

## Chapter 8

# Exploring the Role of Playfulness with Canine Companions in Coping with Stress: How Men Are Impacted by Human–Animal Interaction Through Calling on a Memory of Play

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Today, animal companions, those nonhumans that by definition are psychologically experienced as a close friend or family member, have become more visible than ever in everyday life (Blazina et al. 2011). According to the Humane Society of the United States (2013), there are approximately 164 million dogs and cats in homes. In research studies, between 87 and 99 % of pet owners defined their pets as being like a friend or family member (Cain 1983; Voith 1985). While the importance of human–animal interaction (HAI) connection may seem like a recent development, animals have long been a valued part of human life as seen through ancient cultures that saw animals as companions, spiritual guides, figures within folklore, or as symbols of luxury (Serpell 2010; Walsh 2009).

By the mid-1980s, veterinary programs began to recognize the importance of the bond by including the concept within curriculum (Hines 2003). The human–animal bond has also become more prominent in social sciences in the twentieth century (Bustad 1987; Levinson 1978). There have been studies to understand the far-reaching physical and emotional wellness benefits of this relationship (see Anderson et al. 1992; Bauman et al. 2000; Friedmann et al. 1980; Knight and Edwards 2008; Morrison 2007; Siegel 1990, 1993; Serpell 1991; Walsh 2009; Wells 2009).

Extending the research further involves understanding the HAI's importance by pairing it with various other contextual factors such as gender (Blazina et al. 2011).

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The current chapter study focuses upon playful interactions between males and their canine companions and how they can potentially mediate stress. It is argued that in playful encounters, men that may normally feel constricted by traditional gender roles, are instead able to experience and express a more abundant and wider range of emotions and behaviors. Further, the memory of those playful exchanges with a canine companion can be sustained over time and can remain a source of emotional comfort and soothing when called upon.

## Attachment Theory

Bowlby (1979, 1999) suggested that much like our nonhuman mammalian counterparts, humans are biologically predisposed toward making connections with others, especially the caregiver. The attachment theory paradigm describes the important relationship between a child and a caretaker as it relates to self-development and interpersonal functioning (see Ainsworth 1982, 1989; Ainsworth et al. 1978; Bartholomew 1990, 1991; Bowlby 1979, 1999). More specifically, a caregiver offers a special type of connection that is exceptionally important, involving qualities that are deemed irreplaceable. While a meaningful tie can be made with a number of friends, teachers, and family members, the place of an attachment figure is unique in a child's life. Bowlby suggested that an attachment figure represents a source of comfort when under distress (safe haven), and one offering encouragement when facing difficult life challenges (safe base). The safe haven concept is especially relevant for this study. Bowlby (1979, 1999) suggested that all mammalian species, both nonhumans and humans alike, are hardwired to seek safety when threatened or in danger. But in the case of human animals, instead of burrowing into a den, the preference is to nuzzle into the arms or care of an attachment figure.

Over time, the attachment figure label that was initially applied to the caregiver-child relationship has been expanded. It now also includes adult romantic relationships (see Hazan and Shaver 1987) and the bond with animal companions (Melson 2002). Bowlby's attachment theory has supplied the theoretical underpinnings for pets' importance in much of the current research literature (Sharkin and Knox 2003). It has been argued that animal companions can also perform the roles of an attachment figure, functioning as a safe base and safe haven (Kobak 2009; Kurdek 2008, 2009). In terms of attachment safety, animal companions provide predictable comfort in stressful times. Dogs may be especially predisposed to act as the attachment figure role (Kobak 2009). They have unique abilities to provide a mutual gaze and read human facial cues and are particularly primed to discern human behavior (Sanders 2003; Müller et al. 2015; Téglás et al. 2012). The reciprocal communication between dog and human, along with routines and instances of play, creates an attachment bond (Horowitz and Bekoff 2007; Sanders 1999, 2003). An animal companion can function as a social support, which may help with handling stress (Margolies 1999).

The tactile experience of canine companions can also be experienced as emotionally soothing. Research supports the idea that blood pressure and heartbeat decrease when petting and stroking animal's fur (Charnetski et al. 2004; DeMello 1999; Nagengast et al. 1997). Research on oxytocin, sometimes referred to as the "bonding-hormone," has been shown to increase in a number of scenarios that involve the presence of dogs (Handlin et al. 2011; Miller et al. 2009; Odendaal and Lehmann 2000; Odendaal and Meintjes 2003). In these moments described above, canine companions are experienced as a safe haven.

The safe haven aspect associated with the presence of a canine companion can be especially pertinent. In a recent study, adults ( $n = 192$ ) reported attachment levels to their romantic significant other and then to their dogs (Beck and Madresh 2008). Participants' ratings between the two types of attachment figures did not correlate; however, attachment figure ratings were significantly higher for animal companions. This suggests that the attachment to a dog is the result of distinct interactions; the human-canine bond is cultivated similar to a human-human relationship where nuanced feelings of closeness can develop. Likewise, Kurdek (2008) found that while college students reported having secure attachment relationships with family and friends, they nevertheless reported their dogs being both a safe haven and safe base. In a related follow-up study, middle-aged dog owners were asked to compare their animal companions to various human companions on attachment-related dimensions (Kurdek 2009). The results found that approximately 45 % of subjects were more likely to turn to their canine companions in times of emotional distress than to their mothers, fathers, brothers, sisters, best friends, and children. There was also an important finding regarding middle-aged men and attachment (Kurdek 2009). While males followed the general trend of the attachment figure findings, they were even more likely to rely on their dogs for emotional support when in distress than any other potential human supporters (Kurdek 2009). The only tie that rivaled the bond between man and dog was one's significant other. These findings support the notion dogs really are "man's best friend." This adage may be especially true for men who feel alone and not at ease revealing personal matters to others. Unfortunately, this solitary state of emotional being can be an all too familiar one for many men, and this can affect forming a secure attachment bonds.

## Men, Masculinity, and Psychological Defenses

Attachment theory offers several unique perspectives on styles, strategies, and psychological defenses (see Ainsworth et al. 1978; Bartholomew and Horowitz 1991; Bowlby 1979, 1999; Brennan et al. 1998; Fonagy 2001; Hazan and Shaver 1987; Main 2000; Main and Solomon 1986; Shaver and Mikulincer 2002). Bowlby (1979, 1999) suggested that each individual develops a *working model* or mental representations of self and others. This model is based upon positive and negative

experiences of support by initial attachment caregivers. From these memories, one begins to develop an internal working model involving a more systemized view of how one perceives self, others, and the world, which is the basis of attachment bonds (Bowlby 1979, 1999). The working model builds expectations of relationships throughout adolescence and into adulthood (Bowlby 1979, 1999). It is a set of rules guiding thoughts, actions, and feelings in the relational context. That is, the individual will begin forming expected outlooks for the way others will treat them, especially significant others (Ainsworth et al. 1978; Hazan and Shaver 1987).

When an infant experiences consistent positive attachment events, a secure attachment style develops; when there is a chronic occurrence of negative attachment experiences, various types of insecure styles can emerge (see Ainsworth 1982, 1989; Main 2000). The field initially focused on discrete categories of attachment. An individual may believe the world is safe and attuned to one's needs and would be categorized as having secure attachment style, while an individual that views the world as unpredictable in terms of safety and responsiveness or potentially dangerous and rejecting would be categorized as having an anxious or avoidant attachment style, respectively. Later, attachment was conceptualized along a continuum emphasizing how each individual has his or her own unique configuration based upon avoidance and anxiety (see Bartholomew and Horowitz 1991; Brennan et al. 1998). Those with low levels of both are characterized as having a secure attachment style. Those with high levels on either dimension are thought to use particular types of opposing coping strategies: hyperactivation and deactivation of the attachment system (Mikulincer and Shaver 2003). People that rely on hyperactivation attempt to seek constant closeness and emotional support with attachment figures and are very sensitive to any possible signs of abandonment or rejection. Those that use deactivation strategies suppress or discount the need to seek an attachment figure (Mikulincer and Shaver 2003). People relying on deactivation strategies experience discomfort with closeness, and, therefore, keep an emotional distance from others. The emotional distance is utilized because a desire to appear self-reliant, though much of their striving is actually rooted in counter dependence.

Avoidant styled men and women use deactivating strategies involving distancing from affect, denial of attachment needs, and circumventing emotional involvement and intimacy when under duress (Cassidy 1999). It is suggested, though, that deactivation strategies are particularly relevant for men that struggle with the impact of traditional male socialization (see Blazina and Bartone 2015; Del Giudice 2011; Wexler 2009). In many ways, the avoidant style fits with the traditional male socialization patterns of going-it-alone, constricting emotions, and solving one's own problems. This etiology also theoretically meshes with early childhood issues due to parental separation and empathic misattunement during the disidentification process (Blazina and Bartone 2015; Pollack 1999). Many of these aspects can be operationalized from the perspective of O'Neil's Gender Role Conflict paradigm (O'Neil 1982, 2008; O'Neil et al. 1986).

## Gender Role Conflict

O'Neil's research within the Gender Role Conflict paradigm emphasizes the connection between men's gender role strain, psychological distress, and dysfunction (see Chap. 1 for a more extensive review; O'Neil 1982, 2008; O'Neil et al. 1986). Western culture supports men who are overly restricted in emotionality, homophobic, present skewed versions of success and power, and are unyielding in their attempts to balance work and family demands. There is over 40 years of substantiated research linking gender role conflicted men to increases in depression, anxiety, substance use, interpersonal problems, and emotional isolation (O'Neil 2008). Plainly, men who feel constricted by traditional gender roles are adversely impacted by psychological distress and have limited opportunities for intimacy. Gender role conflict emphasizes the restriction of human potential due to stereotypical gender roles.

There have been a few studies connecting gender role conflict to attachment-related issues. College-aged men with separation-individuation issues were found to have poorer parental perceptions (Blazina and Watkins 2000; DeFranc and Mahalik 2002; Fischer 2007; Fischer and Good 1998). Certain aspects of gender role conflict (e.g., higher levels of Success, Power, Competition, Restricted Emotionality, and Restricted Affectionate Behavior Between Men) were found to be significantly related to fearful and avoidant attachment styles (Cachia 2001). Males exhibiting increased gender role conflict also exhibited an avoidant attachment style (Schwartz et al. 2004), and increases in gender role conflict were found to be related to perceptions of the father's own gender role conflict (DeFranc and Mahalik 2002). Further, college-aged men's perceived childhood maternal care, based upon memories of emotional responsiveness and warmth, was a significant predictor of men's adult attachment avoidance (Land et al. 2011). Greater perceived maternal care was related to lower levels of avoidance. This last finding is consistent with Fischer and Good (1998) who found a relationship between male gender role conflict scores and attachment conflicts with mothers.

## Exceptions to the Attachment Rule

Although attachment style is theorized as a global orientation operating especially within intimate types of relationships, some researchers believe that a person can make exceptions to their normal internal working model functioning (Mikulincer and Shaver 2003). These exemptions cause the person to think and even act differently to an attachment figure in a contrasting way to one's usual overall attachment style. That is, in some contexts, for example, an insecurely attached person may show behaviors that are consistent with a secure style. This might occur with a new friend, a therapist, or as we suggest for gender role conflicted styled men, with one's canine companion when engaged in play. Further, exceptions to the attachment-related rules can be activated by actual or imagined encounters with supportive or unsupportive people (Mikulincer and Shaver 2001).

Attachment figures provide unique experiences including being a safe haven. Sometimes even the memory of those occurrences can provide moments of solace and are particularly important when one is temporarily separated from the attachment figure or he/she has been lost through old age or death. Even as the child matures into an adult, the recollection of soothing experiences can provide a lasting quality that helps offer comfort when in distress. Bowlby (1979, 1999) argued in the absence of the actual caregiver, the child eventually learns to call on the memory of the soothing qualities for comfort. Likewise, consistent with psychodynamic-orientated theories, calling on the memory of various attachment figures, e.g., the therapist, parent, romantic partner, and even, we argue, one's animal companion may deliver similar results—the temporary soothing of stressful moments. Calling on memories can be an effective because unlike negative affect, positive affect experienced when recalling a positive event does not subside (Pasupathi 2003). Further, there is evidence that as time passes, individuals with a fearful-avoidant attachment style recall positive attachment memories as even more satisfying than they initially report immediately after the event occurred (Pietromonaco and Barrett 1997). It was suggested that this occurs because the positive event disconfirms beliefs about insecure attachment and is consequently intensely valued (Pietromonaco and Barrett 1997). Attachment style can distort emotion associated with an event (Gentzler and Kerns 2006), and perhaps this can be utilized in an adaptive manner by focusing on a secure attachment figure such as a canine companion. However, it is important to consider that there is not only one form of solace. It is argued that an overlooked form of soothing can involve playfulness.

## Playfulness

Play is often considered an essential building block of learning for children, it is the way they discover many aspects of the world (Piaget 1972; Samuelsson and Carlsson 2008; Vygotsky 1978). Social play allows one to explore new concepts and experiences without the risk of harsh consequences and teaches cooperative engagement (Bekoff 2001; Lancy and Grove 2011). While play can be difficult to operationalize (Sutton-Smith 2008), focusing on reported internal experience prompts the contextual understanding of the experience (Henricks 2008). This may be particularly important when investigating playfulness in adults, as this has not been widely studied as compared to research on playfulness in children. However, playfulness in children and adults can have similar components; age transforms how playfulness is expressed (Barnett 1991; Guitard et al. 2005). Playfulness in adults might be seen in character traits such as seeking novelty or a circumstance-appropriate lack of inhibition. It could also be seen in situational behaviors like utilizing imagination or trying to dedramatize a difficult situation (Barnett 1991; Guitard et al. 2005; Saunders et al. 1999). More specifically, playfulness might be identified as one exhibiting curiosity, creativity, a sense of humor, and spontaneity (Barnett 2007; Guitard et al. 2005). Playfulness in adults is linked to a better ability to face life challenges because there is a sense of openness to the unknown combined with the ability to

frame situations as less overwhelming (Guitard et al. 2005). This can empower adults to feel motivated and able to distance themselves from a problem (Auerhahn and Laub 1987; Lyons 1987; Saunders et al. 1999). Canine companions may be natural playmates because of the innate structure of the human–animal bond.

## **Playfulness and the Canine Companion**

Because canines use play as an avenue to understand the world, the bond in the human–canine relationship can often rely on playfulness (Bekoff 2001). Animals learn social norms, relational standing, and codes of conduct during play (Bekoff and Pierce 2009), which can create context for attachment (Bekoff 2001). Play signals are a form of mutual communication (Bekoff et al. 2002) and can be linked to social intelligence because they are about sharing and appraising intentions (Lancy and Grove 2011). A widely recognized play signal for canines is the play bow. This behavior is ritualized and looks the same across all breeds of dogs because it serves the important purpose of communicating that the canine is about to engage in play (Bekoff and Pierce 2009). For dogs, this communication is crucial because aggressive and playful behaviors may present the same; a bite may be a threat or a summons to play. Signal communication can develop into play routines (Horowitz and Bekoff 2007; Mitchell and Thompson 1990). Play routines inform the players what the game will be and also denote a relational component. An object retrieval routine might be a game of fetch but also shows mutual engagement as seen by looking at the object and back to the playmate (Horowitz and Bekoff 2007; Mitchell and Thompson 1986). One of the most important relational components to play in both human–human and human–animal relationships is contingent activity (Horowitz and Bekoff 2007). This is the turn-taking element of play. For play to be successful, both players must keep the play going by alternating turns. The human must throw the ball to give the canine opportunity to have a turn. The dog must return the ball or else the game is over. Contingent activity shows two partners working together toward the same goal (Bekoff 2001; Horowitz and Bekoff 2007). This partnership creates a pleasurable loop where as one enjoys the moment, feelings of playfulness increase, which creates more satisfaction (Aune and Wong 2002). The cooperation and communication that occur during play strengthens attachment ties and generates shared enjoyment (Aune and Wong 2002; Bekoff 2001; Lancy and Grove 2011; Wood et al. 2005).

## **HAI, Play, and Psychoanalysis**

Placing play within the HAI is aided by various interpretations, many with a contextual psychoanalytic view of the bond's importance (Blazina 2011). Some researchers have argued that the power and value of the human–animal relationship is based on a perceived nonjudgmental emotional support (Allen et al. 2002; Corson et al. 1977). Both Sigmund Freud and his daughter, Anna, wrote of their personal



experiences with dogs and how this affiliation taught them about “pure love” relationships (Roth 2005). Although most people may benefit from the support of a pure love relationship, those that have experienced challenging life events may be predisposed to have a special appreciation of the bond. From a self-psychology perspective, an animal companion can be experienced as a resource for enhancing one’s emotional or psychological sense of well-being (Brown 2004, 2007). The human–canine bond allows for a sense of social relatedness and belonging. It can serve in a range of roles from companion to child substitute while filling multiple psychological roles, some of which we are not aware of until a loss has occurred (Blazina 2011). The relatedness encompassed within HAI may in turn foster an individual’s ability to connect with others in more appropriate ways by increasing self-cohesion and esteem (Brown 2004, 2007). Animal companionship may also serve as a source of emotional sustenance for those who have no or limited connection (both physical and emotional) with people (e.g., Brown 2004, 2007; Sharkin and Bahrck 1990). Likewise, in keeping with Bowlby’s attachment theory, the mental representation of the canine companion can even be potentially internalized, acting as a role model to supply a source of soothing (Blazina 2011). In clinician application, Blazina (2011) suggested that when dealing with the loss of an animal companion, part of the work involves helping the client learn to call upon the memory of continued bond for remembrance, comfort, and connection. The use of the technique may ultimately also be used in the context of using a memory of play.

Sadler (1966) noted that play drops pretense and “...gives another courage to be himself” (p. 243). This is of critical importance because insecure attachment styles can utilize coping strategies that obscure one’s true experience and self, particularly for men. The canine companion can become a valued attachment figure and play can provide positive attachment experiences. In human–human relationships, play enhances intimacy (Aune and Wong 2002) and this should be applied to human–canine relationships. Animal companions are more than substitutes for humans; they can be consistent attachment figures that are attuned to their human companion and provide mutual communication in both verbal and nonverbal ways (Beck and Madresh 2008; Blazina 2011). While attunement has been a particular focus for the health and welfare of infants and children, (see Bowlby 1979, 1999; Kohut 1984; Stern 2000; Winnicott 1971) this same concept is important for adults. Attunement is a necessary part of vibrant adult relationships that range from friends and romantic partners to the healing power of a therapeutic connection, and we argue, when playing with our animal companions. The power of the HAI may provide increased ability to cope with life (Beck and Madresh 2008).

## Method

The research gathered information regarding the nuanced bond between men and their animal companions in the context of play. Specific data was gathered about trait playfulness, perceived stress levels, state playfulness, attachment to canine



companion, and gender role conflict. Participants volunteered to take part in this survey by using a link embedded in an online advertisement post on social media sites, Twitter, Facebook, and Craigslist.

## **Instruments**

The survey was formatted so that participants were first given informed consent, a demographic questionnaire, and then were assessed for trait playfulness, perceived stress, and state playfulness. Participants were asked to write a story about a time they had played with their dog and then were reassessed for state playfulness and stress. The survey ended by assessing the attachment to dog and gender role conflict.

### **Demographic Questionnaire**

Participants provided information on age, gender, racial/ethnic identification, educational status, relationship status, and the amount of time they had been with their canine companion.

### **Short Measure of Adult Playfulness**

The Short Measure of Adult Playfulness (SMAP) is an abbreviated self-report measure developed by Proyer in 2012. It contains five items intended to globally assess trait playfulness. The items are positively keyed statements and participants use a 4-point scale to indicate if they (1) strongly disagree to (4) strongly agree with the statement. During scale validation, the alpha coefficients were between 0.83 and 0.99 across the three samples indicating a high internal consistency (Proyer 2012). The test–retest correlation was fair at 0.74 ( $p < 0.001$ ). Upon comparison with the Adult Playfulness Scale and Playfulness Descriptor List (PDL), the SMAP showed congruent validity without being redundant (Proyer 2012).

### **Playfulness Descriptor List**

State playfulness was measured using the PDL developed by Barnett (2007) in a modified format extending playfulness to the relationship with the canine companion. This descriptor list is a self-report measure containing 15 item words (active, adventurous, cheerful, clowns around, energetic, friendly, funny, happy, humorous, impulsive, jokes/teases, outgoing, sociable, spontaneous, unpredictable)

associated with the construct of playfulness. The items were developed from focus groups ( $n = 649$ ) identifying correlates of playfulness in self and others; the 15 items had correlations across self-rating and rating of others with differentiation between high and low playfulness that ranged from 0.21 to 0.71 ( $p < 0.0001$ ), indicating high ecological validity (Barnett 2007). This is an asset as playfulness has been a difficult notion to conceptualize for research (Henricks 2008; Sutton-Smith 2008). The alpha coefficients were between 0.73 and 0.87 across the three samples indicating adequate internal consistency. During exploratory factor analysis, the items were associated with four main factor loadings of Gregarious, Uninhibited, Comedic, and Dynamic. Participants will rate themselves using a 10-point Likert scale to indicate they demonstrate the item (1) not at all to (10) a great deal of demonstration with item. An important strength of this measure was that findings were consistent between males and females. The ratings are summed and averaged as a total score. The mean represents the degree of playfulness for the individual as the sum was highly correlated to independent rating ( $r = 0.91$ ; Barnett 2007).

## Perceived Stress Scale

Perceived stress was measured using Perceived Stress Scale (PSS-10). It was developed to assess whether respondents find their lives to be unpredictable, uncontrollable, or overloaded (Cohen et al. 1983). The self-report measure contains 10 general questions, which are answered using a 5-point Likert scale ranging from “never” (0) to “very often” (4). During scale validation, the alpha coefficients were between 0.84 and 0.86 across the three samples indicating an adequate internal consistency; the test–retest reliability was high at 0.86 ( $p < 0.001$ ; Cohen et al. 1983). Findings did not show any significant differences between age or sex indicating broad applicability to respondents. The scale is summed for total stress score with four items reverse-scored. Higher scores indicate greater psychological stress (Cohen et al. 1983; Cohen and Janicki-Deverts 2012). Follow-up studies reported high internal reliability at 0.91 ( $p < 0.001$ ; Cohen and Janicki-Deverts 2012).

## Description of Play Event

The request for a written description of a play event with a canine companion asked participants to think of a playful time with their dog and describe the interaction. This was intended to activate an autobiographical memory. The autobiographical memory approach allows participants to access personally meaningful memories (He et al. 2011). The use of memory primes cognitive schemas and may impact information processing or emotional arousal (Rowe and Carnelley 2003).

That is, memory recall of an event may impact assessment of behavior (Dudukovic et al. 2004) and remembering a positive event can evoke the positive feelings that were originally felt (Gross 1999; Pasupathi 2003).

## **Lexington Attachment to Pets Scale**

The Lexington Attachment to Pets Scale (LAPS) was developed to assess attachment to animal companion (Johnson et al. 1992). This 23 question self-report measure has positively keyed items with a 4-point scale for participants to indicate if they (1) strongly disagree to (4) strongly agree with the statement. During scale validation, the alpha coefficient was 0.928, indicating a high internal consistency (Johnson et al. 1992). The corrected item-total correlation for each question was 0.50 and above ( $p < 0.001$ ). During principal component analysis, items loaded onto three main factors of: general attachment, people substituting, and animal rights. Correlations between item thresholds were approximately 0.94 ( $p < 0.001$ ). Upon comparison with interviewer rating, the correlation coefficient of the questions to the rating was 0.64 ( $p < 0.001$ ; Johnson et al. 1992).

## **Gender Role Conflict Scale-Short Form**

The Gender Role Conflict Scale-Short Form (GRCS-SF) was developed to assess male gender role conflict (Wester et al. 2012). The original GRCS showed good reliability and validity (O'Neil 2008). This shortened version of the GRCS is a 16-question self-report measure. It has positively keyed items with a 6-point scale for participants to indicate if they (6) strongly agree to (1) strongly disagree with the statement. The GRCS-SF was created by choosing the items that had the strongest loading ( $>0.60$ ) to four factors (Restricted Emotionality, Success/Power/Competition, Restrictive Affectionate Behavior Between Men, Conflicts Between Work and Family Relations). These factors had coefficient alphas ranging between 0.77 and 0.80, indicating good reliability (Wester et al. 2012). In confirmatory factor analysis, the GRCS-SF factors showed significant correlation with the original GRCS with correlations ranging from 0.90 to 0.96 ( $p < 0.001$ ).

## **Results**

Of a total sample size of 297, there were 168 entries with substantial data from more than one measure and were deleted. This left 129 completed surveys with an all-male sample. Participants mostly reported identifying as non-Hispanic White (82 %) with some level of college education, including trade school, bachelor's, or

graduate degree's earned (77 %). Age ranged between 19 and 77, with 71 % being aged 30 and older. A little over half of participants reported being in a romantic relationship (54 %) and having their dog for 5 years or less (54 %). The assumptions of linearity, independence of errors, homoscedasticity, and outliers were met. However, while the data showed a normal distribution among scores, it also showed skewing for playfulness, attachment, and gender role conflict. Playfulness scores were negatively skewed with trait playfulness indicating a skewness of  $-0.923$  ( $SE = 0.214$ ) and kurtosis of  $1.016$  ( $SE = 0.425$ ) and preintervention state playfulness indicating a skewness of  $-0.165$  ( $SE = 0.214$ ) and kurtosis of  $-0.912$  ( $SE = 0.425$ ). Attachment also showed negative skewing with a skewness of  $-0.757$  ( $SE = 0.214$ ) and kurtosis of  $-0.034$  ( $SE = 0.425$ ). Gender role conflict showed positive skewing with a skewness of  $0.265$  ( $SE = 0.214$ ) and kurtosis of  $-0.104$  ( $SE = 0.425$ ).

## Sample Characteristics

Because the majority of the final sample endorsed high levels of playfulness and attachment and reported low gender role conflict, for the sole purpose of reporting this sample bias, the range of possible scores for each measure were divided at the midpoint to create two simulated categories: higher and lower. These categories are reported to give a better understanding of the sample characteristics. For trait playfulness, 86 % of participants scored in the higher range indicating a higher playfulness disposition. For state playfulness before the memory intervention, 81 % of participants scored in the higher range indicating a higher sense of playfulness during the timeframe of completing the survey. For attachment, 94 % of participants reported feelings of attachment in the higher range, suggesting a strong bond with their canine. For gender role conflict, 65 % of participants scored in the lower range indicating low gender role conflict. See Table 8.1 for complete information regarding this analysis.

**Table 8.1** Descriptive statistics for characteristics of sample

Scale	Means (SD)	# of items (range per item)	Low range	Frequency* (%)
			High range	
Short measure of adult playfulness	27.30 (4.88)	5 (1–7)	5–20	18 (14.1)
			21–35	110 (85.9)
Preplayfulness descriptor list**	7.03 (1.58)	15 (1–10)	1–5	23 (19.2)
			7–10	97 (80.8)
Lexington attachment to pets scale	77.48 (10.30)	23 (1–4)	23–57	7 (5.5)
			58–92	121 (94.5)
Gender role conflict scale-SF	52.96 (11.94)	16 (1–6)	16–56	83 (64.8)
			57–96	45 (35.2)

Note \*Missing data excluded. \*\*Final score is an average

## **Does Gender Role Conflict Predict Trait Playfulness, State Playfulness, or Attachment to a Canine Companion?**

Separate regression analyses were conducted to evaluate how the sample's characteristics influenced gender role conflict's prediction value. The first regression indicated that gender role conflict did predict trait playfulness,  $\beta = -0.221$ ,  $t(126) = -2.540$ ,  $p = 0.012$ . The model, with adjusted  $R^2 = 0.041$ , showed that participants with lower gender role conflict had higher trait playfulness scores. The second regression analyses indicated that gender role conflict did not predict preintervention playfulness,  $\beta = -0.120$ ,  $t(126) = -1.361$ ,  $p = 0.176$  nor post-intervention playfulness,  $\beta = -0.120$ ,  $t(126) = -1.353$ ,  $p = 0.178$ . The models indicated adjusted  $R^2$  values of 0.007 and 0.006, respectively. The last regression analysis indicated that gender role conflict did not predict attachment to a canine companion,  $\beta = 0.013$ ,  $t(126) = 0.143$ ,  $p = 0.886$  with adjusted  $R^2 = -0.008$ .

## **Does Trait Playfulness Predict Attachment to a Canine Companion? How Do Trait Playfulness, State Playfulness, and Gender Role Conflict Predict Attachment to a Canine Companion?**

A regression analysis indicated that trait playfulness,  $\beta = 0.270$ ,  $t(126) = 3.149$ ,  $p = 0.002$  was a significant predictor of attachment to canine companion. The model, with adjusted  $R^2 = 0.066$ , showed that the attachment to canine companion was higher for those with higher trait playfulness scores. A multiple regression indicated that trait and state playfulness and gender role conflict were significantly predictive of pet attachment scores,  $F(5, 122) = 7.003$ ,  $p < 0.000$ , adjusted  $R^2 = 0.191$ . Regression coefficients and standard errors can be found in Table 8.2.

## **Does Trait Playfulness Predict Perceived Stress? Do State Playfulness and Gender Role Conflict Add to the Prediction Model?**

Hierarchical regression was used to determine if trait playfulness, post-intervention state playfulness, and then gender role conflict could predict post-intervention perceived stress after controlling for preintervention playfulness and perceived stress. After step 1, with preintervention state playfulness and preintervention perceived stress in the equation,  $R^2 = 0.900$ ,  $F(2, 127) = 563.868$ ,  $p < 0.001$ . After step 2, with the additions of post-intervention state playfulness and trait playfulness,  $R^2 = 0.903$ ,  $F(4, 123) = 284.687$ ,  $p < 0.001$ . The addition of these variables

**Table 8.2** Summary of multiple regression analysis

Variable	<i>B</i>	SE <sub><i>B</i></sub>	$\beta$
Intercept	38.77	7.89	
Trait playfulness	0.39	0.20	0.19
State playfulness	3.99	1.18	0.48
Gender role conflict	0.05	0.07	0.06

Note *B* = unstandardized regression coefficients; SE<sub>*B*</sub> = standard error of the coefficient;  $\beta$  = standardized coefficient

**Table 8.3** Summary of hierarchal multiple regression from trait playfulness, state playfulness, and gender role conflict

Post-intervention stress						
Variable	Model 1		Model 2		Model 3	
	<i>B</i>	$\beta$	<i>B</i>	$\beta$	<i>B</i>	$\beta$
Constant	3.63		3.00		3.71	
Preperceived stress	0.90**	0.94	0.91**	0.95	0.91**	0.95
Post-state playfulness	-0.25	-0.04	-0.21	-0.03	-0.20	-0.03
Trait playfulness			0.08	0.05	0.08	0.05
Post-state playfulness			-0.26	-0.04	-0.27	-0.04
Gender role conflict					-0.01	-0.02
<i>R</i> <sup>2</sup>	0.900		0.903		0.903	
<i>F</i>	563.87**		284.66**		226.56**	
$\Delta R^2$	0.900		0.002		0.000	
$\Delta F$	563.87**		1.44		0.332	

Note *B* = unstandardized regression coefficients;  $\beta$  = standardized coefficient; \* $p < 0.05$ ; \*\* $p < 0.001$

led to an increase in  $R^2$  ( $R^2$  change = 0.003,  $p < 0.001$ ). After step 3, with the addition of gender role conflict,  $R^2 = 0.903$ ,  $F(5, 122) = 226.556$ ,  $p < 0.001$ . Adding gender role conflict did not cause a change in  $R^2$  value. See Table 8.3 for full details on each model (below).

Broadly, the only variable that was a significant predictor of post-intervention perceived stress was preintervention stress. Trait playfulness was not a significant predictor and adding post-intervention state playfulness and gender role conflict to the model did not increase the prediction value.

## Can State Playfulness and Stress Be Influenced by Recalling a Memory of Playing with Dog?

Using a paired sample T-test, reported levels of playfulness were significantly higher ( $M = 7.80$ ,  $SD = 1.22$ ) after the use of a play event memory compared to prior to the intervention ( $M = 7.18$ ,  $SD = 1.18$ ),  $t(128) = -9.864$ ,  $p < 0.001$ .

Reported levels of perceived stress were not significantly lower ( $M = 21.41$ ,  $SD = 8.07$ ) after the intervention as compared to levels prior ( $M = 21.71$ ,  $SD = 8.43$ ),  $t(127) = 1.253$ ,  $p = 0.213$ . Thus, recalling a play memory significantly increased levels of state playfulness but did not produce a significant change in perceived stress levels.

## Discussion

The present study is the first to investigate the topic of playfulness as it relates to animal companion attachment and masculine gender role conflict. Joining these topics adds to the contextual understanding of male's bond with canine companions. One of the potential difficulties with this line of inquiry is that adult play is not well-developed in the research literature (Barnett 2007; Guitard et al. 2005). At the same time, this area might serve as an alternative adaptive coping mechanism particularly for men experiencing constricted gender expectations.

Results indicated that using a play memory significantly increased reported levels of playfulness. However, in term of levels of reported stress, while post-stress scores were lower than pretest levels of stress, they did not reach a significant level. The pretest and post-test stress findings may be due to sampling and methodological issues. Our original aim was to explore male playfulness memories, and their ability to increase playfulness and decrease stress among gender role conflicted men. However, our sample was very low on reported levels of gender role conflict and high on trait playfulness, which may in turn affect the results. For instance, levels of stress in low gender role conflicted males are at subclinical levels; therefore, state playfulness brought about by the memory intervention may not lead to further significant reductions. There is also the strength of the intervention to consider. Was the play memory sufficiently developed to alleviate males' stress? If an actual play event occurred in vivo between man and dog, would this exchange have a better chance of not only impacting playfulness but also stress as well? Future research needs to consider these issues when assessing the limits of playful memories in men's lives.

While the study's sample was skewed toward highly playful men with low gender role conflict, the significant increase in state playfulness after recalling a playful memory suggests a complex issue in need of further study. Gender role conflict is often characterized by rigidity (O'Neil 2008) while playfulness is characterized by flexibility (Barnett 2007). Playfulness should be identified and practiced as it relates to the positive social interaction occurring and the meaning that it can provide to a man. The element of play in the male-dog dyad may hold possibilities for some aspects of counseling men, and implementing animal-assisted programs.

Relationships with canines provide a sense of safety that may not be easily found elsewhere in a man's life and so they become important safe havens. An important element to consider is that playfulness in the relationship could be representative of the trust that is established over time with attachment figures



(Ainsworth et al. 1978). The time spent with a dog could be an encounter where gender role constrictions fall away, and the relationship itself takes precedent. Traditional male gender role expectations leave little room for this type of experience, which makes the male–canine relationship even more valuable. When play occurs among male dyads or within a group setting, elements of traditional masculine socialization also tend to be present (Messner 1995). This includes competition, posturing, and stigma, all of which turn play into something else—a potentially spoiled opportunity to engage, even reaching toxic levels of play. Play becomes tainted when it loses its spontaneity, flexibility, and mutual communication.

Male socialization practices may even encourage men to alter play among man–dog dyads into a form of competition, a rigid structure, or even a power struggle. Studies suggest that social interactions with humans influence the hormonal states of dogs (Buttner et al. 2015). This is particularly important as humans' disciplinary behavior exhibited toward their dogs has been associated with increased cortisol levels, a stress hormone (Jones and Josephs 2006). Conversely, more positive exchanges with humans (e.g., playing, petting, etc.) have been found to decrease cortisol levels in dogs and led to elevations in oxytocin (Shiverdecker et al. 2013). For example, when examining males and their dogs on agility course/competitions, researchers found that increased levels of cortisol, in the saliva of dog handlers and their dogs (Buttner et al. 2015). There were gender differences; male handlers' dogs experienced greater increases in cortisol than females' handlers' dogs. Likewise, Jones and Josephs (2006) found that following a loss at a dog agility competition, the losing male handlers' testosterone levels predicted increases in their dogs' cortisol levels. The authors suggested that the findings may also be mediated by the trainer's affiliative and/or punitive behaviors toward the dog in this form of play—males stressed by the loss seemed to transfer these reactions to their dog through their behavior. This was especially true if male subjects reported feeling disappointed with their dog's performance on the course. In these moments, play is possibly influenced by male socialization, a pressure to win, and punitive behavior for not doing so. This is a recapitulation of the dark-side of male play: healthy-play becomes toxic-play. The result being the relationship loses out and so does the transformational element of the male–canine bond.

Future research needs to explore healthy and toxic-play found in the male–dog dyad, mediated by male socialization. If the link is substantiated, then there may be a limit to not only the effectiveness of dogs' ability to help overly conflicted men but further, canine companions may be taxed by elevated levels of stress. Research along these lines has direct implications for animal-assisted therapies for males under significant levels of duress. While playfulness should not be seen as panacea for male issues, it may be possible utilizing the bond to learn the difference between healthy-play and toxic-play. The results of our study also indicate that playfulness may offer further understanding into males' gender role conflict. Men with lower gender role conflict were more likely to report being highly playful. This suggests that tapping into men's playfulness may be a beneficial way to address some aspects of male socialization. Additionally, using the bond with a canine companion to activate feelings of attachment while playing could offset the

emotional isolation associated with male socialization. The skillset and knowledge of how rigid male gender role behaviors can have a harmful impact on a canine companion may lead to increases in perspective taking and empathy for others. The new perspectives could then be generalized to other contexts replete with toxic-types of play in human dyads that may include male–male friendships and father–son outings involving play and sports. Perhaps playfulness is a quality that can be built upon, a potential skillset to be learned (or relearned) for many males. It is possible that the playfulness found in the relationship with an animal companion could be utilized and then extended into other relationships or areas of functioning. Play is an original way of learning about how to interact with others and could help open relational opportunities in spite of gender role conflict restrictions. When in the proper frame, play allows an individual to view exchanges with non-punitive consequences and so lighten the danger that can be felt in interpersonal moments.

A limitation to consider in the present study is that masculine socialization may also prevent men from openly identifying their dogs as a key social support figures. Because of this dynamic, there are likely many positive, adaptive behaviors associated with the canine companions that were not recorded. These could involve turning to someone for support, giving affection as a natural element of a relationship, establishing routines, or receiving unbridled affection. These missed opportunities for more information is a methodological concern for future researchers and could be helped by modifying questionnaires. Animal companions should be among the list of potential attachment figures and social supports. Doing this could provide greater insight into the differences between human relationships and canine relationships and help identify how masculine socialization affects relational functioning.

Another limitation to consider as mentioned was sampling. Another possible issue in this area is participants self-selected to complete the survey. Scores indicated that many participants with low high gender role conflict, were also highly attached to their canine companion, and were highly playful. There is a need for continued data collection in larger and more representative samples including those with varying levels of gender role conflict, attachment to an animal, and playfulness. Possible ways to increase more diverse sampling include conducting research in person, identifying organizations with high populations of men, such as the military or the Veterans Associations, and considering the wording of advertisement. Research methods could include observational, naturalistic, and bio-hormonal formats, which would deepen the context of what is happening during the play interactions. Organizations like the military and the Veterans Associations have already begun to utilize canines as seen in reintegration programs, Battle Buddy programs, and PTSD clinics. The word ‘playfulness’ may discourage men with higher gender role conflict from participating, so it may be helpful to consider describing the research approaches in a more culturally competent and sensitive manner. Additionally, more research could identify themes of play that occur specifically between men and their canine companion as these may give insight into attachment behaviors.

Nineteenth century British novelist, Samuel Butler (1912), noted that, “The great pleasure of a dog is that you may make a fool of yourself with him and not only will he not scold you, but he will make a fool of himself too” (p. 220). In many men’s lives, there are few opportunities to have such an open and life-changing exchange. However, when they do occur, these complex moments are characterized by the release from rigid male gender expectations, and a deepening sense of attachment with an animal companion. The joy of play comprises the full gamut of connecting with what one feels, and the bond with another. These exchanges may help males be happier and healthier men.

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