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Crossing the Blue Line: Law Enforcement Personality, Coping, and Stress Over Time

A THESIS

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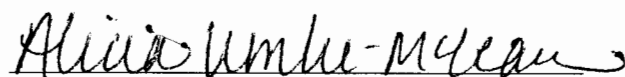
By

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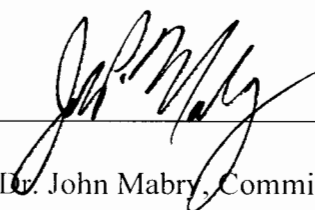
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APPROVED FOR THE DEPARTMENT OF PSYCHOLOGY

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Dedication

This thesis is dedicated to my friends and family, especially to Kate and Ben, and to my advisor, Dr. Alicia Limke-McLean. Your love and support kept me going through it all.

Acknowledgements

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Abstract

162 police officers completed measures of personality, coping style, job stress, and attachment. Officers also provided information about their work experience including years of experience, past and current assignments, and other demographic information. Results suggest that time on force predicts certain facets of personality, coping style, and perceived job stress for officers. The implications of these results are discussed and suggestions are made for addressing problems these trends may produce for officers.

Keywords: police, stress, personality, coping, attachment

Law Enforcement Stress, Relationships, and Social Support

A career as a police officer, though honorable, is marked by years of exposure to potentially traumatic situations. Whereas most individuals might use their relationships outside of work as a coping mechanism to deal with job stress, the personal relationships of police officers often suffer because of the officers' employment in law enforcement. The sense of isolation present in law enforcement, which contradicts the characteristics of effective social relationships, may cause these strained personal relationships (Woody, 2006). The competitive nature present in most law enforcement agencies, the rapid socialization process and rampant peer pressure officers experience, and the immense job stress placed on officers may also influence their relationships (Borum & Philpot, 1993).

Recent research has begun to use attachment as an explanation of the process linking negative life experiences to outcomes. This research has even proposed attachment as a mediating force (e.g., Squire, Limke, & Jones, 2013). The development of secure attachment may be a "filter" through which the experience of negative life events (e.g., the stresses associated with a career in law enforcement) affects subsequent functioning. Thus, the goal of this project is to investigate the mediational effect of attachment on the link between length of employment and psychological outcomes among law enforcement officers. I hypothesize that I will be able to demonstrate a relationship between length of employment and psychological outcomes, demonstrate a relationship between length of employment and attachment, and demonstrate a relationship between attachment and psychological and relationship outcomes. More specifically, the I expect that length of time in law enforcement will predict psychological outcomes such that as length of time in law enforcement increases, agreeableness and contentiousness will increase, participating in substance use and behavioral disengagement as a

coping mechanism will increase, and job stress will increase. It is also expected that length of time in law enforcement will predict attachment, such that as length of time in law enforcement increases, attachment avoidance will increase. Finally, it is expected that attachment will predict psychological outcomes such that as attachment avoidance increases, agreeableness and contentiousness will increase, participating in substance use and behavioral disengagement as a coping mechanism will increase, and job stress will increase.

   Law Enforcement Personality and Performance. Law enforcement officers choose careers in their field for a variety of reasons, but they most often report that they chose a career as a police officer for the opportunity to help others, to enjoy camaraderie with other officers, to maintain job security, to experience prestige, and to fight crime (Foley, Guarneri, & Kelly, 2008). Law enforcement agencies have consulted with psychologists to determine predictors of job performance for decades. Some research suggests that neither personality nor cognitive ability predict job performance of law enforcement officers (Laguna, Agliotta, & Mannon, 2015; Surrette & Serafino, 2003), but meta-analyses demonstrate that there is a modest but statistically significant association between personality testing during personnel screening and subsequent job performance (Varela, Boccaccini, Scogin, Stump, & Caputo, 2004). Some research utilizing multiple measures of personality even points to the existence of a "police personality/profile" that is significantly different from non-officers (Grubb, Brown, & Hall, 2015). This difference in personality may even exist before officers are hired; that is, hired and un-hired officers generally produced similar mean MMPI-2-RF scale scores (Tarescavage, 2015). Novice officers have also been found to be as biased toward deception as experienced officers when compared to non-officers (Masip, Alonso, Herrero, & Garrido, 2016). Furthermore, interrogation suspicion scores do not differ between novice and veteran officers, indicating that certain personality traits and

approaches to interrogative settings are not acquired through training, but occur naturally (Masip et al., 2016).

Officer candidates undergo a battery of psychological tests before they are hired. It is important for both researchers and police personnel to understand how the results from these tests might later affect job performance and satisfaction in officers. Psychologists often screen for psychopathology during psychological testing of officer candidates. Symptoms typically associated with psychopathology, such as somatization and health concerns, rumination and worry about current events, previous experiences of traumatic events, inflated self-esteem, interpersonal resentment, psychotic experiences, and previous experiences with negative relationships (such as those with exploitation or betrayal) negatively affect job performance of law enforcement personnel (Lowmaster & Morey, 2012). In contrast, additional symptoms associated with psychopathy, such as disorganized/manic over-involvement in activities, previous experience with antisocial behaviors, stimulus seeking behaviors, aggressive attitudes, and use of verbal aggression positively predict job performance (Lowmaster & Morey, 2012).

Despite findings concerning psychopathy, many psychologists use personality inventories of "normal" personality traits, such as the Big Five Personality Inventory (BFI) (John, Naumann, & Soto, 2008) when screening officers (Ono, Sachau, Deal, Englert, & Taylor, 2011; Varela et al., 2004). Neuroticism negatively predicts overall job performance of law enforcement personnel (Detrick & Chibnall, 2006; Ono et al., 2011). Although conscientiousness predicts investigative mindset and leadership abilities (Detrick & Chiball, 2006; Ono et al., 2011), other research suggests that conscientiousness is not a consistent or effective predictor of performance (Barrett, Miguel, Hurd, Lueke, & Tan, 2003). Results from the BFI may also predict job satisfaction for police officers; that is, higher levels of extraversion are associated with higher levels of

perceived workload among officers. Conscientiousness and emotional stability, in contrast, predict lower levels of perceived workload (Chiorri, Garbarino, Bracco, & Magnavita, 2015). Higher agreeableness is associated with lower perceived frustration and higher perceived temporal demands, whereas higher conscientiousness is associated with lower perceived temporal demands (Chiorri et al., 2015). Openness is associated with a higher job effort, dissatisfaction with the performance, and frustration, but also reduces perceived mental demands (Chiorri et al., 2015).

Personality tests are useful for predicting job performance for emergency service workers and police personnel. However, some research suggests that personality factors these tests consider "desirable" may actually be detrimental to emergency service workers in traumatic situations. For example, personality factors such as extraversion and conscientiousness, which are typically regarded as positive factors, did not help emergency service personnel effectively manage stress in extremely traumatic situations (Riolli & Savicki, 2012). In fact, traumatic situations may block or even reverse the helpfulness of extraversion and conscientiousness, which should protect emergency personnel in traumatic situations from stress. Traits such as toughness, independence, and emotional restrictiveness are often highly desirable in police officers but may contradict the officer's natural reactions to traumatic events (Wester & Lyubelsky, 2005).

It is important to note that psychological tests are not infallible. Officer applicants often engage in underreporting or falsely answering questions on personality and psychological measures (Detrick & Chibnall, 2014). Furthermore, psychological tests can only be used as a predictor for job satisfaction and performance under the assumption that officers will not undergo personality and behavioral changes during their time on force. Despite experienced and

novice officers' similar scores on certain tests, other factors may be subject to change over time. For example, experienced officers display greater suspicion in their general communication than novice officers. Competitive interactions and progressive exposure to police culture throughout an officer's career may cause the officer to use more suspicion not only at work, but also in their daily lives (Masip et al., 2016). Novice officers may not see the need to use heightened suspicion in situations that do not directly involve their field. In contrast, experienced officers may behave in a distrustful and skeptical way in both kinds of situations (field-related and not) because this behavior is an expression of their personalities.

Law Enforcement Burnout. The socialization process for newly hired police officers is highly complex and potentially stressful (Woody, 2005). New police recruits are subject to the transmission of negative intergroup attitudes and ideological beliefs through group socialization after only one month (Gatto & Dambrun, 2012). The resulting effects of socialization are "relatively swift" (Tuohy, Wrennall, McQueen, & Stradling, 1993), likely due to fears of retaining employment, need for acceptance, and motives to advance future careers (Woody, 2005). Police culture is notoriously powerful and even regarded as a "monolithic authority" by some (Gatto & Dambrun, 2012; Tuohy et al., 1993; Woody, 2005). Constant exposure to danger contributes to the dramatic strength of police culture and socialization (Woody, 2005). This exposure to danger may motivate officers to rely on camaraderie and brotherhood to cope with these stressors. The effects of socialization may prevent police officers from seeking help for mental health issues despite their need for assistance (Wester & Lyubelsky, 2005).

Research suggests that law enforcement officers experience the symptoms of work-related stress that may accompany this socialization process quite soon after being hired. New police officers place higher value on achievement than the general population (Bardi, Buchanan,

Goodwin, Slabu, & Robinson, 2014). Deteriorations in psychological stability begin as early as two years on the force and continue for up to 11 years for some officers (Beutler, Nussbaum, & Meredith, 1988). Some officers may turn to unhealthy coping mechanisms to deal with these deteriorations. Indeed, officers are more vulnerable to alcohol abuse than individuals in the general population are (Beutler et al., 1998).

Specifically, researchers often focus on emotional exhaustion, cynicism, and low professional efficacy as signs of burnout among professionals in emergency services (Bakker & Heuven, 2006; Burke & Mikkelsen, 2006; Malach-Pines & Keinan, 2006). One of the effects of repeated exposure to stress is a low level of job satisfaction and, ultimately, a high chance for burnout (Bakker & Heuven, 2006; Burke & Mikkelsen, 2006). Work stress and resulting job dissatisfaction are higher for police officers than for the rest of the population (Brough, 2004; Gershon, Lin, & Li, 2002). This work stress is associated with both physical symptomatology and job dissatisfaction (Norvell, Hills, & Murrin, 1993).

Although general work stress predicts burnout among law enforcement officers, the stress officers experience is often the result of physical and emotional symptoms (Malach-Pines & Keinan, 2006). Other work stressors include a seemingly ambiguous framework for decision-making by superiors, public suspicion and disdain, and lack of community and organizational support (Woody, 2006). Race and gender may also be a contributing factor to job stress and burnout for officers. Specifically, female law enforcement officers report higher levels of stress than male law enforcement officers do; however, African American male law enforcement officers indicate lower stress than White law enforcement officers do (Kurtz, 2008). Contrasting research suggests that African American law enforcement officers experience higher rates of burnout than White male law enforcement officers do and there are no effects of gender on

burnout. More recently, research indicates that pressure of public expectations, both positive and negative, regarding police behavior adds stress to law enforcement officers (Karaffa et al., 2015). Officers may also experience emotional stress, creating emotional job demands that result in eventual job burnout (Bakker & Heuven, 2006). Police officers also encounter exposure to potentially traumatic situations, increasing their risk for suicidal ideation and suicide (Kapusta et al., 2010; Loo, 2003; Mishara, & Martin, 2012; Violanti, Castellano, O'Rourke, & Paton, 2006). Exposure to trauma may differ between officers depending on their unit. Officers who work with victims of sexual assault are more prone to compassion fatigue, secondary traumatic stress, and burnout than officers who do not (Turgoose et al., 2017).

Perceived social support by the organization may buffer the effects of burnout, however. In fact, perceived organizational and supervisor support positively predict self-motivation in officers (Gillet, Huart, Colombat, & Fouquereau, 2013). Law enforcement officers who experience support are motivated to perform well at their jobs. The number of positive day-to-day interactions and overall level of perceived social support are the most important factors determining job satisfaction among emergency service workers (Bakker & Heuven, 2006; Burke & Mikkelsen, 2006). Officers reporting high levels social support tend to report high levels of professional efficacy (Burke & Mikkelsen, 2006). The more harmonious officers perceive their relationships at work to be, the more likely they are to express both job satisfaction and commitment to the job of being a police officer (Kuo, 2015). In contrast, officers who report low levels of social support tend to display high levels of cynicism and emotional exhaustion. Senior officers report higher levels of commitment to their work than newer officers do, even if their levels of job satisfaction are the same. This might provide more evidence of a police "culture" that affects officers' lives and personality when the officers are off duty (Kuo, 2015).

Attachment and Law Enforcement. At the conception of attachment theory, Bowlby (1977) sought an explanation of the process that maintains proximity between infants and caregivers, even in the face of danger or threat. He was the first to present the idea that early caregiving experiences—specifically, mothers noting and attending to infants' signals of distress or fear are internalized as working models in children. These internalized working models then lead to expectations and beliefs both about the self and about others in later relational contexts (Bowlby, 1969). Assuming that these internal working models may be a stable guideline for understanding the self and others, Hazan and Shaver (1987) began the tradition of applying attachment theory to peer and romantic relationships in adulthood. Hazan and Shaver used three vignettes to describe adult versions of attachment styles that would later be converted to Likert-scale measures due to both methodological and logistical issues inherent in the use of forced-choice options (Simpson, 1990; see also Collins & Read, 1990).

For the past two decades, researchers have found that individual differences in attachment are related not only to relationship success but also to outcomes that are more favorable after stressful life events (Collins & Feeney, 2000; Hazan & Shaver, 1987; Rholes, Simpson, & Oriña, 1999; Simpson, 1990; Simpson, Rholes, & Nelligan, 1992; Simpson, Rholes, & Phillips, 1996; Sprecher, Felmlee, Metts, Fehr, & Vanni, 1998). For example, attachment has been linked to conflict (Cann, Norman, Welbourne, & Calhoun, 2008), the expression of emotion (Simpson, Collins, Tran, & Haydon, 2007), sexual fantasies and sexual satisfaction (Birnbaum, 2007; Butzer & Campbell, 2008), and interpersonal perceptions and disclosure in relationships (Bradford, Feeney, & Campbell, 2002; Simpson, Campbell, & Weisberg, 2006). Individual differences in attachment have also been linked to differences in seeking, receiving, and providing social support (Mikulincer & Shaver, 2009; Simpson, Rholes, Oriña, & Grich, 2002)

as well as differences in information seeking (Rholes, Simpson, Tran, Martin, & Friedman, 2007). Attachment insecurity also predicts the experience and expression of jealousy in romantic relationships (Guerrero, 1998; Knobloch, Solomon, & Cruz, 2001; Leak, Gardner, & Parsons, 1998; Rauer & Volling, 2007; Sharpsteen & Kirkpatrick, 1997).

Most recently, researchers have begun to turn to attachment as an explanation of the process by which negative life experiences and later outcomes are linked. Research has even proposed attachment as a mediating force (e.g., Cheng & Mallinckrodt, 2008; El-Sheikh & Buckhalt, 2003; Limke, Showers, & Zeigler-Hill, 2010; Lindsey, Caldera, & Tankersley, 2009; Squire et al., 2013). That is, the development of a secure attachment (i.e., being low in attachment anxiety and attachment avoidance) may serve as a "filter" through which the experience of negative life events (e.g., encountering the stresses associated with a career in law enforcement) affects subsequent functioning.

Police officers experience high levels of stress in their daily lives that may threaten the stability and security of their relationships. Many officers report feeling isolated and disconnected from their relationships (Woody, 2006). Female officers tend to be more outwardly focused when dealing with this stress. In contrast, male officers tend to become more inwardly focused by distancing themselves, withdrawing from relationships, becoming irritable, and losing interest in their relationships officers (Brodie & Eppler, 2012). These types of actions are typical of individuals who are avoidant-attached. Noting this, I hope to investigate the mediational effect of attachment on the link between length of employment and psychological outcomes among law enforcement officers. I expect that length of time in law enforcement will predict psychological outcomes such that as length of time in law enforcement increases, agreeableness and contentiousness will increase, participating in substance use and behavioral

disengagement as a coping mechanism will increase, and job stress will increase. I also expect length of time in law enforcement will predict attachment, such that as length of time in law enforcement increases, attachment avoidance will increase. Finally, I expect attachment will predict psychological outcomes such that as attachment avoidance increases, agreeableness and contentiousness will increase, participating in substance use and behavioral disengagement as a coping mechanism will increase, and job stress will increase.

Method

Participants. 162 officers (80.86% male) from two regional police departments were recruited to participate in the study. Officers ranged in length of service from 11 months to 41 years on the force. The mean age of participants was 39.10 years ($SD = 8.87$). Of the participants, 87.04% identified as exclusively heterosexual, 8.02% identified as exclusively gay or lesbian, 3.09% identified as mostly heterosexual, 1.23% identified as bisexual, and .62% identified as mostly gay or lesbian. Of the participants 86.42% were White (non-Hispanic), 3.70% were Black or African American, 5.56% were American Indian or Native Alaskan, .62% were Asian, 1.23% were Hispanic or Latino/a, and 2.47% identified as "Other" race or ethnicity. The majority of participants reported that they were married (81.86%). Of the unmarried participants, 2.47% were engaged and living with their partner, 1.23% were engaged but not living with their partner, 5.56% were dating and living together, 8.64% were dating and not living together, and .62% selected "Other" when asked about their relationship with their partner.

An email was sent to officers at two regional police departments in September 2017 to recruit officers for the study. The email contained a link to an online survey and explained that officers could complete the survey in its entirety to receive a $25 Amazon gift card. The email specifically explained that the researcher would not be able to connect any of the results with

specific participants and that the names of the precincts involved in the study would not be published. Finally, the email explained that there was a limited number of Amazon gift cards available and that the link would be deactivated once the researcher used all of the gift cards. The survey link remained active from September 2017 to March 2018. At this point the link to the survey was deactivated.

Materials

      Personality. Participants took The Ten Point Personality Inventory (Gosling, Rentfrow & Swann, 2003) and the Short Dark Triad (Jones, & Paulhus, 2014) to assess personality. The Ten Point Personality Inventory (TIPI) is a condensed, ten-item version of the BFI (John et al., 2008), which measures five dimensions of personality (Extraversion, Agreeableness, Conscientousness, Nueroticism, and Openness to Experience). The TIPI assesses the same dimensions as the BFI, but re-names the Neuroticism scale "Emotional Stability." Participants are asked to rank the extent to whether they agree or disagree that they "see themselves" as ten different items. (e.g., "Extraverted, enthusiastic," "Sympathetic, warm," and "Calm, emotionally stable.") The TIPI is not as detailed as the BFI, but has high test-retest reliability, convergence between self and observer ratings, and convergence with the BFI in self, observer, and peer reports (Gosling, Rentfrow & Swann, 2003). The SD3 is a condensed version of the original Dark Triad (Paulhus & Williams, 2002) and meausures three socially aversive traits (machievelienism, narcissism, and psychopathy.) The assessment asks participants to rate the degree with which they agree with listed items on a Likert scale. Items include statements like "It's not wise to tell your secrets," "I know that I am special because everyone keeps telling me so," and "I'll say anything to get what I want." Research indicates that the subscales on the SD3 map well onto the longer

standard measures from the original test and that each of the items properly loads onto their respective factors (Jones & Paulhus, 2014).

Coping style. Participants took the Brief Cope to assess coping style (Carver, 1997). This assessment is an abbreviated version of the COPE Inventory (Carver, Scheier, & Weintraub, 1989), which assesses the different ways people respond to stress. The scales contained in the Brief Cope are Self-Distraction, Active Coping, Denial, Substance Use, Use of Emotional Support, Use of Instrumental Support, Behavioral Disengagement, Venting, Positive Reframing, Planning, Humor, Acceptance, Religion, and Self Blame (Carver, 1997). Participants are asked to rate how often they have engaged in 28 listed items on a 4-point Likert scale ranging from "I haven't been doing this at all" to "I have been doing this a lot."

Attachment. Participants took The Experiences in Close Relationships Scale – Revised (Fraley, Waller, & Brennan, 2000) and the Relationship Questionnaire (Bartholomew & Horowitz, 1991) to measure attachment. The Experiences in Close Relationships Scale – Revised (ECR-R) assesses individual differences with respect to attachment-related anxiety (the extent to which people feel secure or insecure about their romantic relationships) and attachment related avoidance (the extent to which people are uncomfortable with getting "too close" to others) in a 36-item assessment (Fraley, Waller, & Brennan, 2000). Participants are asked to rate items on a Likert scale ranging from "disagree strongly" to "agree strongly." Sample items include "I'm afraid I will lose my partner's love," "I don't feel comfortable opening up to romantic partners," and "I rarely worry about my partner leaving me." The Relationship Questionnaire (RQ) is a four-item assessment that measures adult attachment style. The assessment provides a series of descriptions (e.g., "It is easy for me to become emotionally close to others, I am comfortable depending on others and having others depend on me, I do not worry about being alone or having

others accept me...") and asks participants to select which of the four descriptions sounds most like them. Participants are given the same set of four descriptions in four separate questions and asked to select which statement sounds most like their relationship with their mother, father, and romantic partner. The present study also includes a set instructing participants to respond in regard to their partner at work.

Optimism and hope. Participants took the Life Orientation Test – Revised (LOT-R) to measure optimism and hope (Scheier, Carver, & Bridges, 1994). The LOT-R is a ten-item assessment that measures optimism versus pessimism. Participants responded to a list of statements (e.g., "In uncertain times, I usually expect the best," or, "It's easy for me to relax") and were asked to rank their level of agreement on a Likert scale ranging from "I agree a lot" to "I disagree a lot."

Job stress. Participants took The Interpersonal Conflict at Work Scale (Spector & Jex, 1998), the Organizational Constraints Scale (Spector & Jex, 1998), and the Quantitative Workload Inventory (Spector & Jex, 1998) to measure work conflict and stress. The Interpersonal Conflict at Work Scale (ICAWS) assesses perceived conflicts between the respondent and his or her co-workers. The assessment included questions like "How often do you get into arguments with others at work?" and, "How often do other people yell at you at work?" Participants are asked to rank how often each item occurs on a Likert Scale ranging from "never" to "very often." Higher scores indicate frequent conflict with others in the workplace, with a possible range of 4 to 20. The Organizational Constraints Scale (OCS) assesses for situations or things that interfere with the respondent's performance at work. The assessment asks participants "How often do you find it difficult or impossible to do your job because of…" and instructs participants to rank each item on a Likert scale ranging from "less than once per

month or never" to "several times per day" (e.g., "Poor equipment or supplies," "Organizational rules and procedures," "Inadequate training"). Higher scores indicate higher levels of constraint with a possible range from 11 to 55. The Quantitative Workload Inventory (QWI) measures perceived quantity of work participants handle in their jobs. Participants are asked to rank their answers to five questions on a Likert scale ranging from "less than once per month or never" to "several times per day." Example questions include "How often does your job require you to work very fast?" and "How often does your job leave you with little time to get things done?" High scores represent a high workload with a possible range of 5 to 25.

Demographic questions. Participants answered a variety of demographic questions about themselves (including age, gender, race, and relationship status). They also answered questions about their relationship status, the amount of time they had served as a police officer, and their current unit assignment.

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Results

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To examine whether attachment style accounted for the changes in personality, coping, and job stress reported by officers over time on force, I followed the procedures for mediational analyses (cf. Baron & Kenny, 1986; MacKinnon, Fairchild, & Fritz, 2007).

First, I conducted simple linear relationships to establish links between the length of time an officer had served and personality, coping, and job stress outcomes. I began by analyzing the factors comprising the TIPI. Time on force predicted higher levels of Agreeableness, $\beta = .04$, $t(160) = 2.43$, $p = .02$, but did not significantly predict Extraversion, Contentiousness, Emotional Stability, or Openness to Experience. I next analyzed the coping styles found in the Brief Cope. Time on force predicted lower use of Distraction $\beta = -.004$, $t(160) = -3.52$, $p = .001$, Venting $\beta = -.002$, $t(160) = -2.52$, $p = .01$, Humor $\beta = -.005$, $t(160) = -3.09$, $p = .002$, and Self-Blame, $\beta = -$

.004, $t(160) = -3.28$, $p = .001$. There was no significant effect found for the use of Active Coping, Denial, Substance Abuse, Emotional Support, Instrumental Support, Behavioral Disengagement, Positive Reframing, Planning, Acceptance, or Religion as a coping style. I then examined the effects time on force had on perceived job stress. Time on force predicted lower levels of perceived Interpersonal Conflict at Work, $\beta = -.01$, $t(160) = -4.18$, $p < .001$, Organizational Constraint, $\beta = -.013$, $t(160) = -2.04$, $p = .04$, and Quantitative Workload, $\beta = -.014$, $t(160) = -3.50$, $p = .001$.

Second, I conducted simple linear regressions to determine whether time on force predicts attachment style. Time on force did not predict attachment anxiety $\beta = -.001$, $t(160) = -1.62$, $p = .11$, or avoidance $\beta = .000$, $t(160) = -.38$, $p = .70$. See Table 1 for a summary of coefficients.

Had time on force significantly predicted attachment style for police officers, I would have then run multiple regressions to see if attachment significantly predicted any of the factors examined in the first set of regressions. I then would have conducted a series of Sobel tests to conclude whether or not attachment mediated the effect time on force had on each of the measures of personality, coping, and job stress. Because time on force did not significantly predict attachment style in officers, I was able to conclude that any multiple regressions and Sobel tests I ran would also not be significant.

Table 1

Coefficients and Sobel Test Values for Regressions Measuring the Effects of Time on Force as a Police Officer on Measures of Personality, Coping Style and Job Stress.

Variable	Step 1 β	Step 2 β	Step 3 β	Step 4 Sobel test
Attachment				
Avoidance	-	.00	-	-
Anxiety	-	-.001	-	-
TIPI				
Extraversion	.00	-	-	-
Agreeableness	.04*	-	-	-
Contentiousness	.02	-	-	-
Emotional Stability	.02	-	-	-
Openness to Experience	-.001	-	-	-
Brief Cope				
Distraction	-.004**	-	-	-
Active Coping	-.001	-	-	-
Denial	.001	-	-	-
Substance Abuse	.00	-	-	-
Emotional Support	-.002$^\wedge$	-	-	-
Instrumental Support	-.002	-	-	-
Behavioral Disengagement	-.001	-	-	-
Venting	-.002*	-	-	-
Positive Reframing	-.002	-	-	-
Planning	-.002	-	-	-
Humor	-.005**	-	-	-
Acceptance	-.002	-	-	-
Religion	.002	-	-	-
Self-Blame	-.004**	-	-	-
Short Dark Triad				
Machiavellianism	-.001	-	-	-
Narcissism	.00	-	-	-
Psychopathy	-.001	-	-	-
Job Stress				
Interpersonal Conflict at Work	-.01***	-	-	-
Organizational Constraints	-.01*	-	-	-
Quantitative Workload	-.014**	-	-	-

Note. N = 162

$^\wedge p < .09.$ $^* p < .05.$ $^{**} p < .01.$ $^{***} p < .001.$

In order to compare officers' attachment style to predicted norms, I ran additional analyses on responses to the RQ. Officers answered a categorical question assessing their general attachment styles to their mother, father, romantic partner, and partner at work. Of the officers in romantic relationships, 61.30% were securely attached in their romantic relationship, 18.80% were dismissing attached, 8.10% were preoccupied attached, and 11.90% were fearful attached. I compared the number of officers in each category to those expected based on previously collected data from the original Bartholomew and Horowitz (1991) sample (46.75%, 18.18%, 14.29%, and 20.78%, respectively). Chi-square goodness of fit analyses indicate that the frequencies of each category expected for the current sample of officers is different from those previously reported, $\chi^2(3, N = 162) = 17.59$, $p = .001$. The percentage of officers self-classifying as securely attached is higher than expected, whereas the percentage of officers self-classifying as dismissing and fearful attached was lower than expected when compared to the original Bartholomew and Horowitz (1991) sample. Further analyses revealed that the frequencies of each category expected were also different when officers were asked about their attachment to their mother, $\chi^2(3, N = 162) = 52.56$, $p < .001$., father, $\chi^2(3, N = 162) = 103.19$, $p < .001$., and partner at work, $\chi^2(3, N = 162) = 90.00$, $p < .001$. The percentage of officers self-classifying as securely attached to their mothers was higher than expected, whereas the percentage of officers self-classifying as securely attached to their fathers and partners at work was lower than expected. The percentage of officers self-classifying as dismissing attached to their mothers, fathers, and partners at work was higher than expected, whereas the percentage of officers self-classifying as preoccupied attached and as fearful attached was lower for their mothers, fathers, and partners at work.

Discussion

The goal of this project was to investigate the effect time on force has on psychological outcomes among law enforcement officers and any mediational effects attachment may have on these factors. Three major hypotheses were tested to investigate this.

First, I tested whether or not time on force could predict changes in personality, coping style, and perceived job stress. I expected that time on force would predict increases in both agreeableness and conscientiousness. Results supported only part of this hypothesis; time on force predicted higher levels of agreeableness, but not the effect of time on force for conscientiousness was not significant. I also expected time on force would predict the coping style officers use, anticipating that officers who had served longer would be more likely to use substance abuse and behavioral disengagement to cope. Results did not support this hypothesis; time on force was not associated with increased use of any of the coping styles assessed in the Brief COPE. Time on force was, however, associated with lowered use of Distraction, Venting, Humor, and Self-Blame as coping styles. Finally, I expected time on force would predict increased levels of job stress. The results, however, revealed exactly the opposite. Time on force predicted lower perceived Interpersonal Conflict at Work, Organizational Constraints, and Quantitative Workload. These results were especially surprising, but may be the result of improper measurement. Items on the scales may predict job stress and burnout, but do not specifically assess feelings of stress and burnout that officers may experience.

Next, I tested whether or not time on force could predict attachment style for officers. I expected time on force would predict higher levels of attachment avoidance. The results did not support this hypothesis. Results indicated that there was not a relationship between time on force and attachment anxiety or attachment avoidance. In other words, time on force did not predict

increased attachment anxiety or attachment avoidance. Further analyses, however, revealed that participants had significantly different proportions of attachment style than predicted by the Bartholomew and Horowitz (1991) sample. More officers were dismissing attached to their mothers, fathers, romantic partners, and partners at work than expected. This is especially interesting to note after learning that increased attachment avoidance (which is analogous to a dismissive attachment style) was not predicted by time on force.

Finally, I expected attachment would mediate the relationship time on force had on psychological outcomes, coping style, and job stress. There was not a relationship between time on force and attachment, so this hypothesis was also not supported.

These results have several implications. First, results testing the effects of time on force on coping style did not indicate that time on force predicted increased use of any particular coping style. Intentionally using certain coping styles, however, might actually be beneficial to officers. Some research suggests that the coping style used by an officer may be related to physiological responses, distress, and to job satisfaction. Officers who use emotion-oriented and avoidant-oriented (as opposed to task-oriented) coping styles in a training exercise are more likely to suffer from trauma symptoms, specifically symptoms of avoidance and arousal (LeBlanc, Regehr, Jelley, Barath, &Vandenbos, 2008). Officers who used emotion-oriented and avoidant-oriented coping styles are also more likely to fall into the range of trauma symptoms associated with Post Traumatic Stress Disorder (PTSD) than participants who use task-oriented coping. Despite their differing effects on physiological responses, coping styles are not significantly related to performance on a training task (LeBlanc et al., 2008). This may explain why coping style's effects have not been widely researched.

Second, though time on force did not predict changes in attachment style, the current

sample was significantly different than expected norms in the Bartholomew and Horowitz (1991) sample. These differences were present when officers were given the RQ in the context of their mother, father, romantic partner, and partner at work. Noting that more officers are dismissing attached than expected but that there is no change in attachment style over time, these results suggest that individuals with certain attachment styles may be drawn to a career as a police officer. Personality assessments have been used for decades in the screening procedure for new officer candidates, but the attachment style of newly hired officers has yet to be researched. These findings highlight the need for more research on attachment style of officers and the effects attachment may have on their job performance and personal lives.

Limitations and Future Directions

One limitation of this study is that all of the data collected was self-reported by the officers who completed the survey. The email used to recruit officers for the study emphasized the fact that data could not be connected back to any individual participant. Despite this, officers might have lied on certain questions they believed might threaten their job or that might cast them in a negative light. Researchers who attempt to replicate or further this research are encouraged to remind participants before they begin the study that data cannot be connected back to participants or that data will be de-identified. Furthermore, researchers utilizing online surveys should design them in a way that allows officers to complete the survey at a location of the officer's choice (as opposed to in the police department or around supervisors.)

The use of the ICAWS, the OCS, and the QWI inventory to measure job stress was another limitation of this study. These scales assessed for specific instances that may cause job stress and physical symptoms that may result from job stress, but did not specifically assess for the officers' perceived level of stress. If I repeated this study, I would include a measure that

assesses the amount of stress officers experience, rather than the daily events at work that could potentially lead to stress.

Another limitation of this study was that many of the measures used were abbreviated versions of longer, more in-depth assessments. For example, I used the TIPI instead of the BFI and the Brief Cope instead of the COPE. The measures I used in the study were still useful, but may not have provided as much insight as the full versions would have. Even so, the use of the shorter version of each of the measures provided direction for future research. For example, after learning the general trends of coping styles among officers over time, one might be inspired to look more closely and specifically at officer coping style. Several results, particularly regarding coping style, from the present study were quite unexpected. Specifically, I was surprised that officers' use of humor as a coping style decreased over time. An interesting line of research might be to investigate whether or not the use of humor as a coping style actually decreases over time, or if officers simply do not realize that they have begun to use humor as a coping mechanism. If officers do not realize that they are actually using humor, they may not report that they have relied on humor to help themselves.

Another interesting line of research might be to track psychological and relationship changes over time in police officers as compared to employees in a different profession. I expect that law enforcement officers would experience greater psychological and relationship changes over time than individuals in a less stressful profession. Another interesting line of research might be to compare psychological changes between officers in the same department, but different units. Some research suggests that working with victims of sex crimes makes officers more prone to compassion fatigue, secondary traumatic stress, and burnout than other officers (Turgoose et al., 2017). Noting this, I believe officers in units dealing with graphic content such

as murder, sex trafficking, and child crime may experience higher rates of burnout and more dramatic psychological changes than officers in other units, such as units dealing with white collar crime. Investigating the differences in psychological outcome and burnout that exist between units might help provide insight as to how officers should be trained not only on how to perform their job, but also on how to handle stress.

Though research on police personnel has recently grown in popularity, police experience and subsequent psychological changes is a severely under-researched area. Continued research in this area will allow researchers to uncover what changes officers experience during their careers, what causes these changes, and how to reverse the negative effects some of these changes may elicit.

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Appendix A: Ten Item Personality Measure

Ten-Item Personality Inventory-(TIPI)

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1	2	3	4	5
Disagree	Disagree	Neither agree	Agree	Agree
Strongly	a little	nor disagree	a little	Strongly

I see myself as:

1. _____ Extraverted, enthusiastic.

2. _____ Critical, quarrelsome.

3. _____ Dependable, self-disciplined.

4. _____ Anxious, easily upset.

5. _____ Open to new experiences, complex.

6. _____ Reserved, quiet.

7. _____ Sympathetic, warm.

8. _____ Disorganized, careless.

9. _____ Calm, emotionally stable.

10. _____ Conventional, uncreative.

Appendix B: Short Dark Triad

SHORT DARK TRIAD – 28 items

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

1. It's not wise to tell your secrets.
2. Generally speaking, people won't work hard unless they have to.
3. Whatever it takes, you must get the important people on your side.
4. Avoid direct conflict with others because they may be useful in the future.
5. It's wise to keep track of information that you can use against people later.
6. You should wait for the right time to get back at people.
7. There are things you should hide from other people because they don't need to know.
8. Make sure your plans benefit you, not others.
9. Most people are suckers.
10. Most people deserve respect. (R)
11. People see me as a natural leader.
12. I hate being the center of attention. (R)
13. Many group activities tend to be dull without me.
14. I know that I am special because everyone keeps telling me so.
15. I like to get acquainted with important people.
16. I feel embarrassed if someone compliments me.(R)
17. I have been compared to famous people.
18. I am an average person.(R)
19. I insist on getting the respect I deserve.
20. I like to get revenge on authorities.
21. I avoid dangerous situations. (R)
22. Payback needs to be quick and nasty.
23. People often say I'm out of control.
24. It's true that I can be cruel.
25. People who mess with me always regret it.
26. I have never gotten into trouble with the law. (R)
27. I like to pick on losers.
28. I'll say anything to get what I want.

Appendix C: Brief COPE

Please rate the degree to which you agree with the following statements.

1 = I haven't been doing this at all

2 = I've been doing this a little bit

3 = I've been doing this a medium amount

4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.

2. I've been concentrating my efforts on doing something about the situation I'm in.

3. I've been saying to myself "this isn't real."

4. I've been using alcohol or other drugs to make myself feel better.

5. I've been getting emotional support from others.

6. I've been giving up trying to deal with it.

7. I've been taking action to try to make the situation better.

8. I've been refusing to believe that it has happened.

9. I've been saying things to let my unpleasant feelings escape.

10. I've been getting help and advice from other people.

11. I've been using alcohol or other drugs to help me get through it.

12. I've been trying to see it in a different light, to make it seem more positive.

13. I've been criticizing myself.

14. I've been trying to come up with a strategy about what to do.

15. I've been getting comfort and understanding from someone.

16. I've been giving up the attempt to cope.

17. I've been looking for something good in what is happening.

18. I've been making jokes about it.

19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.

20. I've been accepting the reality of the fact that it has happened.

21. I've been expressing my negative feelings.

22. I've been trying to find comfort in my religion or spiritual beliefs.

23. I've been trying to get advice or help from other people about what to do.

24. I've been learning to live with it.

25. I've been thinking hard about what steps to take.

26. I've been blaming myself for things that happened.

27. I've been praying or meditating.

28. I've been making fun of the situation.

Appendix D: Experiences in Close Relationships- Revised

Experience in Close Relationships Scale- Revised

We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement to indicate how much you agree or disagree with the statement

Disagree strongly			Neutral/mixed		Agree strongly	
1	2	3	4	5	6	7

1. I'm afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner doesn't really love me.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I'm angry.
19. I prefer not to show a partner how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
26. I find it relatively easy to get close to my partner.
27. It's not difficult for me to get close to my partner.
28. I usually discuss my problems and concerns with my partner.
29. It helps to turn to my romantic partner in times of need.
30. I tell my partner just about everything.
31. I talk things over with my partner.

32. I am nervous when partners get too close to me.
33. I feel comfortable depending on romantic partners.
34. I find it easy to depend on romantic partners.
35. It's easy for me to be affectionate with my partner.
36. My partner really understands me and my needs.

Appendix E: Relationship Questionnaire

Directions: For this scale, please read each description below and then select which best describes your relationship with your mother. (Participants also answered these questions in regard to their relationship with their father, their romantic partner, and their work partner.)

1.   It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I do not worry about being alone or having others accept me.

2.   I am comfortable without close emotional relationships. It is very important for me to feel independent and self-sufficient and I prefer not to depend on others or have others depend on me.

3.   I want to be completely emotionally intimate with others but I often find that others are
        reluctant to
get as close as I would like. I am uncomfortable being without close relationships but I sometimes worry that others do not value me as much as I value them.

4.   I am uncomfortable getting close to others. I want emotionally close relationships but I find it difficult to trust others completely or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

Appendix F: Life Orientation Test- Revised

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

A = I agree a lot
B = I agree a little
C = I neither agree nor disagree
D = I disagree a little
E = I disagree a lot

1. In uncertain times, I usually expect the best.
2. It's easy for me to relax.
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. I enjoy my friends a lot.
6. It's important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don't get upset too easily.
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

Appendix G: Interpersonal Conflict at Work Scale

	Never	Rarely	Sometimes	Quite Often	Very Often
1. How often do you get into arguments with others at work?					
2. How often do other people yell at you at work?					
3. How often are people rude to you at work?					
4. How often do other people do nasty things to you at work?					

Appendix H: Organizational Constraints Scale

How often do you find it difficult or impossible to do your job because of ... ?	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. Poor equipment or supplies.					
2. Organizational rules and procedures.					
3. Other employees.					
4. Your supervisor.					
5. Lack of equipment or supplies.					
6. Inadequate training.					
7. Interruptions by other people.					
8. Lack of necessary information about what to do or how to do it.					
9. Conflicting job demands.					
10. Inadequate help from others.					
11. Incorrect instructions.					

Appendix I: Quantitative Workload Inventory

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. How often does your job require you to work very fast?					
2. How often does your job require you to work very hard?					
3. How often does your job leave you with little time to get things done?					
4. How often is there a great deal to be done?					
5. How often do you have to do more work than you can do well?					