or phenomenon. In contrast, emotional reactions require assessment of a situation or object (Russell, 2003). Affect is also important for the AMP because affect, beliefs, and behavior are all components of attitudes (Zanna & Rempel, 1988). These components suggest that measuring the misattribution of affect can provide some clarification of attitudes.

## **Explicit Measures of Stigma**

A feeling thermometer (e.g., Campbell, 1971) is one technique used to measure explicit attitudes. Feeling thermometers ask respondents to indicate their attitude on a scale of degrees, typically ranging from 0° (very cold) to 100° (very warm). A number of studies have used feeling thermometers to examine feelings and attitudes toward an individual person, social group, or social phenomenon. For example, feeling thermometers have frequently been used in public opinion research (Berman & Stookey, 1980) and to measure attitudes about various social groups, including overweight individuals and African-Americans (Pryor et al., 2012). Not only do feeling thermometers measure explicit participant attitudes and feelings regarding a given phenomenon, they also measure the intensity of those attitudes and feelings (Nelson, 2008).

Feeling thermometers have been used to identify individual differences in feelings and attitudes among participants (Wilcox et al., 1989). However, when analyzing participant responses, it is important to consider that individuals differ on a continuum rather than utilizing a strict cut-off score. Wilcox and colleagues (1989) found that several different methods of controlling for individual variation all work equally well. For instance, the adjustment procedure suggested by Knight (1984) included subtracting the mean score for all group feeling thermometers from the score for the target group. Additionally, Giles and Evans (1986) reported the mean and the standard deviation, which provides some additional explanation for findings. Finally, Cook (1987) subtracted the group mean from the individual response and divided that number by the group mean to represent a way to view individual responses on a variance fitting to the specific sample in question. This method can be used rather than assigning an arbitrary cut-off

score to determine positive or negative feelings. In the current study, a feeling thermometer will be used to measure explicit attitudes toward a target child and the mother of the gender conforming or nonconforming child. The Cook's (1987) adjustment procedure will be utilized to account for individual differences.

### **Summary**

The overall well-being of LGBT individuals is negatively affected by homophobia, stigma, and discrimination (USDHHS, 2012). Although homosexual behavior has gradually become more socially acceptable, gender transgressions in appearance or behavior remain widely stigmatized and targeted for discrimination and violence (Bornstein, 1998; Lombardi et al., 2001; Wilchins, 2004). When categorizing individuals as either heterosexual or as belonging to a sexual minority group, the general public often considers the individual's physical appearance and behavior. Researchers have suggested that gender atypicality (i.e., masculinity in a boy or man and femininity in a girl or woman) can be used as accurate cues in sexuality judgment (Rieger et al., 2010).

Not all individuals who engage in gender nonconforming behavior as children identify as homosexual as adults; however, sexual orientation in adulthood is one outcome associated with childhood gender nonconformity. Both retrospective (Bailey & Zucker, 1995; Landolt et al., 2004; Lippa, 2008; Zucker et al., 2006) and prospective methods (Drummond et al., 2008; Green, 1987; Rieger et al., 2008; Steensma et al., 2012; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995) have indicated that gay men and lesbians report greater childhood gender nonconformity than do heterosexual adults. Based on the literature, it can be hypothesized that gender atypical behavior, or gender nonconformity, is a visible sign of one's possible sexual orientation, and elicits more

homophobic responses from bystanders than does a covert homosexual orientation. It can, therefore, be hypothesized that gender atypical behavior, rather than sexual orientation per se, is associated with a number of negative outcomes.

Thus, it is important to further identify how reactions vary according to perceptions of gender conformity, including appearance, behavior, and interests. The majority of studies have focused on adults and the impact of their sexual orientation on others' perceptions. However, research also suggests that adults evaluate children's gender nonconformity and make judgments regarding their future sexual orientation as adults, based on their own expectations (Thomas & Blakemore, 2013). The current study examined participant attitudes toward both gender conforming and gender nonconforming children. Many in the lay community believe parents have a significant influence on their children's social and emotional development, and this belief may elicit blame from observers who see the mother as failing to actively discourage their child's gender deviant behavior. Therefore, the current study was designed to determine if the stigma placed on a gender nonconforming child results in stigma by association for the mother of the children.

### **Hypotheses and Overview of the Current Study**

It was hypothesized that participants' implicit associations and explicit attitudes would be more negative toward gender nonconforming children described in a video vignette compared to gender conforming children. The current study was also designed to answer the question of whether the attitudes of participants toward the children was moderated by the sex of the child given the finding that feminine boys may suffer greater ridicule and rejection by peers and parents early in childhood relative to masculine girls

(Bailey, 2003; Beard & Bakeman, 2000; Landolt et al., 2004; Smith & Leaper, 2006; Zucker et al., 1995). Additionally, research has found that boys often reject other boys who act in feminine ways, but girls are typically more accepting of other girls' tomboyish behavior (Maccoby, 1998). It was, therefore, hypothesized that male participants would have significantly more negative attitudes toward gender nonconforming boys, compared to their attitudes toward gender nonconforming girls; moreover, these attitudes would be more negative relative to those of female participants toward gender nonconforming boys or girls.

The final purpose of this study was to investigate the potential of stigma by association for the mother of a gender nonconforming child. It was hypothesized that participant measures of implicit attitudes toward the child would predict explicit attitudes toward the child's mother. In other words, it was hypothesized that the effect of the gender nonconforming condition on attitudes toward the child's mother would be mediated by participants' implicit attitudes toward gender nonconformity.



## CHAPTER III: RESEARCH DESIGN

### **Participants**

Power analyses indicated that for a moderate effect, a sample size of 210 participants would be sufficient to test the hypotheses under study. Two hundred twenty-seven undergraduate students (177 women and 50 men) were recruited online from the SONA psychology department research system at Illinois State University. Participants were offered course credit for participation in the current study. Data were collected online using an anonymous survey link on the Qualtrics Survey Platform. Institutional Review Board approval was obtained prior to participant recruitment and data collection.

### **Materials**

#### **Video Vignettes**

The video scripts used for this study were created based on vignettes from Thomas and Blakemore's (2013) study of adult attitudes toward gender nonconformity in children. In the Thomas and Blakemore study, participants were presented various vignettes describing a child (male or female) who varied in gendered traits, interests, and behaviors (e.g., strongly masculine, moderately masculine, moderately feminine, or strongly feminine). The activities, traits, and career interests used for the Thomas and Blakemore (2013) vignettes were previously rated as to their relative masculinity and femininity by Liben and Bigler (2002). Specifically, Liben and Bigler's participants evaluated a large number of occupations, activities, and traits with respect to their association with gender on a 7-point scale ranging from 1 (*only males*) to 7 (*only females*). The toys used in Thomas and Blakemore's vignettes were previously rated with respect to their masculinity and femininity by Blakemore and Centers (2005). Blakemore

and Centers provided a list of more than 100 toys each rated on a 9-point scale as being “*only for boys*” to “*only for girls*.”

The vignettes used by Thomas and Blakemore (2013) were adapted for this study. For children of each sex, two vignettes were used to represent different masculine or feminine attributes, thus resulting in four video vignettes for the present study. Specifically, traits, interests, and behaviors were selected, including a description of the sex of the target’s friends as being boys or girls, preferred activities, interests, and career choices. The four vignettes represented a strongly masculine boy, strongly masculine girl, strongly feminine girl, and a strongly feminine boy.

Participants viewed one video of a conversation between a teacher and a counselor who were preparing for a parent-teacher conference. The teacher mentioned that they were expecting the child’s mother to attend the meeting and described that the hypothetical child was being bullied. The hypothetical children described by the teacher varied by sex (male vs. female) and gender conformity (gender conforming vs. gender nonconforming), and participants were randomly assigned to one of the four conditions. The male and female children who were gender nonconforming were described as experiencing bullying because of their gender atypical behavior, and the male and female children who were gender conforming were described as experiencing bullying because they were new students at the school (see Appendix A for transcripts of the four versions of the video).

### **Implicit Measure**

The *Affect Misattribution Procedure* (AMP; Payne et al., 2008; Payne et al., 2005) was used as an implicit measure to assess participant attitudes toward hypothetical

gender conforming and gender nonconforming children. The procedure was adapted from Payne and colleagues' (2008) and Pryor and colleagues' (2012) versions of the AMP. In Payne and colleagues' (2008) version, participants were exposed to a still photo prime, followed by an abstract image, and instructed to rate the pleasantness of the abstract image while disregarding the prime as simply a spacing item. The AMP is considered implicit in that responses are reputedly uncensored measures of attitudes that are present despite participants' attempts to disregard the prime and their attitudes toward the prime (Payne et al., 2008). This procedure does not allow time for participants to alter their attitudes in an effort to provide a socially desirable response. Thus, the AMP is considered a useful implicit measure of prejudice and stigma (Payne et al., 2008; Pryor et al., 2012).

Participants were presented with the following in short succession: a photograph prime of a boy or girl engaged in gender typical or gender atypical behavior, blank screen, Chinese pictograph, and a "noise" slide (photo black and white static) with a 6-point rating scale used by participants to rate the pleasantness of the Chinese pictograph. The rating scale provided the options of -3 (*very unpleasant*), -2 (*unpleasant*), -1 (*slightly unpleasant*), 1 (*slightly pleasant*), 2 (*pleasant*), and 3 (*very pleasant*). Omitting the choice of 0 forced the participants to rate the pictograph as either negative or positive, rather than selecting a neutral affective rating.

The descriptors and characteristics depicted in the video and photographs used for the AMP were confirmed through two separate pilot studies. In the first pilot study, 15 school-based professionals viewed and provided ratings of 40 photographs of boys and girls engaged in gender typical and gender atypical behavior. The top three photographs

representing each of the four conditions were chosen for the AMP. In the second pilot study, 10 school-based professionals viewed the four video vignettes and then reported their impressions of whether or not the behaviors were representative of the intended constructs. Each school-based professional who viewed the videos confirmed that the behaviors represented in the videos accurately represented gender conforming and gender nonconforming children. The individuals who provided feedback through this process did not serve as participants in the study.

### **Explicit Measures**

To assess participants' explicit attitudes, a feeling thermometer was used after the video vignettes as well as the traditional, still-photograph AMP (Levine, 2015; Pryor et al., 2012). Participants were provided with response options ranging from 0-100, with 0 representing the least positive and 100 representing the most positive feelings. The feeling thermometer items used after the video vignette are listed in Appendix B, and feeling thermometer items used after the AMP are listed in Appendix D. The use of a feeling thermometer provided a measure of participants' explicit attitudes toward gender conforming or nonconforming children, as well as their attitudes toward the mothers' parenting practices with these children. These items were based on clinical material, written accounts, and observations conducted by Ehrensaft (2007, 2011).

## Procedure

Before beginning the study, participants were told that the purpose of the study was to examine attention, memory, and multitasking behaviors. To support the cover story, participants were told that they would view a brief video. They were asked to listen and watch closely because they would be asked to report their memory of the details later. After the instructions, participants watched a brief warm-up video. Following the first video, they were asked a multiple-choice question related to specific details in the brief video. At this point, participants were told that the task would become more difficult and a video of the vignette was played. Participants then answered attention questions, including play interests, clothing preferences, social interests, and curricular preferences of the child described in the video. Participants completed a number of feeling thermometer items about the child described in the video and about the child's mother.

After viewing the brief warm-up video, one of the four video vignettes, and completing the feeling thermometer items, participants completed the AMP as previously described (Payne et al., 2008). Participants were exposed to 12 photos total, three photos for each condition (e.g., gender conforming girl, gender conforming boy, gender nonconforming girl, and gender nonconforming boy). After completing the AMP procedure, participants were then asked to complete an additional feeling thermometer that asked explicit questions about the behaviors of gender conforming and gender nonconforming boys and girls. The feeling thermometer questions focused on behaviors related to playing with gendered toys and wearing gendered clothing or Halloween costumes (See Appendix D).

Participants were then debriefed and told that the true purpose of the study was to examine issues related to gender conformity and parenting practices. During the debriefing, participants were also informed that the videos were staged and did not describe any actual children or parents. The entire procedure took approximately 15 minutes for participants to complete.

The conditions represented by the various videos involved a between-group comparison, whereas the still photographs involving four conditions involved a within-subject comparison. Although each participant was exposed to only one video condition, each participant viewed photographs from all four conditions as part of the AMP.

### **Preliminary Analysis**

Several preliminary analyses were completed to answer the research questions involved in this study. New variables were computed to analyze participants' implicit attitudes toward the child, and their explicit attitudes toward the child and their mother. Separate variables were computed to represent each of the four within-subjects conditions on the implicit measure: (a) Implicit Attitude toward a gender conforming boy, (b) Implicit Attitude toward a gender nonconforming boy, (c) Implicit Attitude toward a gender conforming girl, (d) Implicit Attitude toward a gender nonconforming girl. Items related to gendered behaviors were averaged to compute four within-subjects variables for explicit attitudes: (e) Explicit Attitude toward a gender conforming boy, (f) Explicit Attitude toward a gender nonconforming boy, (g) Explicit Attitude toward a gender conforming girl, and (h) Explicit Attitude toward a gender nonconforming girl.

**Table 1***Chronbach's Alpha Values for the Implicit and Explicit Measures*

|                      | Implicit Measure | Explicit Measure |
|----------------------|------------------|------------------|
| Gender Conforming    |                  |                  |
| Male                 | 0.58 (0.93)      | 0.94             |
| Female               | 0.66 (0.95)      | 0.90             |
| Gender Nonconforming |                  |                  |
| Male                 | 0.72 (0.96)      | 0.94             |
| Female               | 0.61 (0.94)      | 0.94             |

*Note.* Each scale included three items. For the implicit measure, Spearman-Brown Prophecy values are shown in parentheses.

Internal consistency for each 3-item variable was examined (see Table 1). Although the alphas for the Implicit Attitude measures fall below the .70 threshold for minimally acceptable reliability for Chronbach's alpha, these standards are based on longer scales. Had it been practical to use a 30-item scale for the current study, it would have resulted in higher Chronbach's alphas, as can be estimated by using Spearman-Brown Prophecy Formula (see parenthetical values in Table 1). Given these alphas, no items were removed, and no changes were made to the scales.

## CHAPTER IV: RESULTS

The purpose of the current study was to examine the effects of child gender nonconforming behavior on perceptions of gender nonconforming children and on participants' attitudes of mothering capability. Following social psychology theories examining stigma and stigma by association, this study was designed to determine whether children's gender nonconforming behavior is stigmatizing and if that stigma transfers to the mother of the gender nonconforming child.

In this study, predictor variables included child behavior (gender conforming vs. gender nonconforming), child's sex depicted in the video (male vs. female), and participant sex (male vs. female). Each participant was randomly presented with one of four videos depicting the intersection of two predictor variables (i.e., gender conformity and child sex).

Outcome variables for this study included the following explicit measures: (a) explicit feelings toward the hypothetical child portrayed in the video; (b) explicit feelings toward the mother of the hypothetical child portrayed in the video; (c) predictions of parenting competence of the child's mother; and (d) explicit attitudes about gender conforming behaviors and gender nonconforming behaviors related to toys, clothing, and Halloween costumes; these measures all used the Feeling Thermometer (FT) method. The implicit measure of stigma, using the Affect Misattribution Procedure (AMP), includes a score for each of the 2 (gender conformity) x 2 (child sex) combinations (i.e., gender conforming boy; a gender nonconforming boy; a gender conforming girl; and a gender nonconforming girl).



## **Hypothesis Testing**

### **Correlational Analysis**

A correlational analysis was conducted to examine the association between the implicit and explicit measures. In general, correlations between implicit and explicit measures have been found to be high for attitudes toward socially noncontroversial items (Fazio & Olson, 2003). Because one's attitude toward gender nonconformity is potentially controversial it was hypothesized that there would be a low correlation between the AMP (implicit) and Feeling Thermometer (explicit) responses in regard to gender nonconforming behavior. The correlations, means, and standard deviations among the four implicit measures and the four explicit measures are presented in Table 2.

**Table 2***Pearson Correlation Matrix for Implicit and Explicit Variables by Participant Sex*

|                          | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <i>M</i> | <i>SD</i> |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| 1. Implicit AMP: GC Boy  | —        | .204     | .426**   | .283*    | -.141    | .161     | -.154    | .073     | 4.30     | .86       |
| 2. Implicit AMP: GN Boy  | .601**   | —        | .372**   | .636**   | .135     | .309*    | .041     | .219     | 3.65     | 1.00      |
| 3. Implicit AMP: GC Girl | .582**   | .536**   | —        | .550**   | -.072    | -.121    | -.198    | -.022    | 4.37     | .88       |
| 4. Implicit AMP: GN Girl | .619**   | .729**   | .654**   | —        | .138     | .230     | .125     | .241     | 4.05     | .93       |
| 5. Explicit FT: GC Boy   | .261**   | .344**   | .146     | .369**   | —        | .583**   | .850**   | .762**   | 70.50    | 17.69     |
| 6. Explicit FT: GN Boy   | .323**   | .400**   | .178*    | .420**   | .790**   | —        | .559*    | .825**   | 54.14    | 21.98     |
| 7. Explicit FT: GC Girl  | .236**   | .323**   | .144     | .346**   | .885*    | .761**   | —        | .731**   | 72.41    | 17.95     |
| 8. Explicit FT: GN Girl  | .329**   | .379**   | .178*    | .434**   | .823**   | .894**   | .828**   | —        | 64.30    | 19.72     |
| <i>M</i>                 | 4.31     | 4.20     | 4.72     | 4.46     | 85.58    | 74.91    | 87.32    | 80.57    |          |           |
| <i>SD</i>                | .85      | .91      | .86      | .89      | 16.19    | 23.90    | 15.51    | 20.77    |          |           |

*Note.* GC Gender Conforming, GN Gender Nonconforming, AMP Affect Misattribution Procedure, FT Feeling Thermometer.

Correlations for women ( $n=177$ ) are displayed below the diagonal; correlations for men ( $n=50$ ) are displayed above the diagonal.

\*  $p < .05$ . \*\*  $p < .01$ .

## **Analysis Strategy**

To test the first three hypotheses outlined in Chapter III, it is necessary to look at main effects, interactions, and simple effects found within factorial ANOVAs. For the measure of implicit association (AMP), mean ratings of child picture-Chinese pictograph pairs were subjected to a 2 (Conformity: conforming vs. nonconforming) x 2 (Child Sex: male vs. female) x 2 (Participant Sex: male vs. female) mixed MANOVA. For explicit attitudes (Feeling Thermometer measures), Conformity and Child Sex were manipulated as between-subjects variables, with participants randomly assigned to one of four possible combinations. Here, explicit feelings about the child described in the video vignette were subjected to a 2 (Conformity) x 2 (Child Sex) x 2 (Participant Sex) ANOVA. Additionally, the explicit attitudes about gender conforming and gender nonconforming behaviors, measured within-subjects, were analyzed with a 2 (Conformity) x 2 (Child Sex) x 2 (Participant Sex) mixed MANOVA.

To examine stigma by association, both the Baron and Kenny (1986) causal steps approach and multiple regression analyses using Hayes' Macro PROCESS tool (2013) were utilized. For the Baron and Kenny (1986) approach to mediation, child gender nonconformity served as the predictor variable, with participants' attitudes toward gender nonconforming behavior (Implicit AMP responses) as the potential mediator, and participants' attitudes toward the child's mother (Explicit Feeling Thermometer responses) as the outcome variable. For the multiple regression analyses using Hayes' Macro PROCESS tool (2013), participant sex, gender conformity, and child sex as the predictor variables, participants' attitudes toward gender nonconforming behavior (Implicit AMP responses) as the potential mediating variables, and participants' attitudes

toward the child and the child's mother (Explicit Feeling Thermometer responses) as the outcome variables.

### **Is childhood gender nonconformity stigmatizing when examining explicit attitudes and implicit associations?**

It was hypothesized that gender nonconforming children would evoke significantly greater implicit and explicit stigma among participants than gender conforming children. In other words, participants' implicit (i.e., AMP) and explicit (i.e., Feeling Thermometer) attitudes would be significantly more negative toward gender nonconforming children than gender conforming children.

#### ***Explicit Measures***

To test this hypothesis with the explicit feeling measure, the FT rating of feelings toward the hypothetical child in the video were analyzed with a 2 (Conformity: Gender Conforming vs. Gender Nonconforming) x 2 (Child Sex: Male vs. Female) x 2 (Participant Sex: Male vs. Female) ANOVA. The comparison of interest was the main effect of Conformity. The mean feeling for the child in the Conforming condition was 64.96 ( $SD = 24.9$ ), which was significantly different from the mean for the Nonconforming condition 70.58 ( $SD = 29.1$ ),  $F(1, 214) = 4.57, p = .034$ .

With respect to explicit attitudes about behaviors of children, a mixed MANOVA revealed a significant main effect for Conformity, Wilks'  $\Lambda = .68, F(1, 223) = 104.3, p < .001, \eta_p^2 = .32$ , representing a large effect (Cohen, 1988). In other words, participants reported more negative attitudes toward children described as gender nonconforming ( $M = 73.82, SD = 22.59$ ) than those children described as gender conforming ( $M = 83.22, SD = 16.93$ ).

### ***Implicit Measure***

As predicted, there was a significant main effect for Conformity on the implicit measure (i.e., AMP), Wilks'  $\Lambda = .84$ ,  $F(1, 225) = 41.13$ ,  $p < .001$ ,  $\eta_p^2 = .16$ , representing a large effect (Cohen, 1988). In other words, participants reported more negative (i.e., significantly less positive) evaluations of Chinese pictographs paired with children who were presented as gender nonconforming ( $M = 4.22$ ,  $SD = 0.87$ ) than Chinese pictographs paired with children who were presented as gender conforming ( $M = 4.48$ ,  $SD = 0.76$ ).

### **Does the impact of child gender nonconformity on explicit attitudes and implicit associations vary as a function of the child's sex?**

To test this hypothesis with the explicit feeling measure, the FT rating of feelings toward the hypothetical child in the video were analyzed with a 2 (Conformity: Gender Conforming vs. Gender Nonconforming) x 2 (Child Sex: Male vs. Female) x 2 (Participant Sex: Male vs. Female) ANOVA. The comparison of interest was the simple effect of Child Sex at the nonconformity level of the Conformity variable. It was predicted that the effect of Child Sex would not be significantly different for gender conforming children, but that there would be a significant effect for gender nonconforming boys. In other words, it was predicted that participants would report more negative attitudes toward gender nonconforming boys than gender nonconforming girls on both the explicit measures and the implicit measures.

### ***Explicit Measures***

The interaction between Conformity and Child Sex on the explicit measure of feelings toward the child was not significant,  $F(1, 214) = 4.57$ ,  $p = .588$ . For this measure, the hypothesis was not supported.

In contrast, the interaction between Conformity and Child Sex on the attitudes toward child behavior (toys, clothes, costumes) was significant, Wilks'  $\Lambda = .87$ ,  $F(1, 217) = 32.18$ ,  $p < .001$ ,  $\eta_p^2 = .13$ , representing a large effect. Participants reported more negative explicit attitudes toward male children who were gender nonconforming,  $M = 70.48$ ,  $SD = 24.89$ , than female children who were presented as gender nonconforming,  $M = 77.10$ ,  $SD = 21.62$ .

### ***Implicit Measure***

The interaction between Conformity and Child Sex on the implicit measure (i.e., AMP) was not significant, Wilks'  $\Lambda = .99$ ,  $F(1, 225) = 1.23$ ,  $p = .269$ . For the implicit measure, the hypothesis was not supported.

### **Does Participant Sex moderate the effects of Conformity and Child Sex for measures of explicit attitudes and implicit associations?**

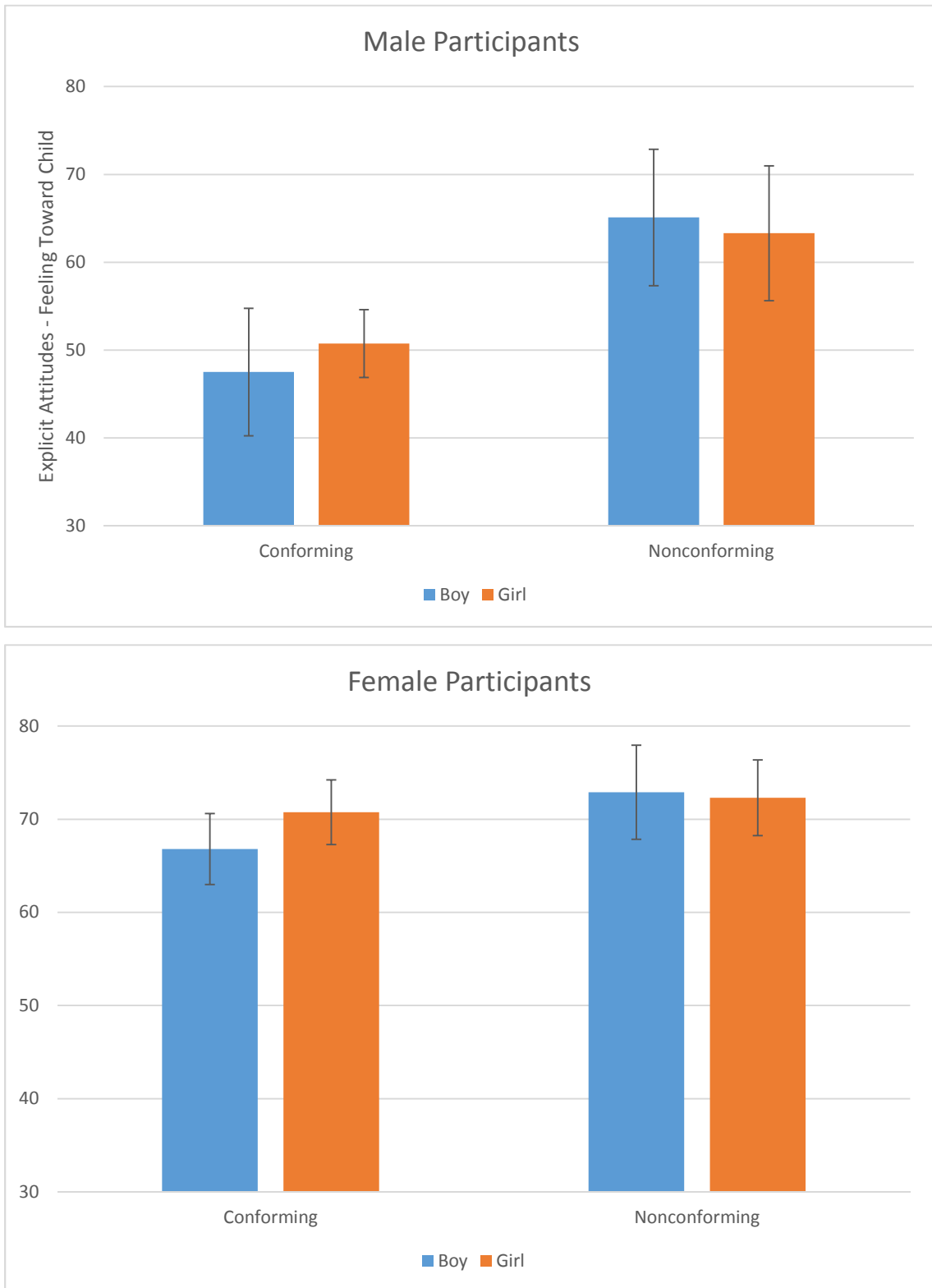
This question explored the potential moderating role of participant sex on implicit and explicit attitudes toward gender nonconforming behavior. It was hypothesized that male participants would evince more negative implicit and explicit attitudes toward gender nonconforming children. It was also hypothesized that male participants would have more negative attitudes about gender nonconforming boys compared to nonconforming girls, and when compared to attitudes of female participants. To test this hypothesis, the three-way interaction for Conformity, Child Sex, and Participant Sex was examined.

### ***Explicit Measures***

For feelings toward the child depicted in the video, the three-way interaction was not significant,  $F(1, 214) = 0.00, p = .984$ . As can be seen in Figure 1, for this measure, the hypothesis was not supported.

**Figure 1**

*Three-way interaction for the Explicit Measure (FT toward the child).*

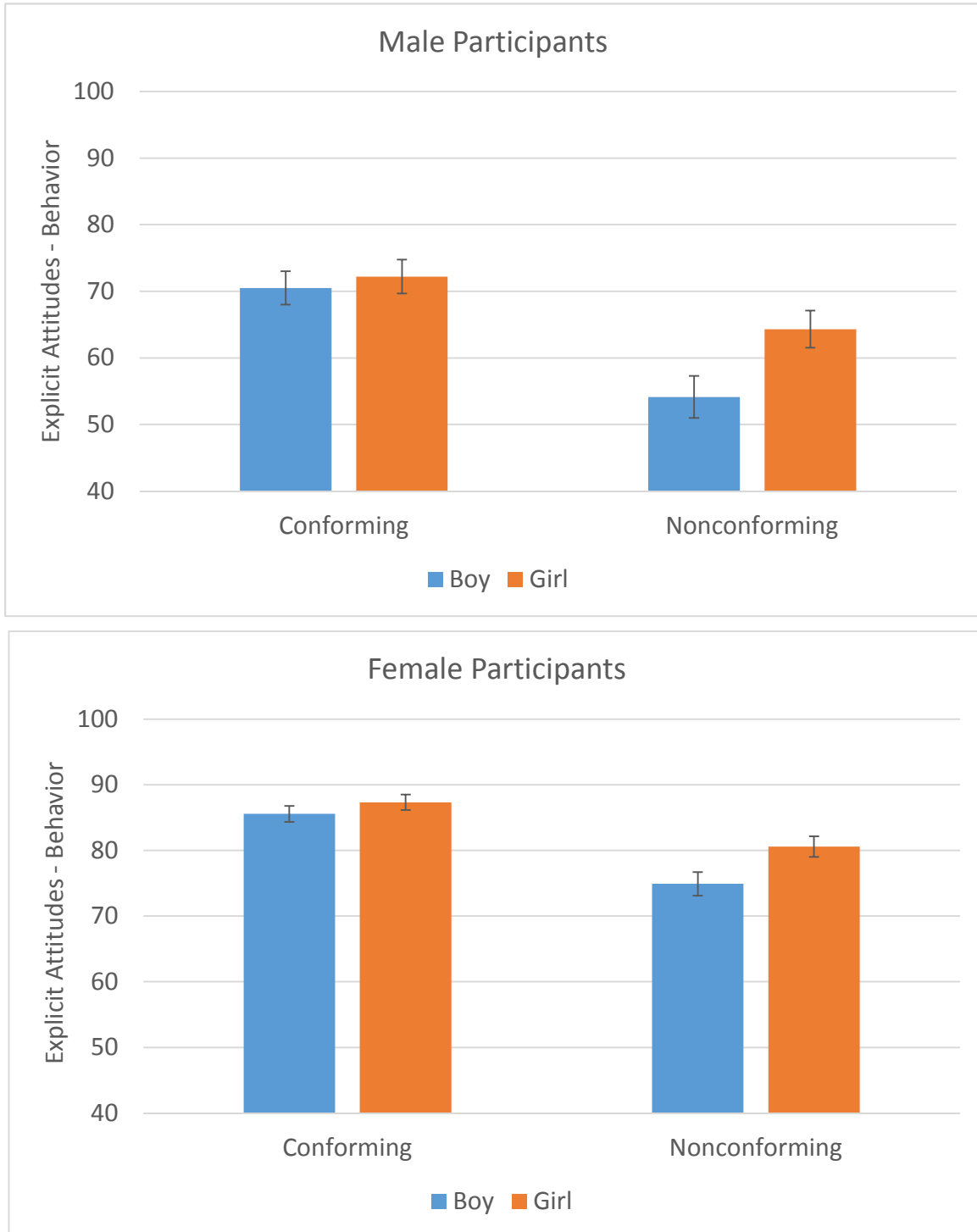




In contrast, there was a three-way (Conformity x Child Sex x Participant Sex) interaction on the explicit measure of child behavior (toys, clothes, Halloween costumes), Wilks'  $\Lambda = .98$ ,  $F(1, 223) = 4.68$ ,  $p < .001$ ,  $\eta_p^2 = .32$ , representing a large effect (Cohen, 1988). As can be seen in Figure 2, male participants reported more negative explicit attitudes toward gender nonconforming boys on this explicit measure,  $M = 54.14$ ,  $SD = 21.98$ , than female participants,  $M = 74.91$ ,  $SD = 23.80$ .

**Figure 2**

*Three-way interaction for the Explicit Measure (FT of child behavior)*

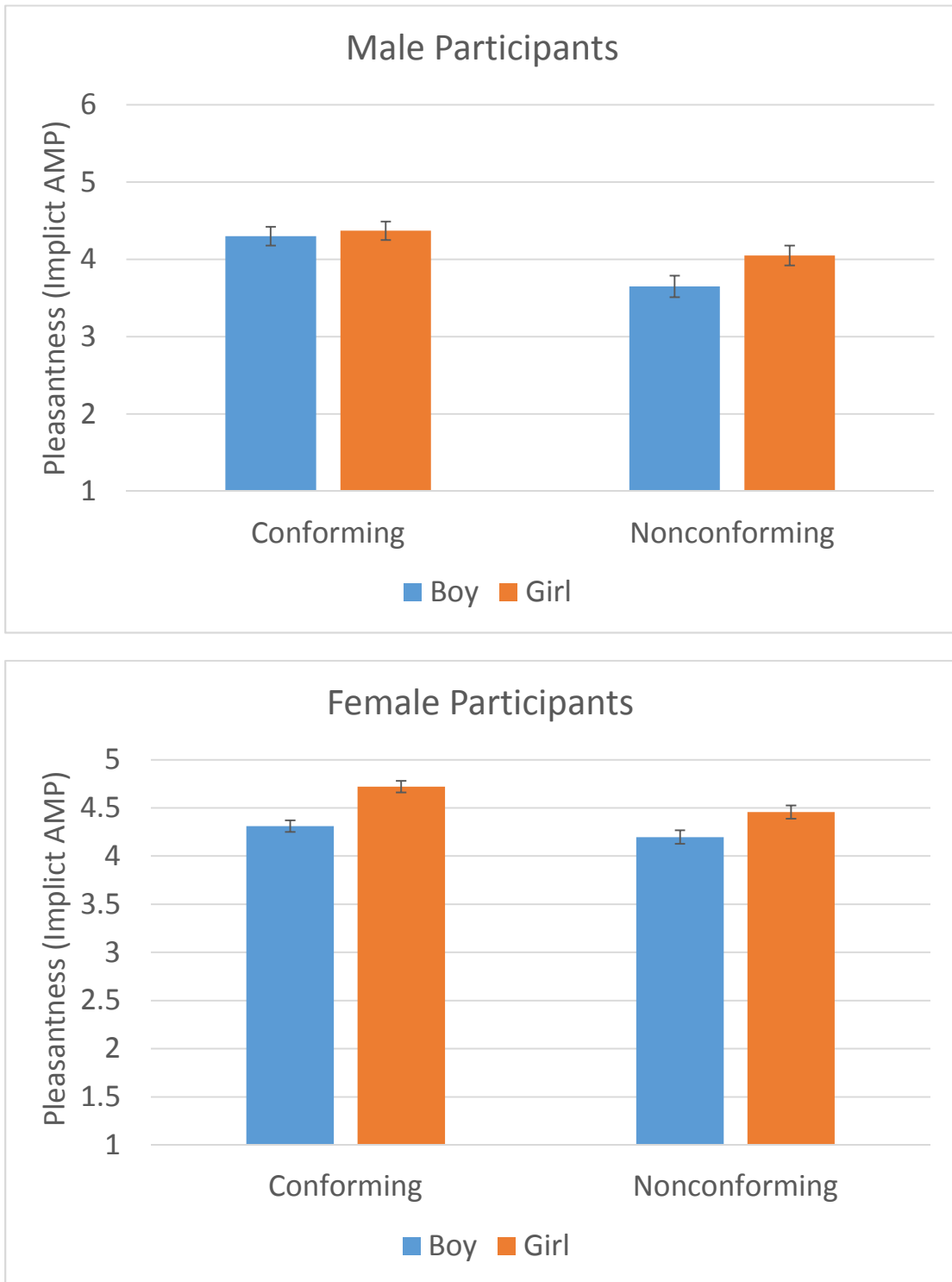


### ***Implicit Measure***

There was a three-way interaction for the implicit measure (i.e., AMP), Wilks'  $\lambda = .96$ ,  $F(1, 225) = 8.75$ ,  $p = .003$ ,  $\eta_p^2 = .04$ , representing a small effect. As can be seen in Figure 3, male participants rated the Chinese pictograph associated with gender nonconforming boys more negatively than the other conditions.

**Figure 3**

*Three-way interaction for the Implicit Measure (AMP)*



## **Is there evidence of stigma by association for the mother of a gender nonconforming child?**

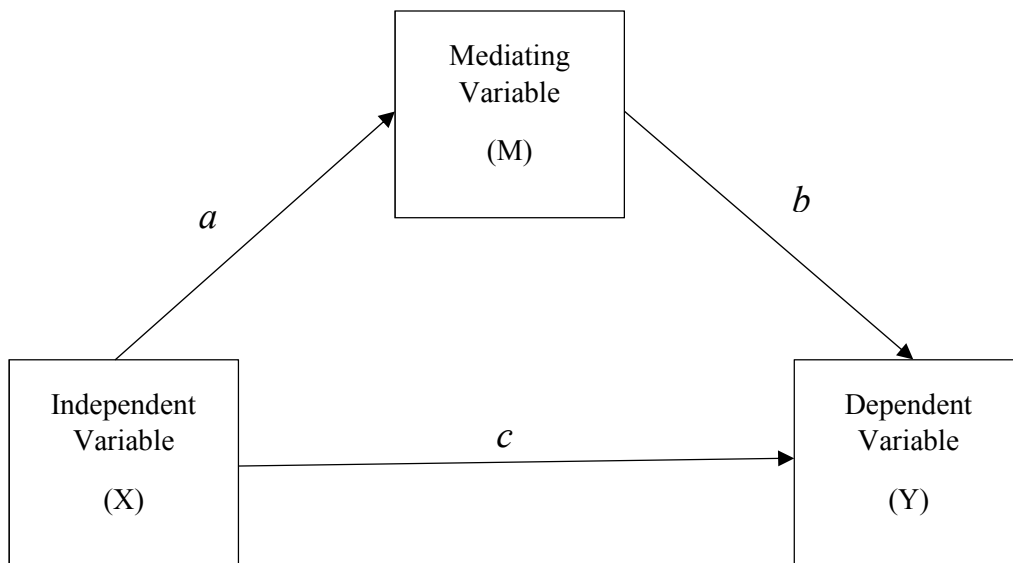
The purpose of this research question was to explore a potential mediating role of participant-reported implicit attitudes on the effect of gender nonconformity and perceived maternal parenting competence. It was hypothesized that participants' implicit attitudes toward gender nonconforming children would mediate the relation between the child gender nonconformity and the participants' explicit attitudes toward that child's mother. In other words, participants with implicit negative associations for gender nonconforming children would explicitly rate the mother of gender nonconforming children more negatively than the mother of gender conforming children. If present, significant mediation would suggest that a child's stigmatized, gender nonconforming behavior would transfer to that child's mother (i.e., stigma by association).

Most published mediation analyses are based on the causal steps approach, also known as the Baron and Kenny (1986) method. This approach has been used to determine whether a variable  $M$  mediates the relation between variables  $X$  and  $Y$ . The Baron and Kenny method is dependent on outcomes of tests of significance for each path in the model. Using this approach, in order for  $M$  to be considered a mediator, the predictor variable  $X$  must be significantly correlated with the dependent variable  $Y$ . If this first criterion is met, the effect of  $X$  on  $M$  is then estimated. The second criterion in the causal steps approach requires that  $X$  affects  $M$ . If the second criterion is met, a third test is conducted to determine if the mediator  $M$  affects the outcome variable  $Y$  controlling for variance in the predictor variable  $X$ . To establish this criterion,  $Y$  is regressed on both  $X$  and  $M$  and the null hypothesis is tested. Finally, if this third criterion is met, the direct

effect of the predictor variable  $X$  is compared to the total effect of  $c$ . If  $c'$  is closer to zero than  $c$  and  $c'$  is not statistically significant, then  $M$  is said to completely mediate the predictor variable  $X$ 's effect on the outcome variable  $Y$ . In other words,  $M$  entirely accounts for the effect of  $X$  on  $Y$ . However, if  $c'$  is closer to zero than  $c$  but  $c'$  is statistically different from zero,  $M$  is considered to partially mediate the independent variable  $X$ 's effect on the dependent variable  $Y$ . That is, only a portion of the effect of  $X$  on  $Y$  is carried through the mediator  $M$ .

**Figure 4**

*Diagram of a simple mediation model*



In the proposed mediation model, the predictor (i.e., child gender nonconformity;  $X$ ) must be significantly associated with the dependent variable (i.e., participants' report of parenting competence on the Feeling Thermometer;  $Y$ ). Second, the predictor (i.e., child gender nonconformity;  $X$ ) must be significantly associated with the hypothesized mediator (i.e., participants' implicit attitudes toward gender nonconformity;  $M$ ). Third, the mediating variable (i.e., participants' implicit attitudes toward gender nonconformity;  $M$ ) must be significantly associated with the dependent variable (i.e., participants' report

of parenting competence on the feeling thermometer;  $Y$ ). Finally, this significant relation must be diminished or eliminated after controlling for the mediating variable (i.e., participants implicit attitudes toward gender nonconformity;  $M$ ). In other words, for stigma by association to occur, the impact of gender nonconformity on participants' perceptions of maternal parenting competence would be contaminated by implicit attitudes toward children's gender nonconforming behavior.

### ***First Analysis***

The purpose of the first analysis was to examine the effect of predictor variables (i.e., participant sex, gender conformity of the child depicted in the video, and sex of the child depicted in the video) on the outcome variables (i.e., Feeling Thermometer responses toward the child depicted in the video, toward the mother of the child depicted in the video, the mother's parenting competence, and the mother's control over her child's behavior). Table 3 presents the means, standard deviations, and cell sizes for the outcome variables as a function of participant sex, video conformity condition, and sex of the child in the video. A MANOVA was utilized for this analysis. There was a significant effect of participant sex on explicit attitudes toward the child and the child's mother, Wilks's  $\Lambda = .94$ ,  $F(4, 204) = 3.10$ ,  $p = .017$ ,  $\eta_p^2 = .06$ , representing a medium effect. Separate univariate ANOVAs on these outcome variables revealed significant effects on explicit attitudes toward the child,  $F(1, 207) = 7.45$ ,  $p = .007$ ,  $\eta_p^2 = .04$ , explicit attitudes toward the mother,  $F(1, 207) = 6.93$ ,  $p = .009$ ,  $\eta_p^2 = .03$ , and explicit attitudes of the mother's parenting competence,  $F(1, 207) = 6.82$ ,  $p = .010$ ,  $\eta_p^2 = .03$ . These all demonstrated small effects according to Cohen (1988). Specifically, as can be seen in Table 3, female participants gave higher ratings on all three of these variables. No

significant effects were found between the other predictor variables (i.e., gender conformity of the child depicted in the video and sex of the child depicted in the video) and outcome variables (i.e., Feeling Thermometer ratings). Interaction effects were also examined using the MANOVA. No significant interaction effects were found.

**Table 3**

*Descriptive Statistics for Predictor and Outcome Variables*

| Participant<br>Sex | Video<br>Conformity | Sex   | n   | Feeling Thermometer Ratings |                    |                         |                     |
|--------------------|---------------------|-------|-----|-----------------------------|--------------------|-------------------------|---------------------|
|                    |                     |       |     | Feelings Toward             |                    |                         |                     |
|                    |                     |       |     | Child<br>in<br>Video        | Mother<br>of Child | Parenting<br>Competence | Mother's<br>Control |
| Female             | Non-<br>conforming  | Girls | 45  | 72.16<br>(27.87)            | 62.49<br>(22.24)   | 60.27<br>(23.15)        | 47.56<br>(24.40)    |
|                    |                     | Boys  | 38  | 74.39<br>(30.60)            | 65.18<br>(23.32)   | 63.42<br>(17.63)        | 49.61<br>(28.94)    |
|                    |                     | Total | 83  | 73.18<br>(29.00)            | 63.72<br>(22.64)   | 61.71<br>(20.74)        | 48.49<br>(26.43)    |
|                    | Conforming          | Girls | 49  | 70.73<br>(24.74)            | 68.86<br>(21.51)   | 68.49<br>(19.82)        | 50.41<br>(19.26)    |
|                    |                     | Boys  | 38  | 66.79<br>(23.43)            | 57.50<br>(21.05)   | 58.16<br>(17.91)        | 55.89<br>(17.04)    |
|                    |                     | Total | 87  | 69.01<br>(24.12)            | 63.90<br>(21.93)   | 63.98<br>(20.14)        | 52.80<br>(18.42)    |
|                    |                     | Total | 170 | 71.05<br>(26.61)            | 63.81<br>(22.22)   | 62.87<br>(20.14)        | 50.70<br>(22.72)    |

(Table Continues)



Table 3, Continued

| Participant<br>Sex | Video<br>Conformity | Sex        | n     | Feeling Thermometer Ratings |                    |                         |                     |                  |
|--------------------|---------------------|------------|-------|-----------------------------|--------------------|-------------------------|---------------------|------------------|
|                    |                     |            |       | Feelings Toward             |                    |                         |                     |                  |
|                    |                     |            |       | Child<br>in<br>Video        | Mother<br>of Child | Parenting<br>Competence | Mother's<br>Control |                  |
| Male               | Non-<br>conforming  | Girls      | 10    | 64.60<br>(28.47)            | 55.50<br>(21.08)   | 62.60<br>(23.46)        | 57.30<br>(21.36)    |                  |
|                    |                     | Boys       | 14    | 69.71<br>(24.96)            | 58.64<br>(18.83)   | 56.00<br>(19.45)        | 36.14<br>(18.42)    |                  |
|                    |                     | Total      | 24    | 67.58<br>(26.00)            | 57.33<br>(19.41)   | 58.75<br>(20.98)        | 44.96<br>(22.00)    |                  |
|                    | Conforming          | Girls      | 7     | 52.29<br>(10.82)            | 44.57<br>(19.66)   | 47.57<br>(23.41)        | 41.43<br>(24.51)    |                  |
|                    |                     | Boys       | 14    | 47.50<br>(27.17)            | 56.29<br>(15.52)   | 47.93<br>(17.33)        | 43.29<br>(19.16)    |                  |
|                    |                     | Total      | 21    | 49.10<br>(22.81)            | 52.38<br>(17.45)   | 47.81<br>(18.96)        | 42.67<br>(20.48)    |                  |
|                    | Total               | Conforming | Girls | 17                          | 59.53<br>(23.21)   | 51.00<br>(20.63)        | 56.41<br>(23.94)    | 50.76<br>(23.38) |
|                    |                     |            | Boys  | 28                          | 58.61<br>(27.99)   | 57.46<br>(16.98)        | 51.96<br>(18.54)    | 39.71<br>(18.80) |
|                    |                     | Total      | Boys  | 28                          | 58.61<br>(27.99)   | 57.46<br>(16.98)        | 51.96<br>(18.54)    | 39.71<br>(18.80) |
|                    |                     |            | Total | 45                          | 58.96<br>(26.02)   | 55.02<br>(18.48)        | 53.64<br>(20.59)    | 43.89<br>(21.09) |
| Total              | Non-<br>conforming  | Girls      | 55    | 70.78<br>(27.87)            | 61.22<br>(22.01)   | 60.69<br>(23.00)        | 49.33<br>(23.99)    |                  |
|                    |                     | Boys       | 52    | 73.13<br>(29.03)            | 63.42<br>(22.22)   | 61.42<br>(18.25)        | 45.98<br>(27.03)    |                  |
|                    |                     | Total      | 107   | 71.93<br>(28.33)            | 62.29<br>(22.04)   | 61.05<br>(20.73)        | 47.70<br>(25.45)    |                  |

(Table 3 Continues)

Table 3, Continued

| Participant<br>Sex | Video<br>Conformity | Sex   | n   | Feeling Thermometer Ratings |                    |                         |                     |
|--------------------|---------------------|-------|-----|-----------------------------|--------------------|-------------------------|---------------------|
|                    |                     |       |     | Child<br>in<br>Video        | Mother<br>of Child | Parenting<br>Competence | Mother's<br>Control |
|                    | Conforming          | Girls | 56  | 68.43<br>(24.18)            | 65.82<br>(22.62)   | 65.88<br>(21.25)        | 49.29<br>(19.95)    |
|                    |                     | Boys  | 52  | 61.60<br>(25.71)            | 57.17<br>(19.58)   | 55.40<br>(18.17)        | 52.50<br>(18.34)    |
|                    |                     | Total | 108 | 65.14<br>(25.05)            | 61.97<br>(21.74)   | 60.83<br>(20.42)        | 50.83<br>(19.17)    |
|                    | Total               | Girls | 111 | 69.59<br>(25.98)            | 63.54<br>(22.34)   | 63.31<br>(22.19)        | 49.31<br>(21.95)    |
|                    |                     | Boys  | 104 | 67.37<br>(27.90)            | 60.30<br>(21.07)   | 58.41<br>(18.37)        | 49.24<br>(23.21)    |
|                    |                     | Total | 215 | 68.52<br>(26.89)            | 61.97<br>(21.74)   | 60.94<br>(20.53)        | 49.27<br>(22.51)    |

*Note:* Mean values are displayed under each Feeling Thermometer item, with standard deviations in parentheses.

### ***Second Analysis***

The purpose of the second analysis was to examine the effect of the predictor variables (i.e., participant sex, gender conformity of the child depicted in the video, and sex of the child depicted in the video) on the potential mediator variables (i.e., AMP responses). Table 4 presents the means, standard deviations, and cell sizes for the mediating variables as a function of participant sex, video conformity condition, and sex of the child in the video. A repeated measures MANOVA was utilized for this analysis.

**Table 4***Descriptive Statistics for Mediating Variables and Predictor Variables*

| Participant<br>Sex | Video<br>Conformity | Sex   | n  | AMP Ratings    |                |                |                | AMP Contrasts  |                 |                |                  |
|--------------------|---------------------|-------|----|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
|                    |                     |       |    | Boys           |                | Girls          |                | M1             | M2              | M3             | M4               |
|                    |                     |       |    | Conforming     | Non-conforming | Conforming     | Non-conforming | Aggregate      | Sex             | Conformity     | Sex x Conformity |
| Female             | Non-conforming      | Girls | 46 | 4.25<br>(0.88) | 4.30<br>(0.87) | 4.84<br>(0.68) | 4.58<br>(0.82) | 4.50<br>(0.67) | -0.43<br>(0.47) | 0.10<br>(0.62) | -0.32<br>(1.06)  |
|                    |                     | Boys  | 43 | 4.32<br>(0.99) | 4.18<br>(1.11) | 4.78<br>(1.04) | 4.45<br>(0.95) | 4.43<br>(0.91) | -0.36<br>(0.65) | 0.24<br>(0.54) | -0.18<br>(0.84)  |
|                    |                     | Total | 89 | 4.28<br>(0.93) | 4.24<br>(0.99) | 4.81<br>(0.87) | 4.52<br>(0.88) | 4.47<br>(0.79) | -0.40<br>(0.57) | 0.17<br>(0.58) | -0.26<br>(0.96)  |
|                    | Conforming          | Girls | 50 | 4.37<br>(0.66) | 4.14<br>(0.81) | 4.60<br>(0.86) | 4.44<br>(0.82) | 4.39<br>(0.65) | -0.26<br>(0.50) | 0.20<br>(0.57) | 0.08<br>(0.86)   |
|                    |                     | Boys  | 38 | 4.31<br>(0.87) | 4.17<br>(0.87) | 4.68<br>(0.87) | 4.34<br>(0.99) | 4.38<br>(0.76) | -0.28<br>(0.50) | 0.24<br>(0.66) | -0.20<br>(0.98)  |
|                    |                     | Total | 88 | 4.34<br>(0.76) | 4.15<br>(0.83) | 4.64<br>(0.86) | 4.40<br>(0.89) | 4.39<br>(0.70) | -0.27<br>(0.53) | 0.22<br>(0.61) | -0.04<br>(0.92)  |

(Table 4 Continues)

Table 4, Continues

| Participant<br>Sex | Video<br>Conformity | Sex   | n   | AMP Ratings    |                |                |                | AMP Contrasts  |                 |                |                  |
|--------------------|---------------------|-------|-----|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
|                    |                     |       |     | Boys           |                | Girls          |                | M1             | M2              | M3             | M4               |
|                    |                     |       |     | Conforming     | Non-conforming | Conforming     | Non-conforming | Aggregate      | Sex             | Conformity     | Sex x Conformity |
|                    |                     | Girls | 96  | 4.31<br>(0.77) | 4.22<br>(0.84) | 4.72<br>(0.78) | 4.51<br>(0.82) | 4.44<br>(0.66) | -0.35<br>(0.52) | 0.15<br>(0.59) | -0.12<br>(0.98)  |
|                    | Total               | Boys  | 81  | 4.32<br>(0.93) | 4.17<br>(1.00) | 4.73<br>(0.96) | 4.40<br>(0.97) | 4.41<br>(0.84) | -0.32<br>(0.59) | 0.24<br>(0.60) | -0.18<br>(0.90)  |
|                    |                     | Total | 177 | 4.31<br>(0.85) | 4.20<br>(0.91) | 4.72<br>(0.86) | 4.46<br>(0.89) | 4.43<br>(0.75) | -0.33<br>(0.55) | 0.19<br>(0.59) | -0.14<br>(0.94)  |
|                    |                     | Girls | 12  | 3.89<br>(0.91) | 3.25<br>(1.06) | 4.42<br>(0.89) | 3.72<br>(0.84) | 3.82<br>(0.55) | -0.50<br>(0.67) | 0.67<br>(1.10) | -0.06<br>(1.54)  |
| Male               | Non-conforming      | Boys  | 16  | 4.48<br>(0.86) | 4.08<br>(1.06) | 4.33<br>(0.98) | 4.21<br>(0.98) | 4.28<br>(0.85) | 0.01<br>(0.54)  | 0.26<br>(0.54) | 0.28<br>(1.14)   |
|                    |                     | Total | 28  | 4.23<br>(0.92) | 3.73<br>(1.12) | 4.37<br>(0.93) | 4.00<br>(0.94) | 4.08<br>(0.76) | -0.21<br>(0.64) | 0.43<br>(0.84) | 0.14<br>(1.32)   |

(Table 4 Continues)

Table 4, Continued

| Participant<br>Sex | Video<br>Conformity | AMP Ratings |    |                |                |                |                | AMP Contrasts  |                 |                |                  |
|--------------------|---------------------|-------------|----|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
|                    |                     | Sex         | n  | Boys           |                | Girls          |                | M1             | M2              | M3             | M4               |
|                    |                     |             |    | Conforming     | Non-conforming | Conforming     | Non-conforming | Aggregate      | Sex             | Conformity     | Sex x Conformity |
|                    | Conforming          | Girls       | 8  | 4.42<br>(0.64) | 3.46<br>(0.71) | 3.88<br>(0.85) | 3.75<br>(0.64) | 3.88<br>(0.44) | 0.13<br>(0.42)  | 0.54<br>(0.79) | 0.84<br>(0.90)   |
|                    |                     | Boys        | 14 | 4.38<br>(0.90) | 3.62<br>(0.93) | 4.67<br>(0.82) | 4.33<br>(1.02) | 4.25<br>(0.67) | -0.50<br>(0.70) | 0.55<br>(0.94) | 0.42<br>(1.02)   |
|                    |                     | Total       | 22 | 4.39<br>(0.80) | 3.56<br>(0.84) | 4.38<br>(0.85) | 4.12<br>(0.93) | 4.12<br>(0.61) | -0.27<br>(0.65) | 0.55<br>(0.87) | 0.58<br>(0.98)   |
|                    | Total               | Girls       | 20 | 4.10<br>(0.84) | 3.33<br>(0.92) | 4.20<br>(0.84) | 3.73<br>(0.75) | 3.84<br>(0.50) | -0.25<br>(0.65) | 0.62<br>(0.97) | 0.30<br>(1.38)   |
|                    |                     | Boys        | 30 | 4.43<br>(0.87) | 3.87<br>(1.10) | 4.49<br>(0.91) | 4.27<br>(0.98) | 4.27<br>(0.76) | -0.23<br>(0.66) | 0.39<br>(0.76) | 0.34<br>(1.08)   |
|                    |                     | Total       | 50 | 4.30<br>(0.86) | 3.65<br>(1.00) | 4.37<br>(0.88) | 4.05<br>(0.93) | 4.10<br>(0.69) | -0.24<br>(0.65) | 0.48<br>(0.84) | 0.32<br>(1.18)   |

(Table 4 Continues)

Table 4, Continued

| Participant | Video          | AMP Ratings |     |                |                |                |                | AMP Contrasts  |                 |                |                  |
|-------------|----------------|-------------|-----|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
|             |                | Sex         | n   | Boys           |                | Girls          |                | M1             | M2              | M3             | M4               |
|             |                |             |     | Conforming     | Non-conforming | Conforming     | Non-conforming | Aggregate      | Sex             | Conformity     | Sex x Conformity |
| Total       | Non-conforming | Girls       | 58  | 4.17<br>(0.89) | 4.09<br>(1.00) | 4.75<br>(0.74) | 4.40<br>(0.89) | 4.36<br>(0.70) | -0.45<br>(0.52) | 0.22<br>(0.76) | -0.26<br>(1.16)  |
|             |                | Boys        | 59  | 4.37<br>(0.95) | 4.15<br>(1.09) | 4.66<br>(1.03) | 4.38<br>(0.96) | 4.39<br>(0.89) | -0.26<br>(0.64) | 0.24<br>(0.53) | -0.06<br>(0.94)  |
|             |                | Total       | 117 | 4.27<br>(0.92) | 4.12<br>(1.04) | 4.70<br>(0.90) | 4.39<br>(0.92) | 4.37<br>(0.80) | -0.35<br>(0.59) | 0.23<br>(0.66) | -0.16<br>(1.06)  |
|             | Conforming     | Girls       | 58  | 4.38<br>(0.65) | 4.05<br>(0.82) | 4.50<br>(0.87) | 4.34<br>(0.83) | 4.32<br>(0.65) | -0.21<br>(0.55) | 0.24<br>(0.61) | 0.18<br>(0.90)   |
|             |                | Boys        | 52  | 4.33<br>(0.87) | 4.02<br>(0.91) | 4.68<br>(0.85) | 4.34<br>(0.99) | 4.34<br>(0.74) | -0.34<br>(0.56) | 0.32<br>(0.75) | -0.04<br>(1.02)  |
|             |                | Total       | 110 | 4.35<br>(0.76) | 4.03<br>(0.86) | 4.58<br>(0.86) | 4.34<br>(0.90) | 4.33<br>(0.69) | -0.27<br>(0.56) | 0.28<br>(0.68) | 0.06<br>(0.96)   |

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(Table 4 Continues)

Table 4, Continued

| Participant<br>Sex | Video<br>Conformity | AMP Ratings |     |                |                |                |                | AMP Contrasts  |                 |                |                  |
|--------------------|---------------------|-------------|-----|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|
|                    |                     | Sex         | n   | Boys           |                | Girls          |                | M1             | M2              | M3             | M4               |
|                    |                     |             |     | Conforming     | Non-conforming | Conforming     | Non-conforming | Aggregate      | Sex             | Conformity     | Sex x Conformity |
|                    |                     | Girls       | 116 | 4.28<br>(0.78) | 4.07<br>(0.91) | 4.63<br>(0.81) | 4.37<br>(0.85) | 4.34<br>(0.67) | -0.33<br>(0.54) | 0.23<br>(0.69) | -0.04<br>(1.06)  |
|                    | Total               | Boys        | 111 | 4.35<br>(0.91) | 4.09<br>(1.01) | 4.67<br>(0.94) | 4.36<br>(0.97) | 4.37<br>(0.82) | -0.30<br>(0.61) | 0.28<br>(0.64) | -0.04<br>(0.98)  |
|                    |                     | Total       | 227 | 4.31<br>(0.85) | 4.08<br>(0.96) | 4.65<br>(0.88) | 4.37<br>(0.91) | 4.35<br>(0.74) | -0.31<br>(0.57) | 0.26<br>(0.67) | -0.04<br>(1.02)  |

*Note:* Mean values are displayed under each AMP rating and AMP contrast, with standard deviations in parentheses.

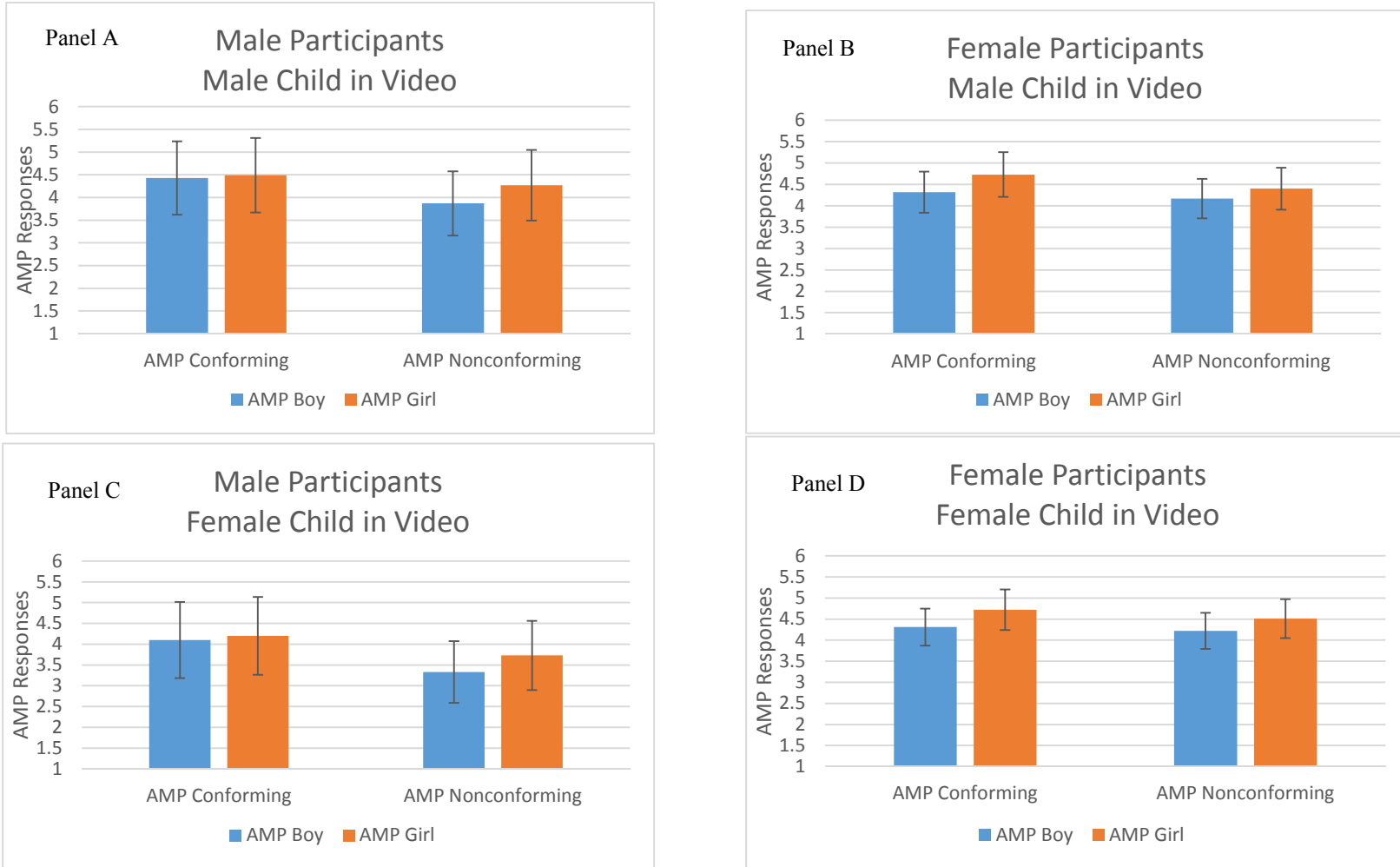
Results indicated a significant 2-way interaction between participant sex and the gender conformity of the child on the AMP, Wilks's  $\Lambda = .96$ ,  $F(1, 219) = 8.17$ ,  $p = .005$ ,  $\eta_p^2 = .04$ , representing a small effect. The repeated measures MANOVA revealed a significant 3-way interaction between participant sex, the sex of the child depicted on the AMP, and the gender conformity of the child depicted on the AMP, Wilks's  $\Lambda = .96$ ,  $F(1, 219) = 10.22$ ,  $p = .002$ ,  $\eta_p^2 = .05$ , representing a small effect.

These interactions, however, were qualified by a significant 4-way interaction between participant sex, gender conformity of the child in the video, the sex of the child in the video, and the sex of the child depicted on the AMP, Wilks's  $\Lambda = .97$ ,  $F(1, 219) = 8.02$ ,  $p = .005$ ,  $\eta_p^2 = .04$ , representing a small effect. Figure 5 depicts this interaction with four sub-figures in a 2x2 configuration in which participant sex is represented by the two columns of figures and in which sex of the child in the videos is represented by the two rows. Thus, Panel A represents data from male participants who viewed videos about boys; Panel B represents data from female participants who viewed videos about boys; Panel C represents data from male participants who viewed videos about girls; and finally, Panel D represents data from female participants who viewed videos about girls. The two within-subjects factors are represented by features *within* each panel. Specifically, the groups of bars represent AMP conformity versus nonconformity, whereas the colored bars differentiate AMP responses to boys versus girls. The significant four-way interaction implies that the relations embedded in the panels (representing within subjects differences) cannot be explained without considering the row-differences *and* column-differences between panels simultaneously.



**Figure 5**

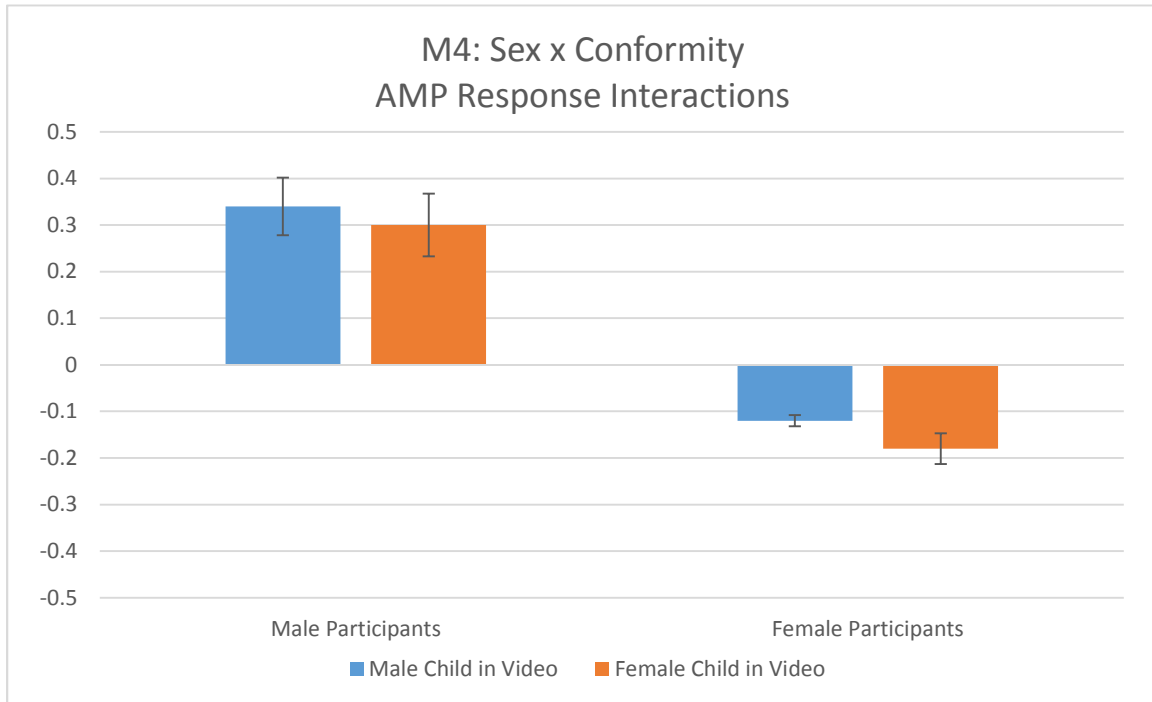
*AMP sex by AMP conformity differences organized by sex of the child in the video (rows) and participant sex (columns).*



To unpack this four-way interaction further, a linear contrast value was computed to represent the within-subjects part of the interaction: The difference in AMP responses to conforming and nonconforming girls was subtracted from the difference in AMP responses to conforming and nonconforming boys. In Table 4, these values are included in the column labeled “M4, Sex x Conformity” under AMP Contrasts. Specifically, the M4 contrast average for men who viewed videos of boys was 0.34 ( $SD = 1.08$ ), and this value is a numeric representation of the 2x2 within-subjects interaction of Figure 5, Panel A. This average of 0.34 indicates that the difference in AMP responses to conforming and nonconforming boys was larger than the difference in AMP responses to conforming and nonconforming girls. Similarly, the M4 contrast average of women who viewed videos of boys was -0.18 ( $SD = 0.90$ ), which represents the relation in Panel B and indicates that the difference in AMP responses to conforming and nonconforming boys was smaller than the difference in AMP responses to conforming and nonconforming girls. The M4 contrast average of men who viewed videos of girls was 0.30 ( $SD = 1.38$ ), which represents the relation in Panel C and indicates a very similar relation to that depicted in Panel A. Finally, the M4 contrast average of women who viewed videos of girls was -0.12 ( $SD = 0.98$ ), representing the relation depicted in Panel D, which was similar in pattern to the relation depicted in Panel B but less extreme. These numeric representations of the AMP response interactions are depicted graphically in Figure 6, which revealed that the difference between male and female children in the videos for female participants was more pronounced than that same difference for male participants in terms of the M4 AMP contrast values representing the AMP sex by conformity interaction.

**Figure 6**

*Average for the M4 contrast representing the AMP sex by conformity interaction as a function of participant sex and sex of the child in the videos*

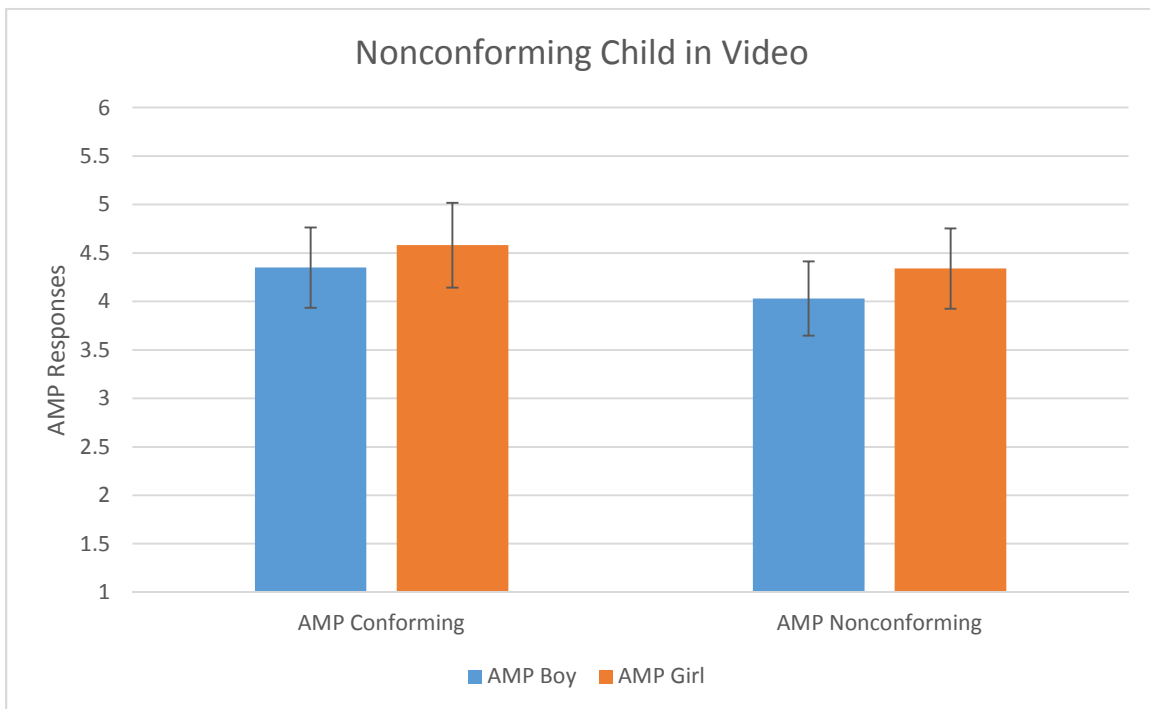
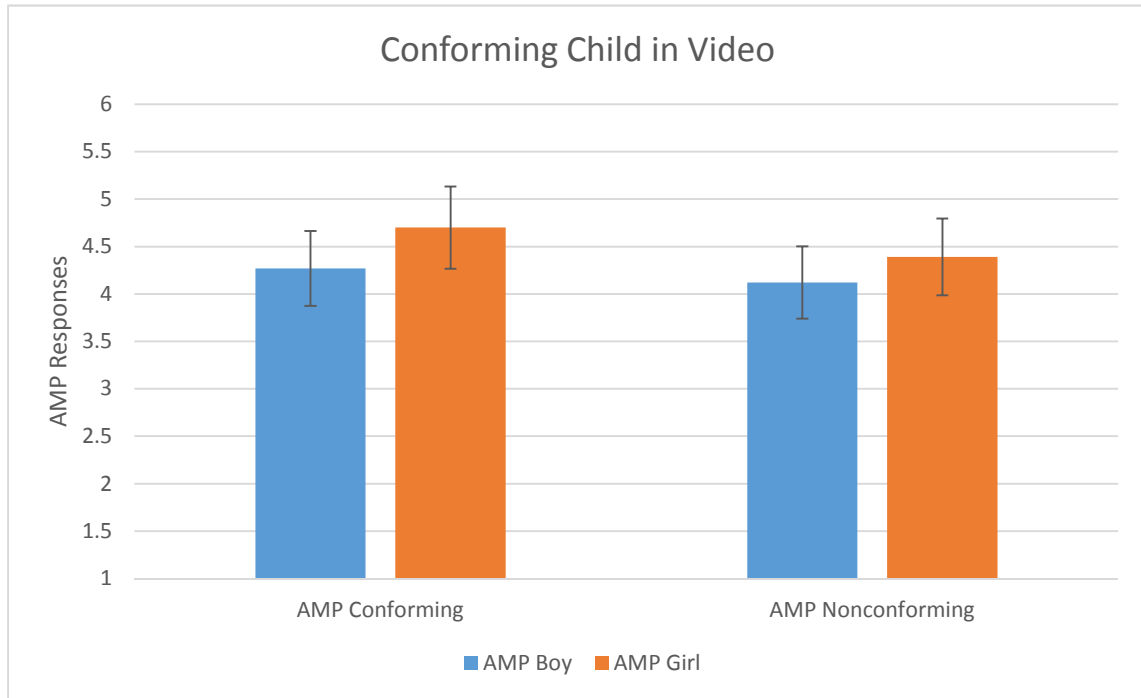


An examination of the means in Table 4 also revealed that a related 3-way interaction effect between the gender conformity of the child in the video, the sex of the child depicted on the AMP, and the gender conformity of the child depicted on the AMP was also significant, Wilks's  $\Lambda = .98$ ,  $F(1, 219) = 4.63$ ,  $p = .033$ ,  $\eta_p^2 = .02$ , representing a small effect. Figure 7 portrays this interaction, which is not entirely qualified by the significant four-way interaction discussed previously because it involves an additional factor not subsumed by that interaction. An examination of Figure 7 reveals that, for the participants who viewed a video about a gender conforming child, the difference between AMP responses to boys and girls was more pronounced than that of the nonconforming boys and girls; for the participants who viewed videos of a nonconforming child,

however, this pattern was reversed with a more pronounced difference in AMP responses to boys and girls for the nonconforming AMP trials.

**Figure 7**

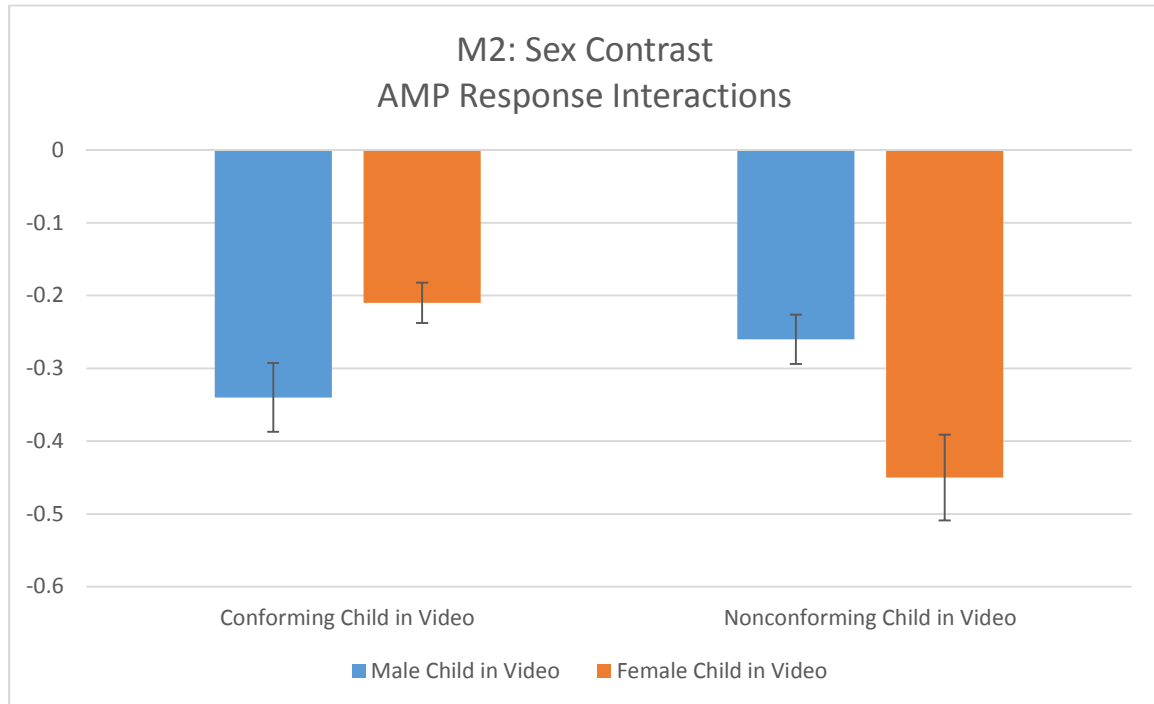
*AMP response averages for conforming and nonconforming trials involving boys and girls as a function of viewing a video of a conforming or nonconforming child.*



Another related significant 3-way interaction effect was observed between gender conformity condition in the video, the sex of the child in the video, and the sex of the child depicted on the AMP, Wilks's  $\Lambda = .95$ ,  $F(1, 219) = 10.91$ ,  $p = .001$ ,  $\eta_p^2 = .05$ , representing a small effect (see Table 4). Figure 8 depicts this interaction, which again is not entirely qualified by previous interactions because it involves an additional factor not subsumed in those other interactions. No other effects in the factorial design were significant. An examination of Figure 8 demonstrates that, for participants who viewed videos of conforming children, those who viewed the video about a boy had a more pronounced difference in ratings on the AMP that favored trials with girls over boys, whereas those who viewed a video about a girl had a less pronounced difference in responses on the AMP to trials with girls over boys. For those participants who viewed videos about nonconforming children, however, this pattern was the reverse with a more pronounced difference on the AMP for girls versus boys for those who viewed videos about a girl.

**Figure 8**

Average for the M2 contrast representing the AMP sex by conformity interaction as a function of the sex of the child in the video



**Third Analysis**

The purpose of the third analysis was to examine the effect of the implicit AMP responses (and the differences thereof) on the outcome variables (i.e., Feeling Thermometer responses toward the child depicted in the video, toward the mother of the child depicted in the video, parenting competence, and the mother’s control over her child’s behavior). To use the differential AMP responses as *predictors* in this analyses, the linear contrasts associated with the within-subjects repeated measures MANOVA in the previous analysis were used as the predictors.

Specifically, M1 is calculated as the average of all AMP response conditions and represents the overall response level of each participant to the six-point Likert scale (i.e.,

the participants' individual difference in use of the response scale regardless of AMP manipulation condition). Similarly, M2 presents the difference in the average responses on the AMP to trials depicting boys from the average responses on the AMP to trials depicting girls. Further, M3 represents the difference in the average responses on the AMP to trials depicting conforming children to the average responses on the AMP to trials depicting nonconforming children. As mentioned previously, M4 represents the interaction effect of responses on the AMP on the basis of both sex and gender conformity; specifically, M4 is the difference in AMP responses to conforming and nonconforming girls subtracted from the difference in AMP responses to conforming and nonconforming boys. A MANOVA was utilized for this analysis to estimate multivariate effects parallel to those reported for the previous analyses in this section for comparability, even though all predictors are continuous variables. The descriptive statistics to support this analysis, therefore, are correlations between the AMP aggregate and contrast variables and the outcome Feeling Thermometer variables, which are presented in Table 5.



**Table 5***Correlations between AMP aggregate and contrast variables and outcome Feeling Thermometer variables.*

|   | 1       | 2     | 3       | 4     | 5      | 6      | 7     | 8 |
|---|---------|-------|---------|-------|--------|--------|-------|---|
| 1. AMP Implicit Aggregate of all four conditions          | —       |       |         |       |        |        |       |   |
| 2. AMP Implicit Boys vs. Girls contrast                   | -.055   | —     |         |       |        |        |       |   |
| 3. AMP Implicit Conforming vs. Nonconforming contrast     | -.180** | -.066 | —       |       |        |        |       |   |
| 4. AMP Implicit Gender by Conforming Interaction contrast | -.060   | .164  | .189**  | —     |        |        |       |   |
| 5. FT for Child Depicted in Video                         | .122    | -.004 | -.063   | -.032 | —      |        |       |   |
| 6. FT for Mother of Child Depicted in Video               | .180**  | .003  | -.050   | -.121 | .383** | —      |       |   |
| 7. FT for Parenting Competence                            | .069    | .103  | -.172** | -.067 | .391** | .720** | —     |   |
| 8. FT for Mother Control of Child                         | .124    | .020  | .086    | .082  | .134*  | .151*  | .148* | — |

*Note: AMP Affect Misattribution Procedure, FT Feeling Thermometer, \*  $p < .05$ . \*\*  $p < .01$ .*

Results indicated a significant effect of the AMP implicit aggregate of all four conditions (M1) on explicit attitudes toward the child and the child's mother, Wilks's  $\Lambda = .94$ ,  $F(4, 208) = 3.16$ ,  $p = .015$ ,  $\eta_p^2 = .06$ , representing a medium effect. Separate univariate ANOVAs on the outcome variables revealed significant effects on explicit attitudes toward the mother,  $F(1, 211) = 6.09$ ,  $p = .014$ ,  $\eta_p^2 = .03$ , representing a small effect. Results also indicated a significant effect of the AMP implicit gender conformity contrast (M3) on explicit attitudes toward the child and the child's mother, Wilks's  $\Lambda = .95$ ,  $F(4, 208) = 2.52$ ,  $p = .043$ ,  $\eta_p^2 = .05$ . Separate univariate ANOVAs on the outcome variables revealed a significant effect on explicit attitudes of the mother's parenting competence,  $F(1, 211) = 3.87$ ,  $p = .051$ ,  $\eta_p^2 = .02$ , representing a small effect. No other significant effects were found.

#### ***Fourth Analysis***

To demonstrate stigma by association using the Baron and Kenny (1986) approach, the effect of the predictor variables on the outcome variables must change when the mediator is present in the model. Mediation is demonstrated when the significant relation between the predictor variables and outcome variables is diminished or eliminated after controlling for the mediating variable (i.e., participants implicit attitudes toward gender nonconformity). In other words, for stigma by association to occur, the impact of gender nonconformity on participants' perceptions of maternal parenting competence would be contaminated by participants' implicit attitudes toward children's gender nonconforming behavior. A MANOVA was used to examine these main effects and interactions.

There was a significant effect of the AMP implicit aggregate of all four conditions on explicit attitudes toward the child and the child's mother, Wilks's  $\Lambda = .95$ ,  $F(4, 200) = 2.51$ ,  $p = .043$ ,  $\eta_p^2 = .05$ , representing a small effect. Separate univariate ANOVAs on the outcome variables revealed a significant effect on explicit attitudes toward the mother of the child,  $F(1, 203) = 4.81$ ,  $p = .029$ ,  $\eta_p^2 = .02$ , representing a small effect. Results also indicated a significant effect of participant sex on explicit attitudes toward the child and the child's mother, Wilks's  $\Lambda = .95$ ,  $F(4, 200) = 2.54$ ,  $p = .041$ ,  $\eta_p^2 = .05$ . Separate univariate ANOVAs on the outcome variables also revealed significant effects on explicit attitudes toward the child,  $F(1, 203) = 6.20$ ,  $p = .014$ ,  $\eta_p^2 = .03$ , explicit attitudes toward the mother,  $F(1, 203) = 3.91$ ,  $p = .049$ ,  $\eta_p^2 = .02$ , and explicit attitudes of the mother's parenting competence,  $F(1, 203) = 5.08$ ,  $p = .025$ ,  $\eta_p^2 = .02$ , all representing a small effect. No other main effects or interaction effects were found to be significant in this fourth analysis.

According to the Baron and Kenny (1986) causal steps approach to mediation, the effect of the predictor variables (i.e., participant sex, sex of the child depicted in the video, and gender conformity of the child depicted in the video) must change when the mediator is present in the model. The significant relation between the predictor variables and outcome variables must be diminished or eliminated after controlling for the mediating variable (i.e., participants' implicit attitudes on the AMP). Results from this fourth analysis indicate partial mediation. Specifically, the significant effect of participant sex on explicit attitudes toward the child and the child's mother was significantly diminished when controlling for the mediating variables.

### ***PROCESS Approach to Mediation***

Multiple regression analyses were also used to examine this hypothesis, and conditional process modeling was used to describe the boundary conditions of the relation between gender nonconforming behavior and participants' attitudes toward the child's mother. Specifically, Hayes' Macro PROCESS tool (2017) was used for this mediation analysis, with participant sex, gender conformity, and child sex as the predictor variables, participants' attitudes toward gender nonconforming behavior (Implicit AMP responses) as the potential mediating variables, and participants' attitudes toward the child and the child's mother (Explicit Feeling Thermometer responses) as the outcome variables.

To test the multiple mediation models, bootstrapping is one of the most valid and robust methods. It is a nonparametric resampling procedure that does not impose the assumption of normality of the sampling distribution. Bootstrapping involves repeatedly sampling from the data set and estimating indirect effects (effects of the predictor on the set of outcomes through the mediators) in each resampled data set. The process is repeated  $k$  times (5000 bootstrapped samples are recommended) and provides estimates with confidence interval of sampling distributions of the indirect effects that maximizes statistical power. If the 95% confidence interval does not contain zero, the indirect effect is considered to be significantly different from zero at  $p < .05$  and mediation is present.

For each multiple mediation model, bootstrap methods with PROCESS Macro provided indirect effects of  $X$  on  $Y$ , through the four proposed mediators (i.e., AMP Implicit Aggregate of all four conditions, AMP Implicit Male vs. Female Child Contrast, AMP Implicit Conforming Child vs. Nonconforming Child Contrast, and AMP Implicit

Child Sex by Conforming Interaction Contrast). In this design, the mediator represented the simultaneous differences among four separate measures that were manipulated in a within-subjects design. The predictor and outcome variables also added to the complexity of the design, with multiple predictor variables and multiple outcome variables.

Results revealed that all confidence intervals included zero, indicating that no effects were significant (See Appendix G for results of the PROCESS approach). In the current design, the mediator had to be represented as multiple ortho-normalized transformed variables and created a very large number of products to be tested with a large number of 95% confidence intervals. The PROCESS approach took the effects that were efficiently captured by the Baron and Kenny (1986) approach and fractionated them into numerous, tiny pieces such that no one analysis from the PROCESS approach revealed significance.

## CHAPTER V: DISCUSSION

Parents play a critical role in supporting healthy psychosocial development in their children. Unfortunately, they are also subjected to judgments on numerous child-rearing decisions. In fact, 61% of mothers report being criticized for their parenting choices, most frequently by family and friends (Mott Poll Report, 2017). In a culture that allows very little flexibility with regard to gender norms, parents of children who challenge the binary nature of gender norms face even further social judgment and criticism for their parenting choices (Menvielle & Tuerk, 2002). Gender nonconformity or gender atypical behavior can cause discomfort in others and elicit attempts to alter behaviors by parents (Beard & Bakeman, 2000). For instance, retrospective reports from individuals who were gender nonconforming as children have indicated that many parents react negatively to violations of gender norms and may attempt to change their children's behavior. Moreover, approximately 30% of lesbian, gay, and bisexual individuals who were gender nonconforming as children reported that parents attempted to alter or discourage their gender atypical behavior in a variety of ways (D'Augelli et al., 2006). Even the most progressive parents included in research samples express feeling pressured from others to encourage gender conforming behavior in public, especially with their sons (Kane, 2012). Research has also found that boys are punished more often and more harshly than girls for gender role deviations. Further, D'Augelli and colleagues (2006) found that male children generally report more negative reactions from parents compared to female children, and fathers of male children had the most negative reactions to gender nonconformity compared to fathers of female children or mothers.

Negative attitudes toward gender nonconforming behavior and gender role deviation are pervasive throughout American culture (Friedman & Downey, 1999; Schwartz et al., 2016; Skidmore et al., 2006). These negative attitudes have been found to contribute to much of the discrimination, harassment, and violence experienced by sexual and gender minorities (Balsam et al., 2005; Fasoli et al., 2017; Rosa et al., 2018; Skidmore et al., 2006). Given this body of research, there is a question of whether gender nonconforming behavior is a stigmatizing condition for children. In other words, is it not only that gender typical behavior in children is preferred, but also that gender nonconforming behavior in children carries a stigma? Furthermore, is it more stigmatizing for a male child to engage in gender atypical behavior than a female child? Are men less tolerant of gender role deviation in children than women? How do others perceive the relation between the gender nonconforming child and his or her mother? This study was designed to examine the possible connection between a child's gender conformity and attitudes toward both the child and the mother of that child. These questions point to the social phenomenon of perceptions, prejudice, and stigma as potential catalysts for discrimination and victimization experienced by gender nonconforming individuals and their families. As such, this study examined the potential presence of stigma by association for the mother of a gender nonconforming child.

Four primary research questions guided this study: (1) Is childhood gender nonconformity stigmatizing when examining explicit attitudes and implicit associations? (2) Does the impact of child gender nonconformity on the explicit attitudes and implicit associations vary as a function of the child's sex? (3) Does Participant Sex moderate the effects of Conformity and Child Sex for measures of explicit attitudes and implicit

associations? (4) Is there evidence of stigma by association for the mother of the gender nonconforming child? Based on previous research, it was expected that children who were viewed as gender nonconforming would receive more negative ratings on both implicit and explicit tasks than gender conforming children. Furthermore, it was anticipated that gender nonconforming male children would be rated more negatively than female children who were gender nonconforming, and that this effect would be exaggerated for male participants. Male participants were also expected to provide more negative ratings toward gender nonconforming children than female participants. Finally, it was anticipated that mothers of gender nonconforming children would receive significantly more negative explicit ratings than the mothers of gender conforming children, and that this effect would be exaggerated for mothers of gender nonconforming boys.

### **Summary of Findings**

#### **Is childhood gender nonconformity stigmatizing when examining explicit attitudes and implicit associations?**

There was a significant effect of gender conformity; however, this effect on the feeling thermometer for the hypothetical child described in the video was counter to what was predicted. In other words, participants reported significantly more positive feelings toward hypothetical children who were presented as gender nonconforming versus those who were presented as gender conforming. On the other hand, participants reported significantly more negative attitudes about the behavior of children who were presented as gender nonconforming than children who were presented as gender conforming on the



feeling thermometer related to child behavior with respect to clothing, toys, and Halloween costumes. This effect was also found for the implicit measure.

Goffman (1963) defined stigma as “an undesired differentness from what we had anticipated” (p. 15) that can lead to disparaging thoughts about the individual. Results from this study suggest that children’s gender nonconforming behavior, or perceptions of that behavior, can have an impact on the attitudes and feelings of those who observe or interact with these children. This finding implies that a child’s violation of gender norms deviates from what individuals expect or desire from a child’s behavior and these deviations lead others to have negative feelings toward that child.

Why is gender nonconforming behavior stigmatizing? This effect may be due, in part, to widespread acceptance of heteronormative attitudes in the United States (Baams et al., 2015; Herek, 2009). Heteronormativity is a term used to describe preferential attitudes and feelings toward heterosexual relationships. These attitudes are deeply rooted in the idea that each sex has separate and distinct roles and characteristics, with rigid expectations for men and women. Additionally, those who demonstrate heteronormative attitudes often have negative attitudes toward behaviors that do not conform to gender norms (Harbarth, 2015). It has been suggested by some researchers that negative attitudes toward gender nonconformity are the result of beliefs that such behaviors are a threat to the traditional sex role structure (Whitley, 1987; Rosa et al., 2018).

Previous studies have documented that childhood gender nonconformity is viewed by others as being associated with a non-heterosexual sexual orientation (Blashill & Powlishta, 2009; Martin, 1990; Sandnabba & Ahlberg, 1999; Thomas & Blakemore, 2013). For instance, Thomas and Blakemore (2013) found that gender nonconforming

children were perceived by others as experiencing more pressure to change their behavior and were predicted to eventually identify as having a non-heterosexual sexual orientation. Other lines of research have also found that gender atypicality or gender nonconforming behavior can be used as a cue in sexuality judgment (Rieger et al., 2010). Although not all individuals who engage in gender atypical behavior in childhood later identify as homosexual as adults, sexual orientation in adulthood is one outcome associated with childhood gender nonconformity (Drummond et al., 2008; Lippa, 2008; Rieger et al., 2008; Steensma et al., 2013; Walien & Cohen-Kettenis, 2008; Zucker et al., 2006). Taken together, heteronormative bias in combination with a perceived association between gender atypical behavior and sexual orientation could explain why gender nonconforming behavior is viewed as a stigmatizing marker in both adults and children. It would be beneficial for future research to include measures of attitudes toward gender roles and homosexuality.

**Does the impact of child gender nonconformity on the explicit attitudes and implicit associations vary as a function of the child's sex?**

It was hypothesized that participants would report more negative affect toward a gender nonconforming male child than the gender nonconforming female child. The expected interaction was not evident for the implicit measure (i.e., AMP) or for explicit feelings about the hypothetical child in the video. However, the sex of a gender nonconforming child did significantly impact participants' responses on the explicit measure, with participants reporting significantly more negative feelings toward male children who were presented as gender nonconforming with respect to toys, clothes, and costumes than female children who were presented as gender nonconforming.

Before discussing implications of these findings, a review of the dual-process model is warranted. The dual-process model of reactions to a perceived stigma indicates that people respond both reflexively and in a rule-based manner when presented with situations that involve a perceived stigma (Pryor et al., 2004). The dual-process model provides an explanation for more positive reactions toward stigmatized individuals when participants are given the opportunity to consider and restrict their responses (Carver et al., 1978). The model suggests that people do not always respond with their immediate, reflexive reactions. It has been suggested that when individuals provide a verbal report of their attitudes, they are using a more controlled and reflective process to provide socially desirable responses (Hebl & Kleck, 2000). In other words, social norms and expectations influence their responses. Despite controlled responses (i.e., explicit responses) indicating one attitude, participants may demonstrate other behaviors (i.e., implicit responses) that suggest alternative attitudes. This discrepancy between verbal and nonverbal behaviors suggests separate processes—one reflexive and automatic, the other controlled and planned (Hebl & Kleck, 2000).

Given the socially potentially controversial nature of gender nonconformity, it was hypothesized that participants would report more negative affect toward gender atypical male children than gender atypical female children. Although this pattern was not evident for the implicit measure (i.e., AMP), the expected significant interaction occurred for the explicit measure (i.e., Feeling Thermometer). In other words, the observed child's sex did not significantly impact the participants' immediate responses; however, the child's sex did significantly impact participants' more controlled responses on the explicit measure when asked directly and specifically about gender nonconforming

boys and girls. Here, participants reported significantly more negative feelings toward male children who engage in gender nonconforming behaviors compared to female children who engage in gender nonconforming behaviors. These findings were counter to what would be expected from the dual-process model. Thus, it is possible that gender conformity is not considered controversial enough for participants to want to respond in a way that would be considered socially desirable. Further evidence for this assertion is the overall positive correlations between the implicit and explicit measures.

When participants are given the opportunity to provide thoughtful and controlled responses, gender nonconforming boys are perceived more negatively than gender nonconforming girls. There is abundant evidence demonstrating that violating gender norms elicits negative reactions from others. These reactions to violations are often more pronounced for boys and men exhibiting gender nonconforming behavior as masculine gender norms are much less flexible than feminine norms (Diekmann et al., 2004). Previous research has documented that adults tend to be more concerned with socializing male children to demonstrate gender-typical behavior than they are with socializing female children (Egan & Perry, 2001; Thomas & Blakemore, 2013). Additionally, parents hold more negative assumptions and expectations about their gender nonconforming male children than gender nonconforming female children (Kane, 2006; Sandnabba & Ahlberg, 1999).

Why is gender nonconformity more concerning when demonstrated by male children than female children? Different theoretical models have been proposed to explain the negative reactions others have to boys and men who demonstrate gender role deviations. The social status model (Feinman, 1981,1984; Rosenkrantz et al., 1968)

suggests that differences in social status between male and female gender roles influence the way men and women are viewed when they violate gender-based norms. According to the social status model, because men are regarded as having a higher social status than women, when men do not conform to gender norms, they lose status and are perceived more negatively than women. In contrast, when women deviate from gender norms, they are adopting behavior that is associated with a higher social status and are perceived more positively than men who violate gender norms.

A second proposed explanation is the sexual orientation model (Herek, 1984, 1994; McCreary, 1994). This model states that male gender nonconformity is punished more harshly than female gender nonconformity because cross-gender role deviation is associated with being labeled homosexual for men and includes the stigma associated with male homosexuality. The perceived value dissimilarity model (Schwartz & Bilsky, 1987) provides another explanation for negative responses to gender nonconforming behavior in boys and men. According to this perspective, those who are thought to violate a group's shared norms represent a threat to the group and, as a result, are perceived more negatively than those who are thought to share the group's values (Esses et al., 1993). Sirin and colleagues' (2004) study found that people responded more negatively to male gender role transgressors than female gender role transgressors, providing support for the social status, sexual orientation, and perceived value dissimilarity models. Sirin and colleagues (2004) found that males who violated gender norms were viewed as lower in social status, more likely to be homosexual, and holding different values. These theories are also consistent with research indicating that gender nonconformity is more prevalent

in women compared to men (Bos et al., 2016), and that males are granted less freedom in gender expression compared to females (Savin-Williams & Cohen, 2015).

Theories of gender hegemony describe masculinity and femininity as dichotomous, as well as hierarchical, with masculinity positioned above femininity (Schippers, 2007). These theories of gender hegemony often refer to gender policing, a term that is used to describe the regulation and enforcement of gender norms that target those perceived as violating these norms (Hoskin, 2019). Typically, gender norms are maintained by the gender binary, and gender policing is often used for cross-gender transgressions. Thus, the gender binary is upheld by gender policing as violations are stigmatizing. Gender policing, however, not only maintains the gender binary but also reinforces the subordinated status of femininity (Schippers, 2007). Gender socialization and policing continues throughout one's lifespan and involves multiple actors, including parents, extended family, peers, teachers, strangers, and even the media. It includes both reinforcement and social acceptance for behavior that conforms to gender norms and punishment (e.g., criticism, discrimination, harassment) for gender nonconformity (Price et al., 2019).

These findings have significant implications for the psychosocial adjustment of gender nonconforming male children. For instance, research has documented higher rates of victimization and more negative outcomes for gender nonconforming males than females. Gender atypical boys are much more likely than gender typical boys to experience parental rejection, verbal homophobic victimization, and higher levels of depression and PTSD (D'Augelli et al., 2006). The higher rates of parental rejection are particularly significant, as acceptance of gender nonconformity by fathers has been found

to be a protective factor for males (van Beusekom & Bos, 2015). It would be beneficial for future studies to examine perceptions of fathers and their gender nonconforming sons. Additionally, future research should include additional factors that may impact reactions to gender role transgressions, including age, race/ethnicity, sexual orientation, political, or religious beliefs.

### **Does Participant Sex moderate the effects of Conformity and Child Sex for measures of explicit attitudes and implicit associations?**

It was hypothesized that there would be a significant interaction such that perceptions and attitude toward gender nonconforming children would be significantly more negative for male participants than female participants, and that this effect would be more obvious for gender nonconforming boys. This prediction was not borne out when examining explicit feelings for the hypothetical child in the video vignette. However, the predicted three-way interaction was significant for explicit attitudes about behavior, such that male participants reported more negative attitudes toward gender nonconforming children than female participants. This effect was observed on the implicit measure as well. The predicted significant interaction was found; perceptions of pictographs associated with male gender nonconforming children were significantly more negative for male participants than female participants. Moreover, male participants reported significantly more negative feelings toward gender nonconforming boys than gender nonconforming girls.

Research consistently shows that men often assert their masculinity by avoiding traditional feminine traits, roles, and behaviors (Bosson & Michniewicz, 2013). The current study provides further support for the notion that men are generally less accepting

of cross-gender behavior than women (Martin, 1990), and violations of gender norms by males elicit more negative reactions than violations by females (McCreary, 1994; Sirin et al., 2004). Unsurprisingly, endorsement of anti-femininity by men also constitutes one of the strongest predictors of negative attitudes toward homosexuality, particularly prejudice toward gay men (Wilkinson, 2004). As previously noted, gay men are often perceived as demonstrating feminine traits and behaviors and are viewed as violating the anti-femininity norm (Kite & Deaux, 1987). In fact, the link among masculinity, anti-femininity, and anti-gay prejudice is so strong among heterosexual men that many scholars consider heterosexuality a central dimension of hegemonic masculinity (Herek, 1986; Kimmel, 1997). To establish their masculinity, men avoid feminine behaviors and assert their heterosexuality. Men often achieve this assertion by dissociating themselves from gay men and making disparaging remarks about homosexuality and femininity.

Scholars have argued that heterosexual masculinity is characterized by homonegativity (Herek, 1986; Kimmel, 1994), providing a theoretical explanation for men's greater sexual prejudice than women's. Pressure on men to express traditional masculinity, along with the belief that homosexuals transgress traditional gender roles, contribute to men expressing greater homonegativity. There seems to be an association between heteronormative attitudes, personal gender conformity, and tolerance of gender norm deviations. For instance, Duncan and colleagues (2019) found that heterosexual men were the least tolerant and held more traditional views about gender expression and that lesbian and bisexual women were the most accepting of gender nonconforming individuals. As previously discussed, it would be beneficial for future studies to include measures of attitudes toward sexual orientation, religious views, and political beliefs.



## **Is there evidence of stigma by association for the mother of a gender nonconforming child?**

Originally referred to as “courtesy stigma” in Goffman’s (1963) seminal work, “stigma by association” is the concept that someone can experience stigma by simply associating with a stigmatized individual or group (Goldstein & Johnson, 1997; Neuberg, Smith, Hoffman, & Russel, 1994; Ostman & Kjellin, 2002; & Pryor, Reeder, & Monroe, 2012). For instance, Goldstein and Johnson (1997) asked participants to report attitudes toward individuals who were dating individuals with or without a disability. The researchers found that dating partners of individuals with disabilities were described as more nurturing; however, they were also rated to be less intelligent, sociable, and athletic than those who were dating nondisabled individuals. The participants’ attitudes toward dating partners were contaminated by the disability stigma. An additional stigma-by-association study reviewed perceptions of heterosexual males socializing with their homosexual male friends (Neuberg et al., 1994). In this study, stigma-by-association effects were observed, as well.

Stigma by association has also been documented by individuals who experience mental health difficulties (Angermeyer et al., 2003; Ostman & Kjellin, 2002). In these studies, stigma-by-association was present for family members of individuals with mental illness. For instance, Corrigan and Miller (2004) found that the children of those with mental health diagnoses often carried a stigma that they might exhibit concerning behavior similar to their parents. Additionally, mothers of children with Attention-Deficit/Hyperactivity Disorder (ADHD) have also been found to face increased risk of

social isolation due to their child's diagnosis and associated behaviors (Norvilitis et al., 2002).

Each of these previous studies examined the experience of individuals who are associated with others who carry a social stigma. In the current study, it was first necessary to determine that being a gender nonconforming child is stigmatizing. Results suggested that gender nonconforming behavior is stigmatizing. This stigmatization is also amplified when the sex of the child is male. Once it was determined that gender nonconforming behavior could carry a stigma, this study examined whether the mother of the child experienced stigma by association, just as family members did in previous research examining other stigmatized individuals. Results indicated that the relation between participant sex and participants' explicit feelings toward the child and the child's mother on the explicit measure of affect was partially mediated by the participants' implicitly reported attitude on the AMP. This finding suggests that the relation between the participant's sex and the participant's feelings toward the child, the child's mother, and confidence in the mother's parenting competence was impacted by the participant's implicit attitudes. Consistent with previous stigma by association research, when an individual carries a stigma, there was an impact on family members (i.e., the gender nonconforming child's mother).

Why is it important to study and document stigma by association experienced by mothers of gender nonconforming children? Studies that include dimensions of gender typicality, contentedness, and felt pressure to conform have demonstrated relations with mental health outcomes in preadolescent children. For instance, in a sample of fourth through eighth grade girls and boys, Carver and colleagues (2003) found that gender

contentedness predicted self-worth and peer social competence when youth reported higher levels of felt pressure to conform to gender norms. In other words, it is not felt gender typicality but instead felt pressure to conform to gender norms that is negatively associated with adjustment outcomes. Just as gender atypical children are pressured to conform to gender norms, mothers may also feel pressure from others to influence, alter, or change their child's gender nonconforming behavior. This pressure to conform is significant as studies indicate that higher rates of parental rejection for gender identity increases risk for a number of negative outcomes. For instance, Klein and Golub (2016) found that family rejection was associated with higher odds of suicide attempts and substance misuse among transgender and gender nonconforming individuals. Additionally, Fuller and Riggs (2018) identified family rejection as a risk factor for psychological stress among transgender and gender nonconforming individuals. As mothers experience stigma by association and pressure to influence their children's gender nonconforming behavior, the extent to which gender nonconforming individuals feel affirmed or supported by parents may be limited. With familial support serving as a significant protective factor for gender nonconforming youth, it will be important for future studies to continue to examine these relations.

### **Limitations and Future Directions**

There are several limitations to this study. First, this study was based on a hypothetical conversation between two actors who may not fully represent the experiences of a counselor, classroom teacher, child, or mother. Although steps were taken to ensure the details included in the conversation were drawn from previous research on gender nonconforming behavior (Thomas & Blakemore, 2013), this

investigation lacks the ecological validity that is necessary for a more complete understanding of what occurs in a naturalistic setting. Second, the sample used for this study included undergraduate students recruited online from the SONA psychology department research system. Any study based on college students is limited in its generalizability to the general population. Future research should expand upon this participant pool to include a cross-sectional study of adults of various ages.

Furthermore, the data collection process and eventual design stands as another limitation. It had been proposed that the AMP research stimulus materials be counterbalanced across participants so as to control for any serial order effects in responses across conditions. Serial order effects, or the situation in which one experimental trial in a sequence is impacted by previous trials, can occur whenever there are multiple opportunities for participants to respond to stimulus material items (e.g., questions on a survey, trials of behavioral tasks, or exposure to different stimuli followed by a requested response; Brooks, 2012). This study was at risk for serial order effects in the order of conditions presented on the AMP.

It was planned that each of the four conditions (i.e., female gender conforming, male gender conforming, female gender nonconforming, male gender nonconforming) would be counterbalanced across groups of participants. In designing the flow of the online survey, it became evident that there would be difficulty counterbalancing the presentation order of images on the AMP across participants. This limitation in the presentation software leaves the study with the limitation of not having counterbalanced the presentation of images included in the AMP, thereby having a potential serial order

carryover effect, which in turn could potentially confound the interpretation of the findings.

Although several steps were taken to ensure the validity of the stimulus materials chosen and created for this study, limitations should also be considered. For instance, video scripts were created based on vignettes that had been previously rated to their masculinity and femininity. Once the videos were created, school-based professionals viewed the videos and confirmed that the behaviors represented in the videos accurately depicted gender conforming and gender nonconforming children. However, these videos could be considered lengthy, at approximately five minutes for each video. With participants completing the study online, it was possible for participants to become disengaged while viewing the video, missing important details that could have impacted their ratings. Future studies could address this limitation by reducing the length of the videos or requiring in-person, lab-based participation.

### **Implications**

The results of this study support previous research findings that gender nonconforming behavior is viewed negatively by others, and behaviors that conform to gender norms are preferred by adults. Additionally, support was found for adults having more negative responses to male children who exhibit gender nonconforming behavior than female children who demonstrate similar behavior. As expected, male participants were found to be much less tolerant of gender norm deviations than female participants. Furthermore, the results of this study imply that children's gender nonconforming behavior, or the perception of gender nonconforming behavior, may have an impact on perceptions of parenting competence, especially for male respondents. This finding may

offer a new perspective to suggest that in the absence of actual behaviors, the perception of a child's gender nonconforming behavior may be powerful on its own, impacting feelings toward the child's mother and perceptions of parenting competence. In other words, attitudes toward a gender nonconforming child can be enough to alter an individual's opinion of parenting competence.

Despite the increase in attention given to sexual and gender minority issues, gender nonconforming individuals continue to experience alarmingly high rates of violence and discrimination by family members, peers, educators, and health care providers (Haas et al., 2014; Kosciw et al., 2016). Social support has been found to serve as a buffer in protecting individuals from stigma, discrimination, and other negative experiences (Lakey & Cohen, 2000). For instance, the degree to which gender nonconforming youth feel supported by their family and peers may influence their psychological health and overall adjustment (Higa et al., 2014; McConnell et al., 2015). However, parents who seek to support gender nonconforming children by affirming their gender identities often face hostility and resistance from family, schools, and health care professionals (Kivalanka et al., 2014; Sansfacon et al., 2015). Using an experimental manipulation, this study documented the implicit and explicit stigma often experienced by gender nonconforming children, and the stigma by association experienced by mothers of gender nonconforming children.

This study opens a new line of inquiry within the fields of social psychology and school psychology. It will be beneficial for future studies to explore the constructs that underlie the stigmatizing effects of gender nonconforming behavior in children and the impact that stigma has on those associated with the child, including parents. Although

this study's findings are suggestive of heteronormative bias as a cause for stigma, future research can explore these correlates to determine the social phenomena that could address these biases.

Heteronormativity is a basis from which to explain how and why gender nonconforming students are targeted for discrimination, harassment, and violence. Gender norms and expectations are critical in shaping the overall climate of schools, and gender regulation and policing are central to the heteronormative framework that structures school norms and student interactions (Pascoe, 2007). Unfortunately, students who violate these gender norms and expectations are at risk for victimization. A number of negative consequences are associated with victimization based on gender nonconformity and sexual orientation, including anxiety, depression, PTSD, suicidality, self-harm, risky sexual behavior, and substance abuse (Bontempo & D'Augelli, 2002; D'Augelli et al., 2006; Garafalo et al., 1998; Rivers, 2001; Williams et al., 2005). In addition to poor mental health outcomes and increased risk-taking behaviors, bias-related school victimization is also associated with higher absenteeism, lower grade-point averages, and decreased perception of school safety (O'Shaughnessey et al., 2004; Poteat & Espelage, 2007; Rivers, 2000). Schools have an obligation to protect gender nonconforming and sexual minority students by adopting programs and policies that create supportive and accepting school climates. Although anti-harassment policies, staff training in gender and sexual harassment, student-led clubs (e.g., gay-straight alliances), and inclusive curriculum have been identified as improving school climate, future research should continue to explore interventions and programs targeting the stigma and biases identified in the current study.

It will be important for others to be aware of potential biases and attempt to separate their biases from their behavior when interacting with gender nonconforming children and their families. This study found evidence for potential stigma by association applied to the mothers of children who carry a stigma of gender nonconforming behavior. As this research continues and expands, it may be a beneficial training or discussion topic among educators and health care professionals in an attempt to protect against biases toward gender nonconforming children and their families. However, these research findings must be confirmed in naturalistic settings and situations. Raising awareness of the potential for stigma by association for gender nonconforming children and their parents can be a helpful step for schools and other organizations. It will be important to continue the exploration of children's indirect influence on their parents' experience as mediated by perceptions of the child.



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## APPENDIX A: VIDEO SCRIPTS

### **Video Script Gender Conforming Boy Bullied for Being New to the School**

Below is the video script that was read by two actors portraying a teacher and counselor in a classroom setting.

---

- Counselor:** All right, Hannah, let's get ready for this parent-teacher conference. I want to make sure that we're on the same page before we meet with Tommy's mom. I'm going to take some notes on my laptop as we talk.
- Teacher:** Sounds good.
- Counselor:** Okay. So we scheduled this meeting with Tommy's mom to talk about some of the things we've seen at school recently. I know you're concerned because Tommy's been getting teased a lot more than your other third graders.
- Teacher:** Yes. Especially by the other boys. They're giving him a really hard time.
- Counselor:** Why do you think that is?
- Teacher:** He's new here this year and his interests are just so different from the other boys. They want to play rough games like football at recess and he'd rather stay inside and draw. They're wearing baseball jerseys to school and Tommy's wearing anime t-shirts. His favorite toys to play with are the G.I. Joes and the tool kit, but the other boys won't play with him.
- Counselor:** So he's just not fitting in, huh?
- Teacher:** Not at all. Just last week, he was the only boy in the class who wasn't invited to Jacob's birthday. Jacob said he didn't want the "new kid" at his party. Tommy was so upset. He started crying when he heard the other kids talking about how much fun they had.
- Counselor:** He's been getting upset easily, hasn't he?
- Teacher:** Yes. And the other boys are definitely noticing. They keep pushing his buttons because they know he's going to react and they think it's funny when he cries. They all laughed at him when he said he wanted to work with computers when he grows up.

**Counselor:** Those boys...I had to talk to them at lunch because they wouldn't let Tommy sit with them. I think he's been sitting alone every day. Then this afternoon, I had to talk to the boys again after I heard them calling him a "nerd" and a "loser" in the hallway on the way to the gym.

**Teacher:** Oh, don't get me started on gym. The kids don't want Tommy on their teams so he's picked last every day. Then he comes back to class mad and the other kids just keep pushing his buttons and make it worse.

**Counselor:** Tommy really hates gym, doesn't he?

**Teacher:** He can't stand it. Well, he did like the unit on marbles earlier this year. He even brought his own marble collection from home the first day. The boys all thought it was stupid and had a field day with that...He hates anything involving activities with the other boys.

**Counselor:** Do you think his mom knows that the other kids have been teasing him?

**Teacher:** Yeah, I think Tommy has been talking to her about it. She sent me an email last week asking how he was doing in the new school and said he has come home really upset. She asked if we could meet to talk about the teasing. Do you think we should say anything to her about *why* the kids are teasing him?

**Counselor:** She probably already knows but we can describe some of the incidents so she has some context. I'm not sure she realizes how often the teasing is happening.

**Teacher:** Do you think we should tell her the kids are targeting Tommy because he's the new kid? That he's having trouble making friends because he's new?

**Counselor:** Let's just start out with a discussion about what we're seeing and see how she responds. We can let her guide the conversation. Do you know how she feels about this?

**Teacher:** I don't know how she feels about it. I guess we'll see in a few minutes. She should be here soon.

**Counselor:** Okay. I'm going to run down to the office to make a few copies. If she's down there, I'll bring her back with me.

**Teacher:** Great. Thanks.

**Counselor:** No problem.



---

**Video Script**  
**Gender Nonconforming Boy**  
**Bullied for Gender Nonconforming Behavior**

Below is the video script that was read by two actors portraying a teacher and a counselor in a classroom setting.

---

**Counselor:** All right, Hannah, let's get ready for this parent-teacher conference. I wanted to make sure that we were on the same page before we meet with Tommy's mom. I'm going to take some notes on my laptop as we talk.

**Teacher:** Sounds good.

**Counselor:** Okay. So we scheduled this meeting with Tommy's mom to talk about some of the things we've seen at school recently. I know you're concerned because Tommy's been getting teased a lot more than your other third graders.

**Teacher:** Yes. Especially by the other boys. They're giving him a really hard time.

**Counselor:** Why do you think that is?

**Teacher:** His interests are just so different from the other boys. They want to play rough games like football at recess and he'd rather choreograph dances with the girls. They're wearing baseball jerseys to school and Tommy's wearing purple and pink "Hello Kitty" t-shirts. His favorite toys to play with are baby dolls and the doll house, and the boys definitely don't want to play with those.

**Counselor:** So he's just not fitting in, huh?

**Teacher:** Not at all. Just last week, he was the only boy in the class who wasn't invited to Jacob's birthday. Jacob said he didn't want any "sissies" at his party. Tommy was so upset. He started crying when he heard the other kids talking about how much fun they had.

**Counselor:** He's very sensitive and his feelings get hurt easily.

**Teacher:** Yes. And the other boys are definitely noticing. They keep pushing his buttons because they know he's going to react and they think it's funny when he cries. They all laughed at him when he said he wanted to be a nurse when he grows up.

**Counselor:** Those boys...I had to talk to them at lunch because they wouldn't let Tommy sit with them. I think he's been sitting with the girls every day. Then this afternoon,

I had to talk to the boys again after I heard them calling him a “girl” and a “sissy” in the hallway on the way to the gym.

**Teacher:** Oh, don’t get me started on gym. The boys don’t want Tommy on their teams so he’s picked last every day. Then he comes back to class crying and the other kids just keep pushing his buttons and make it worse.

**Counselor:** Tommy really hates gym, doesn’t he?

**Teacher:** He can’t stand it. Well, he did like the unit on dancing earlier this year. He even brought his ballet uniform and ballet shoes the first day. The kids had a field day with that...He hates anything involving sports with other boys.

**Counselor:** Do you think his mom knows that the other kids have been teasing him?

**Teacher:** Yeah, I think Tommy has been talking to her about it. She sent me an email last week saying he came home crying. She asked if we could meet to talk about the teasing. Do you think we should say anything to her today about *why* the kids are teasing him?

**Counselor:** She probably already knows but we can describe some of the incidents so she has some context. I’m not sure she realizes how often this teasing is happening.

**Teacher:** Do you think we should tell her the kids are teasing him because they think he’s acting too much like...a girl? Like with the clothes he’s wearing and what he wants to play?

**Counselor:** Let’s just start out with a discussion of what we’re seeing and see how she responds. We can kind of let her guide the conversation. Do you know how she feels about this? Does she see it as a problem for Tommy?

**Teacher:** I don’t know how she feels about it. I guess we’ll see in a few minutes. She should be here soon.

**Counselor:** Okay. I’m going to run down to the office to make a few copies. If she’s down there, I’ll bring her back with me.

**Teacher:** Great. Thanks.

**Counselor:** No problem.

---

**Video Script**  
**Gender Conforming Girl**  
**Bullied for Being New to the School**

Below is the video script that was read by two actors portraying a teacher and a counselor in a classroom setting.

---

- Counselor:** All right, Hannah, let's get ready for this parent-teacher conference. I wanted to make sure that we were on the same page before we meet with Elizabeth's mom. I'm going to take some notes on my laptop as we talk.
- Teacher:** Sounds good.
- Counselor:** Okay. We scheduled this meeting with Elizabeth's mom to talk about some of the things we've seen at school recently. I know you're concerned because Elizabeth's been getting teased a lot more than your other third graders.
- Teacher:** Yes. Especially by the other girls. They're giving her a really hard time.
- Counselor:** Why do you think that is?
- Teacher:** She's new here and her interests are just so different from the other girls. They want to choreograph dances at recess and she'd rather stay inside and draw. They're wearing pink and purple "Hello Kitty" shirts to school and Elizabeth's wearing anime t-shirts. Her favorite toys to play with are baby dolls and the doll house, but the other girls won't play with her.
- Counselor:** So she's just not fitting in, huh?
- Teacher:** Not at all. Just last week, he was the only girl in the class who wasn't invited to Lily's birthday. Lily said she didn't want the "new kid" at her party. Elizabeth was so upset. She started crying when she heard the other kids talking about how much fun they had.
- Counselor:** She's been crying easily, hasn't she?
- Teacher:** Yes. And the other girls are definitely noticing. They keep pushing her buttons because they know she's going to react and they think it's funny when she cries. They all laughed at her when she said she wanted to work with computers when she grows up.
- Counselor:** Those girls...I had to talk to them at lunch because they wouldn't let Elizabeth sit with them. I think she's been sitting alone every day. Then this afternoon, I had

to talk to the girls again after I heard them calling her a “nerd” and a “loser” in the hallway on the way to gym.

**Teacher:** Oh, don’t get me started on gym. The kids don’t want Elizabeth on their teams so she’s picked last every day. Then she comes back to class crying and the other kids just keep pushing her buttons and make it worse.

**Counselor:** Elizabeth really hates gym, doesn’t she?

**Teacher:** She can’t stand it. Well, she did like the unit on marbles earlier this year. She even brought her own marble collection from home the first day. The girls thought it was stupid, though, and had a field day with that... She hates anything involving activities with the other girls.

**Counselor:** Do you think her mom knows that the other kids have been teasing her?

**Teacher:** Yeah, I think Elizabeth has been talking to her about it. She sent me an email last week asking how she was doing in the new school and said she’s come home really upset. She asked if we could meet to talk about the teasing. Do you think we should say anything to her about *why* the kids are teasing her?

**Counselor:** She probably already knows but we can describe some of the incidents so she has some context. I’m not sure she realizes how often this teasing is happening.

**Teacher:** Do you think we should tell her the kids are targeting Elizabeth because she’s the new kid? That she’s having trouble making friends because she’s new?

**Counselor:** Let’s just start out with a discussion of what we’re seeing and see how she responds. We can let her guide the conversation with her concerns. Do you know how she feels about this?

**Teacher:** I don’t know how she feels about it. I guess we’ll see in a few minutes. She should be here soon.

**Counselor:** Okay. I’m going to run down to the office to make a few copies. If she’s down there, I’ll bring her back with me.

**Teacher:** Great. Thanks.

**Counselor:** No problem.

---

**Video Script**  
**Gender Nonconforming Girl**  
**Bullied for Gender Nonconforming Behavior**

Below is the video script that was read by two actors portraying a teacher and a counselor in a classroom setting.

---

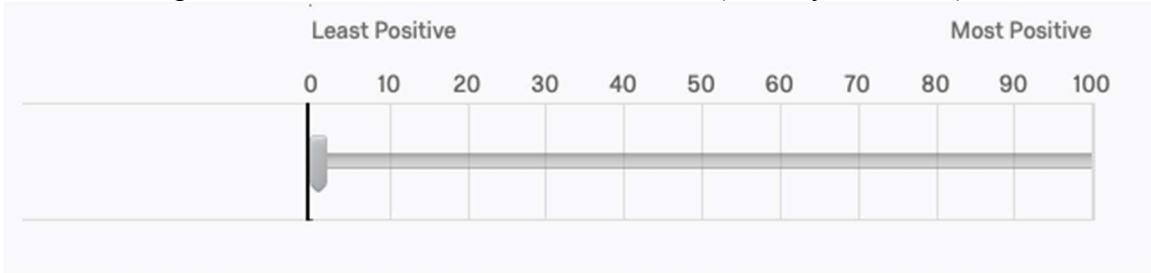
- Counselor:** All right, Hannah, let's get ready for this parent-teacher conference. I wanted to make sure that we were on the same page before we meet with Elizabeth's mom. I'm going to take some notes on my laptop as we talk.
- Teacher:** Sounds good.
- Counselor:** Okay. We scheduled this meeting with Elizabeth's mom to talk about some of the things we've seen at school recently. I know you're concerned because Elizabeth's been getting teased a lot more than your other third graders.
- Teacher:** Yes. Especially by the other girls. They're giving her a really hard time.
- Counselor:** Why do you think that is?
- Teacher:** Her interests are just so different from the other girls. They want to choreograph dances at recess and she'd rather play rough-and-tumble games like football. They're wearing pink and purple "Hello Kitty" t-shirts to school and she's wearing baseball jerseys. Her favorite toys to play with are the G.I. Joes and the tool kit, and the girls definitely don't want to play with those.
- Counselor:** So she's just not fitting in, huh?
- Teacher:** Not at all. Just last week, she was the only girl who wasn't invited to Lily's birthday. Lily said she didn't want any "tomboys" at her party. Elizabeth was so upset. She started crying when she heard the other kids talking about how much fun they had.
- Counselor:** She's been crying easily, hasn't she?
- Teacher:** Yes. And the other girls are definitely noticing. They keep pushing her buttons because they know she's going to react and they think it's funny when she cries. They all laughed at her when she said she wanted to be a firefighter when she grows up.
- Counselor:** Those girls...I had to talk to them at lunch because they wouldn't let Elizabeth sit with them. I think she's been sitting with the boys every day. Then this

afternoon, I had to talk to the girls again after I heard them calling her a “tomboy” and a “she-man” in the hallway on the way to gym.

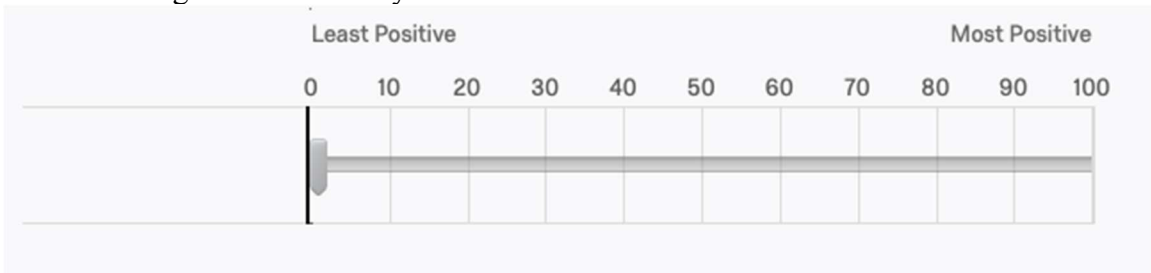
- Teacher:** Oh, don't get me started on gym. She's so good at the athletic games. The boys end up getting mad at her for beating them and the girls think she's acting too much like a boy. Then she comes back to class mad and the other kids keep pushing her buttons and make it worse.
- Counselor:** Elizabeth likes gym but she gets teased there, too, doesn't she?
- Teacher:** Yes. She was excited about the unit on football earlier in the year. She even brought her football helmet and pads the first day. She really likes football. The girls had a field day with that...She hates anything involving activities with other girls.
- Counselor:** Do you think her mom knows that her peers have been teasing her?
- Teacher:** Yeah, I think Elizabeth has been talking to her about it. Her mom sent me an email last week saying she came home really upset. She asked if we could meet to talk about the teasing. Do you think we should say anything to her today about *why* the kids are teasing her?
- Counselor:** She probably already knows but we can describe some of the incidents so she has some context. I'm not sure she realizes how often this teasing is happening.
- Teacher:** Do you think we should tell her the kids are teasing Elizabeth because they think she's acting too much like...a boy? Like with the clothes she's wearing and what she wants to play?
- Counselor:** Let's just start out with a discussion of what we're seeing and see how she responds. We can kind of let her guide the conversation. Do you know how she feels about this? Does she see it as a problem for Elizabeth?
- Teacher:** I don't know how she feels about it. I guess we'll see in a few minutes. She should be here soon.
- Counselor:** Okay. I'm going to run down to the office to make a few copies. If she's down there, I'll bring her back with me.
- Teacher:** Great. Thanks.
- Counselor:** No problem.

APPENDIX B: FIRST SET OF FEELING THERMOMETER RESPONSES

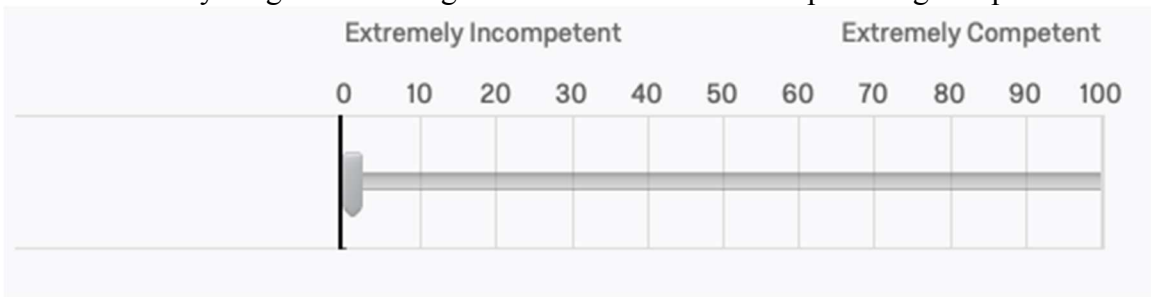
1. With 0 being the least positive, and 100 being the most positive, please rate your feelings toward the child described in the video (Tommy/Elizabeth).



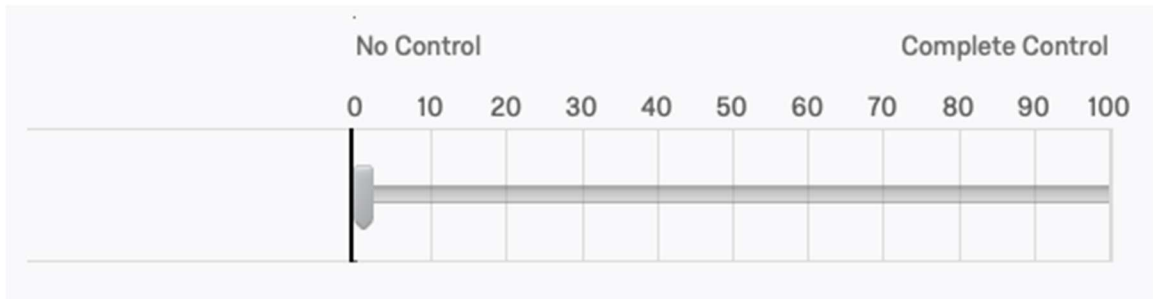
2. With 0 being the least positive, and 100 being the most positive, please rate your feelings toward Tommy/Elizabeth's mother.



3. With 0 being the extremely incompetent, and 100 being extremely competent, what is your general feeling about the child's mother's parenting competence?



4. With 0 being no control, and 100 being complete control, how much control does Tommy/Elizabeth's mother have regarding her son/daughter's appearance and behavior?





## APPENDIX C: AFFECT MISATTRIBUTION PROCEDURE



Your next task is to rate the visual pleasantness of a series of pictographs such as the one above.

Each pictograph will only be presented on your screen for 1 second, requiring you to make your ratings as quickly as possible. Because each pictograph will be presented for 1 second, a signal slide of a real-life photograph will precede each pictograph slide. These real-life photographs will serve as a warning that a pictograph is about to appear in 1 second.

The real-life images just serve as warning signals. Try not to let the images influence your judgments of the pictographs.

---

Following the real-life photograph and Chinese pictograph, the participants were prompted to rate the pleasantness of the pictograph's appearance on a scale of -3 to +3:

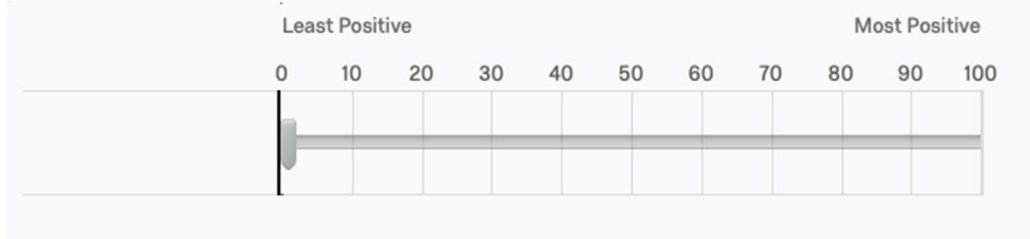
Rate the pleasantness of the symbol:

|                       |                       |                          |                       |                       |                       |
|-----------------------|-----------------------|--------------------------|-----------------------|-----------------------|-----------------------|
| -3 (very unpleasant)  | -2 (unpleasant)       | -1 (slightly unpleasant) | 1 (slightly pleasant) | 2 (pleasant)          | 3 (very pleasant)     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

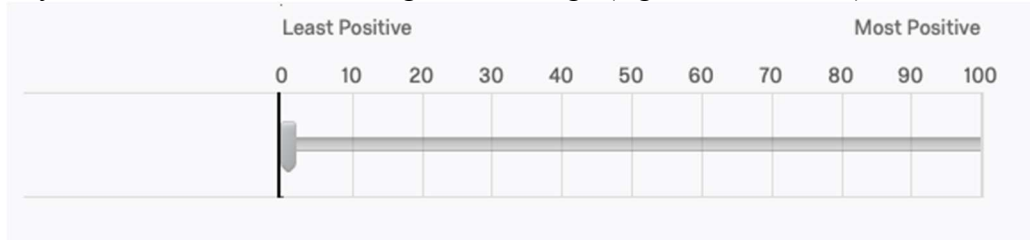
APPENDIX D: SECOND SET OF FEELING THERMOMETER RESPONSES

On a scale of 0-100, please rate your responses to the following items:

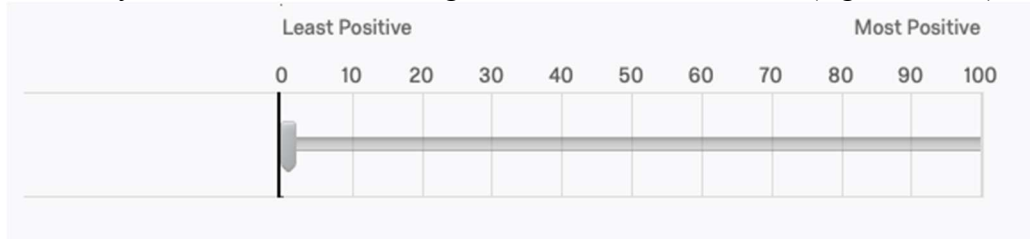
1. With 0 being least positive, and 100 being most positive, how do you feel about boys who play with girls' toys? (e.g., Barbie dolls)



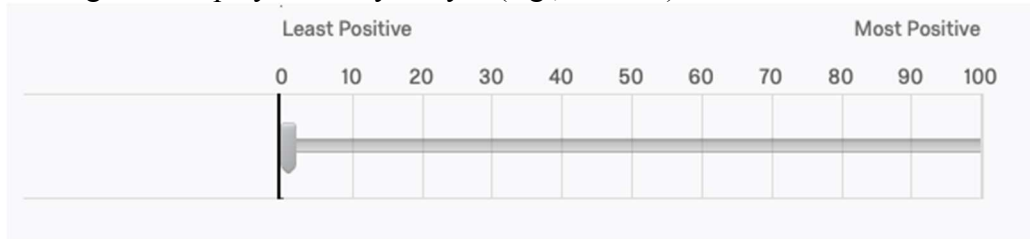
2. With 0 being least positive, and 100 being most positive, how do you feel about boys who dress in feminine or girls' clothing? (e.g., dresses, skirts)



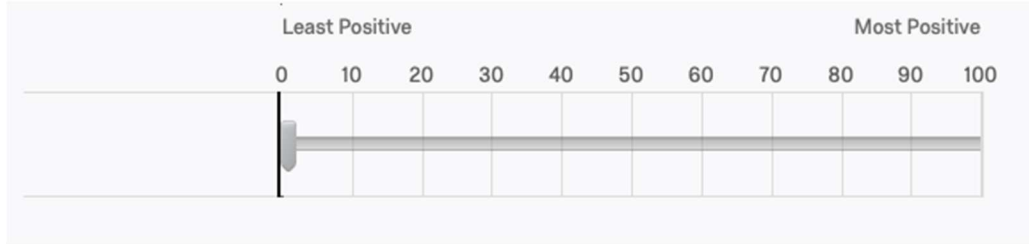
3. With 0 being the least positive, and 100 being the most positive, how do you feel about boys who wear feminine or girls' Halloween costumes? (e.g., Princess)



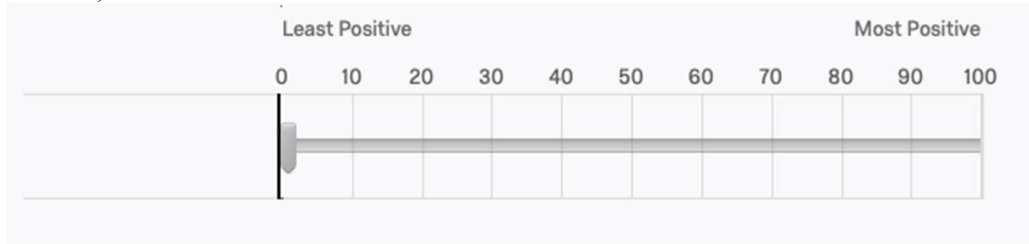
4. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who play with boys' toys? (e.g., GI Joes)



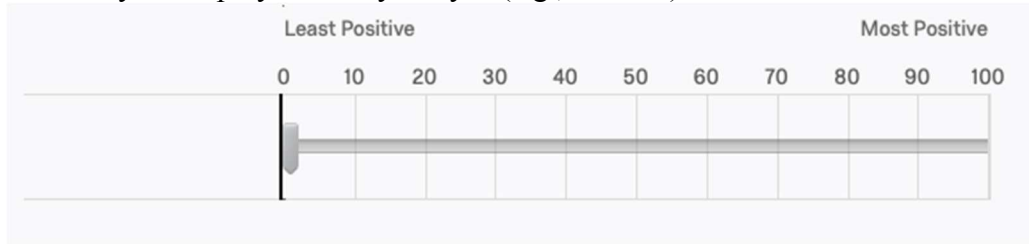
5. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who dress in masculine or boys' clothing (e.g., suits, ties)



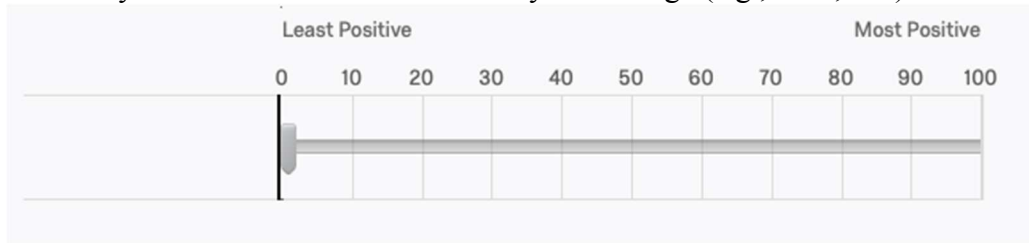
6. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who wear masculine or boys' Halloween costumes? (e.g., Super Heroes)



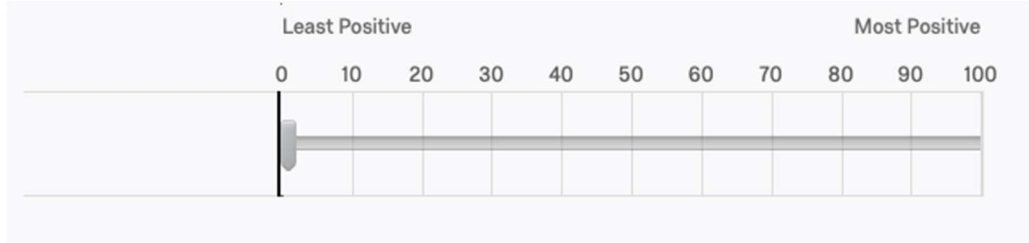
7. With 0 being the least positive, and 100 being the most positive, how do you feel about boys who play with boys' toys? (e.g., GI Joes)



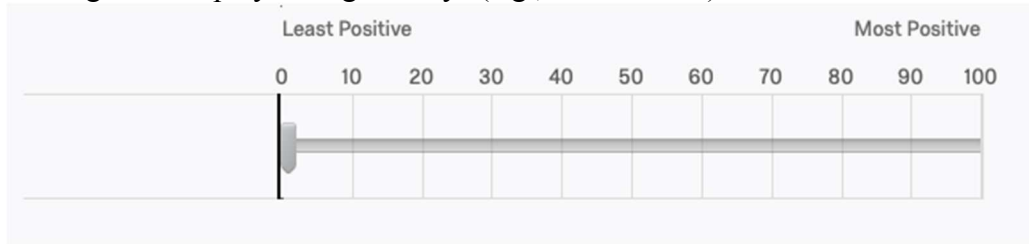
8. With 0 being the least positive, and 100 being the most positive, how do you feel about boys who dress in masculine or boys' clothing? (e.g., suits, ties)



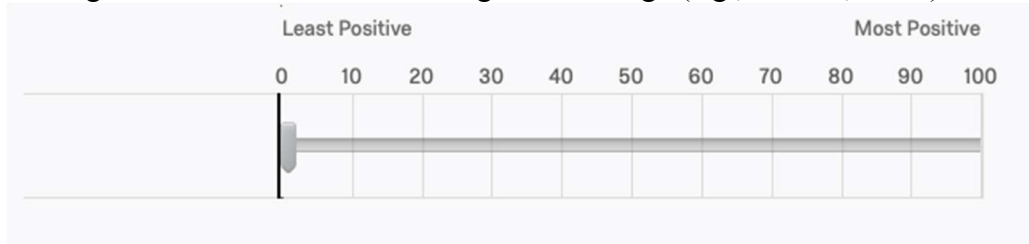
9. With 0 being the least positive, and 100 being the most positive, how do you feel about boys who wear masculine or boys' Halloween costumes? (e.g., Super Heroes)



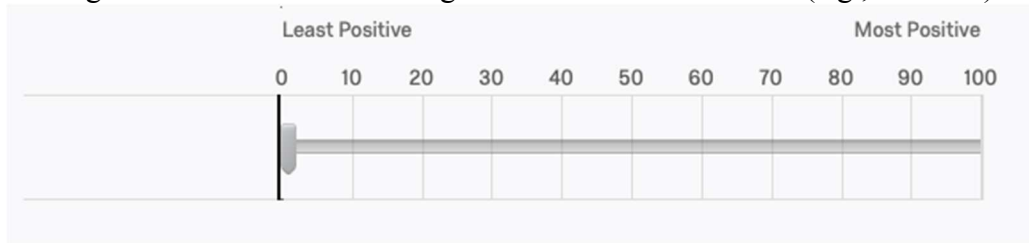
10. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who play with girls' toys (e.g., Barbie dolls)



11. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who dress in feminine or girls' clothing? (e.g., dresses, skirts)



12. With 0 being the least positive, and 100 being the most positive, how do you feel about girls who wear feminine or girls' Halloween costumes? (e.g., Princess)



## APPENDIX E: COVER STORY CONSENT FORM

### **Informed Consent**

My name is Emily Morrow. I am a graduate student in the Department of Psychology at Illinois State University. I am conducting a study that will look at the various ways that students are asked to multitask in the classroom. Undergraduate students are asked to multitask constantly throughout the day. This is something that school psychologists are interested in examining more closely, and as an undergraduate student, you are in a unique position to be multitasking a great deal of time due to the variety of activities in which you are engaged. The purpose of the study is to attempt to gain a better understanding of undergraduate multitasking and the ways in which students can complete at least two tasks at the same time.

Participation in this research is purely voluntary and will take approximately 15 minutes. If you change your mind, you can quit at any time. If you decide to quit, there will be no negative consequences to you. You can also skip any tasks/items that you do not want to answer. There will be no negative consequence if you choose to quit or skip items.

During your participation, you will be asked to complete an anonymous demographic form, complete multitasking activities, and respond to items on brief scales. Several multitasking activities will require you to watch videos, view images, and also report ratings of images as they are shown to you.

While there are risks in any study, there are no foreseeable risks in this study that are greater than those you may face in your day-to-day life. Extra credit will be offered to you through the SONA System to compensate you for the time spent in the study. Although you may not directly benefit from the study, this study may provide valuable information to the literature.

We will do everything we can to attempt to keep your identity anonymous. Collected responses will not have any identifying information. All information collected will be stored in the Qualtrics Software System to which only my supervisor and I have access.

The information gathered from this study may be used in future research projects, and may also be used in writing articles or presentations. However, no identifying information will be included in these reports.

If you have any questions or worries about this research project, please contact Emily Morrow or Steven Landau at (309) 438-8138. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Research Ethics & Compliance Office at Illinois State University at (309) 438-5527 and/or [rec@ilstu.edu](mailto:rec@ilstu.edu). You are ineligible to participate if you are currently within the European Economic Area.

You may save a copy of this consent for your records.

## APPENDIX F: DEBRIEFING AND FINAL CONSENT FORM

Thank you for participating in this research. This study was initially described as one looking at multitasking in the classroom. However, the true purpose of this study is to more closely examine perceptions of gender nonconforming behavior and parenting practices. This information was kept from you prior to starting the tasks in order to keep from influencing your responses. It was best that your responses were unbiased during the completion of the tasks. I apologize for any misleading.

In this study, the different tasks were meant to explore how a child's gender nonconforming behavior impacts others' perceptions of the child and the child's mother. These perceptions are extremely important as schools and other institutions attempt to increase tolerance and acceptance of children, adolescents, and adults who are gender nonconforming. Thank you for your contribution to this body of research.

All of the information on the consent form regarding voluntary participation and protection of your identity remain true. If you change your mind, and do not wish to have your data used in this study, you can withdraw your data.

If you have any questions, please do not hesitate to contact Emily Morrow or Steven Landau at (309) 438-8138. If you have any questions about your rights as a participant in this study, please contact the Illinois State University Office of Research, Ethics, and Compliance, (309) 438-2529.

You may save a copy of this consent for your records.

APPENDIX G: PROCESS TABLES

Indirect effects of Participant Sex (i.e., male vs. female; X1) on Outcome variables via AMP scores

|                                | Point Estimate | SE   | BCa 95% CI |       |
|--------------------------------|----------------|------|------------|-------|
|                                |                |      | Lower      | Upper |
| Feelings Toward Child          |                |      |            |       |
| Via M1                         | -0.58          | 0.53 | -1.71      | 0.43  |
| Via M2                         | 0.03           | 0.27 | -0.48      | 0.70  |
| Via M3                         | -0.89          | 0.44 | -1.13      | 0.67  |
| Via M4                         | 0.07           | 0.54 | -1.13      | 1.11  |
| Feelings Toward Child's Mother |                |      |            |       |
| Via M1                         | -0.76          | 0.45 | -2.42      | 0.06  |
| Via M2                         | 0.08           | 0.22 | -1.81      | 0.64  |
| Via M3                         | 0.14           | 0.36 | -0.25      | 0.91  |
| Via M4                         | -0.48          | 0.41 | -1.42      | 0.17  |
| Parenting Competence           |                |      |            |       |
| Via M1                         | -0.09          | 0.38 | -0.89      | 0.69  |
| Via M2                         | 0.18           | 0.28 | -0.21      | 0.92  |
| Via M3                         | -0.56          | 0.43 | -1.55      | 0.10  |
| Via M4                         | -0.12          | 0.38 | -0.90      | 0.68  |
| Mother Control                 |                |      |            |       |
| Via M1                         | -0.62          | 0.46 | -1.66      | 0.12  |
| Via M2                         | 0.10           | 0.22 | -0.30      | 0.63  |
| Via M3                         | 0.62           | 0.41 | -0.02      | 1.56  |
| Via M4                         | 0.42           | 0.39 | -0.30      | 1.25  |

Indirect effects of Gender Conformity of the Child Depicted in the Video (i.e., conforming vs. nonconforming; X2) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI |       |
|----------------|----------------|------|------------|-------|
|                |                |      | Lower      | Upper |
| Feelings       |                |      |            |       |
| Toward Child   |                |      |            |       |
| Via M1         | -0.08          | 0.25 | -0.66      | 0.39  |
| Via M2         | 0.02           | 0.24 | -0.35      | 0.66  |
| Via M3         | -0.05          | 0.16 | -0.42      | 0.26  |
| Via M4         | -0.03          | 0.28 | -0.66      | 0.51  |
| Feelings       |                |      |            |       |
| Toward Child's |                |      |            |       |
| Mother         |                |      |            |       |
| Via M1         | -0.13          | 0.29 | -0.81      | 0.40  |
| Via M2         | 0.05           | 0.16 | -0.28      | 0.40  |
| Via M3         | 0.00           | 0.12 | -0.21      | 0.31  |
| Via M4         | -0.33          | 0.26 | -0.92      | 0.07  |
| Parenting      |                |      |            |       |
| Competence     |                |      |            |       |
| Via M1         | -0.02          | 0.14 | -0.38      | 0.20  |
| Via M2         | 0.17           | 0.20 | -0.15      | 0.64  |
| Via M3         | -0.12          | 0.24 | -0.61      | 0.38  |
| Via M4         | -0.14          | 0.23 | -0.72      | 0.22  |
| Mother Control |                |      |            |       |
| Via M1         | -0.15          | 0.29 | -0.88      | 0.29  |
| Via M2         | 0.04           | 0.14 | -0.21      | 0.39  |
| Via M3         | 0.13           | 0.19 | -0.22      | 0.56  |
| Via M4         | 0.17           | 0.23 | -0.22      | 0.70  |



Indirect effects of the Sex of the Child Depicted in the Video (i.e., male vs. female; X3) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI |       |
|----------------|----------------|------|------------|-------|
|                |                |      | Lower      | Upper |
| Feelings       |                |      |            |       |
| Toward Child   |                |      |            |       |
| Via M1         | 0.06           | 0.27 | -0.36      | 0.79  |
| Via M2         | 0.00           | 0.14 | -0.34      | 0.28  |
| Via M3         | -0.03          | 0.14 | -0.36      | 0.23  |
| Via M4         | -0.00          | 0.14 | -0.34      | 0.29  |
| Feelings       |                |      |            |       |
| Toward Child's |                |      |            |       |
| Mother         |                |      |            |       |
| Via M1         | 0.12           | 0.30 | -0.42      | 0.78  |
| Via M2         | 0.01           | 0.12 | -0.19      | 0.33  |
| Via M3         | 0.00           | 0.11 | -0.19      | 0.28  |
| Via M4         | -0.01          | 0.20 | -0.44      | 0.42  |
| Parenting      |                |      |            |       |
| Competence     |                |      |            |       |
| Via M1         | 0.01           | 0.13 | -0.25      | 0.32  |
| Via M2         | 0.05           | 0.19 | -0.27      | 0.52  |
| Via M3         | -0.11          | 0.22 | -0.60      | 0.34  |
| Via M4         | -0.01          | 0.13 | -0.34      | 0.23  |
| Mother Control |                |      |            |       |
| Via M1         | 0.12           | 0.26 | -0.34      | 0.75  |
| Via M2         | 0.01           | 0.10 | -0.22      | 0.23  |
| Via M3         | 0.05           | 0.18 | -0.30      | 0.47  |
| Via M4         | -0.02          | 0.14 | -0.38      | 0.23  |

Indirect effects of Participant Sex (i.e., male vs. female; X1) and Gender Conformity of the Child Depicted in the Video (i.e., conforming vs. nonconforming; X2) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI<br>Lower | Upper |
|----------------|----------------|------|---------------------|-------|
| Feelings       |                |      |                     |       |
| Toward Child   |                |      |                     |       |
| Via M1         | 0.23           | 0.31 | -0.20               | 1.03  |
| Via M2         | -0.01          | 0.28 | -0.66               | 0.53  |
| Via M3         | 0.04           | 0.15 | -0.28               | 0.36  |
| Via M4         | 0.02           | 0.18 | -0.21               | 0.56  |
| Feelings       |                |      |                     |       |
| Toward Child's |                |      |                     |       |
| Mother         |                |      |                     |       |
| Via M1         | 0.23           | 0.31 | -0.30               | 0.96  |
| Via M2         | -0.08          | 0.20 | -0.54               | 0.36  |
| Via M3         | -0.00          | 0.11 | -0.30               | 0.20  |
| Via M4         | 0.12           | 0.22 | -0.25               | 0.64  |
| Parenting      |                |      |                     |       |
| Competence     |                |      |                     |       |
| Via M1         | 0.09           | 0.18 | -0.17               | 0.55  |
| Via M2         | -0.23          | 0.23 | -0.78               | 0.11  |
| Via M3         | 0.13           | 0.24 | -0.35               | 0.64  |
| Via M4         | 0.06           | 0.16 | -0.18               | 0.47  |
| Mother Control |                |      |                     |       |
| Via M1         | 0.19           | 0.29 | -0.26               | 0.93  |
| Via M2         | -0.04          | 0.20 | -0.48               | 0.36  |
| Via M3         | -0.05          | 0.18 | -0.44               | 0.32  |
| Via M4         | -0.05          | 0.15 | -0.43               | 0.20  |

Indirect effects of Participant Sex (i.e., male vs. female; X1) and Sex of the Child Depicted in the Video (i.e., male vs. female; X3) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI |       |
|----------------|----------------|------|------------|-------|
|                |                |      | Lower      | Upper |
| Feelings       |                |      |            |       |
| Toward Child   |                |      |            |       |
| Via M1         | 0.19           | 0.29 | -0.31      | 0.85  |
| Via M2         | 0.00           | 0.15 | -0.22      | 0.43  |
| Via M3         | 0.07           | 0.18 | -0.33      | 0.44  |
| Via M4         | -0.02          | 0.18 | -0.35      | 0.43  |
| Feelings       |                |      |            |       |
| Toward Child's |                |      |            |       |
| Mother         |                |      |            |       |
| Via M1         | 0.25           | 0.29 | -0.28      | 0.90  |
| Via M2         | 0.00           | 0.11 | -0.26      | 0.24  |
| Via M3         | -0.02          | 0.15 | -0.40      | 0.23  |
| Via M4         | -0.12          | 0.23 | -0.68      | 0.25  |
| Parenting      |                |      |            |       |
| Competence     |                |      |            |       |
| Via M1         | 0.05           | 0.15 | -0.20      | 0.43  |
| Via M2         | 0.01           | 0.18 | -0.41      | 0.35  |
| Via M3         | 0.18           | 0.23 | -0.28      | 0.69  |
| Via M4         | -0.07          | 0.19 | -0.63      | 0.15  |
| Mother Control |                |      |            |       |
| Via M1         | 0.26           | 0.31 | -0.67      | 1.01  |
| Via M2         | -0.01          | 0.11 | -0.22      | 0.20  |
| Via M3         | -0.16          | 0.22 | -0.28      | 0.11  |
| Via M4         | 0.04           | 0.15 | -0.74      | 0.41  |

Indirect effects of Gender Conformity of the Child Depicted in the Video (i.e., conforming vs. nonconforming; X2) and Sex of the Child Depicted in the Video (i.e., male vs. female; X3) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI<br>Lower | Upper |
|----------------|----------------|------|---------------------|-------|
| Feelings       |                |      |                     |       |
| Toward Child   |                |      |                     |       |
| Via M1         | -0.00          | 0.25 | -0.65               | 0.42  |
| Via M2         | 0.01           | 0.31 | -0.61               | 0.72  |
| Via M3         | -0.03          | 0.15 | -0.42               | 0.22  |
| Via M4         | 0.08           | 0.27 | -0.48               | 0.67  |
| Feelings       |                |      |                     |       |
| Toward Child's |                |      |                     |       |
| Mother         |                |      |                     |       |
| Via M1         | -0.05          | 0.28 | -0.65               | 0.49  |
| Via M2         | -0.05          | 0.23 | -0.60               | 0.35  |
| Via M3         | 0.01           | 0.12 | -0.20               | 0.28  |
| Via M4         | 0.32           | 0.31 | -0.06               | 1.10  |
| Parenting      |                |      |                     |       |
| Competence     |                |      |                     |       |
| Via M1         | -0.01          | 0.13 | -0.32               | 0.23  |
| Via M2         | -0.24          | 0.24 | -0.87               | 0.08  |
| Via M3         | -0.11          | 0.22 | -0.59               | 0.34  |
| Via M4         | 0.14           | 0.24 | -0.13               | 0.79  |
| Mother Control |                |      |                     |       |
| Via M1         | -0.01          | 0.26 | -0.61               | 0.49  |
| Via M2         | -0.10          | 0.20 | -0.57               | 0.28  |
| Via M3         | 0.11           | 0.18 | -0.22               | 0.52  |
| Via M4         | -0.16          | 0.20 | -0.63               | 0.23  |

Indirect effects of Participant Sex (i.e., male vs. female; X1), Gender Conformity of the Child Depicted in the Video (i.e., conforming vs. nonconforming; X2), and Sex of the Child Depicted in the Video (i.e., male vs. female; X3) on Outcome variables via AMP scores

|                | Point Estimate | SE   | BCa 95% CI |       |
|----------------|----------------|------|------------|-------|
|                |                |      | Lower      | Upper |
| Feelings       |                |      |            |       |
| Toward Child   |                |      |            |       |
| Via M1         | -0.06          | 0.25 | -0.50      | 0.56  |
| Via M2         | -0.01          | 0.22 | -0.56      | 0.36  |
| Via M3         | -0.07          | 0.18 | -0.51      | 0.24  |
| Via M4         | -0.03          | 0.19 | -0.43      | 0.36  |
| Feelings       |                |      |            |       |
| Toward Child's |                |      |            |       |
| Mother         |                |      |            |       |
| Via M1         | -0.10          | 0.28 | -0.67      | 0.49  |
| Via M2         | -0.08          | 0.17 | -0.47      | 0.24  |
| Via M3         | -0.00          | 0.13 | -0.31      | 0.24  |
| Via M4         | -0.17          | 0.23 | -0.70      | 0.25  |
| Parenting      |                |      |            |       |
| Competence     |                |      |            |       |
| Via M1         | -0.03          | 0.13 | -0.30      | 0.24  |
| Via M2         | -0.17          | 0.19 | -0.60      | 0.19  |
| Via M3         | -0.24          | 0.26 | -0.84      | 0.20  |
| Via M4         | -0.09          | 0.17 | -0.51      | 0.21  |
| Mother Control |                |      |            |       |
| Via M1         | -0.14          | 0.27 | -0.76      | 0.35  |
| Via M2         | -0.04          | 0.13 | -0.35      | 0.22  |
| Via M3         | 0.14           | 0.20 | -0.18      | 0.62  |
| Via M4         | 0.12           | 0.18 | -0.17      | 0.54  |