



# Attachments in the workplace: How attachment security in the workplace benefits the organisation

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## Abstract

In four studies, we tested if workplace secure attachment entails organisational benefits, given that such relationships are associated with increased positive relationship emotions. In Study 1, employees rated the extent to which colleagues, supervisors, and other individuals fulfil the attachment functions. In Study 2, employees listed up to 10 individuals before completing the same rating task as Study 1. In the remaining studies, employees rated their attachment security with their supervisors (Study 3) or colleagues (Study 4), and completed measures of positive relationship emotions with these individuals, proactive behaviour, organisational allure, and organisational deviance. We found that supervisors and colleagues fulfil attachment functions (Studies 1–2), and that workplace attachment security confers organisational allure and proactive behaviour due to its association with positive relationships emotions. However, workplace attachment security directly lowers organisational deviance (Studies 3–4). Thus, supportive and trusting work environments may encourage workplace relationships that could bestow organisational benefits.

## KEYWORDS

attachment, attitudes, emotions, organisational behaviour, relationships

## 1 | INTRODUCTION

Researchers have long been concerned with using a relationships perspective to understand organisational issues (Blustein, 2011; Kahn, 2001). In particular, attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973) has served as an impetus for exploring how people interact in the workplace. For example, Hazan and Shaver (1990) noted that adult attachment styles and work orientation resemble attachment and exploration activities in infancy/childhood. Other researchers theorised that leader–follower relationships, and even relationships among colleagues, can resemble attachment bonds, because leaders and colleagues can provide encouragement, support, and comfort at times of distress (Kahn, 2001; Mayselless & Popper, 2007; Shaver & Mikulincer, 2008). Studies have also reported positive links between employees' general attachment orientations and organisational commitment, organisational citizenship behaviour (OCB; Richards & Schat, 2011; see also Desivilya,

Sabag, & Ashton, 2006; Frazier, Gooty, Little, & Nelson, 2015; Little, Nelson, Wallace, & Johnson, 2011; Scrima, Di Stefano, Guarnaccia, & Lorito, 2015), organisational deviance (Little et al., 2011), and turnover intentions (Crawshaw & Game, 2015).

In this article, we examine whether attachment security (i.e., low attachment anxiety coupled with high attachment closeness and dependence; Feeney, 1999) at work is associated with organisational benefits. In Studies 1–2, we are concerned with whether an attachment perspective is relevant to the workplace. That is, we test if supervisors or colleagues can serve the functions of attachment figures, namely, provide a safe haven and secure base care. Subsequently, we examine whether attachment security with supervisors (Study 3) or colleagues (Study 4) is associated with organisational benefits. Given that individuals with a secure attachment relationship are less likely to impose regulatory control over their emotions than those with an insecure attachment relationship (i.e., high attachment anxiety coupled with low attachment closeness and dependence; Feeney, 1999),

we expect that attachment security with supervisors or colleagues will provide the emotional resources—positive relationship emotions—to report attitudes and behaviours that are organisationally beneficial.

## 2 | ATTACHMENT THEORY

Attachment theory specifies that the goal of the attachment behavioural system is protection from potential threats in one's environment. This protection can be procured by seeking close proximity to a responsive attachment figure. According to Bowlby (1973), attachment figures serve four functions: safe haven (relied upon for comfort and support), secure base (relied upon as the foundation for environmental exploration), emotional connection (having a strong bond with the other person), and death impact (impact that the death of the attachment figure would have on the participant). Bowlby proposed three types of attachment relationships or styles. If one receives sensitive and responsive care consistently, one develops a positive view of the self, others, and the environment—a secure attachment. Securely attached individuals engage in attachment behaviours when they feel threatened (e.g., proximity seeking behaviours, such as clinging and following), and use the caregiver's provision as a safe haven and secure base to engage in exploratory behaviour (e.g., show an interest in novel and complex activities, objects, or people). Inconsistent care is linked to an anxious attachment style and a negative view of the self, whereas neglect and rejection are associated with an avoidant attachment style and a negative view of others (Ainsworth et al., 1978; Bartholomew & Horowitz, 1991). Individuals with an anxious attachment style are vigilant for threats and focus on negative emotions and relationship anxieties (Birnbaum, Orr, Mikulincer, & Florian, 1997). They use hyperactivating proximity seeking behaviours at the expense of exploratory behaviours. In contrast, individuals with an avoidant attachment style suppress their negative emotions and relationship anxieties (Mikulincer & Orbach, 1995). They engage in deactivating exploratory behaviours at the expense of proximity seeking behaviours.

Recently, researchers have reconceptualised these three attachment styles as either two attachment dimensions—attachment anxiety and avoidance (Brennan, Clark, & Shaver, 1998)—or three attachment dimensions—attachment anxiety, closeness, and dependence (Collins, 1996). Attachment security is evinced by low attachment anxiety and avoidance (Brennan et al., 1998) or low attachment anxiety and high attachment closeness and dependence (Collins, 1996).

### 2.1 | Attachment and organisational benefits

Attachment security in the workplace (i.e., workplace attachment security) has been linked to organisational benefits. High attachment avoidance to a supervisor or those in the workplace is associated

with (a) reductions in job satisfaction, job performance, perceived leader effectiveness, extra effort, OCB, organisational identification, and organisational career development, but (b) increases in negative perceptions of career growth opportunities and turnover intentions (Crawshaw & Game, 2015; Frazier et al., 2015; Molero, Moriano, & Shaver, 2013). Additionally, workplace attachment security has been linked to an increase in OCB, but a reduction in organisational deviance (Little et al., 2011). Moreover, supervisors who are available, encouraging, and impart noninterfering support (qualities that are conducive to forming attachment relationships that are low in attachment anxiety and avoidance) have employees with stronger self-efficacy, autonomous motivation, and proactive work behaviour (Wu & Parker, 2017; see also Sedikides & Campbell, 2017). Finally, employees who perceive that their leaders or colleagues care for, support, or trust them report (a) stronger engagement in innovative behaviour (e.g., generating creative ideas; Atwater & Carmeli, 2009; Carmeli & Spreitzer, 2009; Vinarski-Peretz & Carmeli, 2011), (b) higher organisational commitment (Mulki, Jaramillo, & Locander, 2006; cf. Scrima et al., 2015), job satisfaction (Mulki et al., 2006), and organisational identity (Madsen, Miller, & John, 2005), but (c) lower organisational deviance (Mulki et al., 2006). Although the above-mentioned studies (a–c) have not tested directly the link between secure attachment to a supervisor and organisational benefits, they nevertheless suggest that supportive behaviours from potential attachment figures in the workplace may be associated with such benefits.

### 2.2 | Attachment and emotions

Attachment relationships are manifested in emotional expression. Bowlby (1969) argued that emotional expression signals to attachment figures the need for care and proximity for the ultimate purpose of enhancing one's survival (see also Magai & McFadden, 1995). In short, they are “innate, biologically hard-wired systems that promote the survival of the organism by facilitating efficient, adaptive responses or reactions to the changing environment” (Gray & Watson, 2001, p. 22). Positive emotions result when one successfully obtains proximity to responsive others, particularly in stressful times, although the simple anticipation of interacting with responsive others can also culminate in positive emotions (Mikulincer, Hirschberger, Nachmias, & Gillath, 2001). In support of the notion that one's attachment history has implications for emotions, Rowe and Carnelley (2003) found that individuals primed with attachment security report increases in positive emotions, but decreases in negative emotions compared with those primed with attachment anxiety or avoidance. Other research indicated that attachment security is associated with high levels of felt security (Bartholomew & Horowitz, 1991; Luke, Sedikides, & Carnelley, 2012), energy/vigour (Little et al., 2011; Luke et al., 2012), and relationship satisfaction (Carnelley, Pietromonaco, & Jaffe, 1994). Furthermore, individuals high in attachment anxiety report increases in negative emotions and relationship anxieties,

and are vigilant to threat (Birnbaum et al., 1997), whereas individuals high in attachment avoidance suppress their relationship anxieties and emotions (Mikulincer & Orbach, 1995). Of particular interest to the organisational context is the finding that employees' attachment anxiety and avoidance are associated with increases in negative emotions, but decreases in positive emotions (Richards & Schat, 2011). Specifically, attachment anxiety and avoidance towards co-workers are negatively associated with employee engagement, which includes felt energy and vigour at work (Byrne, Manning, & Desir, 2017).

### 2.3 | Attachment and organisational benefits: the mediating role of positive relationship emotions

The use of effective emotion regulation (i.e., not being overly consumed, or attempting to suppress, negative emotions) by individuals high in attachment security should free up resources for successful engagement with one's social environment (Feeney, 1999). In contrast, individuals high in attachment anxiety or avoidance should have fewer emotional resources, because they are more likely to use emotion-focused coping associated with a hyperactivated attachment system or suppress their negative emotions with a deactivating attachment system, respectively (Mikulincer & Shaver, 2003). This idea has been tested in both non-organisational and organisational contexts, albeit indirectly. For example, Luke et al. (2012) found that attachment security and willingness to explore one's environment are associated with heightened energy (and security). Furthermore, the positive association between attachment security and willingness to explore one's environment was mediated by energy. Similarly, energy and care felt at work due to one's relationship with a colleague or supervisor have been linked with innovative behaviour (Atwater & Carmeli, 2009; Carmeli & Spreitzer, 2009; Vinarski-Peretz & Carmeli, 2011). In a literature review, Dutton (2003) reported support for the notion that high quality social connections (e.g., relationships consisting of respectful engagement, task enabling, and trust), both inside and outside the workplace, are related to increases in energy, physical and mental well-being, and job performance, but decreases in turnover intentions. Although Dutton did not discuss whether energy mediates the relation between high quality connections and outcomes for individuals and organisations, she described findings linking energy with higher creativity and willingness to learn new skills. Finally, Little et al. (2011) reported that felt vigour at work is positively associated with attachment security and OCB, but negatively associated with organisational deviance. Moreover, the positive relation between attachment security and OCB, and the negative relation between attachment security and organisational deviance, were mediated by felt vigour at work. Taken together, there is preliminary support for the possibility that positive emotions, which derive from attachment security, are associated with beneficial organisational outcomes.

## 3 | OVERVIEW AND HYPOTHESES

The above findings attest to the relevance of workplace attachment security for organisational benefits. Yet, the extent to which an attachment perspective is applicable to the workplace has not been thoroughly addressed. Some researchers have alluded to the notion that workplace relationships with leaders or colleagues resemble parent-child attachment relationships (Kahn, 2001; Mayseless & Popper, 2007; Shaver & Mikulincer, 2008), especially when parents are no longer readily available as primary attachment figures (Harms, 2011). This is not too surprising, given that leaders or colleagues have the potential to provide comfort, security, and social support. Nevertheless, the above-mentioned authors merely suggest that leaders and colleagues *may* fulfil the functions of attachment figures. No research to date has examined whether leaders and/or colleagues *actually* fulfil the functions of attachment figures (i.e., safe haven, secure base, emotional connection, death impact). Testing this idea is critical, if one intends to apply an attachment perspective to workplace relationships. Put differently, it is crucial for people to perceive their leaders and colleagues as attachment figures for an attachment perspective to be relevant in the workplace. We tested this idea in Studies 1-2.

**Hypothesis 1** *Supervisors and colleagues fulfil the functions of attachment figures.*

We also examine why workplace attachment security (defined by low attachment anxiety as well as high attachment closeness and dependence with supervisors or colleagues) may be linked to organisational benefits (H2). We hypothesise that this is due to positive relationship emotions that are associated with attachment security. This hypothesis is based on research documenting a link between attachment security and positive relationship emotions (i.e., felt security, energy/vigour, relationship satisfaction; Bartholomew & Horowitz, 1991; Carnelley et al., 1994; Little et al., 2011; Luke et al., 2012; H3). Other research has shown that (a) energy and care felt at work due to one's relationship with a supervisor or colleague is linked to increases in innovative behaviour (Atwater & Carmeli, 2009; Carmeli & Spreitzer, 2009; Vinarski-Peretz & Carmeli, 2011; H4), and (b) vigour mediates the association between workplace attachment security and OCB, and between workplace attachment security and organisational deviance (Little et al., 2011; H5). Finally, research has linked leadership style to employee emotional exhaustion, job satisfaction, organisational commitment, and organisational deviance. For example, participative (supportive) leadership style conduces to a reduction in emotional exhaustion in employees, and thereby contributes to increases in employee job satisfaction and organisational commitment, but decreases in employee organisational deviance (Mulki et al., 2006; H3, H5). Given the findings reviewed above, we propose the following hypotheses that we test in Studies 3-4.

**Hypothesis 2** *Attachment security with supervisors or colleagues is associated with increases in (a) positive organisational attitudes and (b) proactive behaviour, but decreases in (c) organisational deviance.*

**Hypothesis 3** Attachment security with supervisors or colleagues is associated with increases in positive relationship emotions with a supervisor or colleague.

**Hypothesis 4** Positive relationship emotions with a supervisor or colleague are associated with increases in positive organisational attitudes (H4a) and proactive behaviour (H4b), but decreases in organisational deviance (H4c).

**Hypothesis 5** The association between attachment security with supervisors or colleagues and positive organisational attitudes (H5a), proactive behaviour (H5b), and organisational deviance (H5c) is mediated by positive relationship emotions.

## 4 | STUDY 1

Ainsworth (1989) maintained that a variety of individuals (i.e., romantic partners, family members, friends) can fulfil attachment functions, and other researchers have argued that workplace relationships resemble parent-child attachment relationships (Kahn, 2001; Mayseless & Popper, 2007; Shaver & Mikulincer, 2008). Also, Wu and Parker (2017) noted that supervisors can be used as a secure base for support. However, no research has addressed whether supervisors and/or colleagues actually fulfil the remaining attachment functions: safe haven, emotional connection, death impact. Finding support for the notion that both supervisors and colleagues can serve as attachment figures would highlight the importance of having any kind of secure attachment relationship in the workplace. We pursued these issues in Study 1.

### 4.1 | Method

#### 4.1.1 | Ethics

We submitted the protocol of this and all reported studies to a formal university ethical review board. All studies were granted ethical approval. We presented participants with an information sheet and instructed them they had the right to withdraw from the studies or that they could leave as blank and with no penalty any question they did not wish to answer. We provided participants with the stimulus materials after they had consented to the research. Finally, we collected no participant identifying information.

#### 4.1.2 | Participants and procedure

In this and all subsequent studies, we relied on internet samples. Evidence indicates that such samples, including those recruited from Mechanical Turk (MTurk), are more attentive and representative of the population, give more accurate and reliable responses, and self-disclose more information compared to student samples (Buhrmester, Kwang, & Gosling, 2011; Fraley, 2007; Paolacci, Chandler, & Ipeirotis, 2010). In addition, MTurk is becoming a more popular recruitment method for organisational research (Keith, Tay, & Harms, 2017).

We recruited, through MTurk, 339 organisational employees (218 men, 119 women, 2 undeclared) aged 20–66 years ( $M = 31.54$ ,  $SD = 8.93$ ), and paid them \$3. The majority of them resided in India ( $N = 153$ , 45.1%) or the U.S.A. ( $N = 136$ , 40.1%). We proceeded to classify participants as members of Western culture (Europe, North America;  $N = 184$ ) or Non-western culture (Africa, Asia;  $N = 155$ ). Participants worked in the public ( $N = 124$ ), private ( $N = 182$ ), non-profit ( $N = 24$ ), or other/undeclared ( $N = 9$ ) sectors. Their average length of organisational tenure was 66.82 months ( $SD = 73.85$ ). Eighty-four percent were currently in a romantic relationship, with the average relationship length being 77.88 months ( $SD = 86.62$ ).

We instructed participants to complete the study alone and in a quiet place. They reported a variety of demographics (i.e., age, gender, culture, employment status, employment sector, organisational tenure, relationship status, relationship length) and then filled out relevant measures, as described below.

### 4.1.3 | Measures

#### Attachment dimensions

We used a modified version of the Experiences in Close Relationships Questionnaire Short Form (Wei, Russell, Mallinckrodt, & Vogel, 2007), replacing “partner” with “others” to assess attachment orientations to others in general. This questionnaire consists of two 6-item subscales (1 = *disagree strongly*, 7 = *agree strongly*), reflecting attachment anxiety (e.g., “I worry that others won’t care about me as much as I care about them”) and attachment avoidance (e.g., “I find it difficult to allow myself to depend on others”). After reverse scoring the negatively worded items, we formed composites: attachment anxiety subscale  $\alpha = 0.77$ ,  $M = 3.70$ ,  $SD = 1.24$ ; attachment avoidance subscale  $\alpha = 0.71$ ,  $M = 3.22$ ,  $SD = 1.07$ .

#### Attachment Network Questionnaire

We used a modified version of the Attachment Network Questionnaire (ANQ; Trinke & Bartholomew, 1997; see Appendix S1). The ANQ assesses characteristics of adult attachment hierarchies by inviting participants to list up to 10 individuals with whom they have a strong emotional tie, provide background information about them (i.e., nature of relationship, gender, age, physical distance, frequency of contact, and length of time that the participant has known the person), and rank-order them in terms of their importance (1 = *most important*, 10 = *least important*) for fulfilling the four functions of attachment figures (i.e., safe haven, secure base, emotional connection, death impact). Participants are instructed that they DO NOT need to rank every individual on the functions, except for emotional connection (i.e., “Rank order all of the people on your list in terms of whom you feel most emotionally connected to, regardless of whether the connection is positive, negative, or mixed”). Safe haven (i.e., “Who can help you feel better when something bad happens to you or you feel upset?”) and secure base (i.e., “Who can you count on to always be there for you?”) items reflect both actual (i.e., who can perform the desired behaviour) and desired (i.e., who would you like to perform

the desired behaviour) fulfilment, whereas death impact (i.e., "Whose death would have the greatest impact or effect on you, regardless of what the effect may be?") reflects actual impact.

We modified the questionnaire, so that participants provided background information and ranked the extent to which romantic partner, mother, father, sibling, best friend, colleague, supervisor, and up to three additional individuals fulfilled the attachment functions. After Trinke and Bartholomew (1997), we classified a specific relationship as fulfilling the attachment functions, if it was ranked on *all* of the following: safe haven (desired, actual, both, or either), secure base (desired, actual, both, or either), emotional connection, death impact (assigned a code of 1); otherwise, we classified the relationship as not fulfilling the attachment functions (assigned a code of 0). Recall that participants were not required to rank all relationships on the attachment functions, if they thought that the item was inapplicable to a specific relationship. In instances where a participant did not rank a relationship on safe haven (desired, actual, both, or either), secure base (desired, actual, both, or either), emotional connection, or death impact, we did not classify the relationship as an attachment one.

## 4.2 | Results and discussion

We computed a logistic regression analysis to examine whether the relationship was classified as fulfilling the attachment functions (i.e., the dependent variable). In these analyses, gender (women = -1, men = 1), culture (west = -1, east = 1), and sector (public = -1, private = 1) served as categorical independent variables, whereas age, organisational tenure, attachment anxiety, and attachment avoidance served as continuous independent variables to predict whether the relationship was classified as fulfilling the attachment functions. Furthermore, for each logistic regression analysis, we implemented hierarchical regression, such that we entered attachment anxiety

and attachment avoidance as predictors in the first block, and the demographic variables in the second block. None of the demographic variables predicted reliably whether the relationships were classified as fulfilling the attachment functions,  $bs < |-0.73|(0.38)$ ,  $ps > .056$ . Also, attachment anxiety predicted whether a relationship was classified as an attachment one for partners, mothers, fathers, friends, and colleagues when we included the demographic variables in the logistic regression models,  $bs > 0.27|(0.12)$ ,  $ps < .023$ . Finally, attachment avoidance predicted whether a relationship was classified as an attachment one for partners only,  $b = -0.34(0.17)$ ,  $p = .05$ . Given that culture did not predict whether a relationship was classified as an attachment one, we reverted to Western samples in the remaining three studies.

As the demographic variables did not produce significant effects, we report the results for the first block of predictors (i.e., attachment anxiety and attachment avoidance only). For all relationships except siblings, as a set, the predictors distinguished between participants who classified the specific relationship as fulfilling the attachment functions versus not,  $\chi^2(2) > 6.78$ ,  $ps < .034$ , Nagelkerke's  $R^2 \geq .039$ . For siblings:  $\chi^2(2) = 2.81$ ,  $p = .245$ , Nagelkerke's  $R^2 = .015$ . The analyses revealed that anxious attachment distinguished between participants who classified the specific relationship as fulfilling the attachment functions versus not,  $bs > 0.23(0.11)$ ,  $ps < .023$ , whereas attachment avoidance did not distinguish so,  $bs < |-0.24|(0.15)$ ,  $ps > .112$ . However, attachment avoidance distinguished between participants who classified their romantic partners as fulfilling the attachment functions,  $b = -0.34(0.17)$ ,  $p = .044$  (see Table 1). The analyses indicate that, when attachment avoidance is held constant, as attachment anxiety increases by one unit, the specific relationship is at least 1.28 times *more* likely to be classified as fulfilling the attachment functions; also, when attachment anxiety is held constant, as attachment avoidance increases by one unit, romantic partners are 0.72 times *less* likely to be classified as fulfilling the attachment functions. Therefore, participants high in attachment anxiety were

Relationship type	Predictor	B	SE B	Wald	p	OR	95% CI OR
Romantic Partner	Anxiety	0.43	0.15	8.37	.004	1.54	[1.15, 2.06]
	Avoidance	-0.34	0.17	4.05	.044	0.72	[0.52, 0.99]
Mother	Anxiety	0.35	0.14	6.30	.012	1.42	[1.08, 1.86]
	Avoidance	-0.20	0.16	1.64	.201	0.82	[0.60, 1.11]
Father	Anxiety	0.48	0.13	12.75	.001	1.61	[1.24, 2.09]
	Avoidance	-0.10	0.15	0.45	.502	0.91	[0.68, 1.21]
Sibling	Anxiety	0.13	0.12	1.13	.288	1.13	[0.90, 1.43]
	Avoidance	-0.21	0.14	2.34	.126	0.81	[0.62, 1.06]
Friend	Anxiety	0.32	0.13	5.74	.017	1.37	[1.06, 1.78]
	Avoidance	-0.24	0.15	2.51	.113	0.79	[0.59, 1.06]
Colleague	Anxiety	0.29	0.11	6.72	.010	1.33	[1.07, 1.66]
	Avoidance	-0.01	0.13	0.01	.942	0.99	[0.77, 1.27]
Supervisor	Anxiety	0.24	0.11	5.13	.023	1.28	[1.03, 1.57]
	Avoidance	0.05	0.12	0.17	.684	1.05	[0.83, 1.34]

**TABLE 1** Study 1: Logistic Regression for attachment anxiety and avoidance predicting if a relationship is classified as fulfilling the attachment functions

Note: Anxiety = Attachment Anxiety; Avoidance = Attachment Avoidance; N = 339.

Abbreviations: CI, confidence interval; OR, odds ratio.



more likely to classify their romantic partners, mothers, fathers, friends, colleagues, and supervisors as fulfilling the attachment functions. Put otherwise, participants high in attachment anxiety attempted to fulfill their attachment needs through various persons.

We then engaged in a series of chi-square analyses to determine if the specific relationship was classified as fulfilling the attachment functions beyond chance using the same classification system as described above (i.e., 1 = Yes, 0 = No). Consistent with Trinke and Bartholomew (1997), romantic partners, mothers, fathers, siblings, and best friends fulfilled the attachment functions,  $\chi^2(1) > 41.75$ ,  $ps < .001$ ,  $Vs > 0.35$  (as reported by 77.88%, 75.52%, 72.57%, 67.55%, and 74.04% of participants, respectively). Crucially, colleagues and supervisors also fulfilled the attachment functions,  $\chi^2(1) > 6.51$ ,  $ps < .012$ ,  $Vs > 0.13$  (as reported by 61.36% and 56.93% of participants, respectively). In all, colleagues and supervisors are at the bottom of the attachment figure hierarchy.

#### 4.2.1 | Summary

The finding that colleagues and supervisors were regarded as attachment figures vouches for the validity of an attachment perspective in the workplace and is consistent with H1. However, we note a limitation of Study 1: Participants were explicitly asked to rank supervisors and colleagues. In the original version of the ANQ (Trinke & Bartholomew, 1997), participants are asked to list the important persons in their lives and describe the nature of the relationship (e.g., romantic partner, parent) before ranking the order in which these persons fulfilled the attachment functions. Thus, in this original version, participants are free to choose whom they wish to evaluate rather than being given a list of specific relationships to evaluate. Our participants, then, may have ranked only colleagues and supervisors on the attachment dimensions because they were asked to do so, and not because these persons are attachment figures per se. We addressed this limitation in the next study.

## 5 | STUDY 2

Our objective in Study 2 was to determine whether participants freely choose to list and evaluate the extent to which colleagues and supervisors fulfil the attachment functions. Thus, we designed Study 2 to test further H1, namely that supervisors and colleagues fulfill the functions of attachment figures. If the findings indicated that they do so, we would be more confident that these individuals are indeed used as attachment figures.

### 5.1 | Method

#### 5.1.1 | Participants and procedure

We recruited via MTurk 329 organisational employees (213 men, 116 women) aged 18–61 years ( $M = 29.24$ ,  $SD = 7.64$ ), and paid them

\$3. As we requested that participants be US residents, the majority (99.1%) resided in the U.S.A. ( $n = 326$ ). Participants worked in the public ( $N = 146$ ), private ( $N = 123$ ), nonprofit ( $N = 30$ ), or other/undeclared ( $N = 26$ ) sectors, with average organisational tenure of 50.95 months ( $SD = 49.03$ ). Seventy-seven percent were currently in a romantic relationship, with an average relationship length of 75.25 months ( $SD = 75.35$ ). The procedure and measures were identical to Study 1's, with one minor exception: For the ANQ, participants nominated up to 10 individuals of their choosing and specified the nature of the relationship that the individual represented (e.g., romantic partner, friend) before ranking them on the attachment functions. Preliminary analyses revealed no or little effect of the demographic variables on the dependent measures, and so we removed those variables from the reported analyses in the remaining studies.

### 5.1.2 | Measures

#### *Attachment dimensions*

This scale was identical to that of Study 1; attachment anxiety  $\alpha = 0.80$ ,  $M = 3.53$ ,  $SD = 1.31$ ; attachment avoidance  $\alpha = 0.77$ ,  $M = 3.31$ ,  $SD = 1.17$ .

#### *Attachment Network Questionnaire*

Similar to Study 1, we aimed to find out if a specific relationship fulfils the attachment functions. For each participant, we classified whether each relationship was listed and ranked (1 = Yes, 0 = No). Recall that participants were asked to list and rank up to 10 individuals with whom they had a relationship, and that some of the relationships could be represented by multiple individuals (e.g., friends). As such, we computed the average attachment function classifications for each relationship. The average attachment function classifications for each relationship, then, could range from 0 (not an attachment relationship) to 1 (an attachment relationship).

## 5.2 | Results and discussion

### 5.2.1 | Individuals listed

Given that participants were asked to list and rank up to 10 individuals with whom they had a relationship, we computed the overall mean number of individuals listed and the average a particular relationship type was listed. The mean number of individuals that participants listed in the ANQ was 4.37 ( $SD = 2.73$ ; Range = 1–10). Also, participants listed and ranked the following type of relationships: romantic partners ( $M = 0.76$ ,  $SD = 0.49$ ), mothers ( $M = 0.48$ ,  $SD = 0.52$ ), fathers ( $M = 0.30$ ,  $SD = 0.47$ ), siblings ( $M = 0.62$ ,  $SD = 0.78$ ), friends ( $M = 1.50$ ,  $SD = 1.72$ ), colleagues ( $M = 0.19$ ,  $SD = 0.52$ ), supervisors ( $M = 0.05$ ,  $SD = 0.22$ ), offspring ( $M = 0.22$ ,  $SD = 0.68$ ), other relatives (e.g., aunts, uncles, cousins, grandparents;  $M = 0.22$ ,  $SD = 0.65$ ), and roommates ( $M = 0.01$ ,  $SD = 0.17$ ).

## 5.2.2 | Attachment functions

We computed partial correlations between attachment anxiety and average attachment function classification for nine relationships (i.e., romantic partner, mother, father, sibling, friend, colleague, supervisor, offspring, and other relative) controlling for attachment avoidance. Only the partial correlations between attachment anxiety and the attachment function classification for mother or offspring were significant,  $prs(147) > .17$ ,  $ps < .029$ , with the other partial correlations being null,  $prs(239) < |-.05|$ ,  $ps > .484$ . These results are similar to Study 1's: Participants high in attachment anxiety attempted to fulfil their attachment needs from multiple individuals. We also computed partial correlations between attachment avoidance and average attachment function classification for the same nine relationships controlling for attachment anxiety. None of the partial correlations between attachment avoidance and the attachment function classification for the nine relationships, controlling for attachment anxiety, was significant,  $prs(239) < |-.12|$ ,  $ps > .088$ .

Subsequently, we computed a series of one-sample *t*-tests with a test value of 0 (i.e., the relationship not fulfilling the attachment function) to determine if the specific relationship was classified as fulfilling the attachment functions beyond what was expected by chance. We display the descriptive statistics for each relationship type in Table 2. Consistent with Study 1, participants classified romantic partners, mothers, fathers, siblings, friends, colleagues, and supervisors as fulfilling the attachment functions,  $ts(13) > 5.69$ ,  $ps < .001$ ,  $ds > 1.51$ . Also, participants classified offspring and other relatives as fulfilling the attachment functions,  $ts(45) > 10.85$ ,  $ps < .001$ ,  $ds > 1.58$ .

## 5.2.3 | Summary

Across Studies 1–2, the findings supported H1. Participants classified colleagues and supervisors as fulfilling the attachment functions, regardless of whether they were specifically asked to rank these relationships (Study 1) or freely chose to do so (Study 2).

**TABLE 2** Study 2: Classification of each relationship type as fulfilling the attachment functions

Relationship type	<i>M</i>	<i>SD</i>	<i>N</i>
Romantic Partner	0.95	0.21	244
Mother	0.88	0.32	154
Father	0.86	0.33	96
Sibling	0.79	0.33	155
Friend	0.58	0.38	218
Colleague	0.72	0.40	47
Supervisor	0.71	0.41	14
Offspring	0.65	1.50	46
Other Relative	0.73	0.37	47

Note: Means range from 0 (not an attachment figure) to 1 (an attachment figure).

Granted, a relatively low number of participants spontaneously ranked colleagues ( $n = 47$ , 14.29%) and supervisors ( $n = 14$ , 4.26%) in Study 2. This may imply that employees do not ordinarily think of colleagues and supervisors as typical attachment figures, although they may be more likely to do so if prompted. Nevertheless, both studies suggest that colleagues and supervisors are at the bottom of the attachment figure hierarchy. Studies 3–4 examined whether workplace secure attachment relationships conduce to organisational benefits due to the positive emotions with which such relationships are associated.

## 6 | STUDY 3

Secure relationships are linked to increases in felt security and energy, willingness to explore, curiosity, and cognitive openness (Luke et al., 2012; Mikulincer, 1997). In addition, attachment security (Crawshaw & Game, 2015; Desivilya et al., 2006; Little et al., 2011; Richards & Schat 2011) or support from one's leader (Wu & Parker, 2017) are associated with increases in positive organisational attitudes and behaviours, but decreases in negative organisational behaviours. Lastly, relationships in the workplace are related to felt energy or vigour at work (Atwater & Carmeli, 2009; Carmeli & Spreitzer, 2009; Little et al., 2011; Vinarski-Peretz & Carmeli, 2011).

On the basis of this literature, we hypothesise that workplace attachment security will be conducive to positive organisational attitudes and behaviours, as such relationships are linked to resources (i.e., positive relationship emotions) that promote a fuller work engagement. Study 3 examines the extent to which attachment security with supervisors is associated with increases in organisational benefits (e.g., rises in organisational allure [positive organisational attitudes, organisational identity, and organisational commitment; H2a] and proactive behavior [H2b], but with decreases in organisational deviance [H2c]) and positive relationship emotions (H3). Study 3 also tests if positive relationship emotions towards supervisors are associated with organisational benefits (e.g., increases in organisational allure [H4a] and proactive behavior [H4b], but with decreases in organisational deviance [H4c]). Moreover, Study 3 addresses whether positive relationship emotions towards supervisors mediate the association between attachment security with supervisors and increases in organisational allure (H5a) and proactive behaviour (H5b), but decreases in organisational deviance (H5c). Given that we had multiple measures of attachment, positive relationship emotions, and organisational allure, we tested H5a–c via structural equation modelling.

## 6.1 | Method

### 6.1.1 | Participants and procedure

For Studies 3–4, we determined the appropriate sample size to detect a small to medium effect (i.e.,  $\beta = 0.25$ ) when statistical

power is 0.80 and a  $p$  value of .05 using Soper's (2019) sample size calculator. With four latent variables and 14 observed values in our structural equation models, we would require a minimum sample for the model structure to be 138, but a sample of 209 to detect the effect. Thus, we set out to have final samples consisting of 209 or greater in Studies 3–4, except for Study 4 where  $N = 208$ .

We recruited via MTurk 223 organisational employees (149 men, 74 women) aged 18–61 years ( $M = 29.21$ ,  $SD = 8.33$ ) in exchange for \$1. The majority of them (99.1%) resided in the U.S.A. ( $N = 221$ ). Participants worked in a variety of sectors: public ( $N = 109$ ), private ( $N = 84$ ), nonprofit ( $N = 16$ ), other/undeclared ( $N = 14$ ). Their average organisational tenure was 48.23 months ( $SD = 45.47$ ).

### 6.1.2 | Measures

For Studies 3–4, we used established measures of the constructs of interest; that is, the authors of these scales had provided support for their construct validity. Using scales high on construct validity minimises the potential for common method bias, as they boast convergent and divergent validity with related and unrelated constructs, respectively (Conway & Lance, 2010).

Participants filled in the attachment to supervisors measures first. Next, they completed the felt security and energy measures, followed (in random order) by the organisational deviance, organisational allure, and proactive behaviour measures. They completed the relationship satisfaction measure last.

#### *Attachment to supervisors*

We used a modified version of the Revised Attachment Scale (Collins, 1996), because its three subscales make it suitable for computing a latent secure attachment to supervisors factor as per our structural equation model. We modified the scale to reflect attachment to supervisors instead of other people in general. In particular, the scale consisted of 18 items, six for each subscale: attachment closeness (e.g., “I find it relatively easy to get close to my supervisor”), attachment dependence (e.g., “I am comfortable depending on my supervisor”), attachment anxiety (e.g., “I often worry that my supervisor doesn't really like me”). Participants indicated (1 = *not at all*, 5 = *very*) how characteristic each item was of them. High scores on the attachment closeness and dependence subscales, coupled with a low score on the attachment anxiety subscale, denote attachment security. After reverse-scoring the negatively phrased items, we computed composites for each subscale: attachment closeness  $\alpha = 0.76$ ,  $M = 3.69$ ,  $SD = 0.78$ ; attachment dependence  $\alpha = 0.87$ ,  $M = 3.55$ ,  $SD = 0.92$ ; attachment anxiety  $\alpha = .86$ ,  $M = 2.18$ ,  $SD = 0.88$ .

#### *Positive relationship emotions*

We used three measures to assess positive relationship emotions. The measures were the Felt Security Scale (Luke et al., 2012), the Felt Energy Scale (Luke et al., 2012), and the Perceived Relationship

Quality Inventory (Fletcher, Simpson, & Thomas, 2000). As prior research has indicated that these constructs are interrelated (Luke et al., 2012; Sadikaj, Moskowitz, & Zuroff, 2015), we computed a latent positive relationship emotions factor using these measures for our structural equation model.

*Felt security.* We used the Felt Security Scale (Luke et al., 2012). It consisted of 16 items assessing care (e.g., “comforted”), esteem (e.g., “valued”), love (e.g., “adored”), and safety (e.g., “protected”). Participants indicated (1 = *not at all*, 6 = *very much*) the extent to which they felt secure when thinking about their relationship with their supervisor. We formed a composite ( $\alpha = 0.97$ ,  $M = 3.60$ ,  $SD = 1.20$ ).

*Felt energy.* We used the Felt Energy Scale (Luke et al., 2012). It comprised 10 items reflecting subjective vitality or feelings of aliveness and vivacity (Ryan & Frederick, 1997; e.g., “energetic”, “lively”, “vibrant”). Participants indicated (1 = *not at all*, 6 = *very much*) the extent to which they felt energised when thinking about their relationship with their supervisor. We formed a composite ( $\alpha = 0.97$ ,  $M = 3.12$ ,  $SD = 1.32$ ).

*Relationship satisfaction.* We used the satisfaction subscale of the Perceived Relationship Quality Inventory (Fletcher et al., 2000). This scale contained three items measuring relationship satisfaction (e.g., “satisfied”, “content”, “happy”). Participants indicated (1 = *not at all*, 7 = *extremely*) to what extent they felt satisfied with their relationship with their supervisor. We formed a composite ( $\alpha = 0.97$ ,  $M = 4.59$ ,  $SD = 1.67$ ).

#### *Organisational deviance*

We used the Organisational Deviance Scale (Bennett & Robinson, 2000). It contained 12 items designed to reflect deviance in the workplace (e.g., “put little effort into your work”, “take property from work without permission”). Participants indicated (1 = *never*, 7 = *daily*) how frequently they engaged in such behaviours over the last year. We formed a composite ( $\alpha = .80$ ,  $M = 2.15$ ,  $SD = 0.87$ ).

#### *Organisational allure*

We used a modified version of the Organisational Allure Scale (Hart, Sedikides, & De Cremer, (in press)). It consisted of nine items, three for each of the following subscales (which allowed us to compute a latent organisational allure factor): organisational attitudes (e.g., “I feel warmly towards my organization”), organisational identification (e.g., “I am a person who feels affiliated with my organization”), and organisational commitment (e.g., “My intention is to keep working at my organization for a long time to come”). Participants indicated (1 = *not at all*, 6 = *very much so*) their extent of agreement with each item. We formed composites for each subscale; organisational attitudes  $\alpha = 0.95$ ,  $M = 4.44$ ,  $SD = 1.20$ ; organisational identification  $\alpha = 0.91$ ,  $M = 4.43$ ,  $SD = 1.18$ ; organisational commitment  $\alpha = 0.89$ ;  $M = 3.87$ ,  $SD = 1.51$ .



### Proactive behaviour

We used the Proactive Work Behavior Scale (Parker & Collins, 2010). It contained 12 items, three for each of the following subscales (which enabled computing a latent proactive behaviour factor): taking charge (e.g., "try to bring about improved procedures in your workplace"), voice (e.g., "speak up and encourage others in the workplace to get involved in issues that affect you"), individual innovation (e.g., "generate creative ideas"), and problem prevention (e.g., "spend time planning how to prevent reoccurring problems"). Participants indicated (1 = *very infrequently*, 5 = *very frequently*) how frequently they engaged in such behaviours. We formed composites: taking charge  $\alpha = 0.84$ ,  $M = 3.59$ ,  $SD = 0.98$ ; voice  $\alpha = 0.68$ ,  $M = 3.63$ ,  $SD = 0.85$ ; individual innovation  $\alpha = 0.72$ ,  $M = 3.55$ ,  $SD = 0.89$ ; problem prevention  $\alpha = 0.77$ ,  $M = 3.69$ ,  $SD = 0.91$ .

## 6.2 | Results and discussion

### 6.2.1 | Correlations

To test H2–4, we calculated a series of correlations displayed in Table 3. As expected, the attachment closeness and dependence measures were positively related to each other, whereas attachment anxiety was negatively related to both attachment closeness and dependence. In addition, all positive relationship emotion scales were positively related to each other, and so were all organisational allure subscales and the proactive behaviour subscales. Furthermore,

the organisational allure measures were associated with increases in proactive behaviour, but decreases in organisational deviance. Critically, attachment closeness and dependence were associated with increases in organisational allure (H2a), proactive behaviours (H2b; although attachment dependence was unrelated to individual innovation and problem prevention), and positive relationship emotions (H3), but with decreases in organisational deviance (H2c). In contrast, attachment anxiety was associated with decreases in organisational allure (H2a; although attachment anxiety was unrelated to organisational commitment), proactive behaviours (H2b; although attachment anxiety was unrelated to individual innovation), and positive relationship emotions (H3; although attachment anxiety was marginally related to energy,  $p = .064$ ), but with increases in organisational deviance (H2c). Crucially, all of the positive relationship emotions scales were associated with increases in organisational allure (H4a) and proactive behavior (H4b). Felt security and relationship satisfaction were associated with decreases in organisational deviance (H4c).

### 6.2.2 | Structural equation models

To test H5a–c (i.e., positive relationship emotions towards supervisors mediate the association between attachment security with supervisors and organisational benefits), we engaged in structural equation modelling given that we had multiple measures of each construct (i.e., attachment to supervisors, positive relationship emotions, organisational allure, proactive behaviour) except organisational deviance.

**TABLE 3** Study 3: Correlations between measures

	AC	AD	AA	FS	EN	RS	OD	OA	OI	OC	TC	VC	II	PP
AC	–	.69**	–.59**	.59**	.40**	.57**	–.23**	.28**	.27**	.15*	.28**	.32**	.21*	.20*
AD		–	–.53**	.68**	.49**	.74**	–.29**	.34**	.32**	.25**	.13*	.15*	.08	.12
AA			–	–.27**	–.12	–.39**	.27**	–.13*	–.14*	–.10	–.18*	–.23**	–.04	–.16*
FS				–	.84**	.80**	–.15*	.45**	.44**	.36**	.33**	.37**	.28**	.30**
EN					–	.63**	–.10	.42**	.43**	.34**	.30**	.35**	.34**	.28**
RS						–	–.21*	.53**	.52**	.39**	.29**	.31**	.21*	.26**
OD							–	–.24**	–.29**	–.23**	–.02	–.03	.00	–.06
OA								–	.88**	.69**	.33**	.33**	.34**	.37**
OI									–	.76**	.35**	.38**	.33**	.39**
OC										–	.26**	.29**	.31**	.31**
TC											–	.78**	.64**	.80**
VC												–	.63**	.72**
II													–	.63**
PP														–

Note:  $N = 223$ .

Abbreviations: AA, Attachment Anxiety; AC, Attachment Closeness; AD, Attachment Dependence; EN, Felt Energy; FS, Felt Security; II, Individual Innovation; OA, Organisational Attitudes; OC, Organisational Commitment; OD, Organisational Deviance; OI, Organisational Identity; PP, Problem Prevention; RS, Relationship Satisfaction; TC, Taking Charge; VC, Voice.

\* $p < .05$ .

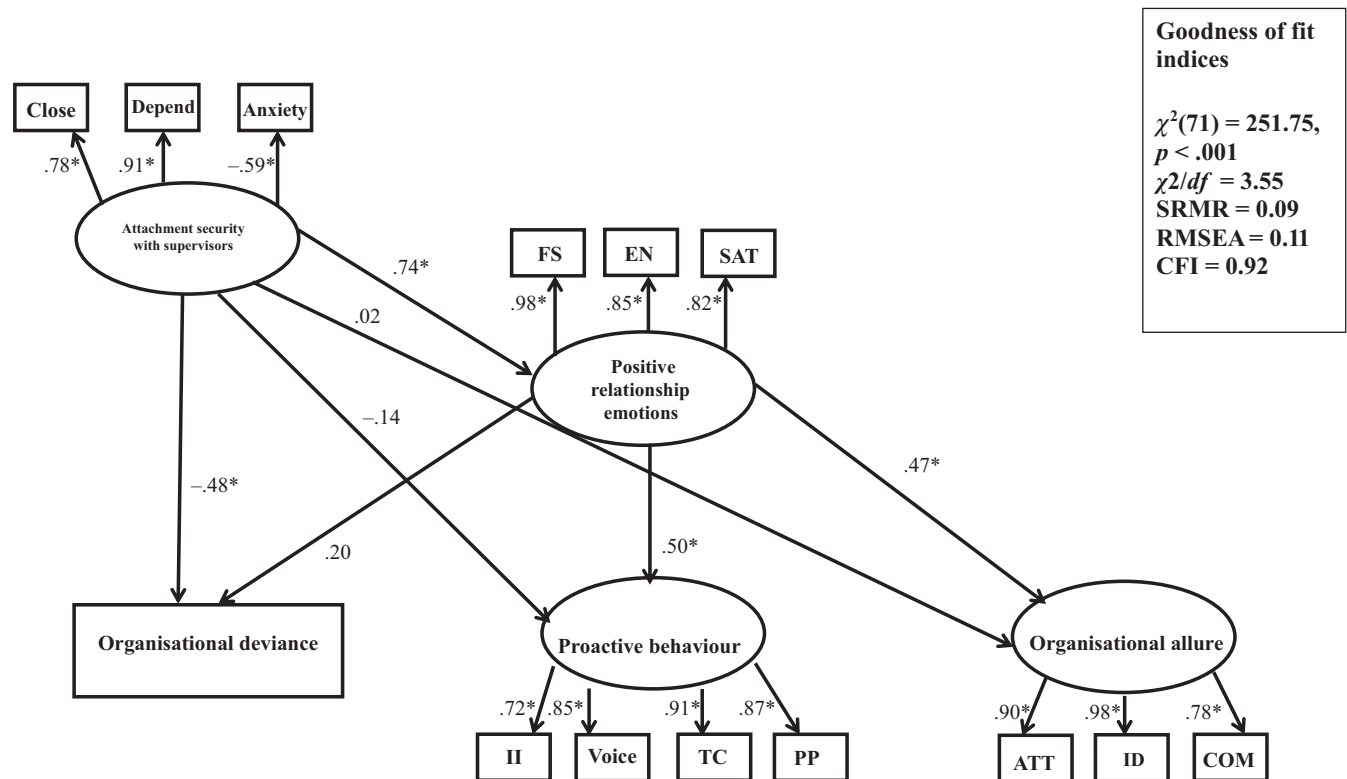
\*\* $p < .001$ .

As we mentioned above, attachment closeness, dependence, and anxiety served as indicators of the latent attachment security with supervisors factor. Felt security, felt energy, and relationship satisfaction served as indicators of the latent positive relationship emotions factor. Organisational attitudes, identification, and commitment were indicators of the latent organisational allure factor. Taking charge, voice, individual innovation, and problem prevention loaded onto the latent proactive behaviour factor. In contrast, the mean of the organisational deviance items was a measured variable.

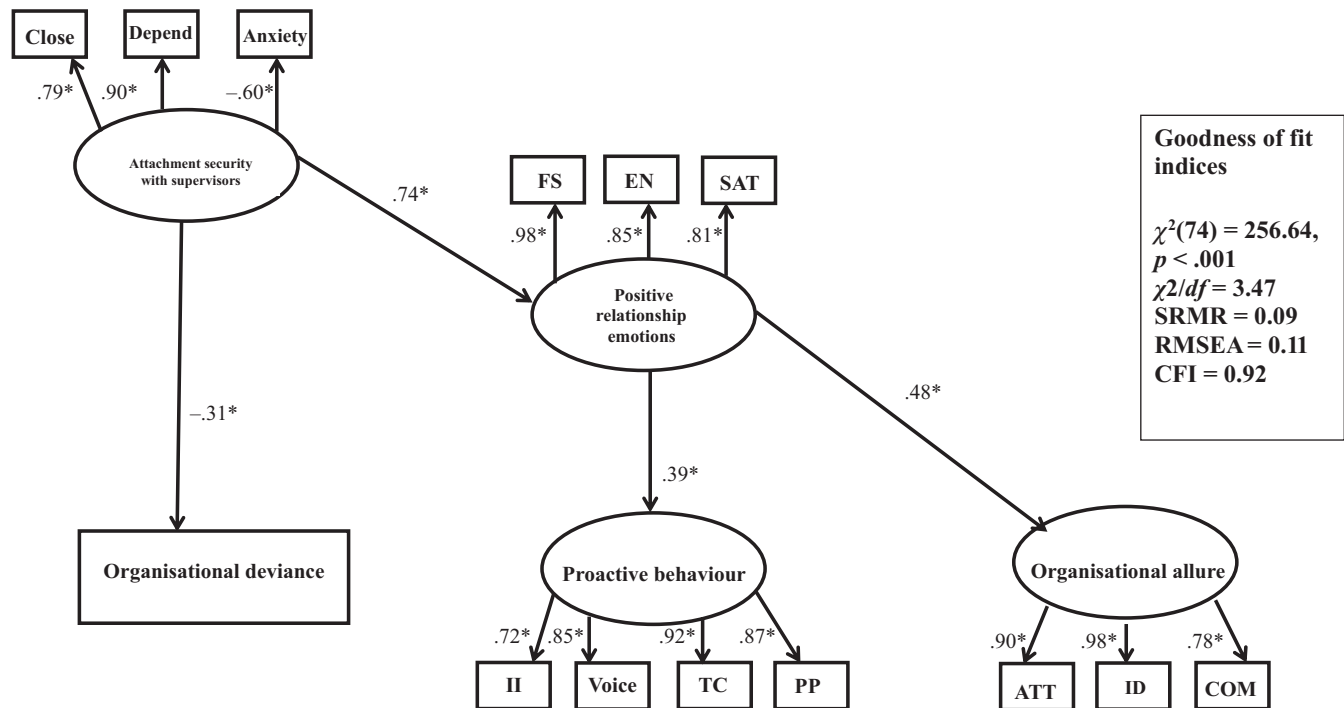
We examined the full model in which (a) attachment security with supervisors predicted relationship emotions, organisational allure, organisational deviance, and proactive behaviours, and (b) positive relationship emotions predicted organisational allure, organisational deviance, and proactive behaviours (Statistical Model 1; Figure 1). Based on recommendations by Hooper, Coughlan, and Mullen (2008), we used the following fit indices to evaluate model fit (in Studies 3–4): Wheaton, Muthen, Alwin, and Summer's (1977) relative/normed chi-square ( $\chi^2/df$ ), the Standardized Root Mean Squared Residual (SRMR; Jöreskog & Sörbom, 1981), Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993; Steiger & Lind, 1980), the Comparative Fit index (CFI: Bentler, 1990). Hooper et al. (2008) suggest that fit is acceptable-to-good when the relative/normed chi-square is >5, RMSEA is near or less than 0.10, the SRMR is near or less than 0.08, and the CFI is greater

than or equal to 0.90. This model yielded acceptable fit approaching the optimum fit statistics suggested by Hooper et al. (2008): [ $\chi^2(71, N = 223) = 251.75, p < .001, \chi^2/df = 3.55, SRMR = 0.09, RMSEA = 0.11, CFI = 0.92$ ]. As shown in Figure 1, all paths were significant ( $\beta_s > |0.46|, p_s < .001$ ) except for the paths from attachment security with supervisors to organisational allure and proactive behaviour, and the path from positive relationship emotions to organisational deviance ( $\beta_s < |0.21|, p_s > .065$ ).

Next, we computed a series of nested model comparisons. As statistical Model 1 indicated that the paths from attachment security with supervisors to organisational allure and proactive behaviour and from positive relationship emotions to organisational deviance were null, we fixed these paths to 0 in Statistical Model 2 (Figure 2). Statistical Models 1 and 2 were not significantly different from one another, [ $\chi^2\Delta(3) = 4.89, p = .180$ ]. However, further fixing to 0 the paths from attachment security with supervisors to positive relationship emotions and organisational deviance, and from positive relationship emotions to organisational allure and proactive behaviour, resulted in significantly poorer fit compared to Statistical Model 1, [ $\chi^2\Delta(7) = 228.42, p < .001$ ] and compared to Statistical Model 2 [ $\chi^2\Delta(4) = 223.53, p < .001$ ]. Taken together, these results suggest that Statistical Model 2 is preferable (Figure 2). Attachment security with supervisors predicted an increase in positive relationship emotions and a decrease in organisational deviance, whereas positive relationship emotions



**FIGURE 1** Study 3: Pictorial representation of the full structural model (Statistical Model 1) with attachment security with supervisors as a predictor of positive relationship emotions, organisational allure, organisational deviance, and proactive behaviour and positive relationship emotions as a predictor of organisational allure, organisational deviance, and proactive behaviour. Note. FS, Felt Security; EN, Felt Energy; SAT, Relationship Satisfaction; II, Individual Innovation; TC, Taking Charge; PP, Problem Prevention; ATT, Organisational Attitude; ID, Organisational Identity; COM, Organisational Commitment.  $N = 223. *p < .05$



**FIGURE 2** Study 3: Structural model (Statistical Model 2) with attachment security with supervisors as a predictor of positive relationship emotions and organisational deviance and positive relationship emotions as a predictor of organisational and proactive behaviour. Note. FS, Felt Security; EN, Felt Energy; SAT, Relationship Satisfaction; II, Individual Innovation; TC, Taking Charge; PP, Problem Prevention; ATT, Organisational Attitude; ID, Organisational Identity; COM, Organisational Commitment.  $N = 223$ . \* $p < .05$

predicted increases in organisational allure and proactive behaviours. Furthermore, the bootstrapping procedure (Cheung & Lau, 2008), using 1,000 bootstrap samples, indicated that the indirect paths from attachment security with supervisors to organisational allure (H5a) and proactive behaviour (H5b; through positive relationship emotions) are significant ( $\beta = 0.47$ ,  $p = .001$ ;  $\beta = 0.39$ ,  $p = .002$ , respectively) and the confidence intervals do not include 0 (95 CI = [0.25, 0.47; 0.19, 0.39], respectively). However the indirect path from attachment security with supervisors to organisational deviance (H5c; through positive relationship emotions) was not significant ( $\beta = 0.15$ ,  $p = .179$ ), and the confidence interval did include 0 (95 CI = [-0.15, 0.36]). In conclusion, attachment security with supervisors influences organisational allure and proactive behaviour, due to these attachments being associated with increases in positive relationship emotions. However, only attachment security with supervisors is directly associated with a reduction in organisational deviance.<sup>1</sup>

<sup>1</sup>We tested two reversal models. First, we examined the full reversal model in which organisational benefits (organisational allure, organisational deviance, and proactive behaviour) predicted positive relationship emotions and attachment security with supervisors, and positive relationship emotions predicted attachment security with supervisors. This model fitted the data less well than the full model,  $\chi^2(71) = 277.79$ ,  $p < .001$ ;  $\chi^2/df = 3.91$ ; SRMR = 0.15; RMSEA = 0.12; CFI = 0.91, or the model in which the paths from organisational allure and proactive behaviours to attachment security with supervisors and from organisational deviance to positive relationship emotions were set to 0,  $\chi^2(74) = 279.40$ ,  $p < .001$ ;  $\chi^2/df = 3.78$ ; SRMR = 0.15; RMSEA = 0.11; CFI = 0.91. Second, we tested a reversal model that was identical to our original full model except that positive relationship emotions served as the predictor and attachment security with supervisors served as the mediator. This model produced identical path coefficients and fit indices to our original full model. Also, when we fixed to 0 the paths from attachment security with supervisors to organisational allure and proactive behaviour, and from positive relationship emotions to organisational deviance, this model produced identical path coefficients and fit indices to Statistical Model 2.

### 6.2.3 | Summary

Study 3 obtained support for the notion that attachment security with supervisors is associated with increased organisational benefits, such as organisational allure (H2a), proactive behaviour (H2b), and positive relationship emotions (H3), but decreased organisational deviance (H2c), and that positive relationship emotions are linked with increased organisational allure (H4a) and proactive behaviour (H4b). Furthermore, the structural equation models indicated that positive relationship emotions with supervisors mediate the association between attachment security with supervisors and organisational benefits (e.g., increased organisational allure [H5a] and proactive behaviour [H5b]). However, positive relationship emotions with supervisors did not mediate the link between attachment security with supervisors and organisational deviance (H5c). The results support fully H2 and H3, and partially H4 and H5. The results, though, only pertain to relationships with supervisors. To find out if they are applicable to relationships with work colleagues, we conducted Study 4.

## 7 | STUDY 4

In the previous study, positive relationship emotions mediated the association between attachment security with supervisors and organisational benefits. It is also possible, however, that positive relationship emotions towards colleagues mediate the association between attachment security with colleagues and organisational benefits (e.g., increased organisational allure [H5a] and proactive behaviour [H5b]), but

decreased organisational deviance [H5c]. Indeed, relationships with team members are associated with increases in innovative behaviours (Vinarski-Peretz & Carmeli, 2011; H2b), although it is unknown *why* this is so. Replicating Study 3 findings with colleagues would suggest that both supervisors and colleagues can supply the secure base and safe haven resources (positive relationship emotions [H3]) to strengthen organisational benefits (H4a–c). Thus, in Study 4, we tested whether positive relationship emotions towards colleagues mediate the association between attachment security with colleagues and organisational benefits (H5a–c). As with Study 3, we included multiple measures of attachment, positive relationship emotions, and organisational allure in the structural equation model.

## 7.1 | Method

### 7.1.1 | Participants and procedure

We recruited via MTurk 208 organisational employees (117 men, 91 women) aged 18–72 years ( $M = 31.16$ ,  $SD = 10.24$ ) and paid them \$1. The majority of them resided in the U.S.A. ( $n = 203$ , 97.6%). They worked in a variety of sectors (public  $N = 81$ ; private  $N = 77$ ; non-profit  $N = 27$ ; other/undeclared  $N = 23$ ), with an average organisational tenure of 65.55 months ( $SD = 69.63$ ).

### 7.1.2 | Measures

Participants completed the same measures, and in the same order, as in Study 3 with one minor exception noted below.

#### *Attachment to colleagues*

This scale was identical to that of Study 3, except that it reflected attachment to colleagues. After reverse scoring the negatively-worded items, we computed composites for each subscale: attachment closeness  $\alpha = 0.83$ ,  $M = 3.54$ ,  $SD = 0.86$ ; attachment dependence  $\alpha = 0.84$ ,  $M = 3.39$ ,  $SD = 0.88$ ; attachment anxiety  $\alpha = 0.90$ ;  $M = 2.24$ ,  $SD = 0.97$ .

#### *Positive relationship emotions*

Identically to Study 3, we used three measures of positive relationship emotions, all of which were reliable: felt security ( $\alpha = 0.97$ ;  $M = 3.70$ ,  $SD = 1.18$ ), felt energy ( $\alpha = 0.97$ ;  $M = 3.44$ ,  $SD = 1.29$ ), relationship satisfaction ( $\alpha = 0.95$ ;  $M = 5.00$ ,  $SD = 1.51$ ).

#### *Organisational deviance*

This scale was reliable ( $\alpha = 0.81$ ;  $M = 2.23$ ,  $SD = 0.88$ ).

#### *Organisational allure*

We formed composites for each subscale and each subscale was reliable: organisational attitudes ( $\alpha = 0.96$ ,  $M = 4.23$ ,  $SD = 1.26$ ), organisational identification ( $\alpha = 0.94$ ,  $M = 4.25$ ,  $SD = 1.29$ ), organisational commitment ( $\alpha = 0.91$ ,  $M = 3.88$ ,  $SD = 1.57$ ).

#### *Proactive behaviour*

We computed composites for each subscale, and each was reliable: taking charge ( $\alpha = 0.85$ ,  $M = 3.56$ ,  $SD = 0.98$ ), voice ( $\alpha = 0.72$ ,  $M = 3.60$ ,  $SD = 0.90$ ), individual innovation ( $\alpha = 0.70$ ,  $M = 3.55$ ,  $SD = 0.89$ ), problem prevention ( $\alpha = 0.75$ ;  $M = 3.64$ ,  $SD = 0.89$ ).

## 7.2 | Results and discussion

### 7.2.1 | Correlations

We tested H2–4 through correlational analyses displayed in Table 4. As expected and consistent with Study 3, the within-construct scales correlated positively. That is, attachment closeness and dependence were positively related, whereas attachment anxiety was negatively related, to both attachment closeness and dependence. Also, all the positive relationship emotions scales correlated positively, as were all the organisational allure subscales and all the proactive behaviour subscales. Furthermore, the organisational allure measures were associated with increases in proactive behaviour, but decreases in organisational deviance. Critically, attachment closeness and dependence were associated with increases in organisational allure, (H2a), proactive behaviours (H2b), and positive relationship emotions (H3), but with decreases in organisational deviance (H2c). In contrast, attachment anxiety was associated with decreases in organisational allure (H2a), proactive behaviours (H2b), and positive relationship emotions (H3; although attachment anxiety was marginally related to energy,  $p = .072$ ), but with increases in organisational deviance (H2c). Crucially, all positive relationship emotions measures were associated with increases in organisational allure (H4a) and proactive behavior (H4b). Energy was associated with decreases in organisational deviance (H4c).

### 7.2.2 | Structural equation models

We tested, H5a–c, once again using structural equation modelling. Attachment closeness, dependence, and anxiety were indicators of the latent attachment security with colleagues factor. Felt security, felt energy, and relationship satisfaction were indicators of the latent positive relationship emotions factor. Organisational attitudes, identification, and commitment served as indicators of the latent organisational allure factor. Taking charge, voice, individual innovation, and problem prevention loaded onto the latent proactive behaviour factor. Finally, the mean of the organisational deviance items was a measured variable.

We examined the full model in which attachment security with colleagues predicted positive relationship emotions, organisational allure, organisational deviance, and proactive behaviours, whereas positive relationship emotions predicted organisational allure, organisational deviance, and proactive behaviours (Statistical Model 1; Figure 3). This model yielded acceptable fit and approaches the optimum fit statistics suggested by Hooper et al. (2008): [ $\chi^2(71, N = 208) = 238.93$ ,  $p < .001$ ],  $\chi^2/df = 3.37$ , SRMR = 0.07, RMSEA = 0.11, CFI = 0.92. As shown in

TABLE 4 Study 4: Correlations between measures

	AC	AD	AA	FS	EN	RS	OD	OA	OI	OC	TC	VC	II	PP
AC	—	.75**	-.47**	.64**	.51**	.59**	-.23**	.37**	.37**	.30**	.32**	.44**	.32**	.25**
AD		—	-.49**	.66**	.48**	.57**	-.24**	.38**	.36**	.32**	.23**	.35**	.14*	.15*
AA			—	-.25**	-.13	-.36**	.23**	-.17*	-.11	-.12	-.20*	-.28**	-.19*	-.15*
FS				—	.82**	.73**	-.13	.61**	.61**	.51**	.46**	.55**	.44**	.40**
EN					—	.59**	-.20*	.53**	.52**	.51**	.35**	.46**	.39**	.32**
RS						—	-.12	.64**	.60**	.53**	.49**	.56**	.44**	.41**
OD							—	-.26**	-.24**	-.34**	-.14	-.16*	-.12	-.10
OA								—	.88**	.74**	.33**	.48**	.31**	.30**
OI									—	.78**	.36**	.44**	.29**	.30**
OC										—	.36**	.44**	.30**	.32**
TC											—	.76**	.71**	.80**
VC												—	.74**	.66**
II													—	.73**
PP														—

Note: N = 208.

Abbreviations: AA, Attachment Anxiety; AC, Attachment Closeness; AD, Attachment Dependence; EN, Felt Energy; FS, Felt Security; II, Individual Innovation; OA, Organisational Attitudes; OC, Organisational Commitment; OD, Organisational Deviance; OI, Organisational Identity; PP, Problem Prevention; RS, Relationship Satisfaction; TC, Taking Charge; VC, Voice.

\*p < .05.

\*\*p < .001.

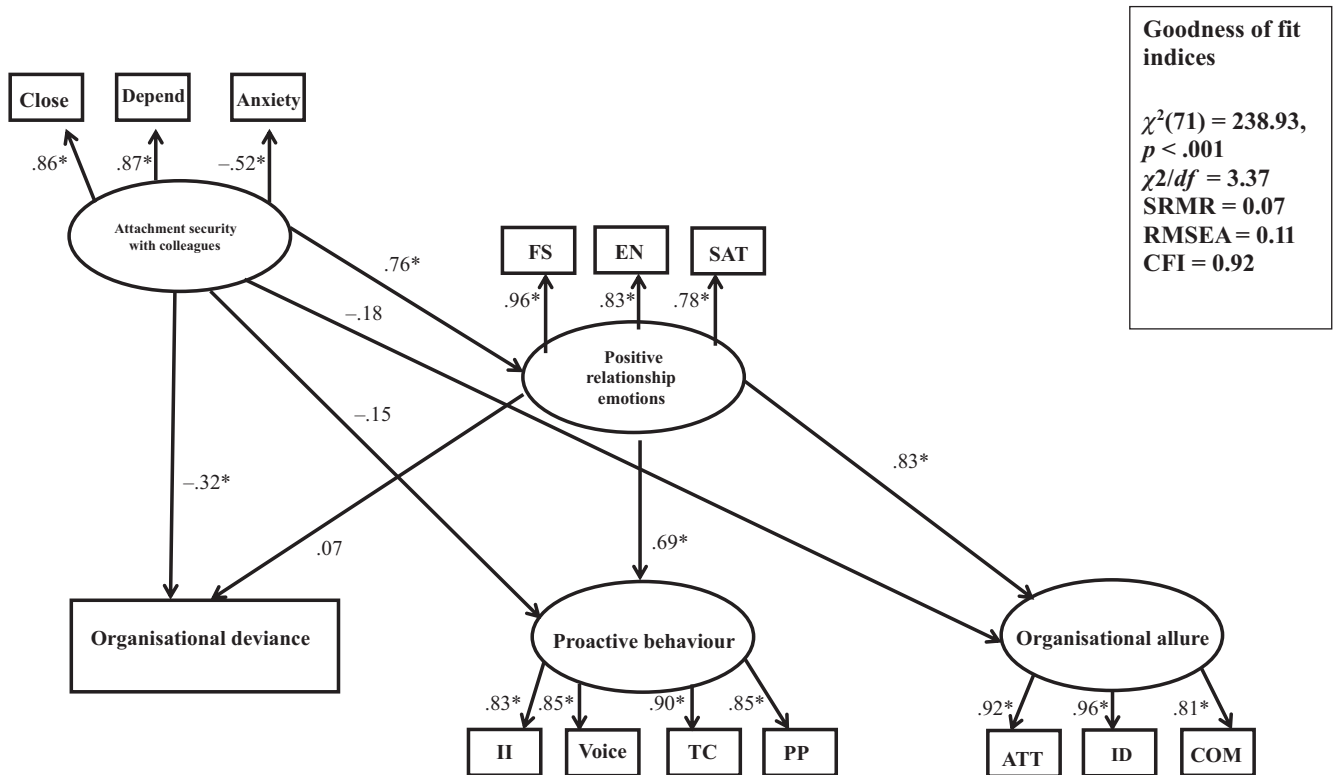
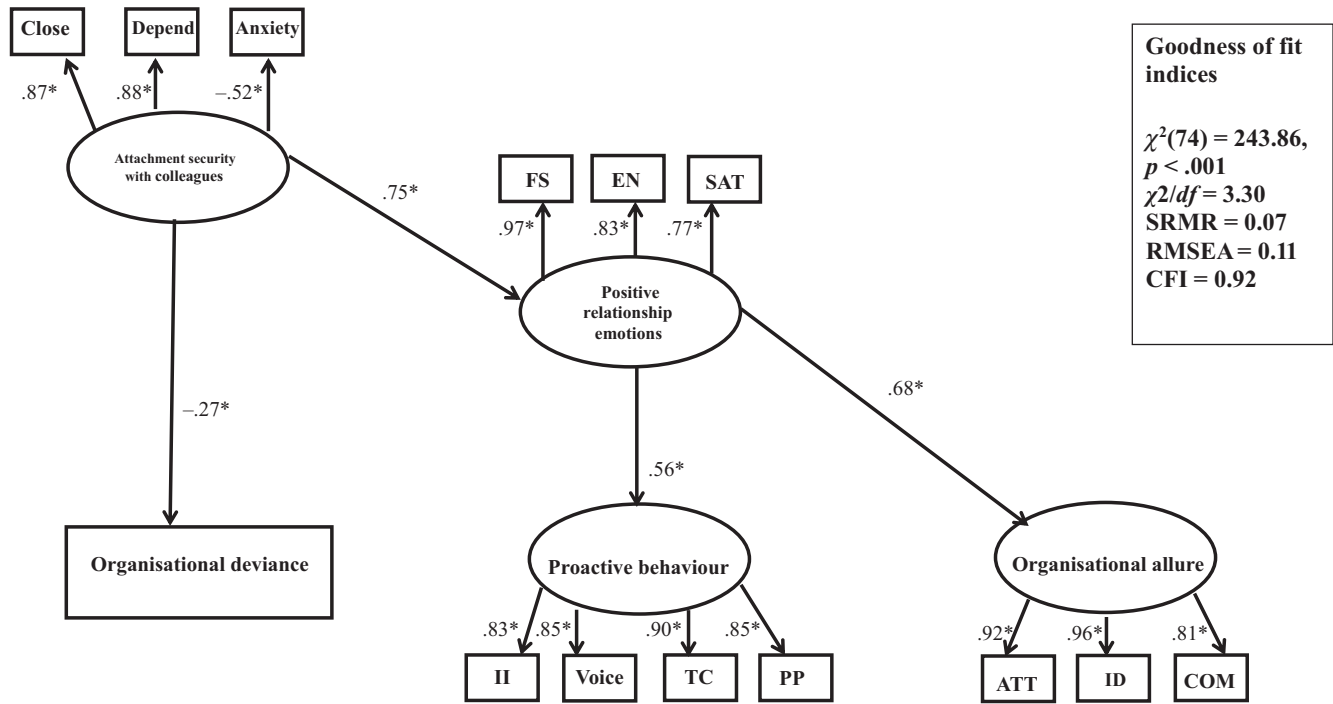


FIGURE 3 Study 4: Pictorial representation of the full structural model (Statistical Model 1) with attachment security with colleagues as a predictor of positive relationship emotions, organisational allure, organisational deviance, and proactive behaviour and positive relationship emotions as a predictor of organisational allure, organisational deviance, and proactive behaviour. Note. FS, Felt Security; Felt EN, Energy; SAT, Relationship Satisfaction; II, Individual Innovation; TC, Taking Charge; PP, Problem Prevention; ATT, Organisational Attitude; ID, Organisational Identity; COM, Organisational Commitment. N = 208. \*p < .05





**FIGURE 4** Study 4: Structural model (Statistical Model 2) with attachment security with colleagues as a predictor of positive relationship emotions and organisational deviance and positive relationship emotions as a predictor of organisational and proactive behaviour. Note. FS, Felt Security; Felt EN, Energy; SAT, Relationship Satisfaction; II, Individual Innovation; TC, Taking Charge; PP, Problem Prevention; ATT, Organisational Attitude; ID, Organisational Identity; COM, Organisational Commitment. *N* = 208. \**p* < .05

Figure 3, all paths were significant ( $\beta$ s > |−0.32|,  $p$ s < .001) except for the paths from attachment security with colleagues to organisational allure and proactive behaviour, and the path from positive relationship emotions to organisational deviance ( $\beta$ s < |−0.08|,  $p$ s > .545).

Next, we computed a series of nested model comparisons. Given that Statistical Model 1 indicated that the paths from attachment security with colleagues to organisational allure and proactive behaviour, and from positive relationship emotions to organisational deviance were not significant, we fixed these paths to 0 in Statistical Model 2 (Figure 4). Statistical Models 1 and 2 were not significantly different from one another, [ $\chi^2\Delta(3) = 4.94, p = .176$ ]. However, further fixing the paths from attachment security with colleagues to positive relationship emotions and organisational deviance and from positive relationship emotions to organisational allure and proactive behaviour to 0 resulted in significantly poorer fit compared to Statistical Model 1, [ $\chi^2\Delta(7) = 320.00, p < .001$ ] and compared to Statistical Model 2 [ $\chi^2\Delta(4) = 315.06, p < .001$ ]. These results suggest that Statistical Model 2 is preferable (Figure 4). Attachment security with colleagues predicted positive relationship emotions and low organisational deviance, whereas positive relationship emotions predicted high organisational allure and proactive behaviours. Furthermore, the bootstrapping procedure (Cheung & Lau, 2008), using 1,000 bootstrap samples, indicated that the indirect paths from attachment security with colleagues to organisational allure (H5a) and proactive behaviour (H5b; through positive relationship emotions) are significant ( $\beta = 0.51, p = .002$ ;  $\beta = 0.42, p = .002$ , respectively), and the confidence intervals do not include 0 (95 CI = [0.40, 0.60; 0.31, 0.52], respectively). However, the indirect path from attachment security with

colleagues to organisational deviance (H5c; through positive relationship emotions) was not significant ( $\beta = 0.05, p = .628$ ) and the confidence interval included 0 (95 CI = [−0.20, 0.26]). Taken as a whole, attachment security with colleagues predicts increases in organisational benefits, due to these attachments being associated with more positive relationship emotions. However, attachment security with colleagues is directly linked to a reduction in organisational deviance.<sup>2</sup>

### 7.2.3 | Summary

Study 4 obtained support for the notion that attachment security with colleagues is related to increases in organisational allure (H2a), proactive behaviour (H2b), and positive relationship emotions (H3), but decreases in organisational deviance (H2c), and that positive relationship emotions are linked with increased organisational

<sup>2</sup>We tested two reversal models. Initially, we tested the full reversal model in which we regressed positive relationship emotions and attachment security with colleagues on organisational benefits, and attachment security with colleagues on positive relationship emotions. This model fitted the data less well than the full model,  $\chi^2(71) = 274.70, p < .001$ ;  $\chi^2/df = 3.87$ ; SRMR = 0.17; RMSEA = 0.12; CFI = 0.91, or the model in which the paths from organisational allure and proactive behaviours to attachment security with colleagues and from organisational deviance to positive relationship emotions were set to 0,  $\chi^2(74) = 277.59, p < .001$ ;  $\chi^2/df = 3.75$ ; SRMR = 0.17; RMSEA = 0.12; CFI = 0.91. Next, we tested a reversal model that was identical to our original full model apart from positive relationship emotions acting as the independent variable and attachment security with colleagues acting as the mediator. This model was identical to our original full model in terms of path coefficients and fit indices. In addition, when we fixed to 0 the paths from attachment security with colleagues to organisational allure and proactive behaviour, and from positive relationship emotions to organisational deviance, this model produced identical path coefficients and fit indices to Statistical Model 2.

allure (H4a) and proactive behavior (H4b). Furthermore, the structural models indicated that positive relationship emotions with colleagues mediate the association between attachment security with colleagues and organisational benefits (increased organisational allure [H5a] and proactive behaviour [H5b]). However, there was no support for positive relationship emotions with colleagues mediating the link between attachment security with colleagues and organisational deviance (H5c). Thus, the findings are consistent with H2 and H3, and are partially consistent with H4 and H5. Taken together, the last two studies show that attachment security with supervisors (Study 3) and colleagues (Study 4) conduces to higher organisational benefits via its associations with positive relationship emotions.

## 8 | GENERAL DISCUSSION

We asked whether an attachment perspective is appropriate for the workplace. Can attachment theory provide the impetus for testing whether a secure workplace relationship is linked to beneficial organisational outcomes? We conducted four studies to address this question.

### 8.1 | Summary of findings and implications

In Studies 1–2, we obtained support for H1. Both supervisors and colleagues serve as attachment figures, although they are lower in the attachment figure hierarchy than romantic partners, mothers, fathers, siblings, and friends. This finding aligns with the growing body of literature suggesting that supervisors can fulfil the attachment functions (Kahn, 2001; Mayseless & Popper, 2007; Shaver & Mikulincer, 2008). However, no prior study has tested this suggestion. Our research is the first to show that *both* supervisors *and* work colleagues have the qualities of attachment figures. Thus, our findings highlight the relevance of using an attachment framework in the workplace. Supervisors and colleagues can act as attachment figures by providing safe haven and secure base resources to persons with whom they work, although they may more likely resemble what Bowlby (1969) called secondary attachment figures. These individuals may be particularly important for issues pertaining to the workplace (e.g., stress, job performance), but less relevant in other contexts (e.g., home or social environments). Nevertheless, workplace attachment security (either with a supervisor or colleague) may be beneficial to organisations. Indeed, we designed Studies 3–4 to test whether workplace attachment security predicts organisational benefits.

In Studies 3–4, we obtained support for the notion that workplace attachment security is linked to increases in organisational allure (H2a) and proactive behaviour (H2b), due to the role of positive relationship emotions (H5a–b). Workplace attachment security provides employees with the emotional resources (i.e., positive relationship emotions; H3) and such resources are associated with increased organisational allure (H4a) and proactive behaviours (H4b).

These results highlight the relevance of attachment security for the workplace.

Several features of our research are worth noting. First, we tested individuals who were in gainful employment rather than speculating how university students might respond in a workplace scenario (Gosling, Vazire, Srivastava, & John, 2004). Second, although several studies have examined the relevance of workplace attachment security on organisational outcomes (Crawshaw & Game, 2015; Little et al., 2011; Molero et al., 2013; Wu & Parker, 2017), previous research has not tested whether workplace relationships can be considered attachment relationships. Studies 1–2 demonstrate that workplace relationships *do* resemble attachment relationships, at least for some employees. Third, the results from Studies 3–4 suggest that specific relationships with supervisors *and* colleagues are important, and having attachment security with at least one of them entails beneficial organisational outcomes. Although it is known that attachment security with supervisors (Crawshaw & Game, 2015; Molero et al., 2013; Wu & Parker, 2017) or generalised others in the workplace (Little et al., 2011) is associated with beneficial organisational outcomes, no prior research examined attachment security with both supervisors and colleagues. Our findings highlight the importance of attachment security with both supervisors and colleagues.

The notions that an attachment perspective is valid in an organisational context and that workplace attachment security is associated with stronger organisational benefits have implications. Human resource managers and practitioners could work more determinedly towards creating environments that encourage building supportive relationships within an organisation. For example, they could allocate rewards for collective performance, limit the layers of organisational hierarchy, and add relational skills as a job requirement (Dutton, 2003). Further, building supportive relationships has been linked to beneficial organisational outcomes that we did not examine in Studies 3–4. For example, organisational commitment is associated with stronger job performance and OCB, but weaker absenteeism and turnover (Meyer & Allen, 1991; Shore, Newton, & Thornton, 1990). Also, identifying with one's organisation has been linked to higher employee satisfaction, job performance, and retention (Ashforth, Harrison, & Corley, 2008). Finally, proactive behaviours are positively related to individual performance, individual career success, and adjustment to change (Parker & Collins, 2010). Thus, our findings highlight why it may be utilitarian to foster a supportive and trusting workplace environment, as it is likely to pre-empt workplace attachment security, and culminate in organisational benefits.

Our findings are consistent with literature showing that trusting and supportive relationships encourage positive relationship emotions (Atwater & Carmeli, 2009; Bartholomew & Horowitz, 1991; Carmeli & Spreitzer, 2009; Carnelley et al., 1994; Dutton, 2003; Little et al., 2011; Luke et al., 2012; Mikulincer et al., 2001; Rowe & Carnelley, 2003; Vinarski-Peretz & Carmeli, 2011), and with literature illustrating that securely attached individuals have the emotional resources for effective engagement with their social environment (Feeney, 1999). These resources were associated with rises in organisational allure and proactive behaviours. In all, we

replicated previous research in organisational and nonorganisational contexts (Little et al. 2011; Luke et al., 2012), and highlighted positive emotions as a key resource.

## 8.2 | Limitations and future research directions

When depending solely on self-report measures, such as we did, there is potential for variance in the measures to be attributable to a methods effect (common methods variance) or for the correlations to be inflated due to a methods effect (common methods bias). Although common methods variance and common methods bias are known to exist in organisational psychology research (Meade, Watson, & Kroustalis, 2007), the magnitude of the effect of common methods bias is minor. Moreover, common method bias is less of a problem for measures with established construct validity as we have already discussed (Conway & Lance, 2010). Nonetheless, future work should include measures of organisational allure, organisational deviance, and proactive behaviour that are completed by managers or colleagues to test the replicability of the current findings.

Although the findings of Studies 1–2 suggest that supervisors and colleagues are less likely to fulfil the attachment functions, it is possible that participants considered these individuals more as friends or even romantic partners than as supervisors and colleagues, and rated them as so when completing the ANQ. Also, in Studies 3–4, we assessed attachment security, positive relationship emotions, organisational attitudes, and organisational behaviours concurrently. Thus, our research is correlational and cannot establish causation. However, previous findings (Luke et al., 2012) demonstrate that priming a secure relationship leads to positive relationship emotions (felt energy, felt security) and exploration/creativity, which is often associated with innovation (proactive behaviour; Sarooghi, Libaers, & Burkemper, 2015). Also, the direct effect of a manipulated secure attachment on exploration/creativity is due to positive relationship emotions (Luke et al., 2012). Thus, there is some evidence for the possibility that secure attachment in the workplace exerts a causal impact on organisational attitudes and behaviours through positive relationship emotions. Nevertheless, follow-up investigations may examine whether priming attachment security in the workplace, through a visualisation exercise (Kumashiro & Sedikides, 2005), contributes to more positive organisational attitudes and behaviours. If this method is successful, it might be implemented by managers and practitioners to foster a more supportive and trusting work environment.

Future work may also examine the long-term consequences of workplace attachment security on organisational allure, organisational deviance, and proactive behaviour. Repeated attachment security priming (three times over three days) can last for at least two days following exposure to a secure relationship prime (Carnelley & Rowe, 2007). Thus, workplace attachment security may influence organisational attitudes and behaviours over a few days, months, or years. Nevertheless, priming (whether repeatedly

or not) attachment security in the workplace could help to establish causality while also ruling out common methods bias, given that at least one variable (i.e., attachment security) will be manipulated instead of self-reported.

Another issue worth exploring concerns the direct and indirect effects of workplace attachment security on organisational attitudes and behaviours. Workplace attachment security had a direct association with reduction in organisational deviance, but an indirect association with organisational allure and proactive behaviour through positive relationship emotions (Studies 3–4). Supportive leadership influences organisational deviance through emotional exhaustion (Mulki et al., 2006). Thus, it may be lack of experiencing a negative workplace emotion (exhaustion), rather than increases in positive relationship emotions (felt security, felt energy, relationship satisfaction), that mediates the relation between workplace attachment security and organisational deviance. Follow-up investigations ought to assess simultaneously the influence of negative and positive relationship emotions on organisational deviance, and whether such emotions mediate the association between workplace attachment security and organisational deviance.

Finally, it may not always be appropriate to have supervisors and colleagues as attachment figures. For example, it may not be fitting to talk about personal issues with supervisors and colleagues, as this may complicate the employee–employer relationship over time (Ramsey, 2008) or affect the employee's ability to manage appropriately his/her work life balance (Clark, 2000). Arguably, employees ought to rely on workplace relationships to fulfil the attachment functions for workplace issues, but not for personal issues. This idea appears to be consistent with our finding that supervisors and colleagues are less likely to fulfil the attachment functions than other people, such as romantic partners, parents, and friends. A task for future work would be to examine the optimal level of reliance on supervisors and colleagues to fulfil the attachment functions.

## 9 | CONCLUDING REMARKS

We obtained findings consistent with Bowlby's (1969) hypothesis that multiple people can serve as attachment figures. Our research documents that an attachment perspective is applicable to the workplace, although supervisors and colleagues are at the bottom of the attachment figure hierarchy. Thus, the findings help to extend the growing body of literature on the validity of using an attachment perspective in an organisational context (Crawshaw & Game, 2015; Hazan & Shaver, 1990; Kahn, 2001; Little et al., 2011; Mayseless & Popper, 2007; Molero et al., 2013; Wu & Parker, 2017). Workplace attachment security is directly associated with a reduction in organisational deviance, but is indirectly associated with increases in organisational allure and proactive behaviour, through positive relationship emotions. Making the link between workplace attachment security and organisational benefits may be one avenue for researchers, consultants, and policymakers to develop initiatives for fostering more satisfying and productive workplaces.

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## CONFLICT OF INTEREST

We report no conflict of interest.

## ETHICAL STATEMENT

All of the research has been conducted in accordance with the ethical guidelines of the APA and BPS.

## TRANSPARENCY STATEMENT

All data are publicly available via the institutional repository of University of Sussex and can be accessed at <https://doi.org/10.25377/sussex.11672358.v1>

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#### SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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