Workplace Attachment Style and Performance: The Mediating Roles of Trusting and Feeling Trusted

by
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ABSTRACT

WORKPLACE ATTACHMENT STYLE AND PERFORMANCE: THE MEDIATING ROLES OF TRUSTING AND FEELING TRUSTED

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This study investigated the impact of workplace attachment style on performance at work, through trust in one’s supervisor and felt trust. Employees with higher levels of attachment anxiety are proposed to display decreased job performance and fewer organizational citizenship behaviours (OCBs) because of diminished felt trust and trust in their supervisor. Employees with higher levels of both attachment anxiety and attachment avoidance are hypothesized to experience decreased trust in their supervisor. The mediation pathways were supported in a sample of 436 employed university students who self-reported citizenship behaviours using survey methodology. The negative relationship between attachment anxiety and felt trust, as well as the positive relationship between trust in supervisor and job performance were supported in a sub-set of the sample that had co-worker evaluations of participants’ job performance and OCBs. Implications for practice and for future research on workplace attachment styles, trust, and felt trust are discussed.
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# TABLE OF CONTENTS

Abstract .................................................................................................................................................... ii

Acknowledgements ................................................................................................................................ iii

Table of Contents .................................................................................................................................... iv

List of Tables ........................................................................................................................................... vi

List of Figures ......................................................................................................................................... vii

Workplace attachment style and performance: The mediating roles of trusting and feeling trusted .......................................................................................... 1

   Workplace Attachment Styles .............................................................................................................. 2
   - Secure attachment ............................................................................................................................... 4
   - Attachment anxiety .............................................................................................................................. 4
   - Attachment avoidance ......................................................................................................................... 5

Job Performance ....................................................................................................................................... 6

Attachment and Job Performance ......................................................................................................... 6

Attachment and Interpersonal Trust ..................................................................................................... 7

Interpersonal Trust and Job Performance ............................................................................................ 9

Indirect Effects ...................................................................................................................................... 10

Interaction between Attachment Dimensions ..................................................................................... 10

Method ................................................................................................................................................... 11

   Participants ........................................................................................................................................ 11

   Measures .......................................................................................................................................... 13
   - Attachment style .............................................................................................................................. 14
   - Felt trust .......................................................................................................................................... 14
   - Trust in supervisor ........................................................................................................................... 14
   - Task performance ............................................................................................................................ 14
   - OCBs ............................................................................................................................................... 15

Procedure .............................................................................................................................................. 15

Results ................................................................................................................................................ 16

   Data Cleaning .................................................................................................................................. 16
LIST OF TABLES

Table 1. Descriptive Statistics and Bivariate Correlations of Study Variables for Self-Report Sample.................................................................42

Table 2. Descriptive Statistics and Bivariate Correlations of Study Variables for Co-worker-rated Performance Sample .................................................................43

Table 3. Path Coefficients and Indirect Effects for the Mediation Model, Self-Report Sample...44

Table 4. Path Coefficients and Indirect Effects for Mediation Model with OCBs as the outcome of interest, Co-worker-rated Performance Sample .................................................................45

Table 5. Path Coefficients and Indirect Effects for Mediation Model with Customer Service OCBs as the outcome of interest, Co-worker-rated Performance Sample.................................46

Table 6. Path Coefficients and Indirect Effects for Mediation Model with Task Performance as the outcome of interest, Co-worker-rated Performance Sample .................................................................47

Table 7. Path Coefficients and Indirect Effects for Mediation Model with Global Task Performance as the outcome of interest Co-worker-rated Performance Sample ......................48

Table 8. Post-hoc Power Analyses for Indirect Effects and Conditional Indirect Effects.........49

Table 9. ICC(1) and ICC(2) values of the Co-worker-rated Sample for OCBs, Customer Service OCBs, Task Performance, and Global Task Performance.................................................................50

Table 10. Data Cleaning Steps for Self-report Sample.................................................................51

Table 11. Data Cleaning Steps for Co-worker-rated Sample.................................................................52
LIST OF FIGURES

Figure 1. Conceptual model. ........................................................................................................53
Figure 2. Structural mediation model for the self-report sample.................................................54
Figure 3. Structural mediation model for the co-worker-rated sample with task performance as
the outcome. .................................................................................................................................55
Figure 4. Structural mediation model for the co-worker-rated sample with global task
performance as the outcome........................................................................................................56
Figure 5. The effect of attachment anxiety on trust in supervisor across values of attachment
avoidance.......................................................................................................................................57
Workplace attachment style and performance: The mediating roles of trusting and feeling trusted

The quality of relationship that is formed between an employee and their supervisor has wide-reaching impacts, shaping an employee’s outputs at work (Shanock & Eisenberger, 2006) and attitudes towards work (Griffin, Patterson, & West, 2001). A harmonious working relationship with one’s manager could lead to greater job satisfaction and productivity, while a discordant working relationship has the potential to derail an employee who may have otherwise contributed positively to the organization. A lens through which these relationships are beginning to be explored is workplace attachment styles (e.g., Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007; Keller, 2003). These relational styles form early in an individual’s work history and go on to frame how they perceive both their managers and themselves at work. Applying an attachment perspective to employee-supervisor relations may provide additional insight about why these relationships are so impactful.

Much remains to be uncovered about how workplace attachment styles impact employee outcomes. One mechanism through which attachment style has been found to impact performance is trust (Simmons, Gooty, Nelson, & Little, 2009). The current study introduces an additional mechanism through which attachment may operate: the degree to which employees feel trusted. Drawing from classical attachment theorizing, an employee’s attachment style should influence their level of trust in their supervisor and how much they feel trusted by their supervisor. Both trust and felt trust, in turn, have been shown to positively relate to performance outcomes (Colquitt, Scott, & LePine, 2007; Lester & Brower, 2003). Trust and felt trust may be two mechanisms through which workplace attachment style impacts employee performance.

The current study combines classical and current theorizing on attachment with the relationship-based perspective of trust and the self-evaluative perspective of felt trust to
understand how attachment style impacts performance at work. Studying these relationships has the potential to impart a greater understanding of how employees’ relational predispositions impact their performance at work by diminishing or increasing their sense of interpersonal trust.

**Workplace Attachment Styles**

Attachment is characterized as a deep, persistent bond between individuals (Bowlby, 1982). Bowlby described attachment in the context of infants who form attachment relationships with their primary caregivers. The role of these caregivers is to be a secure, responsive base from which the child can confidently explore the world around them. If children do not experience this type of responsive care, they will internalize insecure attachment. Consequently, they may be less trusting of the world around them or less interested in seeking social support (Bowlby, 1982). These early life experiences inform the consolidation of attachment styles which typically persist in adulthood (Scharfe & Bartholomew, 1994).

Past work on attachment has sought to differentiate between an individual’s global attachment style and their relationship-specific attachment style. Relationship-specific attachment styles are formed based on history with that one exchange partner (i.e., one’s supervisor). Once this specific working model is formed, it will serve to frame future interactions with that exchange partner, beyond the influence of the individual’s global attachment style (Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996; Pierce & Lydon, 2001). Indeed, empirical findings indicate that there is variability in attachment quality depending on the attachment referent (i.e., attachment to one’s mother, father, romantic partner, or friend; Fraley, Heffernan, Vicary, & Brumbaugh, 2011; La Guardia et al., 2000), which supports the concept of relationship-specific attachment style.
Empirical work has shown that individuals can hold internal working models (Pierce & Lydon, 2001) for any person with whom an individual has an important relationship (Baldwin et al., 1996). Supervisors are in a significant amount of contact with subordinates (e.g., Mintzberg, 1973) and subordinates are often reliant on their supervisor for support and guidance. Further, there are pronounced parallels between the child-caregiver relationship and the relationship between leaders and subordinates. For example, both the child and the subordinate feel safe when their attachment figure is responsive to their needs (Hazan & Shaver, 1990). Followers will look for a figure to reach out to for support and guidance, much in the way that a child will rely on their caregiver. Additionally, there is a clear power differential between subordinates and supervisors, similar to that between a child and caregiver (Game, 2008; Kahn, 1998). As such, the current study seeks to assess the relationship-specific attachment style employees hold in reference to their supervisor.

Attachment styles are individuals’ working models of themselves and others that predispose them to interact with key social others in pre-determined ways (Feeney & Noller, 1990). Workplace attachment styles frame both how an employee will treat others at work and how they perceive themselves at work. These relational styles are based on internal working models of how key relationships will unfold (Bowlby, 1982; La Guardia, Ryan, Couchman, & Deci, 2000). In the case of workplace attachment styles, employees hold an internal working model of how a supervisor is likely to perceive and treat them. If, for example, this working model leads the employee to expect that their supervisor will not have time to help them when issues arise, they may not reach out for help. This example illustrates how assumptions that are generated from attachment style play out within supervisor-employee dyads. Attachment style is
an impactful relational variable that has started to be applied to organizational research, and there is broader unexplored potential for its application.

Attachment in adult relationships is typically conceptualized as two dichotomous variables: attachment anxiety and attachment avoidance (Richards & Schat, 2011). Attachment anxiety refers to anxiety over abandonment and attachment avoidance refers to avoidance of intimacy (Bowlby, 1982). Individuals who are low on both dimensions are considered securely attached; however, the cut-off score for each dimension is arbitrary, and as such these scales are evaluated continuously in the present study. Earlier work on attachment frequently relied on a categorical approach to attachment styles, and due to this some of the past findings presented here will be referred to using the categorical labels of secure and insecure attachment.

**Secure attachment.** Individuals who are low on attachment anxiety and avoidance have a positive self-image and view others as trustworthy. As a result, they successfully manage adversity by making use of social supports and have confidence in their own abilities (Mikulincer & Florian, 1998). The combination of low attachment anxiety and avoidance is positively associated with self-esteem (La Guardia et al., 2000) and job performance (Neustadt, Chamorro-Premuzic, & Furnham 2011; Simmons et al., 2009), and negatively associated with burnout (Simmons et al., 2009). These findings demonstrate that secure attachment is associated with positive workplace outcomes. This aligns with attachment theory and is echoed in findings from other research domains, where secure attachment is associated with positive developmental and social outcomes (Bohlin, Hagekull, & Rydell, 2000; Sroufe, 2005).

**Attachment anxiety.** Anxious attachment may interfere with productivity at work. Individuals high on attachment anxiety are characterized as having a poor self-image, which makes them inclined to continuously seek validation from others and be hyperaware of social
cues (Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006). The incessant appeals for social support are perceived as excessive by others (Fraley et al., 2006). These individuals are constantly driven to feel closer to others, however the fact that they are anxiously attached hampers their ability to achieve the relational closeness that they crave. It follows that engaging in these behaviours likely occupies a substantial amount of their time, and thus may interrupt their productivity. This is supported in part by past findings that attachment anxiety is positively correlated with exhaustion (Leiter, Day, & Price, 2015). Attachment anxiety has also been positively associated with workplace incivility, cynicism (Leiter et al., 2015), turnover intentions (Richards & Schat, 2011), and negatively associated with self-esteem (Han, 2017), organizational commitment (Richards & Schat, 2011) and instrumental helping (Geller & Bamberger, 2009). Attachment anxiety appears to be deleterious to workplace functioning and outcomes.

**Attachment avoidance.** Individuals high on attachment avoidance have internalized working models that reinforce their beliefs that other people are distant and unresponsive to their needs (Mikulincer & Shaver, 2005). Attachment avoidance has been found to negatively correlate with workplace civility, psychological safety (Leiter et al., 2015), self-esteem (Han, 2017), and organizational commitment (Richards & Schat, 2011). Individuals who are high in attachment avoidance do not feel the need to seek reassurance from co-workers, opting instead to keep to themselves. Thus, individuals high on attachment avoidance are not experiencing the depletion of cognitive resources that those high on attachment anxiety are, and as such their ability to perform should not be impaired. Further supporting this, Richards and Schat’s (2011) work did not uncover a significant relationship between attachment avoidance and OCBs, and as such we do not hypothesize about a relationship between these variables.
**Job Performance**

Performance at work can be captured in several ways. When one thinks of performance, what may come to mind is an employee’s ability to execute the duties and responsibilities that are required of them in their role (Murphy, 1989), which is known as task performance. This outcome was included in the current study because it is an important metric of whether an employee is functioning effectively in their role. If their task performance is sub-optimal, it may be the case that their productivity and competence is being hampered.

Although task performance assesses an employee’s efficacy within the prescribed role, organizational citizenship behaviors (OCBs) extend beyond the formal requirements of the job and contribute positively to the organization. OCBs are defined as “behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in aggregate promotes the effective functioning of the organization” (Organ, 1988, p. 4). This construct represents an array of prosocial behaviors, including assisting other employees and expending additional effort on the job (Brief & Motowidlo, 1986). OCBs are a valuable way to assess the degree to which employees are motivated to engage in discretionary behaviors that are not mandated by their job description. In this study, task performance and OCBs are included to capture a more comprehensive view of job performance than either construct could provide alone.

**Attachment and Job Performance**

When viewing performance from an attachment lens, employees with high attachment anxiety may engage in excessive social forays in an effort to feel greater relational closeness. These expenditures of social effort may detract from their productivity, both by reducing the time they have to work towards the organization’s goals and by leaving them exhausted. Indeed,
this reasoning is supported by exploratory work that found negative correlations between attachment anxiety and OCBs ($r = -.30, -.46$; Richards & Schat, 2011). In the current study, we seek to replicate this finding and we predict that the relationship will emerge in the same direction for task performance.

*Hypothesis 1:* Attachment anxiety will be negatively related to performance.

*Hypothesis 2:* Attachment anxiety will be negatively related to OCBs.

**Attachment and Interpersonal Trust**

The importance of felt trust in the workplace has only begun to be explored (e.g., Salamon & Robinson, 2008). Felt trust is the extent to which an individual believes someone else trusts him/her (Baer et al., 2015). Felt trust is positively related to important workplace outcomes, including task performance, job satisfaction, and citizenship behaviours (Lester & Brower, 2003). Much of past research considers workplace trust only from the vantage point of the trustor, however it is important to consider trust from the alternative vantage point of the trustee to fully understand both perspectives that are involved in the giving and perceiving of dyadic trust. Since felt trust is an understudied form of workplace trust, much remains to be learned about how and why employees feel trusted.

Past work has speculated that felt trust can be viewed through the self-evaluative perspective, which posits that employees evaluate themselves more favorably when they feel their supervisor trusts them (Lau, Lam, & Wen, 2014). This is thought to indirectly drive performance. In comparison with trust in supervisor, less is known about how felt trust impacts workplace outcomes. Studies have uncovered relationships between felt trust and employee satisfaction, organizational self-esteem, and pride in one’s work (Baer et al., 2015; Deng & Wang, 2009; Lau et al., 2014). Thus, it is clear that feeling trusted is an important contributor to
performance and positive self-perceptions at work.

In contrast, negative self-perceptions at work may be preceded by attachment anxiety, as attachment anxiety has been found to be negatively associated with self-esteem (Wu, 2009). Anxiously attached individuals’ lack of self-belief leads them to perpetually reach out for support and reassurance in times of stress (Mikulincer & Shaver, 2007a). This lack of robust self-concept indicates that it is likely these individuals do not feel deserving of trust, as they don’t appear to trust themselves. As such, I hypothesize that individuals high on attachment anxiety will have a diminished ability to feel trusted by their supervisor.

_Hypothesis 3:_ Attachment anxiety will be negatively related to felt trust.

Trust has long been recognized as an essential feature of high functioning workplace relationships. According to Mayer, Davis, & Schoorman (1995), trust in supervisor is defined as the employee’s willingness to be vulnerable to the actions of their supervisor, despite being unable to control these actions. It is vital to develop trust between employees and their supervisors, as trust in one’s supervisor is positively related with many workplace outcomes such as subordinates’ job performance and citizenship behaviours (Dirks & Ferrin, 2002). Trust is key to both interpersonal relationship satisfaction and performance outcomes.

Findings from a handful of studies indicate that attachment style impacts trust in workplace relationships. As Harms (2011) notes, “trust in the workplace, in both leaders and co-workers, is almost by definition an outcome of attachment styles” (p. 289). Individuals who are high on attachment anxiety are theorized to have internal working models that were formed based on having an inconsistent or unresponsive attachment figure, which they internalized as reflecting their own inadequacy (Bowlby, 1982). It follows that although attachment anxiety reflects negative self-perceptions, individuals high on attachment anxiety will have difficulty
trusting workplace attachment figures, as they are predisposed to viewing them negatively. Empirical findings show that insecure attachment styles are associated with lower levels of trust (Feeney & Collins, 2001), whereas secure attachment style is associated with higher levels of trust in management, peers, and supervisors (Adams, 2004). Past research has begun to draw the link between attachment anxiety and trust, and I seek to replicate these findings in the current study.

_Hypothesis 4:_ Attachment anxiety will be negatively related to trust in supervisor.

**Interpersonal Trust and Job Performance**

Trust is essential for organizational success, as it is positively associated with outcomes such as performance and OCBs (Dirks & Ferrin, 2002; Wat & Shaffer, 2005). The current study seeks to replicate these findings. The relationship-based perspective (Dirks & Ferrin, 2002), which is based on social exchange principles, speaks to the mechanism through which trust in one’s supervisor may enhance behavioural outcomes at work. Employees that perceive this relationship as high-quality will seek to maintain the relationship by reciprocating in kind with positive workplace behaviours. (Dirks & Ferrin, 2002).

_Hypothesis 5:_ Trust in supervisor will be positively related to performance (H5a) and OCBs (H5b).

Felt trust is an important component of workplace interactions. When someone feels trusted, they may feel obligated to complete the work they have been tasked with (Lau, Liu, & Fu, 2007). Moreover, felt trust may increase feelings of self-efficacy (Conger & Kanungo, 1988), as the employee feels empowered to carry out their work with the knowledge that their supervisor has confidence in their ability, benevolence, and integrity. The self-evaluative perspective on felt trust indicates that if an employee feels their supervisor trusts them, they may
rise to meet the performance standards that would match with that positive evaluation (Lau et al., 2014). Empirically, felt trust has been found to relate to job performance (Baer et al., 2015; Lester & Brower, 2003). I seek to replicate that finding.

Hypothesis 6: Felt trust will be positively associated with performance (H6a) and OCBs (H6b).

Indirect Effects

Workplace attachment anxiety is conceptualized as a relatively stable personality variable that has wide-reaching impacts on an individual’s experiences at work. Attachment is the lens through which employees interpret and internalize interactions with their supervisors. It follows that this stable predisposition would impact state levels of both trust and felt trust, which in turn would influence relevant workplace outcomes, such as task performance and OCBs.

Hypothesis 7: Trust in supervisor (H7a) and felt trust (H7b) will mediate the relationship between attachment anxiety and performance.

Hypothesis 8: Trust in supervisor (H8a) and felt trust (H8b) will mediate the relationship between attachment anxiety and OCBs.

Interaction between Attachment Dimensions

Perceptions of the trustworthiness of others is a key feature of the dimension of attachment avoidance. A parallel can be drawn between those in high trust relationships and those who are securely attached, as these individuals are more willing to engage in exploratory behaviours due to their sense of interpersonal security (Colquitt et al., 2007; Fraley & Shaver, 2008). Further supporting this reasoning, past work has uncovered a negative correlation between attachment avoidance and trust (Han, 2017). As such, we propose that not only is attachment anxiety negatively related to trust in supervisor, we propose that attachment
avoidance interacts with attachment anxiety to produce a more detrimental impact on trust in one’s supervisor than high levels of either one would have independent of the other.

*Hypothesis 9:* Attachment avoidance will moderate the relationship between attachment anxiety and trust in supervisor, such that the negative relationship between attachment anxiety and trust in supervisor is strengthened when attachment avoidance is high.

The current study seeks to replicate past associations between attachment style and workplace outcomes, as well as clarity the roles of felt trust and trust. In addition, exploring the interaction between attachment style dimensions has the potential to reveal how attachment styles may predispose employees to be less trusting.

These hypotheses were assessed using online survey methodology. Participants were undergraduate students from the University of Guelph who were compensated with course credit. Participants completed self-reports of workplace attachment style, felt trust, trust in supervisor, and OCBs. Participants’ co-workers were then surveyed to obtain measures of participants’ task performance and OCBs.

**Method**

**Participants**

Undergraduate students were recruited from the University of Guelph Psychology Research Participation System and the University of Guelph Marketing and Consumer Studies Research Participation System. The study description stipulated that participants must be employed, have a direct supervisor, and have a co-worker who is willing to take a short survey about the participant’s workplace activities. Additionally, participants were required to work in the service industry (e.g., retail, food service), to ensure that performance metrics were similar across the sample. Students from the University of Guelph Psychology Research Participation
System passed pre-screen questions to ensure they met the inclusion criteria. Students from the University of Guelph Marketing and Consumer Studies Research Participation System did not answer pre-screen items because that option was not available. This resulted in a greater number of participants from this pool being screened out during subsequent data cleaning.

Due to low response rates from co-workers, data collection resulted in two pools of data: a self-report sample with self-report OCBs as the outcome variable, and a co-worker-rated sample which contained two measures of task performance and two measures of OCBs. In total, 960 surveys were started, and after all data cleaning steps were performed the final self-report sample was $N = 436$. As for the co-worker-rated sample, after all data cleaning and matching was performed, the final sample was $n = 88$. Participants’ ages ranged from 17 to 38 years old ($M = 19.15, SD = 1.75$). 79.10% of participants identified as female, 20.40% identified as male, and 0.50% identified as a gender other than male or female. Participants had been employed for 18 months on average ($SD = 16.22$). 80.96% identified as White/European, 5.73% identified as Southeast Asian, 5.50% identified as South Asian, 2.06% identified as Black/African/Caribbean, 2.06% identified as other, 1.38% identified as Arab, 1.38% identified as West Asian, 0.69% identified as Latin American and 0.23% identified as Indigenous.

The subset of data that was matched with co-worker performance ratings had similar demographic breakdowns. Participants’ ages ranged from 17 to 28 years old ($M = 19.24, SD = 1.65$). 80.68% of participants identified as female, 17.05% identified as male, and 2.27% identified as a gender other than male or female. Participants had been employed for 18 months on average ($SD = 16.49$). 81.82% identified as White/European, 5.68% identified as Southeast Asian, 3.41% identified as South Asian, 3.41% identified as West Asian, 2.27% identified as Black/African/Caribbean, 1.14% identified as Arab, 1.14% identified as Indigenous, and 1.14%
identified as other.

An a priori power analysis was conducted in R in accordance with Fritz and MacKinnon’s (2007) work on power for mediation analyses. I estimated the a-path and b-path for the relationship between attachment anxiety, trust in supervisor, and performance due to the lack of past research on the other mediation pathways. The minimum sample required to attain .80 power for this relationship is 368 participants.

Post-hoc power analyses were conducted for mediation models to determine whether power was reached. Monte Carlo simulations were run using Schoemann, Boulton, and Short’s (2017) application. Five power analyses were run, once for the self-report sample and four times for the co-worker-rated sample for each outcome variable. Power of .80 was exceeded by the self-report sample for the parallel mediators (1-\(\beta\) = .99, 1.00). This indicates that the results from this sample can be interpreted with greater confidence as the minimum sample required to have an 80% chance of detecting the proposed effects was surpassed. In contrast, the co-worker-rated sample did not achieve a power of .80 for any of the outcome variables, with power ranging from .05 to .41. As this sample is underpowered, results should be interpreted with caution as the sample size is not adequate to predictably detect the indirect effects. Further detail about the power analyses for each model can be found in Table 8. A post-hoc power analysis was conducted for the hypothesized interaction using Soper’s (2019) software. In the self-report sample, a power of .70 was achieved, whereas in the co-worker-rated sample a power of .10 was achieved. This suggests that the self-report sample had a reasonable chance of detecting the moderating effect, and the co-worker-rated sample was very underpowered to detect this effect.

**Measures**

Participants self-reported workplace attachment style, felt trust, trust in supervisor and
OCBs. Co-workers were contacted to provide ratings of participants’ OCBs and performance. For attachment style, felt trust, trust in supervisor, and OCBs, scale reliabilities are presented first for the entire self-report sample, followed by scale reliabilities for the subset sample that has matched co-worker performance data.

**Attachment style.** To assess attachment styles, the Experiences in Close Relationships Scale – Relationships Structures Questionnaire (ECR-RS) was used. This nine-item questionnaire assesses attachment style on two continuous axes: attachment avoidance ($\alpha = .85, .75$) and attachment anxiety ($\alpha = .82, .76$). The ECR-RS is flexible in terms of referent, with the referent in this study being the participant’s supervisor. Six items ask about avoidant behaviour (e.g., “I don’t feel comfortable opening up to this person”) and three items ask about anxious behaviour (e.g., “I often worry that this person doesn’t really care for me.”). Participants rated each item on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree).

**Felt trust.** The measure of felt trust adapted from Salamon and Robinson (2008) is comprised of three items (e.g., “My supervisor believes I am trustworthy”) which participants rated on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree; $\alpha = .92, .98$).

**Trust in supervisor.** Trust in supervisor was assessed using McAllister’s (1995) 11 item scale ($\alpha = .88, .90$). Participants reported their cognitive and affective trust in their supervisor (e.g., “We have a sharing relationship. We can both freely share our ideas, feelings, and hopes”), which participants rate from 1 (Strongly Disagree) to 7 (Strongly Agree).

**Task performance.** Task performance was assessed by one or two co-workers of the participants using a subscale of Williams and Anderson’s (1991) performance scale that evaluates in-role performance (e.g., “Adequately completes assigned duties”), which is evaluated on a 1 (Strongly Disagree) to 7 (Strongly Agree) scale. Question 5 (Engages in activities that...
will directly affect his/her performance evaluation) was dropped due to its low correlations with the rest of the scale items (ranging from \( r = -0.04 \) to \( r = -0.13 \)). I speculate that this item may be underperforming in this instance because service industry jobs either may not have frequent performance reviews, or those performance reviews may not be visible to colleagues. Upon removing this item, scale reliability improved from \( \alpha = 0.54 \) to \( \alpha = 0.82 \).

A global rating of task performance was also administered (“Overall, my co-worker’s work is:”), which was evaluated on a 101-point slider scale ranging from “Among the worst in the company” to “Among the best in the company”. This was included to capture overall impressions of the participant’s task performance.

**OCBs.** Self and co-worker-rated OCBs was evaluated using a 16-item scale (\( \alpha = 0.85 \), self-rated; \( \alpha = 0.89 \), co-worker rated; Lee & Allen, 2002). Items such as “Gives up time to help others who have work or non-work problems” were evaluated on a 5-point Likert scale from 1 (Never) to 5 (Very often). An additional measure of customer service OCBs was adapted from Netemeyer and Maxham’s measure (2007). The rating scale was changed to a 101-point slider scale (\( \alpha = 0.80 \)).

**Procedure**

Participants completed self-report measures of attachment style, trust in supervisor, felt trust and OCBs via Qualtrics. Participants were compensated for participating with course credit for the time taken participating in the study. Psychology participants completed the attachment questionnaire as part of an initial intake survey that is administered at the beginning of each semester. Therefore, for the Psychology participants, these items temporally preceded the remainder of the self-report study items. Marketing and Consumer Studies participants completed all self-report measures at the same time point.
In order to collect co-worker ratings of OCBs and performance, a modified snowball sampling technique was employed. At the end of the survey, participants were asked to input the emails of up to two of their co-workers. For ethical reasons, this was optional, and the majority of participants opted not to provide co-worker emails. When co-worker emails were provided, co-workers were sent a recruitment email that contained the full name of the participant they were evaluating. Co-workers were incentivised with a draw for a $200.00 Amazon gift card. In addition to the initial recruitment email, two reminder emails were sent at least two weeks after the preceding emails. 682 co-worker emails were provided, with an overall response rate of 23.61%. The hypotheses from the present study are archived on the Open Science Framework in order to support greater transparency in the research process (https://osf.io/wdjsr/).

Results

Data Cleaning

Turning first to the self-report data set, prior to conducting analyses, \( n = 169 \) instances where participants did not complete the survey were removed. Duplicate participants were removed, \( n = 52 \), with the first survey that was submitted by a participant retained in the dataset. Next, \( n = 15 \) participants were removed for responding to the survey too quickly (i.e., responding in less than 1 second per question), as this indicates insufficient effort (Wood, Harms, Lowman, & DeSimone, 2017). Participants who violated the study inclusion criteria were also removed: 1) participants who indicated they were not currently employed, \( n = 170 \), and 2) participants who indicated they did not have a direct supervisor, \( n = 58 \). No participants were removed for being younger than 17 years old. Participants who failed both careless responder items were also removed, \( n = 17 \). For the Psychology sample, attachment anxiety and attachment avoidance were assessed during an initial intake survey. Participants who did not complete the attachment items
in this survey were removed, \( n = 43 \). The final participant count was \( N = 159 \) from the Marketing and Consumer Studies pool and \( N = 277 \) from the Psychology pool.

Turning to the co-worker performance ratings, prior to conducting analyses, \( n = 65 \) instances where participants did not complete the survey were removed. No responses were removed for completing the survey too quickly. Co-worker raters were removed for failing both careless responder items, \( n = 4 \). Co-workers whose email contained the same last name as the ratee were removed due to speculation that these participants are non-co-worker family members, and thus their reports of the ratee’s job performance are likely biased, \( n = 14 \). Co-worker IDs that could not be matched to self-report data were removed, \( n = 51 \). For co-worker-matched performance data, the final participant count was \( N = 43 \) from the Marketing and Consumer Studies pool and \( N = 61 \) from the Psychology pool.

**Justification for Aggregation**

The four outcome variables in the co-worker-rated sample were rated by two co-workers in 15 instances. The rest of the participants were only evaluated by one of their co-workers. In the instances where two co-workers completed the survey, inter-rater agreement was evaluated using \( r_{wg} \) values. The average deviation index (Burke, Finkelstein, & Dusig, 1999) was also considered to assess agreement, however it was found to be a less conservative test of agreement in this sample than \( r_{wg} \) values. \( r_{wg} \) values were assessed in R, using a .70 cut-off score which indicates moderate inter-rater agreement (Brown & Hauenstein, 2005). As a result of failing to reach the .70 cut-off, two participants’ data were removed for OCBs, three participants’ data were removed for Customer Service OCBs, one participants’ data was removed for Task Performance, and two participants’ data were removed for Global Task Performance.

Reliability was then assessed using intraclass correlation coefficients. ICC(1) assesses
variance attributable to within-group variance, whereas ICC(2) assesses group reliability (Bliese, 2000). The use of $r_{wg}$ and ICCs is the typical approach for determining whether aggregation is warranted in the organizational literature (e.g., Wu, Tsui, & Kinicki, 2010). Only the Customer Service OCBs ICC(1) surpassed the recommended cut-off of .12 (see Table 9; James, 1982). All of the ICC(2) values surpassed the recommended cut-off of .40 (Cicchetti, 1994). Despite several of the ICC(1) values falling slightly below the cut-off, data was aggregated, as cut-off scores should not be viewed as absolute and the more stringent assessment of agreement (e.g., $r_{wg}$) was already used to remove instances where co-workers were not in agreement about the participant’s performance. Upon aggregating the remaining instances where two co-workers evaluated the participant’s performance, the final sample for co-worker-rated OCBs was $n = 86$, for Customer Service OCBs it was $n = 85$, for Task Performance it was $n = 87$ and for Global Task Performance it was $n = 86$.

Descriptive statistics are presented in Tables 1 and 2. All outcome variables were compared between the two data collection sources (i.e., comparing Psychology and Marketing and Consumer Studies) to ensure that pooling the samples was justified. In the self-report sample, there was no significant difference between self-report OCBs from Psychology students ($M = 3.70, SD = .52$) and Marketing and Consumer studies students ($M = 3.74, SD = .50$; $t(434) = .78, p = .43$). In the co-worker-rated performance sample, there was no significant difference between OCBs ($t(84) = .27, p = .79$), Customer Service OCBs ($t(83) = .20, p = .84$), Task Performance ($t(85) = .33, p = .74$), and Global Task Performance ($t(84) = .49, p = .63$). As such, the samples were pooled.

Age and organizational tenure were not associated with any of the outcome variables in the self-report sample, however gender was significantly associated with self-report OCBs ($r = -$).
.11, 95% CI -0.25, -0.02, \( p = .02 \)). Gender was coded as follows: 1 = female, 2 = male, 3 = other, please specify (which included responses such as transgender). As such, gender was included as a covariate in the self-report sample.

Gender, age, and organizational tenure were not associated with any of the outcome variables in the co-worker-rated performance sample. Therefore, no covariates were included in the co-worker-rated performance sample.

**Assessment of Common Method Bias**

In the self-report sample, common method variance may be a concern. To address this, Harman’s single-factor test was conducted (cf. Andersson & Bateman, 1997). All survey items were entered into a principal components analysis to see if a single factor emerged or if one factor accounted for more than 50% of the variance, which would indicate that the data source (i.e., self-reports) was unduly influencing the variance in the data. Seven factors emerged from the principle components analysis, with the first factor accounting for 9% of the variance in the data. This suggests that common method variance due to rating source is not a major concern in the present study.

**Factor Structure of Attachment**

A confirmatory factor analysis was run to assess the degree to which the data support the two-factor structure of workplace attachment style (i.e., attachment anxiety and attachment avoidance). The model was approaching acceptable fit (\( \chi^2(26) = 201.36, p < .001; \text{CFI} = .90, \text{RMSEA} = .13, \text{SRMR} = .09 \)), and was a significantly better fit (\( \chi^2(1) = 405.50, p < .001 \)) than a one-factor model (\( \chi^2(27) = 606.86, p < .001; \text{CFI} = .67, \text{RMSEA} = .22, \text{SRMR} = .15 \)).

**Mediation Models**

**Self-report sample.** Using Hayes’ (2013) PROCESS Macro for SPSS, a parallel
mediation model was tested using Model 4. Hypotheses 1, 5a, 6a, and 7 were in reference to performance, which was not collected in this sample and therefore could not be assessed. Hypothesis 2, which predicted that attachment anxiety would be negatively related to OCBs, was supported ($\beta = -.11, 95\% \text{ CI} -0.20, -0.02, p = .02$). Hypotheses 3 and 4, which predicted that attachment anxiety would be negatively related to felt trust and trust in supervisor respectively, were supported ($\beta = -.26, 95\% \text{ CI} -0.35, -0.17, p < .001; \beta = -.23, 95\% \text{ CI} -0.33, -0.14, p < .001$). Hypotheses 5b and 6b, which predicted that felt trust and trust in supervisor respectively would be positively related to OCBs, were supported ($\beta = .27, 95\% \text{ CI} 0.18, 0.36, p < .001; \beta = .33, 95\% \text{ CI} 0.24, 0.42, p < .001$).

Although the direct negative relationship between attachment anxiety and OCBs was significant ($\beta = -.11, 95\% \text{ CI} -0.20, -0.02, p = .02$), once the mediators were added to the model this relationship was not significant ($\beta = .04, 95\% \text{ CI} -0.05, 0.12, p = .41$). This indicates that attachment anxiety no longer operates directly on OCBs once felt trust and trust in supervisor are introduced. Hypothesis 8, that trust in supervisor and felt trust will mediate the relationship between attachment anxiety and OCBs, was supported, as the bootstrapped confidence intervals do not include zero (see Table 3). To summarize the mediation results in this sample, all relevant hypotheses were supported.

**Co-worker-rated sample.** Parallel mediation models were again tested using Hayes’ (2013) PROCESS Macro, Model 4. Four models were run, one for each outcome variable. The first outcome variable that was assessed was OCBs and the results are presented in Table 4. Hypothesis 2, which predicted that attachment anxiety would be negatively related to OCBs, was not supported ($\beta = -.01, 95\% \text{ CI} -0.22, 0.21, p = .95$). Hypothesis 3, which predicted that attachment anxiety would be negatively related to felt trust, was supported ($\beta = -.31, 95\% \text{ CI} -$
0.52, -0.11, p = .004). Hypothesis 4, which predicted that attachment anxiety would be negatively related to trust in supervisor, was not supported, however it was trending in the hypothesized direction and approaching significance (β = -0.19, 95% CI -0.40, 0.02, p = .08).

Hypotheses 5b and 6b, which posited that felt trust and trust in supervisor would be positively related to OCBs, were not supported. Hypothesis 8, which proposed the indirect effects, was not supported.

The results for the second outcome variable, Customer Service OCBs, are presented in Table 5. Results follow the same trends as with OCBs. Hypothesis 2, which predicted that attachment anxiety would be negatively related to OCBs, was not supported (β = -0.02, 95% CI -0.24, 0.20, p = .88). Hypothesis 3, which predicted that attachment anxiety would be negatively related to felt trust, was supported (β = -0.33, 95% CI -0.54, -0.12, p = .003). Hypothesis 4, which predicted that attachment anxiety would be negatively related to trust in supervisor, was not supported. Hypotheses 5b and 6b, which posited that felt trust and trust in supervisor would be positively related to OCBs, were not supported, and Hypothesis 8, which proposed the indirect effects, was not supported.

The results for the third outcome variable, task performance, are presented in Table 6. Results follow the same trends as the first two outcome variables, with support for one additional hypothesis, which was Hypothesis 5a. Hypothesis 5a predicted that trust in supervisor would be positively related to performance (β = 0.25, 95% CI 0.04, 0.46, p = .02). Hypothesis 1, which predicted that attachment anxiety would be negatively related to task performance, was not supported (β = -0.17, 95% CI -0.38, 0.05, p = .13). Hypothesis 3, which predicted that attachment anxiety would be negatively related to felt trust, was supported (β = -0.33, 95% CI -0.53, -0.12, p = .002). Hypothesis 4, which predicted that attachment anxiety would be negatively related to
trust in supervisor, was not supported. Hypotheses 6a, which posited that felt trust would be positively related to performance, was not supported, and Hypothesis 8, which proposed the indirect effects, was not supported.

The results for the final outcome variable, global task performance, are presented in Table 7. Hypothesis 1, which predicted that attachment anxiety would be negatively related to task performance, is approaching significance \( (\beta = -0.20, 95\% \text{ CI } -0.41, 0.01, p = .06) \). The remaining findings mirror what was found for task performance. Hypothesis 3, which predicted that attachment anxiety would be negatively related to felt trust, was supported \( (\beta = -0.32, 95\% \text{ CI } -0.52, -0.11, p = .003) \). Hypothesis 4, which predicted that attachment anxiety would be negatively related to trust in supervisor, was not supported. Hypothesis 5a, which predicted that trust in supervisor would be positively related to performance, was supported \( (\beta = 0.33, 95\% \text{ CI } 0.12, 0.54, p = .002) \). Hypotheses 6a, which posited that felt trust would be positively related to performance, was not supported, and Hypothesis 8, which proposed the indirect effects, was not supported.

To summarize the findings across the four outcome variables in the co-worker-rated sample, attachment anxiety was negatively related to felt trust (H3) and trust in supervisor was positively related to task performance (H5a). Hypotheses 1, 2, 4, 5b, 6, and 7 were not supported in this sample, and neither mediation paths were supported (H8).

**Moderating Role of Attachment Avoidance**

**Self-report sample.** Hypothesis 9 posited that attachment avoidance would moderate the relationship between attachment anxiety and trust in supervisor, such that the negative relationship between attachment anxiety and trust in supervisor is strengthened when attachment avoidance is high. To address this hypothesis, moderated mediation was assessed using the
PROCESS Macro Model 7 (Hayes, 2013).

The conditional effect of attachment avoidance was first tested for the self-report sample. Products of the interaction terms were mean-centered to facilitate interpretation. A regression with attachment avoidance, attachment anxiety, and their interaction term as predictors accounted for 27% of variance in trust in supervisor, \( F(4,431) = 40.10, p < .001, R^2 = .27 \). The interaction term, which is the product of attachment anxiety and attachment avoidance, significantly predicted trust in supervisor \( t(431) = 3.54, p < .001, \beta = .08, 95\% CI [0.03, 0.12] \). The interaction term uniquely predicted 2% of the variance in trust in supervisor, \( F(1,431) = 12.55, p < .001 \).

The interaction was probed using the Johnson-Neyman regions of significance technique (see Hayes & Matthes, 2009). This technique identifies regions within the range of the moderator where the impact of the predictor on the outcome is statistically significant and ranges where it is not statistically significant. Two regions of significance were identified. When attachment avoidance was less than 4.01 or greater than 6.40, the effect of attachment anxiety on trust in supervisor is statistically significant. Between those values, there is no association between attachment anxiety and trust in supervisor.

Mediation is said to be moderated if the index of moderated mediation is non-zero, indicating the presence of conditional indirect effects. The index of moderated mediation = .01, 95\% CI [0.00, 0.02]. Upon inspection of Figure 5, it is clear that although moderated mediation is supported, the interaction is operating in a different way than hypothesized. The interaction functions such that individuals who are low on both attachment anxiety and attachment avoidance show higher levels of trust in supervisor. As such, Hypothesis 9 is not supported.

Co-worker-rated sample. Turning to the co-worker-rated sample, a simple moderation
analysis was run using the PROCESS Model 1 (Hayes, 2013). A regression with attachment avoidance, attachment anxiety, and their interaction term as predictors accounted for 25% of variance in trust in supervisor, $F(3,84) = 9.53, p < .001, R^2 = .25$. The interaction term did not significantly predict trust in supervisor $t(84) = 1.06, p = .29, \beta = .10, 95\% CI [-0.09, 0.28]$, and uniquely predicted 1% of the variance in trust in supervisor, $F(1,84) = 1.13, p = .29$. It appears that attachment avoidance is the primary predictor of trust in supervisor in this sample, as opposed to the interaction between attachment anxiety and attachment avoidance. This is discussed further in the following section.

**Exploratory Analyses**

The present study attempted to bridge the gap between research on workplace attachment styles and interpersonal trust. We hypothesized that attachment anxiety would impact both feeling trusted and trusting one’s supervisor, whereas attachment avoidance would only impact trust in supervisor. What emerged in the self-report data is that attachment avoidance appears to impact not only trust in supervisor ($r = -.49, 95\% CI -0.57, -0.40$), but also felt trust ($r = -.30, 95\% CI -0.39, -0.21$). In addition, attachment avoidance was correlated with self-report OCBs ($r = -.38, 95\% CI -0.47, -0.29$). These exploratory findings suggest that attachment avoidance appears to have further reaching impacts than was initially hypothesized.

Attachment avoidance and attachment anxiety were significantly correlated with organizational tenure ($r = -.17, 95\% CI -0.27, -0.08; r = -.12, 95\% CI -0.22, -0.03$). This suggested that the longer someone works with their supervisor, the more likely they are to be securely attached. This could be due to attrition, with employees who are not securely attached being more likely to leave their job.

The co-worker-rated sample paints a slightly different picture of the impacts of
attachment avoidance. As was mentioned previously, this sample did not come close to attaining statistical power of .80 so the results from this sample must be interpreted with caution. With that disclaimer in mind, the co-worker-rated sample produced a significant correlation between attachment avoidance and trust in supervisor \( (r = -0.49, 95\% \text{ CI } -0.68, -0.30) \), although it was not significantly correlated with felt trust \( (r = -0.19, 95\% \text{ CI } -0.40, 0.02) \). Attachment avoidance is not significantly correlated with any of the outcome variables in this sample although it is significantly negatively correlated with age \( (r = -0.28, 95\% \text{ CI } -0.49, -0.07) \).

**Discussion**

Employees’ workplace attachment styles have wide-reaching impacts on organizational outcomes through interpersonal trust. The current study investigated how workplace attachment styles impact trust, felt trust, and performance. Two samples were collected: a self-report sample and a subset of that sample that was matched with co-workers’ evaluations of participants’ OCBs and task performance. In the self-report sample, all relevant hypotheses were supported except Hypothesis 9. Attachment anxiety does not appear to operate directly on OCBs once the trust mediators were added to the model. Felt trust and trust in supervisor mediated the relationship between attachment anxiety and OCBs. Further, attachment avoidance interacted with attachment anxiety so that trust in supervisor was highest at lower levels of both attachment anxiety and avoidance. This aligns with classical theorizing about attachment which indicates that secure attachment (i.e., a combination of low attachment anxiety and attachment avoidance) will lead to positive outcomes (e.g., Bretherton, 1992).

In the co-worker-rated sample, support was found for Hypothesis 3, which predicted a negative relationship between attachment anxiety and felt trust. Partial support was found for Hypothesis 5 which predicted a positive relationship between trust in supervisor and
performance (task performance supported, not OCBs). The interaction between attachment anxiety and attachment avoidance in predicting trust in supervisor was not significant. This sample was not approaching a power of .80 for the indirect effects and the conditional indirect effect, so it is not surprising that many effects were not detected. The results from this sample should be interpreted with caution and a larger sample is needed in order to draw more firm conclusions about the relationship between attachment, trust in supervisor, felt trust, and co-worker-rated performance outcomes.

Although robust support for the proposed measurement model was not found in the co-worker-rated sample, unexpected support was found for the importance of attachment avoidance in relation to OCBs and felt trust. There was a large ($r = -.38$; large per I/O specific recommendations from Bosco, Aguinis, Singh, Field, & Pierce, 2015), negative correlation between attachment avoidance and self-report OCBs. It may be the case that individuals high on attachment avoidance are not interested in contributing to the organization by helping others with discretionary behaviors, as they prefer to remain at a distance from social others. This finding undermines the speculation by some (e.g., Schirmer & Lopez, 2001) that high attachment avoidance may have an upside in workplace contexts. Returning to the origins of attachment theory (Bowlby, 1982), this finding aligns with classical applications of the theory, in that secure attachment is the ideal and should lead to a myriad of benefits. Conversely, insecure attachment (in this case being high on attachment anxiety or avoidance), should be detrimental. It may be the case that individuals’ high on attachment avoidance miss out on interpersonal exchanges with their supervisors which in turn lead them to feel less valued and lack the motivation to contribute positively to their workplace above and beyond the job requirements. An important caveat is that attachment avoidance was not correlated significantly with any of the co-worker-rated
performance measures.

Exploratory analyses revealed large correlations between attachment avoidance and felt trust ($r = -.30$). There was no hypothesized relationship between attachment avoidance and felt trust, however this finding indicates that attachment avoidance is detrimental to not only trusting others, but also to perceiving that others trust you. This finding again aligns with classical conceptualizations of attachment, in that insecure attachment should be detrimental to interpersonal functioning.

Exploratory analyses also revealed that attachment avoidance and attachment anxiety were negatively correlated with organizational tenure. This is a surprising finding, because workplace attachment style is conceptualized as relatively stable. This may be a finding that is specific to this sample, as these employees are young, and this may be one of their first jobs. Based on the prototype model of attachment (Fraley, 2002), employees form their internal working model of attachment figures based on the first experience they have with that type of attachment figure. Because this may be the first supervisor these employees have had, their workplace attachment style may be impacted by their current supervisor more than the typical employee. This could explain in part the correlation between attachment style and organizational tenure, as these employees’ attachment style may fluctuate and stabilize over time as they unconsciously consolidate their mental model of how a supervisor will treat them (i.e., their workplace attachment style).

An alternative explanation is that employees with higher attachment anxiety may feel dissatisfied with their current job because they feel they lack a fulfilling relationship with their supervisor. They may leave their job in hopes of finding a supervisor with whom they feel more connected. However, the employee will carry their attachment style with them to their new job
and may repeat this pattern of lacking satisfactory relational closeness with their supervisor. This relationship between workplace attachment style and tenure could be a direction for future research.

**Strengths and Limitations**

The co-worker-rated sample is multisource data, which is a strength of the methodology. It also temporally-separates the collection of the self-report measures from the collection of the performance measures for this sample. The temporal precedence of self-report measures is a strength, and in fact for the subset of the data that included co-worker-rated performance for Psychology SONA participants, data was collected at three distinct timepoints. However, this does not meet best practice recommendations for testing mediation, which would require four or more timepoints (Stone-Romero & Rosopa, 2008). Further, it must be acknowledged that the meaningfulness of the time interval between the self-report measures and performance measures is unclear. Co-workers evaluated the participant’s performance no sooner than two weeks after the participant had completed the self-report measures, but in some cases, they may have completed the survey months after the self-report measures. Future research should exert more control on the time lag between measures and design the timing to be a meaningful interval over which changes in performance would be seen.

A review (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) on common method biases suggested several remedies to the pervasive problem of common method bias, including varying the measurement context. There was some attempt to counteract this source of bias in the psychology sample, as those students completed the attachment measure at a different time than the other study variables. In addition, substantial efforts were undertaken to obtain ratings of performance from co-workers, and although statistical power was not met, this effort does align
with Podsakoff et al.’s (2003) recommendations to collect data from several sources. Despite running Harman’s single-factor test, there is likely some error variance introduced to common method bias in the self-report sample.

Regarding statistical power, power was reached for the self-report sample, however, the co-worker-rated sample was underpowered. Conditional mediation effects require additional power to be detected, so it is somewhat unsurprising that this portion of the model was not supported for the multisource sample. The exploratory analyses regarding attachment avoidance indicate that attachment avoidance may play a different role than was originally hypothesized. Attachment avoidance may in fact be a primary driver of trust and felt trust, as opposed to interacting with attachment anxiety to impact trust and felt trust. As such, individuals who are prone to avoiding relational closeness with their supervisors may experience decreased trust and felt trust.

Both samples were comprised of undergraduate students who were currently employed, with most of them being employed in the service industry. As such, these findings may not generalize to other age groups and professional domains. More specific to attachment, the prototype model of workplace attachment could be activated in a unique way for individuals in this age group. Attachment theory posits that individuals generate internal working models that represent key attachment figures. The prototype theory of attachment expands on this by stipulating that these internal working models are primarily based on the first attachment figure that emerges in a specific sphere of that individual’s life (Fraley, Vicary, Brumbaugh, & Roisman, 2011). To illustrate with an example, the prototype theory would suggest that the first manager that someone has will become that individual’s prototype of how future managers will treat them. As such, the current study’s sample may include a disproportionate number of
individuals for whom this attachment relationship is particularly impactful/salient, as this may be their first experience having a manager.

More broadly, attachment has been shown to become more secure as individuals move from early to mid-adulthood (Mickelson, Kessler, & Shaver, 1997). Attachment anxiety has been shown to significantly decrease with age, with individuals ages 15-24 reporting the highest percentage of anxiously attached individuals (17%) relative to older age categories (Mickelson et al., 1997). As such, levels of attachment in this study may not reflect that of other working populations.

A surprising finding that emerged was the lack of relationship between felt trust and co-worker-rated performance outcomes. Once again, it could be the case that the lack of power obscured effects, as past research has shown a link between felt trust and performance (e.g., Lau et al., 2014).

**Future Directions**

Future research should seek to investigate this model using a longitudinal design. Further, this research could be replicated using interview methods to assess workplace attachment style. The Adult Attachment Interview (AAI) has been touted as a more objective measure of adult attachment, as it reduces response bias (Bartholomew & Horowitz, 1991). Researchers who administer the AAI are able to recognize patterns of responding that reflect attachment styles. This would add methodological rigor beyond what self-report survey methodology can offer, as respondents may hold implicit biases that taint their self-evaluations.

Future research would do well to experiment with offering additional incentives and trying alternative recruitment strategies, as the percentage of co-workers who participated (23.61%) was not ideal. Alternative methods of contacting co-workers could be implemented,
such as partnering with organizations in order to have greater in-person contact with co-worker raters (e.g., offering organizational workshops) to increase response rates.

Future work could investigate the unexpected relationship that was found between felt trust and attachment avoidance. Attachment avoidance has been conceptualized as the portion of the relational mental model that contains preconceptions about others, in this case preconceptions about how one’s supervisor is likely to act. However, perhaps additional theoretical mechanisms exist to explain how attachment avoidance impacts self-perceptions, specifically felt trust in this instance. It could be the case that a cyclical feedback loop occurs over time, with negative assumptions about others creating a self-fulfilling prophecy where individuals are then not treated well, and in turn feel less trusted. Alternatively, it could be the case that individuals who struggle to trust others (i.e., high attachment avoidance) unknowingly reflect this lack of trust internally as well. Future research would do well to continue to explore the link between attachment avoidance at work and self-perceptions, including felt trust.

Implications

This study advances our understanding of the link between attachment and trust at work. Despite considerable past research seeking to understand the impact of individual difference variables like the Big Five, less attention has been paid in the organizational literature to attachment styles. This study provides further support for the broad theoretical premise that high levels of attachment anxiety or attachment avoidance are maladaptive. In addition, this study is the first to make the novel link between felt trust and attachment. Attachment anxiety appears as a compelling antecedent to feeling trusted, and the current study provides robust support for this novel linkage as it was supported in both samples. Seeing as felt trust has been linked to important workplace outcomes both in past research and the current study, it is important to
understand factors that may predispose employees to feel more or less trusted by their supervisors.

This study also offers valuable contributions to practice. Having a greater understanding of how attachment styles impact trust and felt trust can give organizations insight into how they might best intervene when employees are underperforming or lacking a sense of trust and felt trust. Intervening in an attempt to change attachment style is not feasible, as attachment styles are considered relatively stable. However, mitigating the potentially negative impacts of certain attachment styles on workplace outcomes can be addressed at the employee level, by bringing greater awareness to individuals’ attachment styles and suggesting avenues to learn about relevant coping strategies through therapy (Hardy & Barkham, 1994). There also exists some potential to provide resources and coaching to managers on how to best approach employees with certain attachment styles. Support has been found for the effectiveness of priming techniques, in which individuals with insecure attachment are asked to visualize their attachment figure. This visualization renders the attachment figure (in this case, one’s supervisor) symbolically available (Mikulincer & Shaver, 2007b). This priming technique is thought to be successful because an attachment figure’s unavailability is thought to be the antecedent to the development of avoidant and anxious attachment. Visualizing the attachment figure imparts a sense of security to those who are insecurely attached. Managers could also consider engaging in behaviours that will convey a greater sense of felt trust to their employees, such as delegating important work (Hanna, Elms, Gill, Stanley, & Powell, 2019).

Conclusion

This study found support for the impact of workplace attachment styles on trust in one’s supervisor and felt trust. Felt trust and trust in supervisor both mediated the relationship between
attachment anxiety and self-report OCBs. Attachment avoidance and attachment anxiety interacted such that when lower levels of both attachment variables co-occurred, employees had higher levels of trust in their supervisors. The link between attachment style and performance is less clear, with support for this link existing when performance is operationalized as self-report OCBs but failing to replicate when examining co-worker-rated OCBs and task performance. Broadly, this study demonstrated that workplace attachment functions much as classical attachment theorizing would predict. Further, attachment anxiety was uncovered as a novel antecedent to felt trust.
References


Orthopsychiatry, 52, 664-678.


Neustadt, E. A., Chamorro-Premuzic, T., & Furnham, A. (2011). Attachment at work and


Table 1. Descriptive Statistics and Bivariate Correlations of Study Variables for Self-Report Sample

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*Note. N = 436. M and SD represent mean and standard deviation. Alpha reliabilities presented on the diagonal in italics. Gender is coded as 1 (females), 2 (males), and 3 (other). * p < .05; ** p < .01.*
Table 2. Descriptive Statistics and Bivariate Correlations of Study Variables for Co-worker-Rated Performance Sample

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<th>Variable</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attachment Anxiety</td>
<td>2.37</td>
<td>1.17</td>
<td></td>
<td></td>
<td></td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attachment Avoidance</td>
<td>3.42</td>
<td>1.14</td>
<td>.25*</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Felt Trust</td>
<td>6.43</td>
<td>0.87</td>
<td>-.32**</td>
<td>-.19</td>
<td>.98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Trust in Supervisor</td>
<td>5.36</td>
<td>1.05</td>
<td>-.19</td>
<td>-.49**</td>
<td>.12</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. OCBs</td>
<td>4.13</td>
<td>0.51</td>
<td>-.01</td>
<td>-.16</td>
<td>-.07</td>
<td>.14</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Customer Service OCBs</td>
<td>82.32</td>
<td>16.88</td>
<td>-.02</td>
<td>.05</td>
<td>-.04</td>
<td>.21</td>
<td>.20</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Task Performance</td>
<td>6.55</td>
<td>0.56</td>
<td>-.17</td>
<td>-.16</td>
<td>.12</td>
<td>.27*</td>
<td>.31**</td>
<td>.31**</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Global Task Performance</td>
<td>84.84</td>
<td>20.88</td>
<td>-.20</td>
<td>-.07</td>
<td>-.04</td>
<td>.35**</td>
<td>.03</td>
<td>.07</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Age</td>
<td>19.24</td>
<td>1.65</td>
<td>-.03</td>
<td>-.28**</td>
<td>.02</td>
<td>.06</td>
<td>-.17</td>
<td>.09</td>
<td>.12</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Gender</td>
<td>1.22</td>
<td>0.47</td>
<td>.17</td>
<td>-.07</td>
<td>-.07</td>
<td>-.05</td>
<td>-.09</td>
<td>.07</td>
<td>-.04</td>
<td>.04</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>11. Organizational Tenure</td>
<td>18.34</td>
<td>16.49</td>
<td>-.05</td>
<td>-.06</td>
<td>-.12</td>
<td>.09</td>
<td>-.14</td>
<td>-.05</td>
<td>-.01</td>
<td>.03</td>
<td>.08</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. N = 88. M and SD represent mean and standard deviation. Gender is coded as 1 (females), 2 (males), and 3 (other). Alpha reliabilities presented on the diagonal in italics. * p < .05; ** p < .01.
Table 3. Path Coefficients and Indirect Effects for the Mediation Model, Self-Report Sample$^1$

<table>
<thead>
<tr>
<th>Path coefficients</th>
<th>Estimate</th>
<th>Bootstrap 95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>to Felt Trust</td>
<td>-0.26*** (.05)</td>
<td>-0.23*** (.05)</td>
</tr>
<tr>
<td>to Trust in Supervisor</td>
<td>0.27*** (.05)</td>
<td></td>
</tr>
<tr>
<td>to OCBs</td>
<td>0.33*** (.05)</td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>-0.26*** (.05)</td>
<td>-0.23*** (.05)</td>
</tr>
<tr>
<td>Felt Trust</td>
<td>0.27*** (.05)</td>
<td></td>
</tr>
<tr>
<td>Trust in Supervisor</td>
<td>0.33*** (.05)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-.15 (.03)</td>
<td>-.21, -.09</td>
</tr>
<tr>
<td>AA $\rightarrow$ FT $\rightarrow$ OCB</td>
<td>-.07 (.02)</td>
<td>-.11, -.04</td>
</tr>
<tr>
<td>AA $\rightarrow$ TS $\rightarrow$ OCB</td>
<td>-.08 (.02)</td>
<td>-.12, -.04</td>
</tr>
</tbody>
</table>

Note. $N = 436$. Standardized coefficients are reported with standard error in parentheses. Gender included as a covariate. 5000 bootstraps. * $p < .05$; ** $p < .01$; *** $p < .001$.

$^1$ An alternative model was run without gender as a covariate and the results did not change in any meaningful way. All significance levels remaining the same across the two models.
Table 4. Path Coefficients and Indirect Effects for Mediation Model with OCBs as the Outcome of Interest, Co-worker-rated Performance Sample

<table>
<thead>
<tr>
<th>Path coefficients</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to Felt Trust</td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>-0.31**(.10)</td>
</tr>
<tr>
<td>Felt Trust</td>
<td></td>
</tr>
<tr>
<td>Trust in Supervisor</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>AA→FT→OCB</td>
<td></td>
</tr>
<tr>
<td>AA→TS→OCB</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* $n = 86$. Standardized coefficients are reported with bootstrapped error in parentheses. Gender included as a covariate. 5000 bootstraps. * $p < .05$; ** $p < .01$; *** $p < .001$. 


Table 5. Path Coefficients and Indirect Effects for Mediation Model with Customer Service OCBs as the Outcome of Interest, Co-worker-rated Performance Sample

<table>
<thead>
<tr>
<th></th>
<th>Path coefficients</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to Felt Trust</td>
<td>to Trust in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supervisor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>-0.33**(.11)</td>
<td>-0.17(.11)</td>
</tr>
<tr>
<td>Felt Trust</td>
<td></td>
<td>-0.07(.11)</td>
</tr>
<tr>
<td>Trust in Supervisor</td>
<td></td>
<td>0.21(.11)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA → FT → OCB</td>
<td></td>
<td>-.02(.05)</td>
</tr>
<tr>
<td>AA → TS → OCB</td>
<td></td>
<td>.02(.04)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.04(.04)</td>
</tr>
</tbody>
</table>

Note. n = 85. Standardized coefficients are reported with bootstrapped error in parentheses. Gender included as a covariate. 5000 bootstraps. * p < .05; ** p < .01; *** p < .001.
Table 6. Path Coefficients and Indirect Effects for Mediation Model with Task Performance as the Outcome of Interest, Co-worker-rated Performance Sample

<table>
<thead>
<tr>
<th>Path coefficients</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to Felt Trust</td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>-0.33***(.10)</td>
</tr>
<tr>
<td>Felt Trust</td>
<td>0.06(.11)</td>
</tr>
<tr>
<td>Trust in Supervisor</td>
<td>0.25*(.11)</td>
</tr>
<tr>
<td>Total</td>
<td>-0.06(.06)</td>
</tr>
<tr>
<td>AA→FT→TP</td>
<td>-0.02(.04)</td>
</tr>
<tr>
<td>AA→TS→TP</td>
<td>-0.04(.05)</td>
</tr>
</tbody>
</table>

*Note. n = 87. Standardized coefficients are reported with bootstrapped error in parentheses. Gender included as a covariate. 5000 bootstraps. * p < .05; ** p < .01; *** p < .001.*
Table 7. Path Coefficients and Indirect Effects for Mediation Model with Global Task Performance as the Outcome of Interest Co-worker-rated Performance Sample

<table>
<thead>
<tr>
<th>Path coefficients</th>
<th>Indirect Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>to Felt Trust</td>
<td>to Trust in Supervisor</td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>-0.32**(.10)</td>
</tr>
<tr>
<td>Felt Trust</td>
<td></td>
</tr>
<tr>
<td>Trust in Supervisor</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>AA‡FT‡GTP</td>
<td></td>
</tr>
<tr>
<td>AA‡TS‡GTP</td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05; **p < .01; ***p < .001. 

Gender included as a covariate. 5000 bootstraps. Standardized coefficients are reported with bootstrapped error in parentheses.
Table 8. Post-hoc Power Analyses for Indirect Effects and Conditional Indirect Effects

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Sample</th>
<th>Outcome variable</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>H7a</td>
<td>Co-worker-rated</td>
<td>Task Performance</td>
<td>.34</td>
</tr>
<tr>
<td>H7a</td>
<td>Co-worker-rated</td>
<td>Global Task Performance</td>
<td>.41</td>
</tr>
<tr>
<td>H7b</td>
<td>Co-worker-rated</td>
<td>Task Performance</td>
<td>.28</td>
</tr>
<tr>
<td>H7b</td>
<td>Co-worker-rated</td>
<td>Global Task Performance</td>
<td>.11</td>
</tr>
<tr>
<td>H8a</td>
<td>Self-report</td>
<td>Self-report OCBs</td>
<td>.99</td>
</tr>
<tr>
<td>H8a</td>
<td>Co-worker-rated</td>
<td>OCBs</td>
<td>.09</td>
</tr>
<tr>
<td>H8a</td>
<td>Co-worker-rated</td>
<td>Customer Service OCBs</td>
<td>.21</td>
</tr>
<tr>
<td>H8b</td>
<td>Self-report</td>
<td>Self-report OCBs</td>
<td>1.00</td>
</tr>
<tr>
<td>H8b</td>
<td>Co-worker-rated</td>
<td>OCBs</td>
<td>.08</td>
</tr>
<tr>
<td>H8b</td>
<td>Co-worker-rated</td>
<td>Customer Service OCBs</td>
<td>.05</td>
</tr>
<tr>
<td>H9</td>
<td>Self-report</td>
<td>Trust in supervisor</td>
<td>.70</td>
</tr>
<tr>
<td>H9</td>
<td>Co-worker-rated</td>
<td>Trust in supervisor</td>
<td>.10</td>
</tr>
</tbody>
</table>

Table 9. ICC(1) and ICC(2) values of the Co-worker-rated Sample for OCBs, Customer Service OCBs, Task Performance, and Global Task Performance

<table>
<thead>
<tr>
<th></th>
<th>ICC(1)</th>
<th>ICC(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCBs</td>
<td>.08</td>
<td>.54</td>
</tr>
<tr>
<td>Customer Service OCBs</td>
<td>.16</td>
<td>.69</td>
</tr>
<tr>
<td>Task Performance</td>
<td>.11</td>
<td>.63</td>
</tr>
<tr>
<td>Global Task Performance</td>
<td>.08</td>
<td>.55</td>
</tr>
</tbody>
</table>
Table 10. Data Cleaning Steps for Self-report Sample

<table>
<thead>
<tr>
<th>N before removal</th>
<th>Reason for case removal</th>
<th>n cases removed</th>
<th>N cases remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>960</td>
<td>Did not complete the survey</td>
<td>169</td>
<td>791</td>
</tr>
<tr>
<td>791</td>
<td>Duplicate participant</td>
<td>52</td>
<td>739</td>
</tr>
<tr>
<td>739</td>
<td>Insufficient effort</td>
<td>15</td>
<td>724</td>
</tr>
<tr>
<td>724</td>
<td>Not employed</td>
<td>170</td>
<td>554</td>
</tr>
<tr>
<td>554</td>
<td>Did not have a supervisor</td>
<td>58</td>
<td>496</td>
</tr>
<tr>
<td>496</td>
<td>Failed careless responder items</td>
<td>17</td>
<td>479</td>
</tr>
<tr>
<td>479</td>
<td>Did not complete attachment items</td>
<td>43</td>
<td>436</td>
</tr>
</tbody>
</table>
Table 11. Data Cleaning Steps for Co-worker-rated Sample

<table>
<thead>
<tr>
<th>N before removal</th>
<th>Reason for case removal</th>
<th>n cases removed</th>
<th>N cases remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>238</td>
<td>Did not complete the survey</td>
<td>65</td>
<td>173</td>
</tr>
<tr>
<td>173</td>
<td>Failed careless responder items</td>
<td>4</td>
<td>169</td>
</tr>
<tr>
<td>169</td>
<td>Familial raters</td>
<td>14</td>
<td>155</td>
</tr>
<tr>
<td>155</td>
<td>Unable to match to self-report</td>
<td>51</td>
<td>104</td>
</tr>
</tbody>
</table>
Figure 1. Conceptual model.
Figure 2. Structural mediation model for the self-report sample.
Figure 3. Structural mediation model for the co-worker-rated sample with task performance as the outcome.
Figure 4. Structural mediation model for the co-worker-rated sample with global task performance as the outcome.
Figure 5. The effect of attachment anxiety on trust in supervisor across values of attachment avoidance.
Appendix A

Recruitment Materials

1. Message posted on the Psychology SONA portal
The purpose of this study is to examine people’s perceptions of their workplace supervisors and how this relates workplace attitudes and outcomes. The study will take you approximately 15 minutes to complete. Should you choose to participate, you will be asked to provide the email addresses of two of your co-workers. In appreciation of your participation in the project, you will receive a 0.5 percent course credit allocation towards your final course grade. The entire study will be conducted online. Participation in this study is voluntary and you may withdraw from participation at any time by closing your browser window (please note, however, that you must submit your survey in order to receive a course credit bonus, as it contains the personal information we need to know you participated). You may also request to have your data removed by contacting the researcher via phone or email after submitting the survey (in which case you will still receive a course credit bonus); this must be done before personal identifiers are destroyed on August 31, 2019.

2. Message posted on the Marketing and Consumer Studies SONA portal
The purpose of this study is to examine people’s perceptions of their workplace supervisors and how this relates to workplace attitudes and outcomes. The study will take you approximately 15 minutes to complete. Should you choose to participate, you will be asked to provide the email addresses of two of your co-workers. In appreciation of your participation in the project, you will receive a 2 percent course credit allocation. The entire study will be conducted online. Participation in this study is voluntary and you may withdraw from participation at any time by closing your browser window (please note, however, that you must submit your survey in order to receive a course credit bonus, as it contains the personal information we need to know you participated). You may also request to have your data removed by contacting the researcher via phone or email after submitting the survey (in which case you will still receive a course credit bonus); this must be done before personal identifiers are destroyed on August 31, 2019.

3. Recruitment email sent to co-workers
You are invited to participate in a study about workplace attitudes and workplace outcomes. You are being contacted because your co-worker has given your contact information. The study will take you approximately 10 minutes to complete. All the questions you will be asked are in reference to your co-worker, participant’s full name. In appreciation of your participation in the project, you will be entered into a prize draw with the chance to win an Amazon Gift card ($200.00). We anticipate that 200-700 people will be entered into this draw. The entire study will be conducted online. Participation in this study is voluntary and you may withdraw from participation at any time by closing your browser window. You may also request to have your data removed by contacting the researcher via phone or email after submitting the survey (in which case you will still be entered into the prize draw); this must be done before personal identifiers are destroyed at the end of the current semester.
Appendix B

Consent Form for SONA Participants

You are asked to participate in a research study conducted by Dr. Harjinder Gill and Katherine Gibbard from the Psychology Department at the University of Guelph. Results will contribute to the completion of a psychology dissertation project at the University of Guelph.

If you have questions regarding your rights and welfare as a research participant in this study (REB#......), please contact: Director, Research Ethics; University of Guelph; reb@uoguelph.ca; (519) 824-4120 (ext. 56606)

This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

1. Invitation to Participate
This study looks at how employees’ perceptions of their supervisor impact attitudes and behavior at work. You are invited to participate because you met eligibility criteria. You are eligible because you currently work in the service industry, are at least 17 years of age, have a supervisor, and have a co-worker. The purpose of this letter is to give you information so you can decide whether to participate in this study. Please print a copy for your records.

2. Purpose of this Study
The purpose of this study is to learn how employee perceptions of their supervisors are related to workplace attitudes and behaviors. This work can help design engaging workplaces in the future.

3. Inclusion Criteria
People who have supervisor or manager, are currently employed in the service industry, are 17 years of age or older, and have a co-worker may participate in this study. In the event that you choose to participate, you will be asked to provide the email addresses of two co-workers.

4. Study Procedures
If you agree to participate, you will be asked to answer some online questionnaires. The study will take place entirely online and will take approximately 15 minutes to complete. You will also be asked to provide the email addresses of two of your co-workers. These
co-workers will not be privy to any of your responses to the questionnaires. Additionally, you will not be made aware of whether your co-worker(s) participate. Your co-workers’ participation will not impact your SONA credit compensation. Further, no information about your participation and survey responses will be provided to your workplace. Your workplace will not be aware of whether you or your co-workers chose to participate.

5. Risks and Benefits
There is a risk to privacy, because in the event that privacy is breached your workplace could become aware of how your co-workers view your work performance. You may benefit by learning about how psychology research is conducted. Additionally, information gathered may benefit workplaces in the future.

6. Compensation
You will be compensated with 0.5 credits toward your research participation requirements.

7. Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no negative effects. To withdraw from the study, you can simply stop answering the study questions. If you withdraw prior to completing the survey, you will not be compensated. You can skip survey questions without affecting your compensation. You do not waive any legal rights by participating. In the event that you withdraw, any data that is collected from your co-workers will be deleted and will not be analyzed. You can withdraw your data up until August 31, 2019.

8. Confidentiality
Your name will be collected in order to match data that may be collected to your co-workers’. After data has been matched, your name will be removed from the data file. The SONA system will use your account information for reimbursement. The anonymized (identifier-free) data set will be made available for other researchers to use in accordance with the principles of open science. If it is published, overall trends will be reported without identifiable details. No quotations will be analyzed, published or made available to other researchers. Please note that confidentiality cannot be guaranteed while data are in transit over the internet.

9. Contacts for Further Information and Publication
If you require any further information regarding this research project or your participation in the study you may contact the Principal Investigator: Dr. Harjinder Gill (519) 824-4120 ext. 52917, email: gillh@uoguelph.ca, or Katherine Gibbard, email: kgbard@uoguelph.ca. If you would like to receive a copy of any potential study results, please contact Katherine Gibbard.
Appendix C

Consent Form for Co-worker Participants

Consent to Participate

You are asked to participate in a research study conducted by Dr. Harjinder Gill and Katherine Gibbard from the Psychology Department at the University of Guelph. Results will contribute to the completion of a psychology dissertation project at the University of Guelph.

If you have questions regarding your rights and welfare as a research participant in this study (REB#.....), please contact: Director, Research Ethics; University of Guelph; reb@uoguelph.ca; (519) 824-4120 (ext. 56606)

This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

1. Invitation to Participate
This study looks at how employees’ perceptions of their supervisor impact workplace attitudes and behaviours. You have been contacted because you are a co-worker of someone who has participated in this study and are 14 years of age or older. The purpose of this letter is to give you information so you can decide whether to participate in this study. Please print a copy for your records.

2. Purpose of this Study
The purpose of this study is to learn how employee perceptions of their supervisors are related to workplace attitudes and behaviours. This work can help design engaging workplaces in the future.

3. Inclusion Criteria
People who have been identified as co-workers of other study participants are invited to participate. You have been contacted because your co-worker provided your email.

4. Study Procedures
If you agree to participate, you will be asked to answer some online questionnaires. The study will take place entirely online and will take approximately 15 minutes to complete. Your co-worker will not be privy to any of your responses to the questionnaires. No information about your participation and survey responses will be provided to your workplace or your co-worker. Your workplace and your co-worker will not be aware of whether you chose to participate.
Should you choose to participate, your questionnaire responses will be linked to your co-worker’s questionnaire responses.

5. Risks and Benefits
There is a risk to privacy, because in the event that privacy is breached your co-worker would become aware of how you view them as a co-worker, or your workplace could become aware of how you view your co-worker’s performance. You will not directly benefit from this study, however information gathered may benefit workplaces in the future.

6. Compensation
You will be entered into a prize draw with the chance to win a $200.00 Amazon Gift card. The chance of winning this Gift card is estimated to be 1 in 600.

7. Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no negative effects. To withdraw from the study, you can simply stop answering the study questions. If you withdraw prior to completing the survey, you will not be entered into the prize draw. You can skip survey questions without affecting your compensation. You do not waive any legal rights by participating. In the event that you withdraw, your co-worker’s data will still be retained for analysis. You can withdraw your data up until August 31, 2019.

8. Confidentiality
Your email will be collected in order to match data that may be collected to your co-worker’s data. After data has been matched, your email will be removed from the data file. In the event that you are selected for the Gift card prize, you will be contacted by email. The anonymized (identifier-free) data set will be made available for other researchers to use in accordance with the principles of open science. If it is published, overall trends will be reported without identifiable details. No quotations will be analyzed, published or made available to other researchers. Please note that confidentiality cannot be guaranteed while data are in transit over the internet.

9. Contacts for Further Information and Publication
If you require any further information regarding this research project or your participation in the study you may contact the Principal Investigator: Dr. Harjinder Gill (519) 824-4120 ext. 52917, email: gillh@uoguelph.ca, or Katherine Gibbard, email: kgibbard@uoguelph.ca. If you would like to receive a copy of any potential study results, please contact Katherine Gibbard.
Appendix D

Debriefing Letter for SONA participants

DEBRIEFING LETTER

PROJECT TITLE: The Relationship between Attachment Styles, Trust in Supervisor, Felt Trust, and Performance

Dear Research Participant,

The purpose of the current research was to examine the effect of attitudes towards workplace supervisors, known as workplace attachment styles, on workplace trust and work performance. Previous research suggests that having positive attitudes towards oneself and towards one’s supervisor has a positive impact on trusting one’s supervisor. However, little is known about how these work attitudes impact whether an employee feels trusted. Additionally, little is known about how these workplace attitudes and levels of felt trust impact employees’ work performance. To investigate this idea, the study you just participated in involves asking your coworkers to evaluate your work performance. This will be analyzed in combination with your questionnaire responses.

If you want to learn more about this topic, please refer to the following articles:

Thank you again for participating in our study. Your cooperation was greatly appreciated. If you have any questions about the conduct of this study, you may contact either of us in the psychology department.

Harjinder Gill, PhD  Katherine Gibbard, BSc
Phone: (519) 824-4120, ext. 52197  Email: kgibbard@uoguelph.ca
E-mail: gillh@uoguelph.ca
Appendix E

The Experiences in Close Relationships - Relationship Structures Questionnaire

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<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Somewhat disagree</td>
<td>Neither agree nor disagree</td>
<td>Somewhat agree</td>
<td>Agree</td>
<td>Strongly agree</td>
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Please answer the following questions about your supervisor at work:

1. I usually discuss my problems and concerns with this person. (R)

2. I talk things over with this person. (R)

3. It helps to turn to this person in times of need. (R)

4. I find it easy to depend on this person. (R)

5. I prefer not to show this person how I feel deep down.

6. I don’t feel comfortable opening up to this person.

7. I’m afraid this person may abandon me.

8. I worry that this person won’t care about me as much as I care about him or her.

9. I often worry that this person doesn’t really care for me.
Appendix F

Felt Trust Questionnaire

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<th>1 Strongly disagree</th>
<th>2 Disagree</th>
<th>3 Somewhat disagree</th>
<th>4 Neither agree nor disagree</th>
<th>5 Somewhat agree</th>
<th>6 Agree</th>
<th>7 Strongly agree</th>
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Please rate how much you agree with the following statements:

1. My supervisor places trust in me.
2. My supervisor believes I am trustworthy.
3. My supervisor believes I can be trusted.
Appendix G

Trust in Supervisor Questionnaire

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<td>Agree</td>
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</table>

Please rate how much you agree with the following statements about your relationships with your supervisor:

1. We have a sharing relationship. We can both freely share our ideas, feelings, and hopes.

2. I can talk freely to this individual about difficulties I am having at work and know that they will want to listen.

3. We would both feel a sense of loss if one of us was transferred and we could no longer work together.

4. If I shared my problems with my supervisor, I know they would respond constructively and caringly.

5. I would have to say that we have both made considerable emotional investments in our working relationship.

6. My supervisor approaches their job with professionalism and dedication.

7. Given my supervisor’s track record, I see no reason to doubt their competence and preparation for the job.

8. I can rely on my supervisor not to make my job more difficult by careless work.

9. Most people, even those who aren't close friends of my supervisor, trust and respect them as a co-worker.

10. Other work associates of mine who must interact with my supervisor consider them to be trustworthy.

11. If people knew more about my supervisor and their background, they would be more concerned and monitor my supervisor’s performance more closely. (R)
Appendix H

Organizational Citizenship Behaviour Questionnaire

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<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very often</td>
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Please evaluate how frequently you engage in the following behaviors at work:

1. Help others who have been absent.
2. Willingly give your time to help others who have work-related problems.
3. Adjust your work schedule to accommodate other employees’ requests for time off.
4. Go out of the way to make newer employees feel welcome in the work group.
5. Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situations.
6. Give up time to help others who have work or nonwork problems.
7. Assist others with their duties.
8. Share personal property with others to help their work.
9. Attend functions that are not required but that help the organizational image.
10. Keep up with developments in the organization.
11. Defend the organization when other employees criticize it.
12. Show pride when representing the organization in public.
13. Offer ideas to improve the functioning of the organization.
14. Express loyalty toward the organization.
15. Take action to protect the organization from potential problems.
16. Demonstrate concern about the image of the organization.
Appendix I
Customer Service Organizational Citizenship Behaviours

Please evaluate your co-worker on the following questions:

1. Within the last 6 months, how often did this employee go above and beyond the “call of duty” when serving customers?

2. Within the last 6 months, how often did this employee willingly go out of his/her way to make a customer satisfied?

3. Within the last 6 months, how often did this employee help customers with problems beyond what was expected or required?
Appendix J

Task Performance Scale

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<td>Somewhat agree</td>
<td>6</td>
<td>Agree</td>
<td>7</td>
<td>Strongly agree</td>
<td></td>
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</table>

Please evaluate your co-worker based on the following statements:

1. Adequately completes assigned duties.
2. Fulfills responsibilities specified in job description.
3. Performs tasks that are expected of him/her/
4. Meets formal performance requirements of the job.
5. Engages in activities that will directly affect his/her performance evaluation.
6. Neglects aspects of the job he/she is obligated to perform. (R)
7. Fails to perform essential duties. (R)
Appendix K

Global Task Performance

Please evaluate your co-worker's work based on the following statement:

Overall, my co-worker’s work is:

0 Among the worst in the company
100 Among the best in the company
Appendix L

Demographic Questionnaire for SONA Participants

My full name is: ________________________________

My University of Guelph email address is: ________________________________

My age is: _____

What is your gender?

☐ Woman
☐ Man
☐ My gender identity is not listed above __________

I identify as:

☐ Indigenous (Inuit/First Nations/Métis)
☐ White/European
☐ Black/African/Caribbean
☐ Southeast Asian (Chinese, Japanese, Korean, Vietnamese, Cambodian, Filipino etc.)
☐ Arab (Saudi Arabian, Palestinian, Iraqi, etc.)
☐ South Asian (East Indian, Sri Lankan, etc.)
☐ Latin American (Costa Rican, Guatemalan, Brazilian, Columbian, etc.)
☐ West Asian (Iranian, Afghani, etc.)
☐ Other (please specify): __________________

I am presently employed:

☐ Yes (Full-time status)
☐ Yes (Part-time status)
☐ No

If yes, how many months have you been employed at your current job: Months employed: _____

What is your job title? ________________
In a couple of sentences, please describe your job. What tasks would you perform in a typical shift?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

I have a direct supervisor or manager: ☐ Yes
☐ No

If yes, I have been directly supervised by this person for:
Months supervised ______
Appendix M

Demographic Questionnaire for Co-worker Participants

My email is: ________________________________

My age is: _____

What is your gender?
☐ Woman
☐ Man
☐ My gender identity is not listed above

I identify as:
☐ Indigenous (Inuit/First Nations/Métis)
☐ White/European
☐ Black/African/Caribbean
☐ Southeast Asian (Chinese, Japanese, Korean, Vietnamese, Cambodian, Filipino, etc.)
☐ Arab (Saudi Arabian, Palestinian, Iraqi, etc.)
☐ South Asian (East Indian, Sri Lankan, etc.)
☐ Latin American (Costa Rican, Guatemalan, Brazilian, Colombian, etc.)
☐ West Asian (Iranian, Afghani, etc.)
☐ Other (please specify): __________________

I am presently employed:
☐ Yes (Full-time status)
☐ Yes (Part-time status)
☐ No

If yes, how many months have you been employed at your current job? _____ Months

In a couple of sentences, please describe the job of the co-worker that you answered the survey questions about.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

____________________________________________ __________________________