

EFFECTS OF PARENTING STYLES ON EMPATHY AND CALLOUS-  
UNEMOTIONAL TRAITS IN COLLEGE STUDENTS

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By  
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## ABSTRACT

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Parenting styles have long been linked to the development of empathy and callous-unemotional traits in children. There has been considerably less research conducted with college students. The present study plans to examine the relationships between parenting styles and empathy as well as parenting styles and Callous-Unemotional traits in college students using self-report measures. It was hypothesized that college students with Authoritative parents will score higher on empathy and lower on CU traits than college students with Permissive or Authoritarian parents. Additionally, it was hypothesized that race, sex, and socioeconomic status will moderate these relationships, specifically that the effect of parenting styles on empathy and CU traits will be stronger in college students of minority race, male sex, and low SES. Results suggest that there are relationships between parenting styles, empathy, and CU traits. Namely, Authoritative parenting practices are positively associated with empathy, and Authoritarian parenting practices are negatively associated with CU traits. The current study aimed to fill the gap in parenting literature by testing college students in the emerging adulthood developmental period, which will be informative regarding the long-term effects of parenting into adulthood.

**KEY WORDS:** Parenting styles, Empathy, Callous-unemotional traits.

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## CHAPTER I

### INTRODUCTION

The relationship between parenting styles and empathy has been extensively studied in children and adolescents. Research shows that parenting styles that operate with high warmth and high control (authoritative) result in higher empathy scores in children than parenting styles that operate with high control/low warmth (authoritarian) and low control/high warmth (permissive/indulgent; Cornell & Frick, 2007; García & Gracia, 2009; Schaffer, Clark, & Jeglic, 2009). Parenting styles are also linked to the development of callous-unemotional (CU) traits, which are traits that include a lack of empathy and callous behaviors (Ciucci, Baroncelli, Golmaryami, & Frick, 2015; Pardini, Lochman, & Powell, 2007). The current study aims to examine the relationship between college students' perceptions of their parents' parenting styles, their scores on empathy and callous-unemotional traits, and the moderating effects of demographic variables such as race, sex, and socio-economic status (SES) on the association between parenting styles and students' levels of empathy and CU traits.

#### **Empathy Development**

Empathy, the extent to which one can understand and share others' feelings, is a relatively stable characteristic that is key for the development of various traits, including prosocial behavior (i.e., acting for the benefit of someone else), and moral reasoning (Carlo, McGinley, Hayes, Batenhorst, & Wilkinson, 2007; Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005). Indeed, prosocial behavior is any act that is done for the benefit of someone else, even when it may prove costly to the person engaging in the prosocial act (Penner, Dovidio, Piliavin, & Schroeder, 2005).

Empathy has been shown to be one of the underlying motivations for prosocial behavior (Hoffman, 2000; Penner, Dovidio, Piliavin, & Schroeder, 2005). In other words, understanding and feeling the emotions of others may increase the performance of tasks that will benefit those around us, and increase one's ability to make judgments about what is "wrong" or "right" in a given situation. Prosocial emotions begin to develop in infancy, borne out of infants' empathic concern for others perceived to be in distress (Hoffman, 2000), and remain consistent or increase with age (Eisenberg et al., 2005). Moral reasoning has been shown to be related to and predictive of the development of prosocial behaviors (Carlo, Mestre, Samper, Tur, & Armenta, 2011; Eisenberg et al., 2005). Moral reasoning is informed by one's empathy, such as the tendency for someone to engage in perspective taking when they are confronted with another person's feelings, which typically develops between four and five years of age (Marvin, Greenberg, & Mossler, 1976). This can increase or decrease one's altruistic motivation to perform a task in order to benefit someone else without a thought as to what one may receive in return. In other words, judging right versus wrong becomes more complicated and involves more feelings (such as guilt) when there is some amount of empathy involved. Research indicates that without empathy, it is unlikely that moral reasoning will be able to develop into altruistic and prosocial decision-making and behaviors (Eisenberg et al., 2005; Rosen, Brand, & Kalbe, 2016). Thus, understanding the factors that contribute to how empathy develops can be beneficial when developing interventions for a lack of prosociality and altruism.

Atypical empathy development has been linked to antisocial traits and psychopathy in children (Ellis, 1982; Frick & O'Brien, 1994; Frick & Viding, 2009).

More specifically, lack of empathy is a predictor of the development of antisocial traits and psychopathy (Ellis, 1982). The development of these traits often involves aggressive tendencies and criminogenic thoughts, or thoughts that have to do with committing crime, which can result in violent crimes and incarceration (Fite, Stoppelbein, & Greening, 2009; Frick & White, 2008; Gonzalez, Mandracchia, Nicholson, & Dahlen, 2014).

Children who are exposed to controlling and non-nurturing environments have been shown to be more likely to develop antisocial traits and aggression (Knutson, DeGarmo, & Reid, 2004; Luyckx et al., 2011). This may occur through lack of the development of empathy.

### **Callous-Unemotional Traits**

Callous-unemotional (CU) traits include lack of empathy, lack of guilt, and callous use of others (i.e., lack of regard for feelings; Frick, Bodin, & Barry, 2000). They have been shown to be a predictor of childhood antisocial behaviors (e.g., lack of empathy, lack of regard for others, etc.) in the form of Conduct Disorder, which is a Disruptive Behavior Disorder (DBD), and sometimes mimics adult psychopathy, which includes antisocial and callous behaviors (Barry et al., 2000; Brown, Granero, Ezpeleta, & Brown, 2017; Martin-Key, Brown, & Fairchild, 2017). CU traits are related to a restricted ability for children to recognize emotions in others, but training can help increase empathy levels (De Ridder, Pihet, Suter, & Caldara, 2016).

Empathy and CU traits are not only connected, but they influence many behaviors that occur throughout the lifespan. Lack of empathy in psychopathy literature falls underneath the umbrella of CU traits, and research has thus far targeted specific CU traits (e.g. lack of empathy and lack of guilt) rather than CU traits as a whole. Research has

shown that there is a negative association between CU traits and empathy, meaning that people who scored lower on empathy scored higher in CU traits (Ciucci, Baroncelli, Golmaryami, & Frick, 2015; Eisenberg et al., 2005; Lui, Barry, & Sacco, 2016). Previous studies have also shown that people who score higher in CU traits are more likely to have a DBD, and people that do not have a DBD are more likely to score higher in prosocial behavior (Barry et al., 2000; Deschamps, Schutter, Kenemans, & Matthys, 2015). Specifically, research has shown that children with a DBD score lower on empathy-induced prosocial behavior (e.g., playing with a “sad” child at recess) than children with average levels of empathy (Deschamps et al., 2015). Therefore, CU traits can be indicative of future behavior and adjustment problems if there are no efforts made to correct these behaviors (Pardini, Lochman, & Powell, 2007).

### **Parenting Styles**

Baumrind (1966, 1967) developed a theory of parenting styles that is still widely used. Authoritative (high control/high warmth), Authoritarian (high control, low warmth), and Permissive/Indulgent (low control/high warmth) were described as the three main parenting styles (Baumrind, 1966, 1967). Authoritative parents use reasoning and warmth when disciplining their children, as opposed to Authoritarian parents, who use physical punishment and lack warmth in their discipline style (Baumrind, 1966, 1967). Permissive/Indulgent parents are loving and warm but fail to set behavioral boundaries or exert control over their children’s behavior (Baumrind, 1966, 1967). An extensive amount of research has linked parenting styles to the development of empathy and CU traits in children (Eisenberg et al., 2005; Hawes, Dadds, Frost, & Hasking, 2011; López-Romero, Romero, & Gómez-Fraguela, 2015; Mills-Koonce, Willoughby, Garrett-

Peters, Wagner, & Vernon-Feagans, 2016; Schaffer et al., 2009; Waller et al., 2012).

Primarily, research has shown that Authoritarian parenting (high control/low warmth) is related to children's development of low empathy and high levels of CU, compared to their peers with parents demonstrating other styles of parenting (Luyckx et al., 2011; López-Romero et al., 2015; Mills-Koonce et al., 2016; Waller et al., 2012). Mills-Koonce et al. (2016) posit that harsh parenting behaviors may result in low perceived support from parents as well as a reduction in autonomy, which can cause children to behave callously. There is conflicting evidence on the relationship between Permissive/Indulgent (low control/high warmth) parents and factors of adjustment. Some studies have found that Permissive/Indulgent parenting may result in lower levels of empathy and higher levels of CU traits in children (Eisenberg et al., 2005; Mills-Koonce et al., 2016; Schaffer et al., 2009). Contrastingly, García & Gracia (2009) found that in a sample of Spanish adolescents, children of Permissive/Indulgent parents scored the same or higher on measures of emotional adjustment as children of Authoritative parents. In general, studies have concluded that Authoritative parenting results in the best outcomes for children (Carlo, McGinley, Hayes, Batenhorst, & Wilkinson, 2007; Gonzalez, Mandracchia, Nicholson, & Dahlen, 2013). Specifically, research has shown that parents who exhibit high levels of warmth and control (Authoritative) have children who exhibit higher levels of empathy and less CU traits and deviant behavior (Muratori et al., 2016; Ray et al., 2017; Vieno, Nation, Pastore, & Santinello, 2009).

Punishment styles also play an important role in the development of empathy and CU traits in children. According to Baumrind (1966), Authoritarian parenting often includes harsh and punitive methods of punishment in order to control their children. Not

only does the type of punishment itself matter (verbal punishment [VP; punishment through scolding, yelling, etc.] verses corporal punishment [CP; punishment through physical means, including spanking]), but the children's perceptions of that punishment can bi-directionally affect how the parent chooses to punish (Lee et al., 2016). In other words, research has shown that if children perceive their discipline as Authoritative (i.e., characterized by warmth and rationale means of punishment, even if physical, rather than out of anger or for unreasonable reasons), the negative effects of CP might be reduced, which can also influence how parents interact with their children (Lee et al., 2016). Additionally, children that receive less corporal punishment and view their parents as warm are less likely to exhibit CU traits (Pardini, Lochman, & Powell, 2007). On the other hand, parents that are high in antisocial traits themselves may employ harsh and inconsistent punishment practices, which results in their children having a higher likelihood of developing antisocial traits as well (Eisenberg et al., 2005; Robinson, Azores-Gococo, Brennan, & Lilienfeld, 2016; Thornberry, Freeman-Gallant, & Lovegrove, 2009).

Certain demographic variables have been found to interact with parenting styles and their effect on empathy and CU traits, including race, which will be considered as a moderator in this study. Traditionally, research has shown that Authoritative parenting, while effective for Caucasian samples, isn't completely generalizable across racial lines (Ang & Goh, 2006; Valentino, Nuttall, Comas, Borkowski, & Akai, 2012). Recently, however, Coley, Kull, and Carrano (2014) found that CP was associated with internalizing and externalizing problems in African American and Hispanic children, indicating that CP does have a negative effect on racial and ethnic minority children,

regardless of community attitudes. This indicates that the role of race on the relationship between parenting styles and empathy/CU traits is complex. Sex also likely plays a key role in the development of empathy. Research has shown that women typically respond to situations with more empathy than do men (Llorca-Mestre, Samper-Garcia, Malonda-Vidal, & Cortes-Tomas, 2017; Mestre, Samper, Frías, & Tur, 2009) Clark & Frick (2018) found however that there were no significant interaction effects between parenting and gender on empathy. These results are expected to be replicated in a sample of emerging adults. Finally, SES is expected to influence the relationship between parenting and empathy/CU traits. Specifically, it has been demonstrated that people with a lower SES are more likely to employ Authoritarian parenting practices (Flynn, 1996; Lareau, 2007). However, some research suggests that people in a low SES often score higher in empathy (Manstead 2018). This will be examined more thoroughly in the present study.

College students (i.e., those in the emerging adulthood developmental period) make up a small portion of the demographic that is usually tested for the effects of parenting on empathy and CU traits. Research has shown that empathy remains stable through the lifespan, but the study of CU traits is often changed to the development of antisocial traits in samples of adolescents and adults (Hyde, Burt, Shaw, Donnellan, & Forbes, 2015). Furthermore, rarely are empathy, CU traits, and parenting styles explored in one study. The literature thus far has focused primarily on the relationship between parenting styles, empathy, and CU traits throughout childhood, with less emphasis on how that relationship continues into early adulthood. College students fit into that category, and may provide an interesting perspective on their relationship with their parents, as they are moving into adulthood but still retain some dependence on their

parents.

### **The Present Study**

The aim of the current study is to explore the relationship between empathy, CU traits, and parenting styles in college-aged students. These variables were assessed by self-report measures given to college students regarding the perceived parenting style of one of their parents (they choose on which parent to report based on who they considered their primary caregiver to be), their own levels of empathy, and endorsement of CU traits. This study aimed to examine the relationship between parenting style and empathy and CU traits, and examined demographic factors as potential moderators of these associations. There were several hypotheses for the current study:

1. For Hypothesis 1, I posited that parenting styles have an effect on college students' levels of empathy; more specifically, students with Authoritarian or Permissive parents would score lower on empathy than students with Authoritative parents.
2. In Hypothesis 2, I predicted that students with Authoritarian parents would score higher on CU traits than students with Authoritative or Permissive parents.
3. Finally, for Hypothesis 3, I hypothesized that race, sex, and SES would have a moderating effect on the relationship between empathy and perceived parenting styles.
  - a. Specifically, it was hypothesized that the negative association between Authoritarian or Permissive parents and empathy would be stronger for males.



- b. Since parenting practices in different racial groups and SES's are complex, this study merely examined directionality without a set assumption.

The aims and hypotheses posed by this study may help fill the gap of knowledge regarding college students and the way in which their parents influenced their levels of empathy in childhood and adolescence. The results of the current study could bridge part of the gap in the parenting style and CU literature. This research has the potential to inform us about the extent to which parenting styles affect empathy and CU traits into early adulthood. This information could be helpful in teaching the public about parenting, as well as continue to aid in the development of intervention techniques not only for parents, but also for professionals in higher education.

## CHAPTER II

### METHODS

#### Participants and Procedure

Participants were undergraduate students between the ages of 18 and 25 years that were recruited through the Sam Houston State University Psychology Research Participation System (PERP). Students received class credit in Introduction to Psychology sections (as well as the opportunity to earn extra credit in other Psychology courses) for their participation in this study. Students were given a link to a survey, where they were prompted with parameters of the study. If they chose to participate, they were assigned an identification number so that their names would be kept confidential. They were asked to fill out a demographics questionnaire and self-report measures inquiring about their parent (or caregiver) of choice's parenting styles when they were living at home, as well as questions measuring their levels of empathy and CU traits. Upon completion of the survey, they received class credit (or extra credit) for their participation.

#### Measures

**Demographics.** Demographic information was collected through self-identifying questions. These included questions about age, university classification, race, sex, SES (measured using MacArthur's SES ladder), household size (i.e., one-parent, two-parent, number of siblings, etc.).

**Parenting Styles.** Parenting styles were assessed using two measures. The Parental Authority Questionnaire (PAQ; Buri, 1991) was used to assess parenting styles

according to Baumrind's (1966) original model of parenting styles. The PAQ is a 30-item self-report scale that includes three subscales: Authoritative (high control/high warmth), Authoritarian (high control/low warmth), and Permissive (low control/high warmth) styles of parenting. Participants were asked to rate their parent's parenting style on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Scores for each of the three subscales were summed (separately) and the participants received scores for each of the three styles of parenting assessed. This measure has been shown to have strong reliability and validity for both mothers' and fathers' parenting practices (Buri, 1991; Gillis, Berry, Douglas, & Evans, 2006). The authors of the survey report Cronbach's alpha for the Authoritative, Authoritarian, and Permissive scales for mothers to be .78, .86, and .81, respectively, and alphas for the Authoritative, Authoritarian, and Permissive scales for the fathers to be .92, .85, and .77, respectively (Buri, 1991). In this study, the participants were asked to rate the parenting styles of their primary caregiver regardless of their relationship. Cronbach's alpha for the Authoritative, Authoritarian, and Permissive subscales in this study were .84, .76, and .73, respectively.

The second measure used to assess parenting was the Alabama Parenting Questionnaire (APQ; Frick, 1991). The APQ is a 42-item self-report measure of parenting practices that is used for children ages 6-18. For the purpose of this study, participants were asked to think back to when they were a child and answer the items according to their relationship with their primary caregiver. The APQ has 5 subscales: Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment. The items were administered using a 5-point Likert scale ranging from 1 (Never) to 5 (Always). Cronbach's alpha for the APQ have been reported

to be .68, and for the Involvement (Mothers), Involvement (Fathers), Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment subscales in the child form to be .72, .83, .74, .69, .56, and .44, respectively (Frick, 1991; Shelton, Frick, & Wootton, 1996). The low alpha for the Corporal Punishment scale is hypothesized to be because it is made up of only three items (Shelton, Frick, & Wootton, 1996). In this study, the cronbach's alpha for the Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment subscales in this study were .80, .75, .72, .52, and .76, respectively.

**Empathy.** Empathy was assessed using two measures. The Brief Form of the Interpersonal Reactivity Index (B-IRI; Ingoglia, Coco, & Albiero, 2016) was used to assess empathy with four subscales. The B-IRI is a 16-item self-report measure of empathy that is consistent across age and gender. It retains the 4-factor model of the original (full) survey with 4 subscales measuring: Fantasy (i.e., tendency to feel and act like characters in movies/TV), Perspective Taking (i.e., adopting another's point of view), Empathic Concern (i.e., feelings of sympathy/concern for others), and Personal Distress (i.e., feelings of anxiety in stressful personal contexts). The items were administered with a 5-point Likert scale ranging from 1 (does not describe me at all) to 5 (describes me very well). The B-IRI was adapted from the full Interpersonal Reactivity Index scale, and was found to have a stronger internal consistency and construct validity than the original (Davis, 1980; Ingoglia et al., 2016). Cronbach's alpha for Fantasy, Empathic Concern, Perspective Taking, and Personal Distress have been reported to be .79, .68, .68, and .72, respectively (Ingoglia et al., 2016). The B-IRI has also been found to have measurement invariance across both age and gender (Ingoglia et al, 2016). In this

study, the cronbach's alphas for the Fantasy, Empathic Concern, Perspective Taking, and Personal Distress subscales were .83, .67, .70, and .70, respectively.

The second measure used to assess empathy was the Affective and Cognitive Measure of Empathy (ACME; Vachon & Lynam, 2016). The ACME is a 36-item self-report measure of empathy used for adults. The ACME has 3 subscales: Cognitive Empathy (e.g., I can tell when someone is afraid), Affective Resonance (e.g., It makes me feel good to help someone in need), and Affective Dissonance (e.g., I love watching people get angry [reverse scored]). The items were administered using a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The items have been found to have strong consistency, with Cronbach's alpha for the Cognitive Empathy, Affective Resonance, and Affective Dissonance subscales being .90, .87, and .87, respectively (Vachon & Lynam, 2016). Cronbach's alphas for the Cognitive Empathy, Affective Resonance, and Affective Dissonance subscales in this study were .89, .83, and .91, respectively.

**Callous-Unemotional Traits.** Callous-unemotional (CU) traits were measured using the Inventory of Callous-Unemotional Traits (ICU; Frick, 2004). The ICU is a 22-item self-report scale consisting of three subscales: Uncaring (e.g., "I always try my best," reversed scored), Callousness (e.g., "I do not feel remorseful when I do something wrong"), and Unemotional (e.g., "I hide my feelings from others"). The items use a 4-point Likert scale ranging from 0 (Not at all true) to 3 (Definitely true). Cronbach's alpha for the ICU have been reported at .81 and for the Uncaring, Callousness, and Unemotional subscales were .81, .80, and .53, respectively (Kimonis et al., 2008). The low internal consistency for the Unemotional subscale is hypothesized to be partially the

result of the low number of items making it up. Cronbach's alphas for the Uncaring, Callousness, and Unemotional subscales in this study were .69, .80, and .82, respectively.

The second measure used to assess CU traits was the Proposed Specifiers of Conduct Disorder (PSCD; Salekin & Hare, 2016) scale. The PSCD is a newly developed, unpublished measure of psychopathy with 5 subscales: Grandiose Manipulative traits, Callous-Unemotional traits, Daring Impulsive traits, Conduct Disorder, and Oppositional Defiant Disorder (one item). The items were administered with a 3-point Likert scale ranging from 1 (Not true) to 3 (True). No psychometric information is yet available for this scale. In this study, however, cronbach's alphas for the Grandiose Manipulative, Callous-Unemotional, Daring Impulsive, and Conduct Disorder subscales were .65, .74, .83, and .69, respectively.

## CHAPTER III

### RESULTS

A total of 158 Sam Houston State University students initiated the survey. Seven participants were removed from the analysis because they did not complete the survey. A test survey was completed to assess how much time it should take participants to complete the survey; through this test we determined that anything less than 600 seconds (10 minutes) was too short for the responses to be accurate. Therefore, thirteen additional participants were removed from the analysis for completing the survey in less than 600 seconds. This leaves a total of 138 participants with full data for the current study.

An a priori power analysis was conducted using G\*POWER 3.1 to determine the appropriate sample size to detect a significant medium effect with 80% power (Faul, Erdfelder, Lang, & Buchner, 2007). The current study needed to recruit  $N = 82$  participants in order for a main effect between parenting styles, empathy, and CU traits to be found with a medium effect size. A total of  $N = 138$  participants were used in the analysis, which is sufficient based on the power analysis. Preliminary analyses were then conducted to characterize the sample, and to ensure that no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity were present.

#### **Demographics.**

Descriptive analyses were performed on the sample of 138 Sam Houston State University students using SPSS, Version 22. The sample consisted of 104 females (74.8%), 33 males (23.7%), and 1 nonbinary/gender fluid individual (0.7%). The average age of the sample was 20.24 ( $SD = 1.62$ ) and consisted of five Asian/Pacific Islander

(3.6%), 35 Black/African American (25.2%), 45 Hispanic/Latino (32.4%), 2 Native American (1.4%), and 51 white (36.7%) participants. The average household size was 3.60 ( $SD = 1.44$ ), with 122 participants (87.8%) identifying their mother as their primary caregiver, and 16 (11.5%) and 1 (0.7%) identifying their father and their grandparent, respectively.

### **Hypothesis 1.**

It was hypothesized that college students with parents that utilized more Authoritative parenting practices would score higher on each empathy subscale than those with parents that utilized more Authoritarian or Permissive parenting practices. First, in order to examine the association between the levels of parenting style on a college students' empathy, a series of Pearson Product Moment correlations were run in SPSS, Version 22. Scores on each of the subscales of the PAQ (Authoritative, Authoritarian, and Permissive) and the APQ (Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment) were used as the parenting variables; empathy scores were deemed by the B-IRI (Fantasy, Perspective Taking, Empathic Concern, Personal Distress) and the ACME (Cognitive Empathy, Affective Resonance, and Affective Dissonance).

Consistency between parenting was examined using a series of Pearson Product Moment correlations in SPSS. There was not a statistically significant negative association between Authoritative parenting (PAQ) and Authoritarian parenting (PAQ;  $r = -.46$ ). However, Permissive parenting (PAQ) was significantly associated with Authoritative parenting (PAQ;  $r = .275, p < .01$ ), and significantly negatively associated with Authoritarian parenting (PAQ;  $r = -.280, p < .01$ ). These results indicate that there



are some potential similarities between Authoritative and Permissive parenting practices, but that Permissive and Authoritarian parenting practices were markedly distinct in this sample.

Authoritative parenting measured by the PAQ was found to have strong associations with aspects of the APQ, especially Involvement ( $r = .588, p < .01$ ) and Positive Parenting ( $r = .509, p < .05$ ). A moderate negative association was found between Authoritative parenting (PAQ) and Poor Monitoring/Supervision (APQ;  $r = -.219, p < .05$ ). These results indicate that Involvement (APQ) and Positive Parenting (APQ) are closely related to Authoritative parenting (PAQ), and that Poor Monitoring/Supervision (APQ) is inversely related to Authoritative parenting (PAQ), meaning that students with parents who had poor monitoring skills were less likely to have utilized Authoritative parenting practices. Authoritarian parenting (PAQ) was also found to have a strong association with Corporal Punishment (APQ;  $r = .451, p < .01$ ). Permissive parenting (PAQ) was found to have a moderate association with Inconsistent Discipline (APQ;  $r = .236, p < .05$ ). This is interesting, especially considering the strong negative association between Permissive parenting (PAQ) and Authoritarian parenting (PAQ). Though there was not a statistically significant association between Permissive parenting (PAQ) and Poor Monitoring/Supervision (APQ), this subscale was still used in looking at Permissive parenting practices due to its representation of parental lack of control.

**Authoritative parenting.** Correlations between aspects of parenting and empathy subscales can be found in **Tables I and II**. Strong associations were found between Authoritative parenting (PAQ) and Perspective Taking (B-IRI;  $r = .258, p <$

.01), and a moderate association was found between Authoritative parenting (PAQ) and Empathic Concern (B-IRI;  $r = .198, p < .05$ ). Moderate associations were also found between Authoritative parenting (PAQ) and Affective Resonance (ACME;  $r = .203, p < .05$ ) and Affective Dissonance (ACME;  $r = .204, p < .05$ ). Additionally, a strong association was found between Involvement (APQ) and Affective Resonance (ACME;  $r = .275, p < .01$ ). These results indicate that on average, students with parents that utilized more Authoritative parenting practices scored higher on certain empathy subscales, and students with parents who did not utilize Authoritative parenting practices scored lower on certain empathy subscales.

Additionally, composite scores for Authoritative parenting and Empathy were created in SPSS to assess the overall effects of Authoritative parenting on young adults' levels of empathy. The composite score for Authoritative parenting was made up of the Authoritative parenting subscale from the PAQ, the Involvement and Positive Parenting subscales from the APQ, and Item 40 from the APQ, which addresses an aspect of Authoritative parenting not included in any of the APQ subscales (see **Table IV** for item information). The Empathy composite was made up of all four subscales from the B-IRI and all three subscales from the ACME. Results show a strong overall association between Authoritative parenting and Empathy ( $r = .294, p < .01$ ). This indicates that overall, students with parents who utilized Authoritative parenting practices scores higher on overall empathy measures and students with parents who did not utilize Authoritative parenting practices scored lower on overall empathy measures. Composite correlations can be found in **Table III**.

**Authoritarian parenting.** Correlations between aspects of parenting and

empathy subscales can be found in **Tables I and II**. Strong negative associations were found between Corporal Punishment (APQ) and Affective Resonance (ACME;  $r = -.332$ ,  $p < .01$ ) as well as Corporal Punishment (APQ) and Affective Dissonance (ACME;  $r = -.361$ ,  $p < .01$ ). These results indicate that students whose parents did use corporal punishment were more likely to score lower on these two measures of empathy. This means that their scores on items that measured their ability to empathize with others (Affective Resonance) and their reactions to others' pain (Affective Dissonance) were lower on average (meaning they have a hard time empathizing and get enjoyment from others' pain) if they scored lower on measures of Corporal Punishment (APQ).

Composite scores for Authoritarian parenting and Empathy were created in SPSS, Version 22 to assess the overall effects of authoritative parenting on empathy in college-age participants. The composite score for Authoritarian parenting was made up of the Authoritarian parenting subscale from the PAQ, the Corporal Punishment subscale from the APQ, and Item 39 from the APQ, which addresses an aspect of Authoritarian parenting not included in any of the APQ subscales (item information can be found in **Table IV**). The Empathy composite was made up of all four subscales from the B-IRI and all three subscales from the ACME. There was not a statistically significant association found between Authoritarian parenting and Empathy ( $r = -.007$ ). Composite correlations can be found in **Table III**.

**Permissive parenting.** Correlations between aspects of parenting and empathy subscales can be found in **Tables I and II**. There were no statistically significant associations between Permissive parenting (as measured by the PAQ) and any of the empathy subscales (across the two empathy surveys: B-IRI and ACME). However, there

was a strong association between Inconsistent Discipline (an aspect of permissive parenting style assessed in the APQ) and Personal Distress (B-IRI;  $r = .293, p < .01$ ) and a strong negative association between Inconsistent Discipline (another aspect of permissive parenting as assessed in the APQ) and Affective Dissonance (ACME;  $r = -.273, p < .01$ ). This indicates that as levels of inconsistent discipline practices increase, scores of tendencies to enjoy others' suffering also increase. There were strong negative associations between Poor Monitoring/Supervision (APQ) and Affective Resonance (ACME;  $r = -.332, p < .01$ ) and Poor Monitoring/Supervision (APQ) and Affective Dissonance (ACME;  $r = -.361, p < .01$ ). This suggests that as scores increased on Poor Monitoring/Supervision (i.e., less supervision), tendencies to feel others' pain and not get enjoyment from others' suffering decreased. In other words, as students reported less monitoring/supervision on the part of their primary caregiver, their reporting of not feeling others' pain and feeling enjoyment from their suffering increased.

Lastly, there was a moderate negative association between Poor Monitoring/Supervision (APQ) and Empathic Concern (B-IRI;  $r = -.223, p < .05$ ), as well as a moderate association between Poor Monitoring/Supervision (APQ) and Personal Distress (B-IRI;  $r = .201, p < .05$ ). These results indicate that high scores on Poor Monitoring/Supervision (APQ) were associated with low scores of empathic concern for others as well as high scores on measures of tendencies to be distressed in high-stress situations.

Composite scores for Permissive parenting and Empathy were created in SPSS, Version 22 to assess the overall effects of both constructs. The composite score for Permissive parenting was made up of the Permissive parenting subscale from the PAQ,

the Inconsistent Discipline and Poor Monitoring/Supervision subscales from the APQ, and Item 34 from the APQ, which addresses an aspect of Permissive parenting not included in any of the APQ subscales (item information can be found in **Table IV**). The Empathy composite was made up of all four subscales from the B-IRI and all three subscales from the ACME. There was no statistically significant association found between Permissive parenting and empathy ( $r = -.167$ ). Composite correlations can be found in **Table III**.

Table I

*Correlations Between Parenting and Empathy as Determined by the B-IRI*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Authoritative Parenting (PAQ)	—										
2. Authoritarian Parenting (PAQ)	-.046	—									
3. Permissive Parenting (PAQ)	.275**	-.280**	—								
4. Involvement (APQ)	.588**	-.027	.285**	—							
5. Positive Parenting (APQ)	.509**	-.057	.333**	.787**	—						
6. Poor Monitoring Supervision (APQ)	-.219*	-.134	.138	-.188*	-.018	—					
7. Inconsistent Discipline (APQ)	.013	.031	.236*	.167	.133	.517**	—				
8. Corporal Punishment (APQ)	-.240**	.451**	-.027	-.162	-.127	.302**	.413**	—			
8. Fantasy (B-IRI)	.009	.015	.044	.122	.113	-.052	.200*	.140	—		
9. Perspective Taking (B-IRI)	.258**	.144	.032	.193*	.109	-.054	.137	.003	.340**	—	
10. Empathic Concern (B-IRI)	.198*	.131	.019	.112	.049	-.223*	-.005	-.089	.369**	.483**	—
10. Personal Distress (B-IRI)	-.176	-.034	.065	.044	.219*	.201*	.293**	.186*	.124	-.027	.120

Note: \* $p < .05$ , \*\* $p < .01$

Table II

*Correlations Between Parenting and Empathy as Determined by the ACME*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Authoritative Parenting (PAQ)	—									
2. Authoritarian Parenting (PAQ)	-.046	—								
3. Permissive Parenting (PAQ)	.275**	-.280**	—							
4. Involvement (APQ)	.588**	-.027	.285**	—						
5. Positive Parenting (APQ)	.509**	-.057	.333**	.787**	—					
6. Poor Monitoring Supervision (APQ)	-.219*	-.134	.138	-.188*	-.018	—				
7. Inconsistent Discipline (APQ)	.013	.031	.236*	.167	.133	.517**	—			
8. Corporal Punishment (APQ)	-.240**	.451**	-.027	-.162	-.127	.302**	.413**	—		
9. Cognitive Empathy (ACME)	.135	.165	.092	.152	.116	-.121	-.036	-.022	—	
10. Affective Resonance (ACME)	.203*	.047	-.174	.275**	.134	-.332**	-.141	-.319**	.379**	—
11. Affective Dissonance (ACME)	.204*	-.015	-.195*	.176	.114	-.361**	-.273**	-.380**	.267**	.704**

Note: \*  $p < .05$ , \*\*  $p < .01$

Table III

*Correlations Between Composite Parenting, Empathy, and CU Trait Scores*

	1.	2.	3.	4.
1. Authoritative Composite	—			
2. Authoritarian Composite	-.233*	—		
3. Permissive Composite	.038	-.103	—	
4. Empathy Composite	.294**	-.007	-.167	—
5. Callous-Unemotional Traits Composite	-.256**	.239*	.189	-.614**

Note:

Composite scores were created in SPSS. Authoritative scores were created with Authoritative (PAQ), Involvement (APQ), and Positive Parenting (APQ). Authoritarian scores were created with Authoritarian (PAQ) and Corporal Punishment (APQ). Permissive scores were created with Permissive (PAQ), Inconsistent Discipline (APQ), and Poor Monitoring/Supervision (APQ). Empathy scores were created with all four subscales from the B-IRI and all three subscales from the ACME. CU trait scores were created with all three subscales from the ICU and all four subscales from the PSCD.

Note: \*  $p < .05$ , \*\*  $p < .01$

Table IV

*Individual Items from the APQ Used in the Composite Scores for Authoritative, Authoritarian, and Permissive Parenting*

Item from the APQ	Statement
34	Your parents ignore you when you are misbehaving.
39	Your parents yell or scream at you when you have done something wrong.
40	Your parents calmly explain to you why your behavior was wrong.

*Note: Item 34 was used in the Permissive parenting composite, item 39 was used in the Authoritarian parenting composite, and item 40 was used in the Authoritative parenting composite.*

## **Hypothesis 2.**

It was hypothesized that college students with parents that utilized Authoritative parenting practices would score lower in CU traits than those with parents that utilized Authoritarian or Permissive parenting practices. A series of Pearson Product Moment correlations were computed in SPSS, Version 22 to examine the associations between each parenting style (PAQ) and parenting practice (APQ) and CU traits (ICU and PSCD). Additional analysis of the individual ICU subscales was conducted by correlating each of the three ICU subscales (Uncaring, Callousness, and Unemotional) and the four PSCD subscales (Grandiose Manipulative, Callous Unemotional, Daring Impulsive, and Conduct Disorder) with parenting styles (Authoritative, Authoritarian, and Permissive from the PAQ) and parenting practices (Involvement, Poor Supervision/Monitoring, Positive Parenting, Inconsistent Discipline, and Corporal Punishment from the APQ).

**Authoritative parenting.** Correlations between parenting aspects and CU traits can be found in **Tables V and VI**. There was a strong negative association between Authoritative parenting (PAQ) and Uncaring items (ICU;  $r = -.274, p < .01$ ). There were also strong negative associations between Uncaring items (ICU) and Involvement (APQ;

$r = -.288, p < .01$ ), and Uncaring items (ICU) and Positive Parenting (APQ;  $r = -.256, p < .01$ ). This indicates that students who had parents that used Authoritative parenting practices were less likely to score high on uncaring items. There were also a few moderate associations: Authoritative parenting (PAQ) and Conduct Disorder items (PSCD) were negatively associated ( $r = -.229, p < .05$ ); Involvement (APQ) and Callous-Unemotional items (PSCD) were negatively associated ( $r = -.181, p < .05$ ); and Positive Parenting (APQ) and Grandiose Manipulative items (PSCD) were positively associated ( $r = .199, p < .05$ ). The first two results indicate that students who have parents that used more Authoritative parenting practices (including Involvement from the APQ) were more likely to score low in Conduct Disorder and Callous Unemotional items from the PSCD. The third result indicates the opposite: there could potentially be a connection between positive parenting and grandiose manipulative behaviors since those who scored high in Positive Parenting (APQ) were more likely to score high in Grandiose Manipulative traits (PSCD).

Composite scores for Authoritative parenting and CU traits were created in SPSS, Version 22 to assess the overall effects of Authoritative parenting on CU traits. See above for information about the calculation of the authoritative parenting composite score. The CU traits composite was made up of all three subscales from the ICU and all four subscales from the PSCD. There was a strong negative association between Authoritative parenting practices and CU traits ( $r = -.256, p < .01$ ). This shows that students with parents who utilized more Authoritative parenting practices were more likely to score lower on measures of CU traits. Composite correlations can be found in **Table III**.

**Authoritarian parenting.** Correlations between parenting aspects and CU traits



can be found in **Tables V and VI**. There was a strong association between Authoritarian parenting (PAQ) and Daring Impulsive items (PSCD;  $r = .261, p < .01$ ). There were also three strong associations between Corporal Punishment (APQ) and Callousness (ICU;  $r = .256, p < .01$ ); Corporal Punishment (APQ) and Callous Unemotional items (PSCD;  $r = .292, p < .01$ ); and Corporal Punishment (APQ) and Grandiose Manipulative items (PSCD;  $r = .244, p < .01$ ). There was also a strong association between Corporal Punishment (APQ) and Conduct Disorder items (PSCD;  $r = .337, p < .01$ ). These associations suggest that students whose parents utilized more Authoritarian parenting practices were more likely to score highly on CU trait items.

Composite scores for Authoritarian parenting and CU traits were created in SPSS to assess the overall relationship between Authoritarian parenting practices and CU traits. See above for information about the calculation of the Authoritarian parenting and the CU traits composite scores. There was a moderate association between Authoritarian parenting practices and CU traits ( $r = .239, p < .05$ ). This suggests that students with parents who utilized more Authoritarian parenting practices were more likely to score higher on measures of CU traits. Composite correlations can be found in **Table III**.

**Permissive parenting.** Correlations between parenting aspects and CU traits can be found in **Tables V and VI**. There were four strong associations with Poor Monitoring/Supervision (APQ): Callousness (ICU;  $r = .256, p < .01$ ), Uncaring (ICU;  $r = .292, p < .01$ ), Callous Unemotional (PSCD;  $r = .234, p < .01$ ), and Conduct Disorder items (PSCD;  $r = .265, p < .01$ ). There was also a moderate association between Inconsistent Discipline (APQ) and Conduct Disorder items (PSCD;  $r = .186, p < .05$ ). These associations indicate that students who had parents that utilized parenting practices

with less control were more likely to score highly on CU trait items. There were no statistically significant associations between Permissive items and CU trait items.

Composite scores for Permissive parenting and CU traits were created in SPSS, Version 22 to assess the overall relationship between Permissive parenting practices and CU traits. See above for information on composite score calculations for the permissive parenting style and CU traits. There was not a statistically significant association between Permissive parenting and CU traits ( $r = .190$ ). Composite correlations can be found in **Table III**.

Table V

*Correlations Between Parenting and CU Traits as Determined by the ICU*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Authoritative Parenting (PAQ)	—									
2. Authoritarian Parenting (PAQ)	-.046	—								
3. Permissive Parenting (PAQ)	.275**	-.280**	—							
4. Involvement (APQ)	.588**	-.027	.285**	—						
5. Positive Parenting (APQ)	.509**	-.057	.333**	.787**	—					
6. Poor Monitoring Supervision (APQ)	-.219*	-.134	.138	-.188*	-.018	—				
7. Inconsistent Discipline (APQ)	.013	.031	.236*	.167	.133	.517**	—			
8. Corporal Punishment (APQ)	-.240**	.451**	-.027	-.162	-.127	.302**	.413**	—		
9. Callousness (ICU)	-.126	.113	.075	-.192*	-.102	.256**	.178	.300**	—	
10. Uncaring (ICU)	-.274**	-.066	.017	-.288**	-.256**	.292**	.074	.165	.467**	—
11. Unemotional (ICU)	-.033	.066	-.046	-.103	-.047	.049	.106	-.062	.075	.149

Note: \* $p < .05$ , \*\* $p < .01$

Table VI

*Correlations Between Parenting and CU Traits as Determined by the PSCD*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Authoritative Parenting (PAQ)	—										
2. Authoritarian Parenting (PAQ)	-.046	—									
3. Permissive Parenting (PAQ)	.275**	-.280**	—								
4. Involvement (APQ)	.588**	-.027	.285**	—							
5. Positive Parenting (APQ)	.509**	-.057	.333**	.787**	—						
6. Poor Monitoring Supervision (APQ)	-.219*	-.134	.138	-.188*	-.018	—					
7. Inconsistent Discipline (APQ)	.013	.031	.236*	.167	.133	.517**	—				
8. Corporal Punishment (APQ)	-.240**	.451**	-.027	-.162	-.127	.302**	.413**	—			
9. Grandiose Manipulative (PSCD)	.033	.242*	.080	.154	.199*	-.032	-.023	.244**	—		
10. Callous Unemotional (PSCD)	-.088	.145	-.005	-.181	-.068	.234**	.064	.292**	.408**	—	
11. Daring Impulsive (PSCD)	-.117	.261**	.049	-.106	-.036	.071	-.053	.094	.379**	.172	—
12. Conduct Disorder (PSCD)	-.229*	.152	-.064	-.116	-.171	.265**	.186*	.337**	.239**	.442**	.254**

Note: \*  $p < .05$ , \*\*  $p < .01$

**Hypothesis 3.**

Race, sex, and SES were examined as potential moderators for the relationship between parenting styles and empathy as well as parenting styles and CU traits. A series of multiple linear regressions were conducted in SPSS via the PROCESS macro (Hayes, 2017) and the interaction effects between parenting styles/practices and race, parenting styles/practices and sex, and parenting styles/practices and SES were examined.

Significant interaction effects would indicate that the relationships between parenting styles/practices and empathy as well as parenting styles/practices and CU traits differ as a function of race, sex, and/or SES. It was hypothesized that race, sex, and SES would play

a moderating role in the relationship between parenting styles and empathy as well as parenting styles and CU traits. Specifically, based on previous research with children, it was hypothesized that boys would have lower empathy scores than girls across all parenting styles, and that boys with Authoritarian parents would have the lowest empathy scores overall. In regard to race and SES, the mechanisms of parenting in these communities are complex. Therefore, it was hypothesized that they would moderate the effects of parenting styles on empathy and CU traits, but this study served as an initial investigation into the directionality of these relations.

A total of 18 moderation models were run using the PROCESS macro in SPSS, Version 22 (Hayes, 2017). Each model consisted of one moderator (gender, race/ethnicity, or SES), one parenting style (Authoritative, Authoritarian, or Permissive), the interaction between the moderator and parenting style, and one of the outcome variables of interest (empathy or CU traits). In other words, we examined the main effect of one moderator, the main effect of one of the parenting styles, and the interaction between the moderator and the parenting style on either empathy or CU traits; this totaled 18 possible combinations of models.

Initial analyses found that there were several significant **overall** models. When looking at the overall models of gender and parenting styles on empathy, the Authoritative parenting model was statistically significant,  $F(3,76) = 2.94, p < .05, R^2 = .10$ , indicating that 10% of the variance in empathy was explained by the model, although there were no significant main effects or interaction. In the Authoritarian model for empathy, there were no significant main effects of Authoritarian parenting or gender on empathy, and the overall model was insignificant. The overall Permissive parenting model,  $F(3,79) = 3.95$ ,

$p < .05$ ,  $R^2 = .13$ , was significant, indicating that 13% of the variance in empathy was explained by the model. In this model, there were significant main and interaction effects. Permissive parenting had a significant effect on empathy  $b = -1.46$ ,  $t(79) = -2.83$ ,  $p < .01$ , and gender had a significant effect on empathy  $b = -.70.54$ ,  $t(79) = -2.60$ ,  $p < .05$ ). The interaction between Permissive parenting and gender also had a statistically significant effect on empathy  $b = .84$ ,  $t(79) = 2.43$ ,  $p = .02$ . These results indicate that the relationship between Permissive parenting and empathy did differ as a function of gender. Results for the conditional effects of Permissive parenting on empathy can be found in **Table VII**, and the graphical representation of this interaction can be found in **Figure I**.

In the gender and CU trait models, there were two significant overall models: Authoritative parenting,  $F(3, 94) = 3.43$ ,  $p < .05$ ,  $R^2 = .10$ , and Authoritarian parenting,  $F(3, 88) = 4.48$ ,  $p < .01$ ,  $R^2 = .13$ . This indicates that 10% and 13% of the variance in CU traits was explained by the Authoritative and Authoritarian models, respectively. No significant main effects or interaction effects emerged in either model, however. The overall model investigating the effects of Permissive parenting, gender, and the interaction between the two on CU traits was not significant. The main effects and interaction were not significant either in this model.

In looking at the models of the three parenting styles, race/ethnicity, and the interaction between each respective parenting style and race/ethnicity on empathy, none of the models were significant. However, all of the models for the effects of race/ethnicity on CU traits were significant. Specifically, the models exploring the effects of Authoritative parenting,  $F(3, 94) = 2.88$ ,  $p < .05$ ,  $R^2 = .09$ ; Authoritarian parenting,

$F(3,88) = 3.94, p < .05, R^2 = .12$ ; and Permissive parenting  $F(3, 91) = 3.18, p < .05, R^2 = .095$ ; and race/ethnicity on CU traits were all statistically significant and indicate that 9%, 12%, and 9.5% of the variance in CU traits can be explained by the Authoritative, Authoritarian, and Permissive models, respectively. There were no significant main effects of Authoritative parenting or race/ethnicity on CU traits, Authoritarian parenting or race/ethnicity on CU traits, or Permissive parenting or race/ethnicity on CU traits.

Lastly, in examining the effects of SES and parenting on empathy, there were two significant overall models: Authoritative parenting,  $F(3, 76) = 4.90, p < .01, R^2 = .16$ , and Permissive parenting,  $F(3, 79) = 3.81, p < .05, R^2 = .13$ . These results indicate that 16% and 13% of the variance in empathy can be explained by the Authoritative and Permissive models, respectively. There were no significant main effects of Authoritative parenting or SES on empathy, or of Permissive parenting or SES on empathy, nor were there any significant interaction effects. In looking at the effects of SES on CU traits, there were two significant overall models: Authoritarian parenting,  $F(3, 88) = 3.45, p < .05, R^2 = .11$ , and Permissive parenting,  $F(3, 91) = 3.30, p < .05, R^2 = .10$ . This indicates that 11% and 10% of the variance in CU traits can be explained by the Authoritarian and Permissive models, respectively. There were no significant main effects of Authoritarian parenting or SES on CU traits, or of Permissive parenting or SES on CU traits, nor were there any significant interaction effects.

Table VII

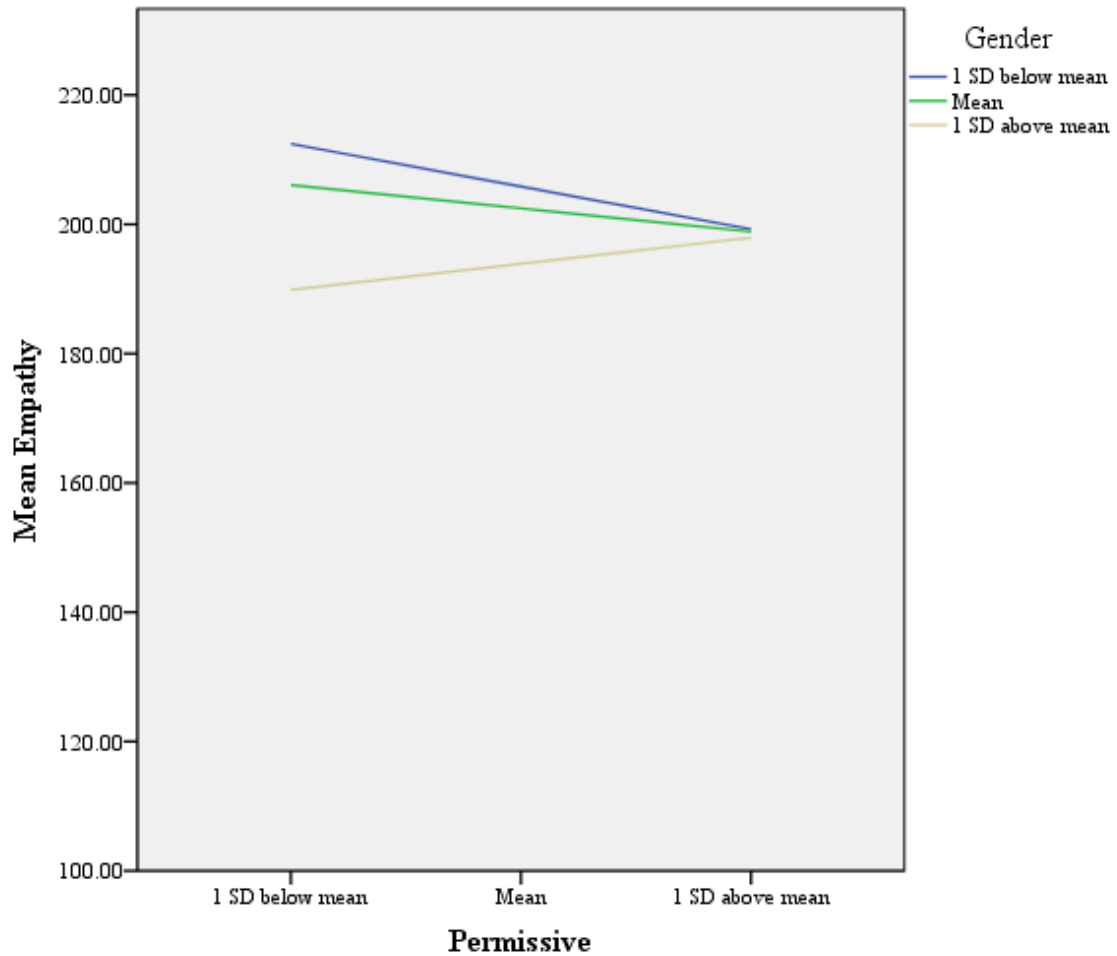
*Conditional Effects of Permissive Parenting on Empathy as a Function of Gender*

Gender	b	p	95% CI	
One SD below mean	-.62	.01*	-1.12,	-.13
At the mean	-.34	.14	-.76,	.09
One SD above mean	.38	.29	-.33,	1.09

Note: "One SD below mean" is female, "At the mean" is male, and "One SD above mean" is Nonbinary/Gender fluid.

Note: \* $p < .05$

Figure I

*Conditional Effects of Permissive Parenting on Empathy as a function of Gender*

Note: "One SD below mean" is female, "At the mean" is male, and "One SD above mean" is Nonbinary/Gender fluid.

## **CHAPTER IV**

### **Discussion**

This study aimed to examine the potential long-lasting relationship between parenting, empathy, and CU traits in college students. Analyses showed strong relationships between the measures of parenting, and several interesting findings emerged. There was not a statistically significant association between Authoritative parenting and Authoritarian parenting as measured by the PAQ, but there was a strong negative association between Authoritarian and Permissive parenting as measured by the PAQ. One potential explanation for this result could be that in looking at Baumrind's model of parenting, Authoritarian and Permissive parenting are opposites (Baumrind, 1966, 1967). Authoritarian parenting is characterized by low warmth and high control, while Permissive parenting is characterized by high warmth and low control. The lack of a negative association between Authoritative and Authoritarian parenting as measured by the APQ is surprising, and indicates that in this sample, the difference between warmth levels did not contribute much of a difference in the relationship overall. These results aside, the composite parenting scores did show a negative relationship between Authoritative and Authoritarian parenting, which is likely due to the addition of the Corporal Punishment subscale since it individually displayed a strong negative association with Authoritative parenting.

### **Empathy**

Further analyses revealed that overall, there is a strong association between Authoritative parenting and empathy, which confirms Hypothesis 1 in this sample.



College students with parents who utilized more Authoritative parenting practices, including parental involvement and positive parenting, were more likely to score higher on measures of empathy than college students with parents that did not utilize these practices as often. Though there were not any significant interactions between Authoritarian or Permissive parenting, results still suggest that Authoritative parenting is more highly associated with high empathy scores.

Individual subscale analyses revealed that only a few of the empathy subscales had a significant association with parenting. For example, of the four B-IRI subscales, Fantasy and Empathic Concern only had moderate associations with any of the aspects of parenting, and Perspective Taking and Personal Distress had a few strong associations. Potential explanations for this result could be that Fantasy is not as accurate of a measure of empathy as the others; there were no significant associations between Fantasy and the other three B-IRI subscales. Perspective Taking (B-IRI) and Empathic Concern (B-IRI) had strong associations with Authoritative parenting, and Perspective Taking was also associated with Positive Parenting (APQ). These results make sense considering that Perspective Taking and Empathic concern are likely the subscales most consistent with the operational definition of empathy in this study.

Subscales from the ACME also showed a few interesting relationships. Affective Resonance was strongly correlated with Involvement (APQ), and strongly negatively correlated with Poor Monitoring/Supervision (APQ) and Corporal Punishment (APQ). The first results indicate that those who experienced these positive kinds of parenting practices were more likely to score high on items that measure tendencies to feel others' pain. The last results indicate that those who experienced Authoritarian-type parenting

practices were more likely to score low on items that measure tendencies to feel others' pain.

Models investigating the effects of permissive parenting had some interesting results. The overall Permissive score did not reveal any significant associations with empathy, but there were some discrepancies in the associations between parenting practices. The two additional subscales used to measure Permissive parenting, Poor Monitoring/Supervision and Inconsistent Discipline (both from the APQ), were highly associated with each other and Corporal Punishment (APQ), indicating that there was some degree of relation between these three subscales. This relationship could be because Corporal Punishment is just one aspect of Authoritarian parenting and that there are other facets within Authoritarian parenting that are not as related to these two subscales. Perhaps one of the more interesting results is the Poor Monitoring/Supervision (APQ) relationship with Corporal Punishment (APQ), since theoretically Poor Monitoring/Supervision would indicate a lack of awareness on the parent, and therefore a potential lack of punishment. Neither of them were significantly associated with Authoritarian parenting, but Poor Monitoring/Supervision was negatively associated with Authoritative parenting.

Overall, there is evidence to suggest that there are significant relationships between aspects of parenting and empathy levels. Multiple aspects of Authoritative parenting practices are associated with high scores on empathy measures, but there were still some associations that were not statistically significant in this sample. Further, there were several negative associations between Authoritarian parenting practices and low empathy scores, but again there were some associations that were not statistically

significant. There were some aspects related to Permissive parenting practices that were negatively associated with empathy scores as well. Since these analyses were correlational in nature, a true causal relationship cannot be established without further research.

### **Callous-Unemotional Traits**

Overall analyses did show that there was a relationship between parenting style and CU traits. There was a strong association between Authoritarian parenting and CU traits, as well as a moderate negative association between Authoritative parenting and CU traits. There was no statistically significant association between Permissive parenting and CU traits. These results suggest that in this study, college students with parents who utilized Authoritarian parenting practices were more likely to score high in CU traits. Additionally, college students with parents who utilized more Authoritative parenting practices were more likely to score low in CU traits. These findings confirm Hypothesis 2 in this sample.

Individual analyses of subscales show revealed more nuanced results. Looking at the CU trait subscales from the ICU, the only relationship that existed between parenting measured by the PAQ and CU traits measured by the ICU was a strong negative association between Authoritative parenting (ICU) and Uncaring items (ICU). This association indicates that as scores on Authoritative parenting increased, scores on CU traits decreased, which does confirm part of Hypothesis 2. However, the lack of an association between Authoritarian parenting and any of the ICU subscales is not consistent with part of Hypothesis 2. Permissive parenting (PAQ) also did not have any significant associations with any aspects of the ICU. This is not surprising, given that

Permissive parenting practices have been harder to define in the context of this study. Other aspects of parenting practices from the APQ were associated with CU traits. For example, both Involvement (APQ) and Positive Parenting (APQ) were negatively associated with Uncaring items (ICU), which indicates that higher levels of these positive parenting aspects are related to lower levels of uncaring behaviors. Both Poor Monitoring/Supervision and Corporal Punishment from the APQ were strongly associated with Callousness (ICU), which suggests that high levels of callous behaviors are associated with Authoritarian parenting practices. There were no associations between aspects of parenting and the Unemotional items from the ICU, which suggests that parenting may not have a significant relationship with unemotionality. Additionally, it is important to note that Unemotional items were not significantly associated with Callousness or Uncaring items from the ICU, which were associated with each other.

In examining results from the PSCD, there are some interesting relationships to consider. For example, Authoritative parenting (PAQ) had a negative association with Conduct Disorder (PSCD), and Authoritarian parenting (PAQ) was associated with Daring Impulsive items (PSCD) and Grandiose Manipulative items (PSCD). These were the only significant associations between PAQ aspects of parenting and CU traits from the PSCD, but they do suggest that certain parenting traits are associated with CU traits. Results also show that in this sample, Conduct Disorder (PSCD) was associated with all of the following: Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment (all from the APQ). These all indicate that students who experienced minimal supervision, inconsistent discipline techniques, and corporal punishment (e.g., spanking), scored higher on items that measure Conduct Disorder. Lastly, Positive

Parenting (APQ) was associated with Grandiose Manipulative items (PSCD), which is inconsistent with the hypothesized results. This association could be the result of a number of things, and further analysis is needed to examine the extent of this relationship.

Overall, results from the analyses indicate that Hypothesis 2 is mostly confirmed in this sample; there are significant associations between parenting styles and CU traits. Several aspects of Authoritative parenting were associated with low levels of CU traits, though not all associations were statistically significant. There were also multiple aspects of Authoritarian parenting that were associated with high levels of CU traits, but there were some associations that were not statistically significant. Lastly, there were aspects of Permissive parenting that were associated with CU traits, though not all associations were statistically significant. The correlational nature of the analyses means that causal relationships cannot be determined, therefore further research is necessary to examine them.

### **Race, Gender, and SES**

Analyses showed that statistically significant amounts of variance can be explained by certain models, which tells us that the interactions of moderators and parenting styles on empathy/CU traits are existent in this sample. For example, gender was hypothesized to play a role in the relationship between parenting and empathy, and in some of the models, it did. For all of the models that were run (gender, race/ethnicity, and SES, their interactions with parenting, and their effects on empathy and CU traits), there were some significant results, except for the three models examining the moderating role of race/ethnicity in the link between the parenting styles and empathy

models, which did not have any significant models.

There was only one significant interaction effect out of all of the models that were tested, and it was an unexpected one. The model examining the moderating role of gender in the association between Permissive parenting and empathy revealed a significant interaction effect between Permissive parenting and gender on empathy. Both Permissive parenting and gender had a significant main effect on empathy, which indicates that each variable individually predicted empathy scores, but there was also a significant effect of the interaction between Permissive parenting and gender on empathy levels in these college students. This interaction was probed and results indicated that Permissive parenting had the most effect on empathy in females. Permissive parenting did not have as pronounced of an effect on empathy in males or the non-binary/gender fluid participant. These results tell us that for females, in particular, lower levels of Permissive parenting resulted in higher empathy scores in this sample. These results were not altogether surprising, but based on all of the literature and previous results of the current study, it was expected that Authoritative parenting or Authoritarian parenting would have a significant interaction effect, not necessarily Permissive parenting.

The moderation analysis revealed no further significant main or interaction effects in any of the models. Gender was expected to play a moderating role in the relationship between parenting and empathy and parenting and CU traits, and to some extent, it did. However, it was not to the extent reported in previous literature. It was unclear what, if any, role race/ethnicity and SES would play in the relationships between parenting, empathy, and CU traits, as the present study found no significant interaction effects between any of the relationships. As always, more research is warranted to examine

further whether or not the relationships exist and to what extent.

### **Implications**

The results of this study somewhat confirm the three hypotheses that were previously discussed. There are associations between parenting styles and empathy that reflect what the literature has long established in children: Authoritative parenting practices are associated with higher levels of empathy, while Authoritarian parenting practices are not. Additionally, Authoritarian parenting practices are associated with higher levels of CU traits, and Authoritative parenting practices are associated with lower levels of CU traits. In the context of the present study, these results are existent in early adulthood, which indicates that parenting styles can have long-lasting effects on children's development. Therefore, it is recommended that parents should pay close attention to the parenting style and parenting qualities that they use, as they could have potential long-lasting negative (or positive) effects.

There was only one significant interaction effect between parenting styles and a moderating variable, which in this case is not something that is easily changeable (gender). The lack of significant interaction effects between parenting styles and gender, race/ethnicity, and SES indicates that these things may not matter as much when considering the effects of parenting styles on empathy and CU traits. Given that most of the moderators can't be changed without difficulty, it may be prudent to focus more on parenting practices than the potential effects of the moderating variables in terms of empathy and CU trait development.

### **Limitations**

This study took place in a setting that may not be representative of the entire

population of college students in the United States. Sam Houston State University is a medium-sized college and its demographics may not be representative of college students as a whole. Furthermore, participants were recruited through the PeRP system at Sam Houston State University, which is only used in undergraduate psychology classes. The students who take psychology courses, whether psychology is their major or not, may not be representative of all college students at one institution, let alone the entire nation. These issues of representation may have skewed the data in some way that affected the results.

Correlational research cannot establish causal relationships, and therefore, the results of this study cannot give information about how any one parenting style or practice causes empathy or CU trait development. Though many associations were identified in this sample, the results cannot tell us for certain that Authoritative parenting causes children to develop a higher capacity of empathy that lasts into early adulthood, for example. The results of the present study merely tell us that associations do exist between these variables, which warrants further research in order to explore causality.

### **Future Directions**

The present study established associations between parenting styles, empathy, and CU traits in college students. However, further research is needed to determine if there is a cause-and-effect relationship between these variables. Research in this area has mostly focused on children thus-far, but the associations found in this study should serve as a basis for future examinations of the long-term effects of parenting practices. Longitudinal studies would help track the development of empathy and CU traits over time, and could help identify any other confounding variables that exist.



Because previous research has found gender, race/ethnicity, and SES to be moderators of the relationships between parenting styles and empathy/CU traits, further research with more representative data is necessary. A lot of attention has been paid to gender's effects on parenting, empathy, and CU traits, but the influence of race/ethnicity and SES has been inconsistent in previous research. Further research into these areas could help determine what kind of situations are the most helpful for children, which can then inform the public on best practices.

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## APPENDIX A

### Parental Authority Questionnaire

**Instructions:** For each of the following statements, circle the number of the 5-point scale (1 = strongly disagree, 5 = strongly agree) that best describes how that statement applies to you and your mother. Try to read and think about each statement as it applies to you and your mother during your years of growing up at home. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

1 = Strongly disagree

2 = Disagree

3 = Neither agree nor disagree

4 = Agree

5 = Strongly Agree

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1. While I was growing up my mother felt that in a well-run

home the children should have their way in the family as often as      1   2   3   4   5  
the parents do.

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2. Even if her children didn't agree with her, my mother felt that

it was for our own good if we were forced to conform to what      1   2   3   4   5  
she thought was right.

3. Whenever my mother told me to do something as I was

growing up, she expected me to do it immediately without      1   2   3   4   5  
asking any questions.

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4. As I was growing up, once family policy had been established,

my mother discussed the reasoning behind the policy with the      1   2   3   4   5  
children in the family.

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5. My mother has always encouraged verbal give-and-take

whenever I have felt that family rules and restrictions were  
unreasonable. 1 2 3 4 5

6. My mother has always felt that what her children need is to be  
free to make up their own minds and to do what they want to do,  
even if this does not agree with what their parents might want.

1 2 3 4 5

7. As I was growing up my mother did not allow me to question  
any decision she had made.

1 2 3 4 5

8. As I was growing up my mother directed the activities and  
decisions of the children in the family through reasoning and  
discipline.

1 2 3 4 5

9. My mother has always felt that more force should be used by  
parents in order to get their children to behave the way they are  
supposed to.

1 2 3 4 5

10. As I was growing up my mother did not feel that I needed to  
obey rules and regulations of behavior simply because someone  
in authority had established them.

1 2 3 4 5

11. As I was growing up I knew what my mother expected of me  
in my family, but I also felt free to discuss those expectations  
with my mother when I felt that they were unreasonable.

1 2 3 4 5

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12. My mother felt that wise parents should teach their children

early just who is boss in the family.

1 2 3 4 5

13. As I was growing up, my mother seldom gave me

expectations and guidelines for my behavior.

1 2 3 4 5

14. Most of the time as I was growing up my mother did what

the children in the family wanted when making family decisions.

1 2 3 4 5

15. As the children in my family were growing up, my mother

consistently gave us direction and guidance in rational and

objective ways.

1 2 3 4 5

16. As I was growing up my mother would get very upset if I

tried to disagree with her.

1 2 3 4 5

17. My mother feels that most problems in society would be

solved if parents would not restrict their children's activities,

decisions, and desires as they are growing up.

1 2 3 4 5

18. As I was growing up my mother let me know what behavior

she expected of me, and if I didn't meet those expectations, she

punished me.

1 2 3 4 5

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19. As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her.

1 2 3 4 5

20. As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.

1 2 3 4 5

21. My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.

1 2 3 4 5

22. My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family.

1 2 3 4 5

23. My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me.

1 2 3 4 5

24. As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do.

1 2 3 4 5

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25. My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up.

1   2   3   4   5

26. As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it.

1   2   3   4   5

27. As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her.

1   2   3   4   5

28. As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family.

1   2   3   4   5

29. As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.

1   2   3   4   5

30. As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake.

1   2   3   4   5

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Description: The PAQ is designed to measure parental authority, or disciplinary



practices, from the point of view of the child (of any age).

The PAQ has three subscales:

permissive (P: items 1, 6, 10, 13, 14, 17, 19, 21, 24 and 28), authoritarian (A: items 2, 3, 7, 9, 12, 16, 18, 25, 26 and 29), and authoritative/flexible (F: items 4, 5, 8, 11, 15, 20, 22, 23, 27, and 30). Mother and father forms of the assessment are identical except for references to gender.

Scoring: The PAQ is scored easily by summing the individual items to comprise the subscale scores. Scores on each subscale range from 10 to 50.

Author: Dr. John R. Buri, Department of Psychology, University of St. Thomas, 2115 Summit Avenue, St. Paul, MN 55105.

Source: Buri, J.R. (1991). Parental Authority Questionnaire, *Journal of Personality and Social Assessment*, 57, 110-119

## APPENDIX B

### Alabama Parenting Questionnaire

Instrument: Alabama Parenting Questionnaire (APQ)

Scale/Subscale Name: Alabama Parenting Questionnaire (APQ)

Developers: Frick, P. J.

Year: 1991

Target Audience(s): Parents of children 6-18 and children 6-18

Language other than English available: Chinese, Dutch, German, Spanish, Norwegian

Type: Behavior

Data collected: Quantitative

Data collection format: Self report – Pre/post

Reading Level: Unavailable

Existence of test/technical manuals, user guides, supplemental materials: Surveys and publications available at: <http://fs.uno.edu/pfrick/APQ.html> Includes survey items and information on the psychometrics of the survey. Additional publications may be found at <http://www.psyc.uno.edu/Frick%20Lab/APQ.html>

Level of training necessary for administration/scoring/interpretation: None necessary. Paper and pencil scoring with the sum of ratings used as a total scale score.

Widespread Use/Professional Endorsements: Scale has been used in multiple research articles looking at parenting behaviors. The University of New Orleans provides the tests and measures at: <http://fs.uno.edu/pfrick/APQ.html> Credit must be given to the developers.

Cost of Use: No cost associated with the survey. Dr. Frick requests that copies of any publications using the APQ are sent to him at [pfrick@uno.edu](mailto:pfrick@uno.edu).

Description: ☐ The APQ measures five dimensions of parenting that are relevant to the etiology and treatment of child externalizing problems: (1) positive involvement with children, (2) supervision and monitoring, (3) use of positive discipline techniques, (4)

consistency in the use of such discipline and (5) use of corporal punishment. □ There is both a parent form and a child form. □ 42 items

**Psychometrics:** Information on reliability and validity are provided below. If information on a particular psychometric was not found, it is indicated as “no information provided.” It should be noted that this is not necessarily an indication of a lack of reliability or validity within a particular scale/instrument, but rather a lack of rigorous testing, for various reasons, by the developers or other researchers.

**Reliability:** A correlation of at least .80 is suggested for at least one type of reliability as evidence; however, standards range from .5 to .9 depending on the intended use and context for the instrument.

**Internal Consistency:** The average reliability across the APQ scales is .68. **Inter-rater reliability:** No information provided **Test-Retest:** No information provided

**Validity:** The extent to which a measure captures what it is intended to measure.

**Content/Face Validity:** No information provided **Criterion Validity:** The APQ has good psychometric properties including criterion validity in differentiating clinical and nonclinical groups (Dadds, Maujean, & Fraser, 2003; Frick, Christian, & Wooton, 1999; Shelton et al., 1996). Frick et al. (1999) reported a mean  $r^2$  across its five scales of 0.24 for predicting child symptoms of ODD and CD. Independent investigations have also shown the APQ to be an informative assessment tool. **Construct Validity:** No information provided

**The University of New Orleans**  
**Alabama Parenting Questionnaire (APQ)**  
 (Child Form)

Name: \_\_\_\_\_

ID#: \_\_\_\_\_

Instructions: The following are a number of statements about your family. Please rate each item as to how often it TYPICALLY occurs in your home. The possible answers are Never (1), Almost Never (2), Sometimes (3), Often (4), Always (5). If your dad or mom is not currently living at home with you, then skip the questions that ask about that person.

	Never	Almost Never	Sometimes	Often	Always
1. You have a friendly talk with your mom.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
2. Your parents tell you that you are doing a good job.	1	2	3	4	5
3. Your parents threaten to punish you and then do not do it.	1	2	3	4	5
4. Your mom helps with some of your special activities (such as sports, boy/girl scouts, church youth groups).	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
5. Your parents reward or give something extra to you for behaving well.	1	2	3	4	5
6. You fail to leave a note or let your parents know where you are going.	1	2	3	4	5
7. You play games or do other fun things with your mom.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
8. You talk your parents out of punishing you after you have done something wrong.	1	2	3	4	5
9. Your mom asks you about your day in school.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
10. You stay out in the evening past the time you are supposed to be home.	1	2	3	4	5
11. Your mom helps you with your homework.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
12. Your parents give up trying to get you to obey them because it's too much trouble.	1	2	3	4	5
13. Your parents compliment you when you have done something well.	1	2	3	4	5
14. Your mom asks you what your plans are for the coming day.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
15. Your mom drives you to a special activity.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
16. Your parents praise you for behaving well.	1	2	3	4	5
17. Your parents do not know the friends you are with.	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
18. Your parents hug or kiss you when you have done something well.	1	2	3	4	5
19. You go out without a set time to be home.	1	2	3	4	5
20. Your mom talks to you about your friends.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
21. You go out after dark without an adult with you.	1	2	3	4	5
22. Your parents let you out of a punishment early (like lift restrictions earlier than they originally said).	1	2	3	4	5
23. You help plan family activities.	1	2	3	4	5
24. Your parents get so busy that they forget where you are and what you are doing.	1	2	3	4	5
25. Your parents do not punish you when you have done something wrong.	1	2	3	4	5
26. Your mom goes to a meeting at school, like a PTA meeting or parent/teacher conference.	1	2	3	4	5
A. How about your dad?	1	2	3	4	5
27. Your parents tell you that they like it when you help out around the house.	1	2	3	4	5
28. You stay out later than you are supposed to and your parents don't know it.	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
29. Your parents leave the house and don't tell you where they are going.	1	2	3	4	5
30. You come home from school more than an hour past the time your parents expect you to be home.	1	2	3	4	5
31. The punishment your parents give depends on their mood.	1	2	3	4	5
32. You are at home without an adult being with you.	1	2	3	4	5
33. Your parents spank you with their hand when you have done something wrong.	1	2	3	4	5
34. Your parents ignore you when you are misbehaving.	1	2	3	4	5
35. Your parents slap you when you have done something wrong.	1	2	3	4	5
36. Your parents take away a privilege or money from you as a punishment.	1	2	3	4	5
37. Your parents send you to your room as a punishment.	1	2	3	4	5
38. Your parents hit you with a belt, switch, or other object when you have done something wrong.	1	2	3	4	5
39. Your parents yell or scream at you when you have done something wrong.	1	2	3	4	5
40. Your parents calmly explain to you why your behavior was wrong when you misbehave.	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
41. Your parents use time out (makes you sit or stand in a corner) as a punishment.	1	2	3	4	5
42. Your parents give you extra chores as a punishment.	1	2	3	4	5

Scoring for Child Form: ♣ The items on the child form are categorized into five subscales that are reflective of the parent subscales: o Involvement: 1, 4, 7, 9, 11, 14, 15, 20, 23, 26 (there are two parts to each of these questions—one for mother involvement and one for father involvement) o Positive Parenting: 2, 5, 13, 16, 18, 27 o Poor Monitoring/Supervision: 6, 10, 17, 19, 21, 24, 28, 29, 30, 32 o Inconsistent Discipline: 3, 8, 12, 22, 25, 31 o Corporal Punishment: 33, 35, 39 ♣ No reverse coding necessary. ♣ Sum all items in the scale to obtain a total scale score (you may subtract this score by the number of items in the subscale so that the score range begins at zero). ♣ Other Discipline Practices is not a scale, but provides information on an item by item basis. Numbers for these items are: 34, 36, 37, 39, 40, 41, 42



## APPENDIX C

### Interpersonal Reactivity Index--Brief Form Version Attached: Full Test

**PsycTESTS Citation:**

Ingoglia, S., Lo Coco, A., & Albiero, P. (2016). Interpersonal Reactivity Index--Brief Form [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t55322-000>

**Instrument Type:**

Inventory/Questionnaire

**Test Format:**

The 16-item measure utilized a 5-point Likert-type scale ranging from 1 (does not describe me at all) to 5 (describes me very well).

**Source:**

Ingoglia, Sonia, Lo Coco, Alida, & Albiero, Paolo. (2016). Development of a brief form of the Interpersonal Reactivity Index (B-IRI). *Journal of Personality Assessment*, Vol 98(5), 461-471. doi: 10.1080/00223891.2016.1149858. © 2016 by Taylor & Francis. Reproduced by Permission of Taylor & Francis

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PsycTESTS™ is a database of the American Psychological Association

doi: <http://dx.doi.org/10.1037/t55322-000>

## Items

1. I often have tender, concerned feelings for people less fortunate than me.
2. I really get involved with the feelings of the characters in a novel.
3. In emergency situations, I feel apprehensive and ill-at-ease.
4. I try to look at everybody's side of a disagreement before I make a decision.
5. When I see someone being taken advantage of, I feel kind of protective toward them.
6. I sometimes try to understand my friends better by imagining how things look from their perspective.
7. After seeing a play or movie, I have felt as though I were one of the characters.
8. Being in a tense emotional situation scares me.
9. When I see someone being treated unfairly, I feel very much pity for them.
10. I would describe myself as a pretty soft-hearted person.
11. When I watch a good movie, I can very easily put myself in the place of a leading character.
12. I tend to lose control during emergencies.
13. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
14. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
15. When I see someone who badly needs help in an emergency, I go to pieces.
16. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

## APPENDIX D

### Affective and Cognitive Measure of Empathy

Version Attached: Full Test

PsycTESTS Citation: Vachon, D. D., & Lynam, D. R. (2016). Affective and Cognitive Measure of Empathy [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t49392-000>

Instrument Type: Inventory/Questionnaire

Test Format: Responses for the 36 items are on a 5-point Likert-type scale ranging from Strongly disagree (1) to Strongly agree (5).

Source: Vachon, David D., & Lynam, Donald R. (2016). Fixing the problem with empathy: Development and validation of the affective and cognitive measure of empathy. *Assessment*, Vol 23(2), 135-149. doi: 10.1177/1073191114567941. By SAGE Publications. Reproduced by Permission of SAGE Publications

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## Affective and Cognitive Measure of Empathy

### ACME

- 1 I have a hard time reading people's emotions
- 2 I think it's fun to push people around once and a while
- 3 I can tell when someone is afraid
- 4 It's obvious when people are pretending to be happy
- 5 I love watching people get angry
- 6 I enjoy seeing strangers get scared
- 7 It makes me feel good to help someone in need
- 8 I get excited to give someone a gift that I think they will enjoy
- 9 I usually understand why people feel the way they do
- 10 When my friends are having a good time I often get angry
- 11 People who are cheery disgust me
- 12 I don't worry much about hurting people's feelings
- 13 I don't really care if other people feel happy
- 14 I have a hard time figuring out what someone else is feeling
- 15 I can tell when people are about to lose their temper
- 16 I can usually predict how someone will feel.
- 17 I don't really care if people are feeling depressed
- 18 I like making other people uncomfortable
- 19 I get a kick out of making other people feel stupid
- 20 When my friends get angry I often feel like laughing
- 21 Sometimes I enjoy seeing people cry
- 22 Other people's feelings don't bother me at all
- 23 I feel awful when I hurt someone's feelings
- 24 Other people's misfortunes don't bother me much
- 25 I can usually tell how people are feeling
- 26 Sometimes it's funny to see people get humiliated
- 27 If I could get away with it, there are some people I would enjoy hurting
- 28 If I see that I am doing something that hurts someone, I will quickly stop
- 29 I often try to help people feel better when they are upset
- 30 I enjoy making others happy
- 31 I am not good at understanding other people's emotions
- 32 People have told me that I'm insensitive
- 33 I can usually guess what's making someone angry
- 34 People don't have to tell me when they're sad, I can see it in their faces
- 35 I find it hard to tell when someone is sad
- 36 I admit that I enjoy irritating other people

Cognitive Empathy (COG) = 1r, 3, 4, 9, 14r, 15, 16, 25, 31r, 33, 34, 35r

Affective Resonance (RES) = 7, 8, 12r, 13r, 17r, 22r, 23, 24r, 28, 29, 30, 32r

Affective Dissonance (DIS) = 2r, 5r, 6r, 10r, 11r, 18r, 19r, 20r, 21r, 26r, 27r, 36r

Note. r = reverse scored item (6—original score). The items are administered on 5-point Likert-type scale ranging from Strongly disagree (1) to Strongly agree (5). On all three scales (including DIS), high scores indicate greater empathy.

## APPENDIX E

### ICU

#### (Youth Version)

PsycTESTS Citation: Frick, P. J. (2004). Inventory of Callous–Unemotional Traits [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t62639-000>

Instrument Type: Inventory/Questionnaire

Test Format: This 22-item measure utilizes 4-point Likert scale (0 = Not at all true, 3 = Definitely true). Some items are inversely scored so that all items are scored in the callous–unemotional direction before items are summed to create subscale and total scale scores.

Source: Kimonis, Eva R., Frick, Paul J., Skeem, Jennifer L., Marsee, Monica A., Cruise, Keith, Munoz, Luna C., Aucoin, Katherine J., & Morris, Amanda S. (2008). Assessing callous-unemotional traits in adolescent offenders: Validation of the inventory of callous-unemotional traits. *International Journal of Law and Psychiatry*, Vol 31(3), 241-252. doi: 10.1016/j.ijlp.2008.04.002, © 2008 by Elsevier. Reproduced by Permission of Elsevier.

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#### Items

##### **Uncaring**

- \*23. I work hard on everything I do.
- \*15. I always try my best.
- \*3. I care about how well I do at school or work.
- \*24. I do things to make others feel good.
- \*16. I apologize ('say I am sorry:') to persons I hurt.
- \*5 I feel bad or guilty when I do something wrong.
- \*13. I easily admit to being wrong.
- \*17. I try not to hurt other's feelings.

##### **Callousness**

- 11. I do not care about doing things well.
- 20. I do not like to put the time into doing things well.

- 18. I do not feel remorseful when I do something wrong.
- 7. I do not care about being on time.
- 9. I do not care if I get into trouble.
- 12. I seem very cold and uncaring to others.
- 21. The feelings of others are unimportant to me.
- 4. I do not care who I hurt to get what I want.
- \*8 I am concerned about the feelings of others.

**Unemotional**

- 6. I do not show my emotions to others.
- \*1. I express my feelings openly.
- 22. I hide my feelings from others.
- \*14. It is easy for others to tell how I am feeling.
- \*19. I am very expressive and emotional.

Note : Items are rated on a 4-point Likert scale from 0 (Not at all true) to 3 (Definitely true).

\*=Reverse-Scored Items

## APPENDIX F

*PSCD**R.T. Salekin & R.D. Hare*

Date: \_\_\_\_\_

Name:

\_\_\_\_\_

Study:

\_\_\_\_\_

**Directions:** For each statement please circle the choice that describes you the most. There are no right or wrong answers. Just pick the one you think most accurately describes you.

	Not	Somewhat	
True			
	True	True	
	_____		
1. I can turn on the charm in any situation	0	1	2
2. I am a very important person	0	1	2
3. I am very good at most things I do	0	1	2
4. Lying is easy for me	0	1	2
5. I take advantage of others	0	1	2
6. I am a good storyteller	0	1	2
7. I don't waste time thinking about how others feel	0	1	2
8. I can turn and walk away from someone who is hurt	0	1	2

9. When people are happy or upset I don't seem to care	0	1	2
10. I like it when others are afraid of me	0	1	2
11. Some people consider me to be a mean person	0	1	2
12. I rarely feel guilt or remorse	0	1	2
13. I am daring	0	1	2
14. I like a lot of change or adventure	0	1	2
15. I get a thrill out of doing risky things	0	1	2
16. I feel like I need a lot of stimulation	0	1	2
17. I like to live in the moment	0	1	2
18. Some people say I'm reckless	0	1	2
19. I have stolen things	0	1	2
20. I have engaged in physical aggression against animals or people	0	1	2
21. I have destroyed property	0	1	2
22. Some people say I break a lot of rules	0	1	2
23. I started breaking rules before the age of 10	0	1	2
24. I can be argumentative and defiant	0	1	2



## **VITA**

**Meredith G. Smith**

### **EDUCATION**

Master of Arts student in Psychology at Sam Houston State University, August 2017 – present. Thesis title: “Effects of parenting styles on empathy and callous-unemotional traits in college students.”

Bachelor of Arts (May 2017) in Psychology, Baylor University, Waco, Texas.

### **ACADEMIC EMPLOYMENT**

Graduate Assistant, Department of Student Success Initiatives, Sam Houston State University, September 2017 – present. Responsibilities include: assisting with Sam Houston State Universities FORWARD program, conducting research, mentoring students, and participating in the department’s programming.

Graduate Teaching Assistant, Department of Student Success Initiatives, Sam Houston State University, August 2018 – present. Responsibilities include: assisting professor with the preparation and presentation of UNIV 1301, grading, and mentoring.

Research Assistant to H. A. Langley, Department of Psychology and Philosophy, Sam Houston State University, Fall 2018 – present. Research activities include: assistance in conceptualization of study design, collecting focus group data, and strategies for recruitment.

### **PRESENTATIONS AT PROFESSIONAL MEETINGS**

Langley, H. A., Chumchal, M., Billeiter, K., & Smith, M. (October, 2018). How do Race/Ethnicity and Privilege Differences Predict Parents’ Ideas About Children’s Gratitude. Poster presented at the SRCD Special Topic Meeting: Promoting Character Development Among Diverse Children and Adolescents: The Roles of Families, Schools, and Out-Of-School-Time Youth Development Programs.