Negative emotions in supervisory relationships: The role of relational models

Annilee M. Game

ABSTRACT

The reasons why supervisory/line management relationships are one of the most frequently cited causes of workplace negative emotions are poorly understood. Existing research on emotions at work provides some clues but largely omits the role of relational context. Drawing on attachment theory, the present research develops a model suggesting that employees hold differing relational models of their supervisory relationship in conjunction with global relational models that they bring with them to the workplace. Together, these relational models are associated with different interpretations of supervisor behaviour, which in turn are associated with differences in emotional reactions. The model was tested with a survey of 174 nurses employed in a UK NHS Trust. Some support was found for the propositions. The research highlights that in order to understand why negative emotions occur in supervisory relationships it is important to examine affective events within the historical relational context in which they occur.

KEYWORDS

attachment theory ● emotions ● leadership ● relational models ● supervisors

Negative emotions at work have potentially innumerable sources (Fisher, 2000) but working relationships, and supervisory or line management relationships in particular, are one of the most frequently cited causes (e.g. Basch & Fisher, 2000; Fitness, 2000; McColl-Kennedy & Anderson,
2002). However, despite the evidence, knowledge about why this is so remains ‘embryonic’ (Brief & Weiss, 2002). With but a few exceptions (e.g. Dasborough & Ashkanasy, 2002; George, 2000) organizational researchers have been slow to integrate emotions into the study of leadership. And existing theories of workplace emotions, and taxonomies of negative emotion sources, may only scratch the surface of what are likely to be complex intra- and inter-individual processes underpinning employee negative emotions in supervisory relationships. Attachment theory (Bowlby, 1969, 1973, 1980) offers an established relational framework for understanding these processes which, although widely used in the personal relationships domain, is seldom applied in organizational settings.

The aim of the present study is therefore to find out whether attachment theory can be usefully applied to gain insight into negative emotions in the context of the supervisory relationship. Taking an employee perspective, an attachment theory/relational models framework is developed. The core premise is that for employees, negative emotions in the supervisory relationship are embedded in a unique history of past interactions with the supervisor, and with others in general. Together, global (i.e. general) and supervisor-specific ‘relational models’ represent and manifest these relational histories as a set of interpersonal beliefs and expectations. In turn, individual differences in relational models, especially supervisor-specific relational models, may guide differing interpretations of, and emotional responses to, events in the supervisory relationship. This article elaborates the theoretical framework, and reports the findings of an exploratory study designed to test the basic propositions.

**Negative emotions in supervisory relationships**

It is increasingly acknowledged that leadership is an emotional and relational process (Dasborough & Ashkanasy, 2002), yet research concerning how leader–follower relationship dynamics influence follower experiences of specific emotions is scarce. Vecchio (2000) found that low leader consideration was associated with follower envy, and McColl-Kennedy and Anderson (2002) found that transformational leadership predicted frequency of experienced frustration and irritation. However, mainstream leadership theories are criticized as too general, failing to tap the relational processes and interpersonal undercurrents that characterize individual leadership/supervisory relationships (Kahn, 1998). Consequently, leadership theories may be of limited utility in explaining why and how supervisory relationships give rise to employee negative emotions.
Some clues can, however, be pieced together from existing approaches in other areas of organizational and psychological research. Affective Events Theory (AET; Weiss & Cropanzano, 1996) proposes that characteristics of the work environment determine the likelihood of occurrence of ‘affective events’ – events leading to emotional reactions. Work environment characteristics include job characteristics, which could reasonably be expected to embrace supervision (e.g. employee autonomy could be viewed as a function of supervision). The precise nature of affective events is unspecified in AET. However, there is some evidence to support the role of supervisor behaviours in precipitating events that lead to negative employee emotions. For example, Basch and Fisher (2000) constructed event–emotion matrices with a sample of hotel employees and found that actions of managers were cited as the cause of 22 per cent of negative emotions, whereas other work-related events (e.g. workload, task difficulties, customer interaction) together accounted for no more than 7 per cent of negative emotions. Wegge et al. (2006) included supervisory support as a work characteristic in a test of AET and found it to be negatively related to employee negative emotions. Also, in a two-week event-sampling test of AET, incidents involving ‘supervisor recognition’ were associated with feelings of pride, whereas 25 per cent of workplace anger incidents resulted from personal attacks or incivility by supervisors (Grandey et al., 2002).

Evidently there may be something about the supervisory relationship that predisposes the occurrence of negative (and positive) affective events and, in turn, emotions. However, as with the leadership research discussed above, much of this AET-related research also does not address the underlying mechanisms through which events elicit emotions (Ashkanasy et al., 2002). Focusing on simply identifying emotion-evoking events and/or environmental antecedents may miss important ‘process’ variables. Indeed, cognitive appraisal theorists (e.g. Frijda, 1988; Lazarus, 1991; Ortony et al., 1988; Scherer, 1984; Weiner, 1985), and AET in its original conceptualization (Weiss & Cropanzano, 1996), broadly concur that while certain events (real or imagined) may be more likely than others to evoke particular emotions, it is the subjective process of event interpretation rather than the event per se that determines a reaction. Consistent with this view, using a diary approach, Fitness (2000) found that the perception and interpretation of anger-eliciting events differed according to employee status. Thus, underlying diverse events, supervisors were angered by situations in which they perceived employee incompetence, whereas employees were angered when they perceived unfair treatment by their supervisors. Hence, it appears worthwhile to look beneath the surface to examine how individuals interpret supervisory relationship events in terms of appraisals or attributions.
What factors might influence event interpretation or attributions? AET posits that individual differences, such as trait affectivity, will play a role (Weiss & Cropanzano, 1996) and there is evidence to support this (e.g. Weiss et al., 1999). Additionally, Fitness’s (2000) study outlined above suggests that employee status, or the nature of the working relationship itself, provides a context in which interpretations will be differentially affected. Prior experiences in the relationship may also be important. According to Herriot (2001), emotions at work tend to occur within working relationships that are grounded in a history of social interactions or ‘episodes’ between the individuals.

These episodes have consisted of a series of events, in response to which the parties may have experienced different emotions. These emotional responses will have become incorporated into their selves and their perceptions of the relationship, and hence will affect their responses to subsequent episodes.

(Herriot, 2001: 313)

Thus, it is also important to consider the effects of relational context, or the nature and history of the supervisory relationship, on interpretation of, and emotional responses to, events.

In sum, in order to improve our knowledge about why negative emotions frequently occur in supervisory relationships, we need an overarching theory that integrates events, their interpretation, and the effects of individual differences and relational context/history. Attachment theory provides just such a framework. Existing research by Kahn (1993, 1998) supports the utility of an attachment theory approach for illuminating the role of relational context in the links between work relationships and employee well-being more broadly. However, whereas Kahn (1993, 1998) draws upon broader notions of attachments in networks of working relationships to explain employee outcomes (e.g. burnout), the present article develops and tests a model of negative emotions in supervisory relationships that directly parallels current conceptions of attachment theory in social psychology.

**Attachment theory and supervisory relationships**

Attachment theory (Bowlby, 1969, 1973, 1980) essentially explains the nature and effects of psychological bonds that form in key interpersonal
relationships. Through experiences of consistently warm, sensitive, and responsive interactions with a significant other (especially in times of need) a secure attachment bond develops, characterized by trust and belief in the dependability of the other. In contrast, insecure attachments, characterized by either anxious preoccupation with closeness (‘attachment anxiety’/‘anxious-ambivalence’), or lack of trust (‘avoidance’) develop in response to repeated experiences of inconsistent or rejecting behaviours respectively (Ainsworth et al., 1978). Underlying these ‘attachment styles’ are internal working models, or mental representations, containing beliefs and expectations about the acceptability of the self in the relationship (e.g. ‘how worthy or lovable am I to this person?’), and dependability of the relationship other (e.g. ‘can I trust, and depend on, this person?’) (Bowlby, 1973). Negative models of self underpin attachment anxiety, whereas negative models of other underlie avoidance (Bartholomew & Horowitz, 1991; Brennan et al., 1998).

Self and other models function as guides to predicting, interpreting, and responding to relationship events in the wider social world (Bowlby, 1973). Recent research suggests that adult social interactions are guided by both ‘global’ and relationship-specific working models of self and other (e.g. Pierce & Lydon, 2001). Global models of self and other represent the entire history of a person’s attachment relationships (Collins & Read, 1994); they may serve as default models in new relationships or novel situations where little or no relational information is available (Collins & Read, 1994), but otherwise they function as relatively stable, individual difference variables across relationships (Pierce & Lydon, 2001). Indeed, the global model of self/attachment anxiety has been found to overlap significantly with general self-esteem (Cozzarelli et al., 2000). In contrast, relationship-specific models reflect the history of relationship episodes with a particular partner and, once formed, serve as the more influential guide to interpretation and behaviour in that relationship, beyond any influence of global models (Baldwin et al., 1996; Cozzarelli et al., 2000; Pierce & Lydon, 2001). The present study examines the relative influences of both global and relationship-specific (i.e. supervisor-specific) attachment working models on employees’ experiences of negative emotions in the supervisory relationship.

Empirical evidence supports the development and activation of specific working models, or ‘relational models’ (Pierce & Lydon, 2001), not only in romantic or familial relationships, but also in groups (Smith et al., 1999) and with any person with whom individuals have a ‘salient’ (i.e. involving regular contact), ‘significant’, or ‘impactful’ relationship (Baldwin et al., 1996; Pierce & Lydon, 2001). In an organizational setting, Kahn (1998) found that
individuals formed different ‘strong’ (functional) or ‘weak’ (dysfunctional) emotional attachments in key work relationships depending on the quality of ‘caregiving’, or support, received in these relationships. Based on these indications, it is expected that employees develop specific working/relational models in their supervisory relationships. In particular, supervisory relationships should be relatively salient given that a degree of social contact is required in order to achieve the key supervisory/management functions of the co-ordination and motivation of employee efforts in pursuit of organizational goals (see Kotter, 1990). Indeed, classic studies of management behaviour suggest supervisors spend a significant proportion of their time communicating formally and informally with their subordinates (Mintzberg, 1973; Stewart, 1967).

In terms of significance and impact of the employee–supervisor relationship, the supervisory role generally involves: influencing employees (Yukl, 2002); hierarchical authority – including control over rewards and sanctions (Bass, 1960); and a key role in the provision of work-related social support to employees in times of need (Beehr et al., 1990). Given this clear, asymmetric distribution of power in the supervisory relationship (Gabarro, 1987), combined with the influential position of supervisors in an employee’s work-based social support network (Beehr et al., 1990), employee–supervisor relationships arguably mirror both the secure base/caregiving function (see Kahn, 1998) and power asymmetry of parent–child dyads. Hence, the establishment of specific relational models may be especially likely in the supervisory context. Consistent with this, studies involving other forms of dyadic relationships with similar parallels to parent–child support and power dynamics, for example student–teacher (Lopez, 1997) and client–therapist relationships (Mallinckrodt et al., 1995), have found that individuals develop distinctive relationship-specific working models/attachments for their teachers/therapists.

Extrapolating from attachment theory (e.g. Bartholomew & Horowitz, 1991; Bowlby, 1973) and consistent with recent measurement approaches (e.g. Brennan et al., 1998), two dimensions of supervisor-specific relational models are proposed: attachment anxiety and avoidance. Higher scores on attachment anxiety (corresponding to a more negative model of self in the relationship) represent greater preoccupation or concern about being accepted or liked by the supervisor, and a greater sense of unworthiness in the relationship. Higher avoidance scores (corresponding to a more negative model of other in the relationship) reflect lack of trust in the supervisor, a sense that s/he cannot be depended upon, and a greater desire for autonomy or independence in the relationship. It is expected that both specific and
global relational models influence the ways in which supervisory events are interpreted and responded to emotionally, although to varying degrees. Adults’ global relational models contain attachment-related memories and scripts of interactions for previous authority relationships, including parental relationships – individuals’ primary authority figures during the formative years of life (Kahn & Kram, 1994; Keller, 2003). Accordingly, global relational models are expected to have some influence on outcomes in the context of a given supervisory relationship (Keller, 2003). However, because global models also represent histories of a wider diversity of relationships with, for example, family, peers and romantic partners, they would not be expected to influence experiences in any one specific relationship to a great extent (Collins & Read, 1994). Given this, and in line with recent theory and research demonstrating the greater precision of using more proximal relational variables to understand processes and outcomes in specific relationship contexts (Cozzarelli et al., 2000; Sluss & Ashforth, 2007), it is anticipated that current supervisor-specific relational models will be the more influential determinants of employee emotional experiences in the supervisory relationship. The framework for the study is shown in Figure 1 and the specific hypotheses are further explained below.

Figure 1  Proposed direct, mediated, and moderated effects of specific and global relational models
Relational models and event interpretation

Relational models are proposed to guide the ways in which individuals make sense of their relationship experiences in characteristic ways (Collins, 1996; Collins & Read, 1994). Relational model beliefs and expectations may provide pre-existing, readily accessible interpretations for relationship events (Baldwin et al., 1993) and/or they may serve as a source of social knowledge that can be used to construct ‘on-line’ interpretations (Baldwin et al., 1993; Collins, 1996). Thus, the association of avoidance with negative views of others, especially the belief that others are untrustworthy (Bartholomew & Horowitz, 1991) may predispose more avoidant individuals to externalize accountability (i.e. blame the partner) for negative relationship events. In contrast, the negative self-views and low self-worth associated with higher attachment anxiety (Bartholomew & Horowitz, 1991) may lead to negative attributions directed at both the self and other. This is because on the one hand, low self-esteem individuals tend to approach situations with negative expectations and blame themselves when their negative expectations are fulfilled (Blaine & Crocker, 1993). On the other hand, in an effort to identify with others, anxious-ambivalent (high attachment anxiety) individuals have been found to project their own self-traits on to others (Mikulincer & Horesh, 1999). Given that these self-traits are largely negative, more attachment anxious individuals may tend to assume the worst of people in their interactions with them (Mikulincer & Horesh, 1999).

Consistent with this, Collins (1996) presented participants with a series of potentially negative hypothetical relationship events involving a romantic partner, and asked them to provide attributions for their partner’s behaviour. Individuals scoring more highly on ‘comfort with closeness and depending on others’ (i.e. lower avoidance) made more benign attributions overall. Higher scorers on attachment anxiety were more likely to view events as caused by the partner, yet at the same time there was a trend towards self-blame in their interpretations. Similarly, Mikulincer (1998a, study 2) presented participants with hypothetical anger-provoking scenarios varying in ambiguity. Higher scorers on attachment anxiety attributed hostile intent to relationship partners for the more ambiguous scenarios. However, higher avoidance was associated with hostile attributions regardless of degree of ambiguity. While research to date has focused on event interpretation in romantic relationships, further studies have shown that relational models held for other, non-romantic (but important/salient) relationships are related in theoretically predictable ways to a range of relationship variables including trust and relationship expectations (e.g. Baldwin et al., 1996; La Guardia et al., 2000). Hence, it is expected that the same underlying attachment theory principles can be applied to the supervisory relationship, at both the
specific and global levels. As outlined above, it is also expected that specific models will be the more influential predictors, after controlling for the influence of global models:

**Hypothesis 1a:** Supervisor-specific relational models will account for significant variance in negative relationship (other-blame) attributions over and above the influence of global models.

**Hypothesis 1b:** Supervisor-specific avoidance and attachment anxiety will both positively predict negative relationship (other-blame) attributions, although the association will be smaller for specific attachment anxiety.

### Relational models and negative emotions

Extending cognitive appraisal theories of emotion (e.g. Frijda, 1988; Lazarus, 1991; Weiner, 1985), attachment theory predicts that the differing attributions/interpretations of relationship events associated with avoidance and attachment anxiety in turn influence different emotional reactions (Bowlby, 1980; Collins & Read, 1994). In emotions research it is well established that when another is held accountable for a negative outcome, anger-related or ‘other-focused’ emotions (e.g. anger, frustration, annoyance) are likely (Lazarus, 1991); so too is hurt – an emotion that often accompanies anger (Leary & Springer, 2001; Vangelisti, 1994). If individuals view themselves as responsible for a negative incident, ‘self-focused’ emotions are more common, including anxiety-related emotions (e.g. anxiety, worry, fear) (Lazarus, 1991) and self-conscious emotions (e.g. guilt, shame) (Lewis, 2000) which collectively can be thought of as ‘distress’ emotions.

Thus, negative views of other, and a tendency towards other-blame, should predispose higher scorers on avoidance to react to negative supervisory relationship events with other-focused/anger emotions. Higher scorers on attachment anxiety, whose negative views of self are manifested as attributions of both self- and other-blame, should be more likely to report both other-focused and self-focused emotions. Consistent with this, studies show that compared with dismissing individuals (i.e. high avoidance), preoccupied individuals (i.e. high attachment anxiety) reported greater emotional anxiety in social interactions (Kafetsios & Nezlek, 2002); and greater shame-proneness in response to hypothetical relationships scenarios (Lopez et al., 1997). However, both anxious-ambivalent (i.e. high attachment anxiety) and avoidant individuals reacted with anger to unsupportive partners in stressful situations (Rholes et al., 1999).
In addition to these indirect associations mediated via attributions/interpretation, relational models have also been shown to have a direct influence on emotions (Collins, 1996). Specifically, different relational models are associated with prototypically different affect regulation strategies and it has been suggested that these may be automatically/unconsciously activated in attachment-relevant situations (Collins, 1996; Collins & Read, 1994; Shaver et al., 1996). For example, research has shown that in negative relationship situations more avoidant individuals habitually attempt to suppress negative emotions, especially self-focused emotions that may connote weakness or require acknowledgement of distress (Consedine & Magai, 2003; Mikulincer & Orbach, 1995). Conversely, more attachment-anxious individuals seem unable to detach from distressing situations, displaying a tendency to ruminate over causes and meanings, and experiencing an escalation of emotions via association (Buchheim & Mergenthaler, 2000; Mikulincer & Florian, 2001). Consistent with these patterns, Collins (1996) found that while both attachment-anxious and avoidant individuals tended to attribute strong blame to relationship partners for hypothetical scenarios, only attachment-anxious participants reported they would experience strong negative emotions, and event interpretation did not fully mediate the link between relational models and emotions. Collins (1996) concluded that these findings indicated simultaneous direct and mediated effects of relational models.

Figure 1 summarizes the proposed direct and mediated relationships in the present study. In brief, specific relational models are viewed as mental representations of employees’ relationship histories with their supervisors and they are expected to be associated with characteristic attributions, or ways of interpreting events, that occur in the supervisory relationship. In turn, attributions for events should be related to differences in the nature and intensity of negative emotions that are experienced. In conjunction with this attribution-based mediation effect, it is proposed that specific relational models directly influence emotional reactions. Beyond the role of relationship-specific factors, the framework incorporates the influence of more stable, dispositional tendencies in the form of global working models that may exert a smaller, concurrent effect on cognition and emotions. Hence, it is hypothesized that:

**Hypothesis 2a:** Supervisor-specific relational models will account for significant variance in negative emotions over and above the influence of global models.

**Hypothesis 2b:** Supervisor-specific avoidance will be positively related to other-focused (anger) emotions, but there will be little or no relation with self-focused (distress) emotions.
Hypothesis 2c. Supervisor-specific attachment anxiety will be positively related to both other-focused (anger) emotions and self-focused (distress) emotions.

Hypothesis 3. Negative relationship (other-blame) attributions will partially mediate the link between relational models (global and specific) and anger emotions, but not distress emotions.

Interactions between specific and global models

In the preceding discussion, the literature reviewed supports the conclusion that the effects of specific and global models may be relatively independent of each other. However, given that the current research is exploratory, alternative explanations are also of interest. In particular, in one of the few studies to investigate the dual roles of specific and global models, Pierce and Lydon (2001) found that more positive global models of self (i.e. lower global attachment anxiety) appeared to moderate or ‘buffer’ to some extent against the detrimental effects of holding a more negative specific model of self in a particular relationship. This finding is consistent with research indicating that higher self-esteem (a correlate of positive global model of self/lower global attachment anxiety) serves to buffer against anxious emotions (Greenberg et al., 1992). Explaining these effects, Greenberg et al. (1992) proposed that individuals are motivated to maintain a positive self-image, or sense of being valued, in order to protect themselves against feelings of anxiety in response to threat (see ‘Terror Management Theory’; Greenberg et al., 1986). From this, individuals with more positive global models of self may be less likely to report negative attributions and emotions in response to negative events in relationships for which a negative specific model is held, since they should be motivated to defend their overall sense of being valued by others, and avoid the anxiety that would otherwise ensue.

It is not known whether individuals holding positive global models of other (i.e. lower global avoidance) are similarly motivated to protect themselves against the possible emotional consequences of challenges to their generally positive views about relationship others. However, from cognitive dissonance theory (Festinger, 1957) it may be that when an individual generally believes others to be dependable and trustworthy, the potential discomfort of having to make negative attributions in a specific relationship should lead to more benign attributions and less negative emotions even when a specific negative model is held. Thus, lower global attachment anxiety and avoidance may serve as defensive yet emotionally adaptive
mechanisms in specific negative relationship situations. Figure 1, shows the proposed moderating effects. In sum, it is hypothesized that:

**Hypothesis 4**: Global relational models will moderate (i.e. buffer) the relationships between their corresponding specific models and negative relationship attributions, and negative emotions.

**Method**

**Context**

Given the exploratory nature of the research, it was important in the first instance to test the proposed model in a context theoretically favourable to the observation of effects, should any exist. The present study therefore focused on nurses’ relationships with their supervisors, or ‘ward managers’. Nurses work under conditions of high stress, rapid change, and relatively low pay (RCN website, 2001). It was anticipated that the stressful hospital environment should render the supervisory relationship especially significant for nurses, compared with employee-supervisor relationships in less stressful work settings, since supervisors are key figures in reducing employee stress and enhancing well-being (Cohen & Wills, 1985; Dormann & Zapf, 1999). This heightened role significance should make the formation of specific relational models more likely (Pierce & Lydon, 2001). Moreover, the activation and operation of relational models should be more pronounced under stressful conditions, when the presence or absence of sensitive and responsive support or ‘caregiving’ is most keenly felt (Feeney, 1999).

**Sample**

The study participants were 174 nurses (94% female, 6% male) employed in 48 wards of an acute services NHS Trust in the UK. The participants were Registered Nurses (RNs, grades E, F, and G) in work units with an unambiguous line management structure. That is, all participants recognized the ward manager as their formal manager or supervisor. Of the 174 respondents, 83 per cent were white, 4 per cent Black-African, 5 per cent Black-Caribbean, 1 per cent Chinese, 2 per cent Indian, and 3 per cent were of other ethnic origin. The mean age was 36.6 years. Mean organizational tenure was 9.8 years, and mean job tenure was 4.5 years. The length of time for which individual nurse-supervisor working relationships had been established ranged from one month to 18 years, with a mean duration of 2.6
years at the time of the survey. Seventy per cent of nurses worked full-time, with the remainder working between eight and 30 hours part-time.

Procedure

The study was conducted via postal questionnaire survey. A covering letter described the purpose of the research and assured confidentiality. Full instructions for completing the questionnaire were given on the front cover of the questionnaire booklet. The questionnaire took approximately 20 minutes to complete. Completed questionnaires were returned in an accompanying reply-paid envelope. In total, 183 questionnaires were returned. After deletion of cases with missing data (as required for multilevel statistical analysis) the final sample size was 174, representing a response rate of 31.4 per cent.

Measures

**Supervisor-specific relational models**

A brief two-dimensional measure of supervisor-specific relational models was used which included items adapted from the Experiences in Close Relationships measure (Brennan et al., 1998) and the Client Attachment to Therapist Scale (CATS; Mallinckrodt et al., 1995). Items were reworded to refer to supervisors. The six-item *Avoidance* scale concerns reluctance to depend on the supervisor, and discomfort with closeness in the relationship (e.g. ‘I prefer not to show my supervisor how I feel deep down’). The five-item *Attachment Anxiety* scale relates to a preoccupation with closeness in the supervisory relationship, including a longing to be more ‘at one’ with the supervisor (e.g. ‘I sometimes wonder if I’m my supervisor’s favourite employee’). Participants indicated ‘the extent to which each statement fits your own experiences with your current supervisor’. Responses were given on a seven-point scale (1 = strongly disagree, 7 = strongly agree). Higher scores indicated higher avoidance and attachment anxiety in the context of the current supervisory relationship. Principal axis factor analysis revealed factor loadings consistent with the intended specific avoidance and specific attachment anxiety scales (see appendix). Cronbach’s alpha coefficients were .85 for the avoidance scale, and .68 for the attachment anxiety scale. The lower reliability for attachment anxiety appears largely attributable to the low factor loading for the item: ‘I sometimes wonder if I am my supervisor’s favourite employee’. This item was retained, however, since it had loaded above .4 in the pilot study, and in terms of face validity it captures well the notion of
preoccupation with interpersonal closeness that is core to the construct. Moreover, while reliability coefficients above .70 are desirable, in practice alphas above .60 are considered acceptable for exploratory research (Kline, 2000).

**Global relational models**

The Experiences in Close Relationships scale (Brennan et al., 1998) was reworded to focus on relationships with ‘others’ instead of ‘my partner’. Previous researchers (e.g. Tidwell et al., 1996) have used measures of adult romantic attachment per se to explore the effects of global attachment working models. However, greater statistical and explanatory power may be achieved when attachment is measured in the domain most appropriate to the context of study (Bartholomew & Shaver, 1998). ‘I don’t feel comfortable opening up to other people’ is an example of the Avoidance items. An example of the Attachment Anxiety items is ‘I find that other people don’t want to get as close as I would like’. Participants were instructed that: ‘The following statements concern how you tend to feel in relationships that are important to you. Please respond to every item, indicating how much you agree or disagree.’ All items were responded to on a seven-point scale (1 = strongly disagree, 7 = strongly agree). Higher scores corresponded to greater attachment anxiety/avoidance in relationships in general. Principal axis factor analysis confirmed that the adapted items loaded as expected on the two dimensions of global attachment. Cronbach’s alphas were .89 and .90 for global avoidance and global attachment anxiety respectively.

**Supervisory relationship events battery**

In order to investigate the proposed relational model differences in attributions and emotional reactions in supervisory relationships, an ‘events battery’ was developed, based on an approach used by Collins (1996) to study similar effects in romantic relationships. The battery comprised: two scenarios describing hypothetical supervisory relationship events (i.e. the stimuli); and outcome measures of relationship attributions and negative emotional reactions (i.e. the responses).

**Hypothetical relationship event scenarios**

As part of the questionnaire survey, participants were asked to read and respond to two scenarios, each depicting an event that might occur during an interaction between nurse and supervisor. The rationale for using
scenarios was that a hypothetical approach enables comparison of individual differences in reactions to the same events. This issue is especially pertinent because avoidance and attachment anxiety theoretically predispose individuals to perceive and attend to different situations consistent with their respective relational goals (Collins & Read, 1994). Thus, in a real-life and/or real-time study participants would be expected to report different negative affective events which would confound findings regarding relational models and outcomes. By focusing participants’ attention on the same stimuli, this allows greater confidence that any differences found in attributions and emotional reactions are attributable to differences in relational models rather than other contextual variables (Collins, 1996).

The scenarios (see Figure 2) were designed to: 1) tap attachment-relevant themes of supervisors’ warmth, responsiveness and availability (emotional and physical); and 2) be potentially negative, yet with a degree of ambiguity. Events that are relatively negative and ambiguous to the recipient are more likely to elicit causal reasoning (Hastie, 1984). In contrast, positive events are less likely to stimulate attributions (Weiner, 1985) so were not included. The applicability of the scenarios to the experiences of the target population was checked using local knowledge in the research organization. A clinical psychologist working in the field of adult attachment verified that the scenarios related to attachment-relevant themes. For each scenario participants indicated ‘how you think you would react if the event happened to you today’ by completing measures of attributions and emotional reactions.

Imagine your supervisor performing each of the behaviours below. Indicate how you think you would react if the event happened to you today.

EVENT A
You need to speak to your supervisor about an urgent work matter. The problem cannot be resolved without first consulting your supervisor. You approach your supervisor, and say that you really need his/her opinion on a problem that's cropped up. Your supervisor says s/he cannot see you right now.

EVENT B
At one of your regular meetings with your supervisor, the two of you discuss your performance. During the past year, your work unit has often been short-staffed, leaving you (and your colleagues) with a very heavy workload. You tell your supervisor about the severe strain you have been experiencing, and the concerns you have about the effectiveness of the work unit under these difficult conditions. Your supervisor shrugs his/her shoulders and remarks that all departments are facing the same problem.
**Relationship attributions**

Interpretations of the hypothetical scenarios were assessed in terms of attributions, using an adaptation of the Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992). Because the present study is interested in the relational dynamics of supervisory relationships it was considered more appropriate to select a measure which was tailored to dyadic relationships. The RAM assesses attributions in personal relationships and previous research has demonstrated good validity and reliability (Fincham & Bradbury, 1992). Moreover, Collins (1996) found that relationship attributions as measured by the RAM mediated the links between attachment styles and emotions. In the present study, the wording of the RAM scale was altered to refer to ‘my supervisor’. Three items assessed causal attributions: a) locus – the extent to which the cause of the event rested with the supervisor; b) stability – the extent to which the cause of the event was likely to change; and c) globality – the extent to which the cause affected other areas of the working relationship. Three items assessed ‘responsibility-blame’ attributions (intentionality, selfish motivation, and blameworthiness) ascribed to the supervisor. An example of a causal attribution item is ‘The reason my supervisor behaved this way is not likely to change’ (stability). An example of a responsibility-blame attribution is ‘My supervisor did this on purpose, rather than unintentionally’ (intent).

In response to each scenario, participants indicated: ‘If my supervisor behaved this way, it would be because . . . ’ [each attribution item] on a six-point scale (1 = Disagree Strongly and 6 = Agree Strongly). For analysis purposes, item scores were averaged for the two scenarios (i.e. summed and divided by two). After principal axis factoring all items loaded on a single factor, suggesting that treating the causal and responsibility-blame items as sub-scales would not yield differential correlations with the dependent variables (Hair et al., 1998). Therefore, the items entered subsequent analyses as a single composite scale labelled ‘Other-blame Attributions’. Higher scores indicated more negative/hostile relationship attributions. Cronbach’s alpha for the composite scale was .94.

**Negative emotional reactions**

Emotion terms were selected based on: a) previous research indicating that the emotions were relevant to the workplace (e.g. Basch & Fisher, 2000); and b) evidence that the emotions differentiate people with different relational models (e.g. Collins, 1996; Fuendling, 1998; Mikulincer, 1998a, 1998b). Nine negative emotions (hurt, guilty, annoyed, embarrassed, anxious/worried,
ashamed, frustrated, angry, upset) were interspersed with five positive emotions (pleased, happy, grateful, glad, proud). The positive emotions were counterbalancing items intended to discourage response bias and were not analysed further. For each scenario participants indicated, ‘If my supervisor did this to me, I would feel: . . .’ [each emotion] on a six-point scale (1 = Not at all to 6 = Extremely). Higher scores indicated more (intense) negative emotions.

As with the attributions measure, scores for each negative emotion were derived by averaging across the responses for both scenarios. Principal axis factor analysis with oblique rotation revealed two factors. Factor 1 emotions were largely other-focused: annoyed, angry, hurt, frustrated, upset. This clustering is consistent with previous research indicating that hurt and anger emotions are often experienced together (Leary & Springer, 2001). It may also be that participants interpreted ‘upset’ according to its more colloquial meaning as a synonym of anger. Overall therefore, the factor was labelled ‘Anger Emotions’ (Cronbach’s alpha .91). Factor 2 comprised: guilty, embarrassed, anxious/worried, and ashamed – emotions that are generally acknowledged as self-focused or self-conscious (e.g. Lazarus, 1991; Lewis, 2000). This factor was labelled ‘Distress Emotions’ (Cronbach’s alpha .75). The factors were moderately correlated ($r = .47$, $p < .001$). Given the theoretical and internal consistency of the sub-scales, they were retained for use as separate dependent variables. Prior to administering the Relationship Events Battery, five organizational researchers completed and evaluated the instrument. Barring very minor adjustments to improve clarity in the wording of the scenarios, all parts of the battery were judged conceptually appropriate and organizationally relevant. Completed scales showed a good spread of scores. In the survey, all participants received both event scenarios, and were asked to complete separate attributions and emotions scales in response to each.

**Background variables**

Information was collected concerning: age, gender, ethnic background, grade, organizational tenure, job tenure, length of supervision relationship, supervisor gender, and type of contract (full- or part-time).

**Analysis**

Descriptive statistics, Pearson correlations, and reliability coefficients were calculated for all variables (see Table 1). All adapted scales demonstrated good or very good internal consistency. The distress emotions scale was
### Table 1  Means, standard deviations, reliability coefficients, and inter-correlations

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>36.65</td>
<td>8.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Relationship length</td>
<td>2.51</td>
<td>2.96</td>
<td>.25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Specific avoidance</td>
<td>3.28</td>
<td>1.33</td>
<td>.18*</td>
<td>.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Specific anxiety</td>
<td>3.35</td>
<td>.97</td>
<td>-.16*</td>
<td>-.00</td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Global avoidance</td>
<td>3.13</td>
<td>.88</td>
<td>.27****</td>
<td>-.06</td>
<td>.44****</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Global anxiety</td>
<td>3.00</td>
<td>.92</td>
<td>.04</td>
<td>.08</td>
<td>.42****</td>
<td>.22***</td>
<td>.32****</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Attributions</td>
<td>2.49</td>
<td>1.09</td>
<td>.15*</td>
<td>.09</td>
<td>.62****</td>
<td>-.08</td>
<td>.29****</td>
<td>.37****</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Negative emotions</td>
<td>2.98</td>
<td>.86</td>
<td>-.16*</td>
<td>-.07</td>
<td>.21***</td>
<td>.31****</td>
<td>-.08</td>
<td>.28****</td>
<td>.29****</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Anger emotions</td>
<td>3.87</td>
<td>1.18</td>
<td>-.14</td>
<td>-.08</td>
<td>.18***</td>
<td>.27****</td>
<td>-.10</td>
<td>.19*</td>
<td>.31****</td>
<td>.94****</td>
<td></td>
</tr>
<tr>
<td>10. Distress emotions</td>
<td>1.87</td>
<td>.74</td>
<td>-.14</td>
<td>-.02</td>
<td>.19**</td>
<td>.28****</td>
<td>.00</td>
<td>.35****</td>
<td>.14</td>
<td>.74****</td>
<td>.47****</td>
</tr>
</tbody>
</table>

Alpha                      | .85 | .68 | .89 | .90 | .94 | .90 | .91 | .75 |

**Note:** *p < .05; **p < .01; ***p < .001.
positively skewed, however comparison of non-parametric and parametric correlations between distress emotions and the dependent variables found equivalent results (values varying by no more than .04). Hence, transforming distress emotions was deemed unnecessary. Table 1 also shows that the magnitude and direction of zero order correlations between global and specific models was in line with the findings of previous studies in which $r$ has typically ranged from .16 to .46 (e.g. Cozzarelli et al., 2000).

The study data were hierarchical and non-independent. Specifically, because participants worked in different wards, the individual level (level 1) survey data were 'nested' within work groups (level 2 data). According to Bliese (2002), when data are hierarchical in this way, individuals' interpretations of, and reactions to, their environments will be shaped to some degree by the social interactions of the work group and, in this study, by the fact that certain groups of participants shared a supervisor. The influence of this group-related (level 2) variance, or non-independence, was effectively an extraneous variable that needed to be controlled for in the present analysis in order to avoid bias in the estimation of standard error (Bliese, 2002). The hypotheses were therefore tested by Multilevel Random Coefficient modelling (MRC) (Bryk & Raudenbush, 1992) using the NMLE library for S-PLUS.

Control variables

Given that statistical power increases with the ratio of cases per variable (Tabachnick & Fidell, 1989), background variables that significantly correlated with the dependent variables were prioritized as controls in the main analyses. Age was negatively associated with overall negative emotions ($r = -.16, p < .05$) but positively correlated with other-blame attributions ($r = .15, p < .05$). ANOVAs of grade by dependent variable(s) indicated that nurses in higher grades were significantly less likely to report distress emotions ($F (2,171) = 5.81, p < .01$), although this appeared to be independent of age ($F (2,171) = 1.5$ NS).

Length of the supervisory relationship was not significantly correlated with the dependent variables (see Table 1). However, theory and research relating to Leader Member Exchange indicate that relationships with supervisors evolve over time (e.g. Liden et al., 1993). Therefore, it was theoretically possible that time in the supervisory relationship might moderate the associations between global and specific models (e.g. in newer relationships, global models might be more strongly related/akin to specific models). It was also possible that the degree to which specific models predicted the outcome variables, after accounting for the effects of global models, might vary as a function of relationship length. However, preliminary MRC analyses
indicated that the relationship between global and specific models did not vary systematically as a function of relationship length, and the proportion of explained variance was unchanged after including an interaction term. Equally, a preliminary run of all direct effects multi-level analyses, inserting terms for specific relational models x relationship length, found no significant interactions (interaction coefficient sizes ranging from −0.001 to −0.13; ps ranging from 0.98 to 0.17). The lack of significant effects may be attributable to the fact that most participants were in relatively established relationships, for example, only 12.6 per cent of the sample had relationships of less than six months’ duration. Taken together, it was concluded that the inclusion of relationship length as a moderator in subsequent analyses was not warranted, but it was nevertheless retained as a control variable.

In sum, all subsequent MRC analyses estimated models that included terms to control for age, relationship length, and ward/work group (level 2) effects. Models containing distress emotions also controlled for grade effects (dummy coded). Note that the MRC coefficient is un-standardized, so t-values (equivalent to standardized beta weights) are included throughout to aid assessment of the relative contributions of the independent variables.

Results

Direct effects of specific and global models on attributions and emotions

The first set of multilevel analyses was designed to assess the extent to which specific models are significantly associated with other-blame attributions and negative emotions, especially after accounting for the influence of global models. Table 2 (Model 1 & 2) summarizes the results of these analyses for each of the outcomes.

As expected, specific relational models accounted for an additional 17 per cent variance in other-blame attributions over and above the 10 per cent already accounted for by the global models. Inspection of the coefficients, however, reveals that this significant increase in explained variance was solely attributable to specific avoidance ($\gamma = .43, p < .001$). Specific attachment anxiety was not significantly associated with other-blame attributions ($\gamma = −.06, \text{NS}$) although a positive association (albeit smaller than for specific avoidance) was expected. Thus, hypotheses 1a and 1b were supported for specific avoidance only. Specific avoidance was the most influential relational model in explaining negative relationship attributions; however, specific attachment anxiety was not related.
Table 2  Summary of multilevel analyses using specific and global relational models to explain other-blame attributions and negative emotions, and the relationships between relational models and negative emotions using other-blame attributions as a mediator

<table>
<thead>
<tr>
<th>IVs</th>
<th>Attributions</th>
<th>Anger emotions</th>
<th>Distress emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\gamma$</td>
<td>t-value</td>
<td>$\gamma$</td>
</tr>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global avoidance</td>
<td>0.23$^*$</td>
<td>2.45</td>
<td>-0.22$^*$</td>
</tr>
<tr>
<td>Global anxiety</td>
<td>0.31***</td>
<td>3.63</td>
<td>0.32**</td>
</tr>
<tr>
<td>Explained variance:</td>
<td>0.10</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global avoidance</td>
<td>0.01</td>
<td>0.15</td>
<td>-0.32**</td>
</tr>
<tr>
<td>Global anxiety</td>
<td>0.17$^*$</td>
<td>2.09</td>
<td>0.13</td>
</tr>
<tr>
<td>Specific avoidance</td>
<td>0.43***</td>
<td>7.14</td>
<td>0.26***</td>
</tr>
<tr>
<td>Specific anxiety</td>
<td>-0.06</td>
<td>-0.82</td>
<td>0.31***</td>
</tr>
<tr>
<td>Explained variance:</td>
<td>0.27</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>$\Delta$ Explained variance:</td>
<td>0.17***</td>
<td>0.09***</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; Bold type indicates potential mediation; Sobel test assessed significance of mediation effect: * $Z = 3.95$***

It was also expected that supervisor-specific relational models would be significant predictors of negative emotion outcomes, after controlling for the influence of the global models (H2a). Consistent with this, Table 2 (Model 1 & 2) indicates that specific relational models together explained 9 per cent of additional variance in anger emotions. However, while specific models also explained an additional 5 per cent of variance in distress emotions, this was not a significant increase – the addition of the specific attachment dimensions did not significantly improve the overall model. The global models, and in particular global attachment anxiety, were more
influential in this case, explaining 13 per cent of variance in distress emotions. The relationships between global avoidance and both emotion variables were significant but negative, perhaps indicative of a statistical suppression effect, since these relationships were non-significant in the bi-variate correlations. Overall, hypothesis 2a was supported for one of the two emotion outcomes. Whereas specific models explained significant additional variance in anger emotions, global models were more influential in predicting distress emotions.

Hypotheses 2b and 2c concerned the extent to which specific attachment anxiety and avoidance are differentially associated with negative emotions in supervisory relationships, after controlling for the influence of global models. It was expected that specific avoidance would be more strongly associated with anger emotions than distress emotions (H2b), and that specific attachment anxiety would be more strongly related to all emotion outcomes (H2c). As shown in Table 2 (Model 1 & 2), in support of hypothesis 2b, specific avoidance was positively associated with anger emotions ($\gamma = 0.26$, $p < .001$); and a weaker relationship was found between specific avoidance and distress emotions ($\gamma = .11$, $p < .05$). (This is more easily observed by comparing the respective $t$-values.)

As expected for hypothesis 2c, specific attachment anxiety positively predicted anger emotions ($\gamma = .31$, $p < .001$) and distress emotions ($\gamma = .16$, $p < .01$). Closer inspection of $t$-values across the emotion variables indicates that the main difference between avoidance and attachment anxiety was in the prediction of distress emotions, with anxiety being the marginally stronger predictor ($t = 2.89$ versus $t = 2.51$). Overall, the differences between specific attachment anxiety and avoidance were less marked than anticipated. This could be attributable to overlapping variance between specific avoidance and global attachment anxiety – the variables were significantly correlated, and global attachment anxiety was not significantly related to anger after the specific models entered the equation.

Mediating role of negative relationship attributions

Hypothesis 3 predicted that other-blame attributions would partially mediate the links between relational models (global and specific) and negative emotions. More specifically, it was not expected that other-blame attributions would mediate the prediction of distress emotions given that distress emotions are usually associated with attributions of self-blame (Lazarus, 1991). However, it was useful to examine distress emotions for comparative purposes to demonstrate that any effects found were not simply due to a generalized negative response to the hypothetical events. Separate MRC
Mediation models were therefore estimated for each of the emotion outcomes, with relational model dimensions entered as predictors, and other-blame attributions as the mediator.

Using the Baron and Kenny (1986) criteria for inferring mediation, Table 2 (Model 3) shows that the relationships between specific avoidance and anger emotions, were partially mediated by negative relationship attributions. This is indicated by a significant reduction (but not a reduction to zero) in coefficient sizes after the introduction of attributions into the model (Sobel-test: $Z = 3.77$, $p < .001$). Other-blame attributions also did not mediate the relationships between global avoidance or specific attachment anxiety and the emotion outcomes. The latter finding is not surprising given that specific attachment anxiety did not predict other-blame attributions in the earlier analysis. Finally, as expected, other-blame attributions did not mediate any of the relational models–distress emotions relationships. In sum, the hypothesized partial mediation effect was supported for only one out of a possible eight relationships: namely the specific avoidance–anger emotions link. Other-blame attributions did not mediate any of the relationships in which global models, or specific attachment anxiety, were predictors.

Interactions between specific and global models

The preceding analyses addressed the direct and mediated effects of specific and global models. The final set of multilevel analyses assessed whether global models also interact with, or moderate, the relationships between specific models and the study outcomes (H.4). In particular, it was thought that holding more positive global models (i.e. low scores on global avoidance and/or attachment anxiety) might buffer against, or attenuate, the effects of holding correspondingly more negative specific models (e.g. low global attachment anxiety might ‘buffer’ the effects of high specific attachment anxiety, etc.). The results in Table 3 and Figure 3, show that no support was found for the hypothesis.

There were no significant interactions between global and specific avoidance in the prediction of other-blame attributions or emotions, and whereas global attachment anxiety did significantly moderate the relationships between specific attachment anxiety and anger emotions ($\gamma = -0.18$, $p < .01$), this was in an unexpected direction. Plotting the significant relationships according to procedures outlined by Aiken and West (1991) allows closer examination of these patterns of associations (see Figure 3).

Figure 3 reveals that under conditions of low global attachment anxiety, the relationship between specific attachment anxiety and anger emotions was stronger. In other words, the effects of specific models were
more pronounced when global attachment anxiety was low. Conversely, when global attachment anxiety was high, specific attachment anxiety was more weakly associated with negative emotions – higher anger emotion ratings were reported almost regardless of whether the specific model of

**Table 3** Summary of multilevel analyses of interactions between global and specific relational models in the prediction of other-blame attributions and negative emotions

<table>
<thead>
<tr>
<th>IVs</th>
<th>Attributions</th>
<th>Anger emotions</th>
<th>Distress emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \gamma )</td>
<td>( t )-value</td>
<td>( \gamma )</td>
</tr>
<tr>
<td><strong>Avoidance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global avoidance</td>
<td>0.04</td>
<td>0.50</td>
<td>-0.27*</td>
</tr>
<tr>
<td>Specific avoidance</td>
<td>0.47***</td>
<td>8.23</td>
<td>0.27***</td>
</tr>
<tr>
<td>Global ( \times ) specific avoidance</td>
<td>0.01</td>
<td>0.15</td>
<td>-0.03</td>
</tr>
<tr>
<td><strong>Attachment Anxiety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global anxiety</td>
<td>0.41***</td>
<td>4.98</td>
<td>0.17</td>
</tr>
<tr>
<td>Specific anxiety</td>
<td>-0.12</td>
<td>-1.63</td>
<td>0.30**</td>
</tr>
<tr>
<td>Global ( \times ) specific anxiety</td>
<td>-0.11</td>
<td>-1.69</td>
<td>-0.18***</td>
</tr>
</tbody>
</table>

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

**Figure 3** Interaction of specific attachment anxiety and global attachment anxiety in the prediction of anger emotions

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attachment anxiety was high or low. These findings do not support a buffering hypothesis, since low global attachment anxiety did not appear to confer any degree of immunity to the effects of holding a high specific model of attachment anxiety.

Discussion

Perhaps the key contribution of the present research is in highlighting the need for future researchers to consider the influence of relational context on negative emotions in supervisory relationships. It must be kept in mind that the study was exploratory and the findings should therefore be treated with the necessary caution. Overall, the findings provide some tentative preliminary support for a relational approach, suggesting that attachment theory may offer a useful framework for understanding the respective contributions of global relationship predispositions, and specific relationship dynamics, to the experience of negative emotions in the supervisory relationship. The key findings suggest that both global and specific relational models contributed significantly to self-reported negative emotions, in response to hypothetical supervisor events. In terms of direct effects, specific models significantly predicted both anger and distress emotions; however, they were more strongly related to anger emotions, whereas global models (especially global attachment anxiety) made the greater contribution to distress emotions. The predicted mediating role of other-blame attributions was only supported in the relationship between specific avoidance and anger-related emotions.

At their simplest, these findings imply that beliefs and expectations about both the supervisory relationship, and relationships in general, may have important effects on employees’ negative emotional responses in supervisor interactions. The more individuals hold beliefs and expectations that their supervisor cannot be trusted or depended upon, and/or they worry that their supervisor does not accept or value them, the more likely they are to feel angry and/or distressed in response to ambiguous supervisor behaviour. Overarching beliefs and expectations about the value of the self and others’ dependability in wider social relationships are clearly also influential to some degree (especially regarding distress feelings). Indeed, the global relational models that individuals bring with them to the workplace may help explain why some employees might typically experience more negative emotions in their supervisory relationship even when there is not a specific history to account for it. Importantly, however, the effects of relationship specific models remain significant after factoring out the influence of these
global/dispositional tendencies. Thus, employee emotional reactions to supervisory events may differ, in part because of stable (global) individual differences, but also because of (perceived) specific relationship differences – relationship differences shaped by a history of prior interactions and emotional events with the supervisor. These findings broadly support previous studies of the relative roles of specific and global models in social interactions (e.g. Cozzarelli et al., 2000; Pierce & Lydon, 2001).

Some noteworthy qualifications and exceptions apply, however. First, while the specific and global avoidance models appeared to function relatively independently in influencing emotions, the picture was evidently more complex for the attachment anxiety dimensions. Global attachment anxiety moderated the effects of specific attachment anxiety, but in contrast to the expected buffering effects (see Pierce & Lydon, 2001) lower global attachment anxiety did not appear to attenuate the effects of higher specific attachment anxiety in the supervisory relationship. One interpretation, consistent with the proposals of Collins and Read (1994), is that when supervisor behaviour does not match prior experiences or expectations in the relationship, the specific model effectively lacks situation-relevant information, and the global model may therefore serve as the default for responding to the behaviour. The situations in this study were hypothetical. Therefore, for individuals with low specific attachment anxiety, the negative events depicted in the scenarios may have been less likely to have occurred in reality (see Ainsworth et al., 1978). Consequently, faced with new and ambiguous situations with implications for relational self concept, participants may have relied on their global model of self (either positive or negative) to predict likely responses to the situation. In contrast, individuals scoring higher on specific attachment anxiety may have previously encountered or anticipated similar situations in their supervisory relationships. Accordingly, the specific self model may have been situationally relevant and primed for predicting likely anger reactions to the scenarios.

It was also notable that only the association between anger emotions and specific avoidance was partially mediated by negative (other-blame) relationship attributions. Specific avoidant models are thought to be characterized by lack of trust, and avoidance of closeness or dependence, in the working relationship. Thus, when supervisors behaved ambiguously/negatively in the hypothetical attachment-relevant situation, it appears that individuals scoring higher on specific avoidance were predisposed to attribute blame for the incidents to their supervisors (e.g. ‘just the kind of thing I’d expect from her/him’). In turn, these attributions were associated with other-focused, anger, frustration, etc. That the observed mediation was partial is consistent with an interpretation that direct and indirect processes may...
operate simultaneously in response to negative supervisory incidents. That is, in addition to cognitive processing, relational model activation may be associated with the operation of automatic affect regulation strategies such that the hypothetical events are reacted to in characteristic ways, by-passing cognitive processing (see Collins, 1996; Collins & Read, 1994). Further research is needed to confirm this speculative conclusion however, since affect regulation was not directly measured.

The lack of a significant mediation effect for specific attachment anxiety is inconsistent with other studies in which higher attachment anxiety was associated with more negative or hostile causal explanations for relationships partners’ behaviour (e.g. Collins, 1996; Mikulincer & Horesh, 1999). However, Pietromonaco and Feldman Barrett (1997) found that ‘preoccupied’ (i.e. high attachment anxiety) individuals provided multiple, inconsistent explanations for another’s behaviour. The authors suggested that this might be because these individuals idealize the relationship partner and yet are disappointed when s/he falls short of the ideal. If this were the case in the supervisory relationship, it might help explain the non-significant association between specific attachment anxiety and other-blame attributions, and absence of mediation, in that the attributions made for supervisory events may have been somewhat inconsistent or even random within and between anxious participants. The possibility that other, unmeasured attributions (e.g. self-blame, or situational-blame) underpin the relational models–emotions links also cannot be ruled out at this stage, however.

The present findings were in line with previous research (e.g. Collins, 1996; Mikulincer & Orbach, 1995) in showing that attachment anxiety, at both global and specific levels, tended to be more strongly associated than avoidance with distress emotions (embarrassment, guilt, shame, etc.). This is consistent with the notion that individuals with negative views of the self in the supervisory relationship and/or general relationships may be more likely to experience self-focused/distress emotions if an interpersonal event is perceived as confirming the negative self-image, or highlighting concerns about how the self is regarded in the relationship (Collins & Read, 1994). The fact that global attachment anxiety remained a strong predictor of anticipated distress emotions in the specific supervisory relationship context, suggests that self-focused negative emotions may be more closely tied to overarching beliefs and expectations about self-worth in relationships in general. Given that global attachment anxiety and global self-esteem overlap significantly, but there is no overlap with specific attachment anxiety (Cozzarelli et al., 2000), it may be that the more deep-rooted self constructs play a key role in distress emotions across relational contexts,
with a smaller contribution from the specific relational models held for a particular relationship. This contrasts with the findings discussed above suggesting that the role of attachment anxiety in predicting anger (i.e. other-focused) emotions may be more situationally determined.

**Caveats, contributions, and future research**

In addition to the exploratory nature of the research, a number of caveats should be kept in mind. The cross-sectional design means that both the size and direction of relationships must be viewed tentatively – common method bias could play a part, and despite the discourse of prediction inherent in MRC modelling it is not possible to infer causality from the present data, only a theoretically consistent pattern of associations. The research relied on hypothetical reports of emotional experiences. While this method allows for comparison of the effects of different relational models, a potential limitation is that imagined responses to hypothetical events may not accurately reflect ‘real life’ reactions, depending as they do on participants’ level of emotional awareness. However, had ‘real-life’ supervisory experiences been investigated, it is possible that the accounts of the predominantly more avoidant individuals, versus the predominantly more attachment anxious, would have varied considerably in content, given their different relational concerns and motivations (Collins & Read, 1994). Thus, for example, the present method may have overestimated the occurrence of negative emotions in more avoidant individuals, because in reality they might have avoided speaking to their supervisor about these issues in the first place. Additionally, hypothetical judgements may be influenced by respondents’ mood at the time of completing the questionnaire (Neumann et al., 2001), as well as socially desirable responding and lack of self-knowledge (Kline, 2000). Ideally, despite the problem of possible confounding, future researchers should adopt richer and more valid methods for assessing the nature of negative supervisory events and cognitive and emotional reactions to them. For example, real-time methods such as event sampling (ESM) and structured diaries would be appropriate because they reduce recall bias (Fisher, 2000).

The mainly female sample may also have influenced the findings regarding emotional reactions. First, women are sometimes found to be more emotionally expressive than men (Feldman Barrett et al., 2000; Kring & Gordon, 1998). This greater expressiveness could have reduced relational model differences in reports of anticipated emotions in the present study. Second, the majority of the supervisors and their employees were female. Women are more often perceived as transformational leaders (Cleveland et al., 2000), so the female supervisors in this sample may have been perceived
as generally more caring and nurturing than men, which in turn could under-represent the occurrence of insecure relational models, and negative emotions, in supervisory relationships. Consistent with this, McColl-Kennedy and Anderson (2005) found that female subordinates with female supervisors were more likely to experience optimism, while males with a male supervisor were more likely to experience frustration. Thus, the present findings may provide a conservative picture of the degree to which frustration or other anger-related emotions might be reported in a sample with more male employees and supervisors. On the other hand, research on gender combinations in mentoring relationships suggests that gender-role orientation is more important than gender per se in determining relationship liking and perceived mentoring effectiveness (e.g. Ensher & Murphy, 1997). Clearly more research is needed to clarify these issues. Future studies should attempt to replicate the findings of the present research in diverse organizational settings with diverse samples of individuals. Until then, it should be kept in mind that the present findings may not be generalizable beyond female/nursing contexts.

While the present study, and others before it (e.g. Cozzarelli et al., 2000), did not find any significant effects of relationship length, the influence of global models might be expected to be greater at the beginning of a new relationship, before the specific model has been formed (Collins & Read, 1994). The key issue here is how long it takes to develop specific relational models. According to Gabarro’s (1987) study of the development of broader working relationships, impressions are formed regarding others’ trustworthiness, and how open one can be in the relationship, during the early weeks of acquaintance, then tested and confirmed over several months. Are first impressions enough to form the basis of a rudimentary specific model, which may then be confirmed or modified in the light of new experiences? Without an answer to this question, it should be kept in mind that the present study may overestimate the role of specific models because most of the participants had relatively well-established relationships. The development of specific relational models in completely new relationships is a promising area for future research. It would be useful to compare the relative influences of global and specific relational models on a range of supervisory relationship outcomes at the very beginning of a new supervisory relationship and at regular intervals during the first three to six months.

Finally, given that this research is the first to operationalize the concept of supervisor-specific relational models, it is important to gather further evidence regarding its construct validity. It has been argued that the relational model construct as operationalized in other relationship domains (e.g. romantic) translates directly to the supervisory context, yet there may be
important differences. In particular, unlike in romantic and other non-work relationships, organizational norms, culture, and role or status expectations may constrain what is considered appropriate in terms of supervisees’ emotional expression and behaviour (van Maanen & Kunda, 1989). Thus, for example, participants might have indicated that they did not feel comfortable letting their supervisor know how they really feel, less because they did not trust their supervisor (i.e. higher specific avoidance) than because it would not be appropriate to do so in their work context. The implication of this for the present findings would be that the links between specific relational models and attributions and emotions do not necessarily reflect attachment-based processes, but context effects. Counterbalancing this possibility, the measure had adequate reliabilities, and correlated with a measure of relationship quality in theoretically consistent directions in the pilot study. Nevertheless, the applicability of items used to measure the construct should be further investigated – researchers should seek qualitative accounts of relational models of supervisors and validate employee self-reports against observable behavioural outcomes. Relationships between specific relational models and variables such as the Big Five personality factors, trait affectivity, trust, and self-esteem should be investigated too, in order to clearly demarcate the conceptual territory occupied by supervisor-specific models. In addition, future research should investigate how supervisor-specific relational models form. For example, do leadership style and leaders’ own global relational models influence the development of employees’ insecure relational models (see Keller, 2003)? And, to what extent do supervisors develop corresponding ‘employee-specific’ relational models? The answers to such questions may help us to develop a truly dyadic understanding of the nature of supervisor-specific relational models and the dynamic interplay between employees’ and supervisors’ past and present relationship experiences.

Acknowledging the caveats above, this research nevertheless makes some useful contributions. The findings complement and extend Collins’s (1996) and Kahn’s (1998) research, and contribute to attachment theory by demonstrating the utility and relevance of the specific and global relational constructs in the context of workplace supervisory relationships. In particular, the findings support the proposition that employees form mental representations of their current supervisory relationships, distinct from their global ‘attachment styles’, that are influential in guiding emotional responses in supervisory interactions. The research also adds to the scant body of knowledge about emotions in leadership. An attachment based relational approach enables a more micro-level understanding of relationship dynamics and their potential effects (Popper et al., 2000) – perhaps reaching the parts
of employee emotional experiences that other leadership theories have yet to reach. In terms of contributions to knowledge about emotions at work, the fact that the negative emotions scale developed for the study yielded two separate factors with differential relationships to the independent variables suggests that it may be fruitful to use a finer-grained operationalization of emotions than is often utilized. In particular, a more nuanced understanding of negative emotions at work may be achieved by distinguishing between other-directed (anger) and self-directed (distress) emotions. Finally, the proposed framework also contributes to AET (Weiss & Cropanzano, 1996) and cognitive appraisal theories (e.g. Lazarus & Cohen-Charash, 2001) that have not explicitly addressed the role of relational context in determining emotions at work. In the language of AET, the present findings reinforce supervisory support as a key characteristic of the work environment but, more importantly, the specific relational models construct helps us to understand the underlying relational mechanisms through which perceived supervisory support (or lack of) may influence the (perceived) occurrence of affective events that lead to emotions.

Practical implications

In the longer term, negative emotional experiences may have serious consequences for employees and their organizations. Prolonged experiences of negative emotions have been linked to physical and psychological ill-health, including burnout (Buunk et al., 1998; Kahn, 1993), reduced job satisfaction and motivation, increased turnover and intentions to leave, and an increase in counterproductive work behaviours (Fisher, 2000; George & Brief, 1996; Grandey et al., 2002; Kahn, 1998; Spector & Fox, 2002). Thus, it is clearly in the interests of managers to find ways to reduce the incidence of employee negative emotions. There are obviously many potential sources of negative emotions that were not addressed in this research. However, a key message from the present findings is that, beyond the influence of stable individual differences, the experience of negative emotions in supervisory relationships may vary according to the degree of (in)security felt by the employee in the relationship. Relational models of self and other are products of a history of experiences of a partner’s responsiveness in times of need (Bowlby, 1973), and the attachment system is activated and primed when individuals are uncertain or under stress (Feeney, 1999). In order to reduce the incidence of negative emotional interactions, therefore, supervisors need to be able to recognize and avoid the potential triggers or types of interaction that might lead to the development and/or activation of insecure relational models. This
study showed that supervisory interactions involving the provision of ambiguous or negative emotional support may be especially likely to evoke attachment-related negative emotional responses, so care should be taken to conduct these interactions in as consistently warm, sensitive, and open a manner as possible. Negative or ambiguous interactions provide scope for supervisors’ actions to be interpreted as indications of untrustworthiness/unreliability, or signs that the employee is not valued or accepted, so these should be avoided.

Organizations could promote the development of supportive and secure supervisory relationships (i.e. relationships scoring low on both attachment anxiety and avoidance) using a combination of HR mechanisms. For example, it may be useful to include assessment of emotional intelligence (EI) in recruitment and promotion to supervisory/management positions. Emotional intelligence concerns the ability to perceive and regulate one’s own and others’ emotions (Mayer & Salovey, 1997). High EI supervisors should thus have the interpersonal awareness and sensitivity necessary to help shape more secure relationships with their employees. Further research is needed to investigate the links between EI, supervisory support and employee relational models, but there is support for the notion that EI is associated with improved follower relationships more broadly. For example, George (2000) proposed that high EI leaders are better able to generate and maintain positive affect and trust in followers, and Mandell and Pherwani (2003) found a positive association between higher EI and perceptions of transformational leadership.

Training existing supervisors in EI, and also effective ‘caregiving’ (see Kahn, 1993, 1998) or emotional support skills, may help supervisors to (re)build trust and comfort in employee relationships. In particular, the ability to provide a dependable secure base, to which employees can temporarily turn to for support in times of need, may reduce the likelihood that employees hold avoidant and/or anxious specific relational models and experience associated negative reactions (Kahn, 1998). Intervention studies in family relationships have shown that enhancing parental caregiving skills through training is effective in improving infant attachment security, and requires only a few brief sessions (Bakermans-Kranenberg et al., 2003; George & Solomon, 1999). Finally, the importance of developing trusting, secure supervisory relationships could also be reinforced via appraisal systems. For example, 360 degree appraisal that includes employee perceptions of supervisory support would be a useful means of assessing the developmental needs of supervisors. Together, such initiatives might help reduce the incidence of a key source of negative emotions at work.
Conclusion

Little is known about why the supervisory/managerial relationship is a major source of negative emotions at work. The present research proposed, and found some support for, a relational theory of negative emotions in supervisory relationships. Despite limitations, the findings suggest that some individuals may be more likely than others to report negative emotions in their supervisory relationships, depending on the degree to which they hold insecure relational models of self and other within salient/significant relationships in general, as well as within the supervisory relationship in particular. The differential pattern of associations found between the specific and global models and dependent variables implies not simply ‘identical but stronger’ independent effects of relationship-specific models compared to their global counterparts, but more complex and interconnected patterns of influence than has hitherto been recognized. Overall, it is clear that a greater understanding of both the role of employee–supervisor relationship histories and dynamics, and individual differences, is needed if we are to enhance our knowledge of the antecedents of negative emotions in supervisory relationships. In short, in order to understand why negative emotions occur in supervisory relationships, it is necessary to view affective events as episodes embedded in the context of an evolving interpersonal history with the supervisor, as well as with others in general.

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Notes

1 Weiss and Cropanzano (1996) discuss potential event-appraisal-emotions links, but to date AET research tends to ignore this micro-level to focus on the direct relationships between events and outcomes.

2 A pilot study (N = 158 students on full-time work placement) also yielded the same factors with acceptable reliabilities (avoidance .80; attachment anxiety .65). Avoidance was strongly and negatively associated ($r = -.55, p < .001$) with ratings on LMX-7 (an index of relationship quality), whereas attachment anxiety had a significant but weaker association ($r = -.16, p < .05$).
Appendix

Table A1  Supervisor-specific relational models: Items and factor loadings

<table>
<thead>
<tr>
<th>Items</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>I prefer not to show my supervisor how I feel deep down</td>
<td>.63</td>
</tr>
<tr>
<td>I try to avoid having to go to my supervisor for help or advice</td>
<td>.81</td>
</tr>
<tr>
<td>Talking over problems with my supervisor makes me feel ashamed or foolish</td>
<td>.59</td>
</tr>
<tr>
<td>I find it difficult to allow myself to depend on my supervisor</td>
<td>.77</td>
</tr>
<tr>
<td>I prefer to handle problems on my own rather than ask my supervisor for help</td>
<td>.73</td>
</tr>
<tr>
<td>I don’t mind asking my supervisor for support (R)</td>
<td>.70</td>
</tr>
<tr>
<td>I wish there were a way I could spend more time with my supervisor</td>
<td>.64</td>
</tr>
<tr>
<td>I’d like to know more about my supervisor as a person</td>
<td>.74</td>
</tr>
<tr>
<td>I sometimes wonder whether I’m my supervisor’s favourite employee</td>
<td>.26</td>
</tr>
<tr>
<td>I wish I could do something for my supervisor too</td>
<td>.55</td>
</tr>
<tr>
<td>I wish my supervisor and I could be friends</td>
<td>.57</td>
</tr>
</tbody>
</table>

Note: Item loadings above .25; Factor 1 = Supervisor-Specific Avoidance; Factor 2 = Supervisor-Specific Attachment Anxiety.

References


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**Annilee Game** is a lecturer at Norwich Business School, University of East Anglia, UK, where she teaches organizational behaviour and business ethics. She holds an MSc in Occupational Psychology from the University of Sheffield (Institute of Work Psychology) and obtained her PhD in 2004 from Aston Business School, UK. Her current research interests include working relationships – especially leader–follower dynamics – emotions at work, well-being, ethical leadership and decision-making, and the applications of attachment theory to organizational life. [E-mail: a.game@uea.ac.uk]