

**Sympathetic Reactions to the Bait Dog in a Film of Dog Fighting:
The Influence of Personality and Gender**

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Abstract

Media sources brought international attention to dog fighting during the Michael Vick case. Although a significant number of people who watched footage of the abused dogs used in the Vick case may have felt sympathy for them, the characteristics associated with those types of individuals are not known. The current study examined personality and gender as predictors of sympathetic reactions to the mistreatment of a bait dog depicted in a film clip. The results supported the predictions that animal-oriented sympathy, trait sympathy, agreeableness, and gender would predict sympathetic reactions to the bait dog. The analyses showed that trait sympathy could not explain unique variance beyond animal-oriented sympathy, however, and that agreeableness fully mediated the relation between gender and sympathetic reactions to the bait dog. Unexpectedly, emotional stability was also a unique predictor. Implications and limitations of these results are discussed.

Keywords: *dog fighting, film, gender, media, personality, sympathy*

People generally watch television with the ultimate goal of enjoyment (Raney, 2004). Because many people also like animals, numerous television consumers watch programs exclusively focused on animals. When Animal Planet launched in 1996, it opened to a modest three to four million homes, but in less than two years its viewership quickly increased to thirty-seven million subscribers, surpassing such established channels as VH1 and MSNBC (Chris, 2002). This increase in viewership is not surprising, given the strong emotional attachment that many people seem to have to animals, particularly dogs (Plous, 1993).

In 2007, professional football star Michael Vick brought international media attention to animal abuse by pleading guilty to charges of illegal dog fighting. Because of Vick's iconic status, media outlets began to expose the public to the cruelty involved in the operation of dog

fighting. Policies toward the treatment of animals have historically been linked with media events (see Jones, 1997), and coverage of the Vick case has been followed by significant actions on the part of law enforcement and policy makers to condemn the practice of dog fighting. For example, the Humane Society of the United States (2007) reported an increase in arrests among individuals involved in dog fighting rings following the Vick case. In the arena of public policy, legislative changes were initiated at both state and national levels to curb dog-fighting activity (Kumar, 2008) which culminated in the Kerry-Boxer bill, the Dog Fighting Prohibition Act (HR 3219), and the Federal Dog Protection Act (HR 3327). These events suggest that some people, after learning through the media about the horrors involved in dog fighting, were sympathetic to the suffering of dogs.

A variety of perspectives on dog fighting and pit bulls have been examined. For instance, Twining, Arluke, and Patronek (2000) noted that interviewed pit bull guardians use a variety of techniques to avoid stigmas associated with their breed, which included identifying their pit bull as another breed, proposing that their dog is not innately aggressive, and training their dog not to engage in behaviors that the public may perceive as threatening. Conversely, Forsyth and Evans (1998) interviewed “dogmen,” individuals who participate in dog fights, and reported that dogmen view pit bulls as born fighters, claim that dog fighting has a long and royal history, and view opponents as hypocritical. Furthermore, dogmen use dog fighting as a method of establishing their masculinity and increasing their status (Evans, Gauthier, & Forsyth, 1998). Although research has examined the legal outcomes following the Vick case, as well as dog guardians’ perceptions, it has not examined sympathetic reactions toward dogs used for the purposes of dog fighting. Therefore, the purpose of the present research was to investigate the

role of individual differences in predicting sympathetic reactions in response to viewing a film clip about a dog used to train fighting dogs (i.e., a bait dog).

Sympathy is the feeling of sorrow or concern that results from the comprehension that someone is suffering (see Wispe, 1986). Although scientists have identified sympathy as the emotion primarily responsible for the altruistic urge to alleviate someone's suffering (Eisenberg, 2000; Wispe, 1986), researchers do not fully understand the influence of individual differences on sympathy for dogs used in dog fighting, which is typically viewed via video and television. One obvious individual difference responsible for sympathy experienced and displayed for dogs shown in dog-fighting films is personality, which we view as a relatively stable individual difference variable that influences the strength of one's emotional reaction to particular media (see Oliver, 2002). A large body of research documents the role of personality in predisposing individuals to feel particular emotions to media content (e.g., Hall, 2005; Raney, 2004; Gross, Sutton, & Ketelaar, 1998; Eisenberg et al., 1991; Davis, Hull, Young, & Warren, 1987). Research has not examined the role of personality, however, in predicting sympathetic reactions to a film on dog fighting.

The personality trait most conceptually related to feelings of sympathy for a bait dog is trait sympathy for animal suffering. According to Paul's (2000b) review of the animal-human bond literature, sentiment toward humans may not always transfer to animals. Although a number of studies document a significant positive correlation between human-oriented empathy and feelings toward animals (Paul, 2000a; Wagstaff, 1991; Poresky, 1990), the strength of this association tends to be moderate at best. These findings suggest that substantial variation between people results in some individuals demonstrating strong affinities toward people, but not animals, and vice versa (Paul, 2000b). Wagstaff (1991) provided evidence to support these

suggestions. Wagstaff asked participants to view photographs of animals that were designed to evoke emotional responses (e.g., picture of piglets in a cramped cage). Participants who were highly sympathetic to animal rights and welfare issues displayed greater empathic emotions to the photographs than individuals who were less sympathetic to animal welfare. This association was much stronger than the correlation between sympathy toward human beings and empathic emotional reactions to the photographs. Thus, assessment of sympathy, specifically toward animals, is essential to understanding the individual difference mechanisms driving sympathetic reactions to dogs depicted in dog-fighting film clips.

The human-oriented, vicarious emotion trait that is next most closely related, theoretically, to feelings of sympathy for a bait dog is general trait sympathy. General trait sympathy is characterized by feelings of warmth, compassion, and sympathy for other individuals (Davis, 1980). Past research demonstrates that highly sympathetic individuals feel more sympathy (Eisenberg et al., 1991), have greater altruistic motivations (Unger & Thumulari, 1997), and demonstrate more comforting behaviors to people in need (Tamborini, Salomonson, & Bahk, 1993) than less sympathetic people.

Although no known studies have explicitly examined the connection between general trait sympathy and sympathy for animal suffering, research on attitudes toward animal welfare supports such an association (Signal & Taylor, 2007; Henry, 2006; Furnham, McManus, & Scott, 2003). For example, general trait sympathy has repeatedly been one of the strongest predictors of attitudes toward animal welfare and, in most cases, it predicts beyond the influence of gender and other empathy-related traits, such as personal distress, perspective-taking, and fantasy (Henry, 2006; Furnham, McManus, & Scott, 2003). In terms of an emotional sensitivity to dramatic film stimuli, trait sympathy seems to be highly responsive. For example, highly

sympathetic individuals show stronger negative emotional reactions to sad media than their less sympathetic counterparts (Davis et al., 1987).

Much like general trait sympathy, agreeableness is a trait that is characterized by sympathetic feelings (McCrae & John, 1992). However, agreeableness is a much broader personality trait that also consists of helpfulness, softheartedness, and trust for other individuals (McCrae & John, 1992). This aspect of basic personality has demonstrated validity across different instruments (Costa & McCrae, 1988) and cultures (Noller, Law, & Comrey, 1988), lending support to the notion that agreeableness is a robust and recognizable facet of human personality. Though the research connecting agreeableness to sympathy directed toward animal suffering is scant, two studies suggest a link between the two variables. Specifically, these studies demonstrate that highly agreeable individuals tend to be more concerned about animal welfare than their less agreeable counterparts (Austin, Deary, Edwards-Jones, & Arey, 2005; Furnham et al., 2003).

Agreeable individuals are also distinct in their emotional reactivity to dramatic media, particularly violence. Although violent media may not bother certain types of people, agreeable types who are also modest and tender-minded seem to be particularly repulsed by violent media (Krcmar & Kean, 2005). Furthermore, agreeable individuals seem to process violent cues differently than disagreeable individuals (Meier, Robinson, & Wilkowski, 2006). Specifically, Meier et al. (2006) found that disagreeable individuals tend to display aggressive behavior after being primed with aggression-related cues, whereas agreeable individuals are relatively unaffected by aggressive primes. In fact, aggression-related cues actually facilitate counterviolent thinking in the form of prosocial thoughts among agreeable individuals (Meier et al., 2006). It follows that agreeable individuals may react sympathetically instead of aggressively

in response to violent media, even when violence is only apparent from depictions of an abused dog.

As traits are typically stable in nature, gender is another steadfast individual difference that accounts for sympathetic reactions. Research on trait sympathy consistently shows that women tend to be more sympathetic than men (e.g., Eisenberg et al., 1991; Davis, 1980). Because sympathy is theoretically connected to prosocial behavior (see Eisenberg, 2000; Wispe, 1986), it is not surprising that women also volunteer at a significantly higher rate than men across all age groups and education levels (United States Bureau of Labor Statistics, 2008). The research on gender also extends to sympathetic attitudes toward animals (see Paul, 2000b). Specifically, women score higher than men on empathy toward humans as well as empathy toward animals (Paul, 2000a), and they report more positive attitudes toward the treatment of animals than men (Matthews & Herzog, 1997). Therefore, it makes sense that women report being bothered by the thought of intentionally harming animals to a greater degree than men (Henry, 2006).

Conversely, women are less likely to support the use of animals for research (Furnham et al., 2003), engage in recreational hunting (Herzog, 2007), and commit animal abuse (Henry, 2006) than men. Together, these results suggest that women are more emotionally sensitive to animals and their mistreatment than men. This gender difference carries over to film in general, with women reporting greater emotional reactions to film media compared with men (Montoya, Campos, & Schandry, 2005; Eisenberg et al., 1991). These differences are found across a spectrum of emotions (Gross & Levenson, 1993; Eisenberg et al., 1991), and they are found in both self-report (Montoya et al., 2005) and physiological measures of emotion (Eisenberg et al., 1991; Hubert & de Jong-Meyer, 1991).

In summary, the literature generally shows that animal-oriented sympathy, general trait sympathy, agreeableness, and gender predict emotional reactions to animals and dramatic media. Based on this research, several hypotheses were formed for the current study. First, the specific personality traits of trait sympathy for animal suffering and general trait sympathy were hypothesized to be significant positive predictors of sympathetic feelings for a bait dog observed in a film clip. In addition, the broad personality trait of agreeableness was hypothesized to be a significant positive predictor of sympathetic feelings for a bait dog observed in a film clip. Finally, gender was expected to be a significant predictor of sympathetic feelings for a bait dog observed in a film clip, with women demonstrating more sympathy than men.

Method

Participants

One hundred and sixty college students participated in the current study for partial course credit. Data from six participants were excluded from the analyses for deviant scoring across the measures. The sample analyzed consisted of 116 women and 38 men with a combined mean age of 20.38 ($SD = 3.07$). The sample was predominantly comprised of undergraduate students ($n = 127$; 82.47%) with white backgrounds ($n = 136$; 88.30%).

Procedure

The experimental process involved three phases. In the first phase, participants were led into a classroom, where they were told by an experimenter to sit in an empty seat, take out a pen, and not to talk during the study. After the experimenter provided an overview of the study and gathered informed consent, participants were asked to complete prefilm questionnaires that consisted of a demographic survey and measures of Big Five personality, empathy-related traits,

and trait sympathy for animal suffering. This process took approximately 20 minutes to complete.

In the second phase, the experimenter showed a film clip (Bonser, 2001) of a bait dog being rescued from a dog-fighting ring facility by two police officers. The bait dog, an American pit bull terrier, was shown with a number of scars and the effects of malnutrition and neglect. This film clip met Rottenberg, Ray, and Gross's (2007) recommendations for film clip usage in emotion research by being homogenous in content (the specific focus of the film was on the bait dog), free of carryover effects (no other film clips were shown), and long enough to increase signal boost while decreasing the effects of habituation, sensitization, and fatigue (the film clip was 95 seconds long). In the final phase, the experimenter provided the participants with a postfilm questionnaire that consisted of 24 items regarding their thoughts and feelings about the bait dog.

Measures

Demographics. Respondents were asked to report their age, gender, racial/ethnic background, and major.

Big Five personality. The Mini-Markers (Saucier, 1994) was used to measure Big Five personality. This 40-item instrument has demonstrated solid psychometric properties for a brief assessment of the Big Five personality factors (see Saucier, 1994). The extraversion scale (EX) contains self-descriptive adjectives such as “talkative” and “energetic.” The conscientiousness scale (CN) contains self-descriptive adjectives such as “organized” and “practical.” The agreeableness scale (AG) contains self-descriptive adjectives such as “sympathetic” and “kind.” The openness scale (OP) contains self-descriptive adjectives such as “creative” and “imaginative.” The emotional stability scale (ES) contains self-descriptive adjectives such as

“unenvious” and “relaxed.” Respondents were asked to rate each adjective on a 9-point scale ranging from 1 (*extremely inaccurate*) to 9 (*extremely accurate*). The Mini-Markers yielded satisfactory levels of reliability: EX ($\alpha = .86$), CN ($\alpha = .81$), AG ($\alpha = .81$), OP ($\alpha = .77$), and ES ($\alpha = .71$).

Empathy-related traits. To measure empathy-related personality traits, Davis’s (1980) interpersonal reactivity index (IRI) was used. This 28-item measure assesses four different types of vicarious emotional tendencies. The Perspective-Taking scale (PT) assesses the extent to which a person tries to adopt the views of other individuals. The Fantasy scale (FS) assesses a person’s tendency to feel as if he/she is a character in a movie or play. The Personal Distress (PD) scale assesses the extent to which a person becomes afraid and ineffective in emotionally charged situations. The Empathic Concern (EC) scale assesses general trait sympathy, which is expressed in compassion and warmth for others. Respondents were asked to rate each IRI item on a 5-point scale ranging from 0 (*does not describe me well*) to 4 (*describes me very well*). The IRI demonstrated appropriate levels of internal consistency: PT ($\alpha = .82$), FS ($\alpha = .79$), PD ($\alpha = .83$), and EC ($\alpha = .71$).

Trait sympathy for animal suffering. To measure individuals’ tendencies to feel sympathy for animal suffering, Lee’s (2009a) six-item sympathy for animals scale (SA) was used. A series of analyses have demonstrated that the SA is a reliable and valid measure of a person’s tendency to feel sorrow or concern for animal suffering (Lee, 2009a). An example of an item from this scale is: “I feel really sorry for animals that get teased or taunted at zoos and circuses.” Respondents were asked to rate each SA item on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The SA demonstrated adequate internal consistency ($\alpha = .78$).

Sympathy for the bait dog. Embedded within the 24 items of the postfilm questionnaire were six items designed to tap the extent to which participants felt sympathy for the bait dog in the film clip. The items were purposely embedded within a group of items to obscure their importance (for an example of this methodology in media research, see Tamborini, Salomonson, & Bahk, 1993). The six-item scale (SB) was based on Eisenberg and Miller's (1987) definition of sympathy as the feeling of sorrow or concern for the suffering of another. An example of an item from this measure is: "While watching the film I felt sorry for the dog." Respondents were asked to rate each item on a 9-point scale ranging from 1 (*extremely inaccurate*) to 9 (*extremely accurate*). The SB demonstrated solid internal consistency ($\alpha = .89$).

Results

Data Screening

Before running our central analyses, we examined the appropriateness of the data for multivariate statistical analyses (see Tabachnick & Fidell, 2001). Examination of studentized deleted residuals revealed two cases as univariate outliers, while four multivariate outlier cases were identified using Mahalanobis distances analysis. Thus, data from 6 cases were deleted, leaving 154 cases for the statistical analyses.

Validity Check

To ensure that the measure assessing participants' sympathy toward the bait dog in the film (SB) was valid, the measure's psychometric properties were evaluated. The factorial validity of the SB was examined using a maximum likelihood confirmatory factor analysis (CFA). Three indices were used to examine the extent to which the fitted population matrix implied by the model matched the observed covariance matrix. The criteria for adequate fit were χ^2/df less than 3 (Kline, 1998), comparative fit index (CFI) greater than .95 (Hu & Bentler, 1999), and the root

mean square error of association (RMSEA) less than .11 (MacCallum, Browne, & Sugawara, 1996). The estimation of a single factor model suggested adequate fit of the data ($\chi^2/df = 2.46$; CFI = .98; RMSEA = .10), thereby providing evidence of factorial validity.

In addition, the construct validity of the SB was examined through correlation analysis with other scales derived from the postfilm questionnaire. Because sympathy is related to, but distinct from, empathy, scores from a sympathy measure should show a positive but modest correlation with scores from measures of emotional ($\alpha = .92$) and cognitive ($\alpha = .79$) empathy (Eisenberg, 2000). In addition, because sympathy is prosocial and based on the perception that an object is suffering (Eisenberg, 2000), scores from a sympathy measure should show strong positive correlations with measures designed to tap the perception that an object is experiencing a significant amount of pain and suffering ($\alpha = .72$) and the desire to help the object ($\alpha = .87$). The results supported the construct validity of the measure by showing that feelings of sympathy were mildly correlated with both emotional [$r(154) = .17, p < .05$] and cognitive empathy [$r(154) = .22, p < .01$] for the bait dog, whereas feelings of sympathy were strongly correlated with the perception that the bait dog was suffering [$r(154) = .53, p < .001$] and the desire to help the bait dog [$r(154) = .71, p < .001$].

Correlations

Means, standard deviations, and intercorrelations among the variables are presented in Table 1. The correlation analyses revealed that, although race/ethnicity was unrelated to any of the variables, women reported significantly higher levels of conscientiousness, agreeableness, general trait sympathy, personal distress, trait sympathy for animal suffering, and sympathy for the bait dog, compared with men. Extraversion was positively correlated with openness and perspective-taking, but it was negatively correlated with personal distress. Agreeableness was

positively correlated with conscientiousness, emotional stability, general trait sympathy, perspective-taking, trait sympathy for animal suffering, and sympathy for the bait dog. Openness was positively correlated with general trait sympathy and sympathy for the bait dog, and it was negatively correlated with emotional stability and personal distress. Emotional stability was negatively correlated with personal distress, whereas general trait sympathy was positively correlated with fantasy, perspective-taking, trait sympathy for animal suffering, and sympathy for the bait dog. Fantasy was positively correlated with personal distress and trait sympathy for animal suffering, and sympathy for the bait dog was also positively correlated with trait sympathy for animal suffering.

Hierarchical Multiple Regression

In order to identify predictors of sympathy level for a bait dog, a hierarchical multiple regression analysis was performed in four blocks (see Table 2). The first step, which accounted for 4% of explained variance, included the demographic variables of gender and race/ethnicity. Although gender appeared to be a significant predictor, race/ethnicity was not a significant predictor. In the second step, which accounted for 23% of additional variance explained, the Big Five personality variables were entered into the equation. The Big Five traits of emotional stability and agreeableness emerged as significant predictors, whereas gender was no longer a significant predictor. Empathy-related traits were added to the third step, and they accounted for 4% of additional variance. Though emotional stability and agreeableness continued to be significant predictors, general trait sympathy was a significant predictor as well. In the final step, trait sympathy for animal suffering was added into the model, and it accounted for 18% of additional explained variance. As in the previous steps, emotional stability and agreeableness continued to be significant predictors, although general trait sympathy dropped out of the model as a

significant predictor. Thus, the final model, which explained 49% of the variability in sympathy level for the bait dog, identified emotional stability, agreeableness, and trait sympathy for animal suffering as significant predictor variables.

Mediation Analysis

Results of the hierarchical multiple regression analysis revealed the possibility of mediation.

Testing of mediation following Baron and Kenny's (1986) conditions and Shrout and Bolger's (2002) bias-corrected bootstrap analysis revealed the presence of two mediators. Specifically,

trait sympathy for animal suffering partially mediated the relation between general trait

sympathy and sympathetic reactions to the bait dog. That is, the relation between general trait

sympathy and sympathetic reactions to the bait dog was significantly reduced (from $\beta = .37, p < .05$ to $\beta = .20, p < .05$) when trait sympathy for animal suffering was taken into account.

Moreover, the relation between gender and sympathetic reactions to the bait dog was fully

mediated by agreeableness. Gender demonstrated no effect on sympathetic reactions to the bait

dog when the influence of agreeableness was statistically controlled (from $\beta = .20, p < .05$ to $\beta = .07, p = .36, ns$).

Discussion

Many people were exposed to the horrors of dog fighting because of the media attention that

surrounded the Michael Vick case. Whereas some people were sympathetically moved when

exposed to these media reports, other individuals were not so moved. As sympathy is regarded as

a prosocial emotion that moves people to action, the purpose of the current study was to examine

the degree to which personality and gender influence sympathetic reactions to media depictions

of a dog used in dog fighting. The results of the study generally supported our predictions that

trait sympathy for animal suffering, general trait sympathy, agreeableness, and gender would

predict sympathetic reactions to viewing a bait dog on a film clip. Thus, the findings of the present study suggest that individual difference variables are important predictors of sympathetic reactions to media regarding animal abuse.

Our hypothesis that trait sympathy for animal suffering would be a predictor of sympathetic reactions was fully supported. In fact, trait sympathy for animal suffering was the most robust predictor in that it explained 18% of the variance in sympathetic reactions to the bait dog, beyond all the other variables in the model. The results of the study demonstrate that individuals who are sympathetic to animal suffering express higher levels of sympathy for a bait dog viewed in a film clip than individuals who are less sympathetic to animal suffering. This finding is consistent with Wagstaff's (1991) research, which showed that people who hold sympathetic attitudes toward animal welfare display stronger emotional reactions to pictures displaying animals in distress than people less concerned with animal welfare.

As with the findings for sympathetic attitudes toward animal welfare, our hypothesis that general trait sympathy would be a predictor of sympathetic reactions was also supported, but only partially. Although general trait sympathy predicted unique variance when demographic variables and basic personality were taken into account, it became insignificant when trait sympathy for animal suffering entered the model. Further analysis revealed that trait sympathy for animal suffering partially mediated the relation between general trait sympathy and sympathy for the bait dog. This finding is consistent with past research showing that only some people who are highly empathic toward humans are also highly empathic toward animals (Paul, 2000a).

Our hypothesis that agreeableness would be a predictor of sympathetic reactions was fully supported. The results of the study demonstrated that agreeableness was positively related to sympathetic reactions to the bait dog in the film clip. In fact, agreeableness explained unique

variance beyond many of the other predictor variables, being the second strongest predictor in the study. This finding is in line with previous studies showing that agreeable people tend to be more sensitive to violent media (Krcmar & Kean, 2005) and display more sympathetic reactions toward animals (Austin et al., 2005; Furnham et al., 2003) compared to their disagreeable counterparts. The results in the current study were also similar to the findings of Meier et al. (2006) who found that, when exposed to the negative media, agreeable individuals demonstrated more prosocial thoughts, which are connected to sympathy (Eisenberg, 2000), than their disagreeable counterparts.

Unexpectedly, another Big Five trait, emotional stability, emerged as a significant, albeit small, negative predictor of sympathetic reactions. Emotionally unstable individuals in the current study may have been particularly moved to sympathy after watching the film clip because it displayed graphic and emotionally provocative images to which these individuals are particularly reactive (Gross et al., 1998). The sensitivity that characterizes emotional instability has been supported in physiological and empathy research. For instance, when people are exposed to negative stimuli such as crying, emotionally unstable individuals differ from their stable counterparts in that the former show distinct activation in the left temporal and frontal lobes (Canli et al., 2001). Emotionally unstable individuals also have a tendency to experience heightened feelings of discomfort when they observe others' distress (Lee, 2009b). All these results are reasonable, based on the knowledge that emotionally unstable individuals are characterized by their emotional sensitivity to negative stimuli (Gross et al., 1998), in addition to their negative emotional dispositions (McCrae & John, 1992).

Our hypothesis that gender would be a predictor of sympathetic reactions was partially supported. Consistent with previous research demonstrating that women tend to react more

sympathetically toward animals (Paul, 2000a) and media (Oliver, 2002) than men, women in the current study reported higher levels of sympathy for the bait dog in the film clip than their male counterparts. When the Big Five personality traits were included in the regression model, however, gender was no longer a significant predictor. In fact, the relation between gender and sympathy for the bait dog was fully mediated by agreeableness. This finding is not surprising, given that gender differences among psychological variables have been explained in terms of differences in personality (e.g., Carlo, Raffelli, Laible, & Meyer, 1999). Specifically, women tend to have more agreeable personalities than men, and they also tend to have psychological qualities that are more altruistically oriented than men (Hoffman, 1979).

Overall, the results may contribute to our understanding of the role that the media play in animal welfare activity. Many landmark legislative cases regarding animal welfare (e.g., the Animal Welfare Act, 1966; the Twenty-Eight Hour Law, 1873) have been associated with significant media coverage that exposed the public to the inhumane treatment of animals (Jones, 1997). Our research suggests that individual differences play a significant role in determining the extent to which certain people are sympathetically moved by dramatic media on animal abuse. Animal sympathizers, as well as highly agreeable people, may fit the profile of individuals who are particularly moved to support animal welfare legislation when exposed to dramatic media.

Although a general suggestion has been made in the literature about the importance of personality traits for the successful treatment of criminals (McMurrin & Ward, 2004), the strong relation found between agreeableness and sympathetic reactions to a mistreated bait dog in the current study has important implications for mental health professionals treating animal abusers. Specifically, professionals should assess their animal-abusing clients' levels of agreeableness. Considering the fact that disagreeable individuals tend to react aggressively to aggression-related

cues, in contrast to agreeable individuals, who form prosocial thoughts (Meier et al., 2006), animal abusers will most likely be disagreeable individuals who experience problems managing negative emotions (Tobin, Graziano, Vanman, & Tassinari, 2000) and interpersonal conflicts (Jensen-Campbell & Graziano, 2001). In addition to designing interventions that work constructively around these difficulties, mental health professionals can use the literature on agreeableness and sympathy as a guide to help their clients (e.g., Meier et al., 2006). For example, professionals could employ cognitive behavioral techniques, including visualizing and aversive conditioning, to change their clients' perceptions of, and physiological reactions to, animal abuse displayed in the media. Moreover, professionals could use talk-aloud procedures to assess their clients' aggressive thoughts and replace them with prosocial ones, reducing general aggression.

Limitations and Future Research

The results of the study must be qualified by a couple of limitations. First, we only used one animal species (*Canis lupus familiaris*) for our film clip. Therefore, the extent to which these results apply to other animal species is questionable. According to disposition-based media research, the extent to which people feel empathic emotions toward other people is mediated by their liking or disliking of the targeted individuals (Raney, 2004; Zillman, Taylor, & Lewis, 1998). Liking produces empathic emotions, whereas disliking produces opposite, counterempathic reactions (Zillman et al., 1998). Because both dog guardians and non-dog guardians in America have typically shown a preference for dogs over other companion animals (Bonas, McNicholas, & Collis, 2000; Moore, 2001), it is not surprising that the majority of the participants in the current study reported feelings of sympathy for the bait dog.

This finding is consistent with national marketing research showing dogs as the most rated animal of concern among respondents (Plous, 1993). Dogs were rated as being of greater concern than such animals as marine mammals and horses (Plous, 1993). In fact, dogs are so highly regarded among Americans that many people have rated their relationships with their dogs higher in the areas of reliability, companionship, and nurturance than their relationships with other humans (Bonas et al., 2000). Accordingly, individuals may not feel sympathetic toward an animal liked less than a dog (e.g., a rooster used in cock fighting), due to the likability factor, as suggested by disposition theory. A replication of the current study with other animal species could expand our knowledge of sympathy for animals, as well as disposition theory as it applies to animals.

Another related and notable limitation in the current study involves the narrow generalizability of the sample. Although the sample of the study is demographically consistent with most colleges, the sample was primarily comprised of young adult, white women. Consequently, the findings in the current study may not apply to other groups. In fact, attitudes and behaviors toward animals can vary according to demographic differences between people (Kellert, 1996). For example, women demonstrate stronger negative reactions to the mistreatment of animals than men (Henry, 2006), and whites show stronger attachment toward animals than African-Americans (Bihari, 1984; Brown, 2003). Interestingly, some Muslim groups view dogs negatively, as these animals are associated with impurity and the devil (Menache, 1997). Future research should extend the current study to different demographic groups, such as men, African-Americans, and individuals of varying nationalities and religious affiliations.

The final limitation was the group format utilized in the study. The group format is not unusual in film research (e.g., Raney, 2004; Tamborini, Stiff, & Heidel, 1990; Davis et al., 1987), but it does present a possible threat to the internal validity of the current study. Research suggests that individuals may report differing reactions to films as a function of being in a group as opposed to being alone (e.g., Rottenberg et al., 2007). For example, Jakobs, Manstead, and Fischer (2001) found that participants displayed fewer sad expressions while watching a film clip in the presence of others compared with watching it alone. Thus, future research should utilize a private format to ameliorate the possibility of any such biases.

In summary, the current study examined personality and gender as predictors of sympathetic reactions to the mistreatment of a bait dog depicted in a film clip. The results showed that animal sympathy, general trait sympathy, agreeableness, and gender were all related to sympathetic reactions to the bait dog, as predicted. However, general trait sympathy could not explain unique variance for sympathetic reactions beyond animal sympathy, and agreeableness fully mediated the relation of gender to sympathetic reactions to the bait dog. In addition, emotionally unstable individuals showed greater sympathetic reactions to the mistreated bait dog than emotionally stable individuals. These results showed that personality can predict sympathetic reactions to a mistreated bait dog. These findings are important because the relation between agreeableness and sympathetic reactions to the mistreated bait dog has important implications for mental health professionals working with animal abusers. The limitations of the current study included the type of animal depicted in the film clip, the sample, and the group format used to display the film and gather data. Future research should control these limitations to extend the internal validity of the results in the current study. In conclusion, individual

differences can explain differences in sympathetic reactions to the mistreatment of dogs depicted in the media.

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