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Bringing avoidance and anxiety to the job: Attachment style and instrumental helping behavior among co-workers

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ABSTRACT   While social psychologists have widely explored the link between adult attachment styles and interpersonal relating behaviors such as caregiving in intimate relationships, organizational researchers have yet to examine the generalizability of such findings to employee inter-relating behaviors at work. Addressing this gap in the research, we extend attachment theory (Bowlby, 1969) to the work context in order to generate and test hypotheses regarding the way in which helping behavior may be explained on the basis of the help provider's level of attachment anxiety and avoidance. Data collected from 320 call center employees of a large Israeli telecommunications company suggest that while attachment anxiety is inversely associated with instrumental helping, it also attenuates the inverse effects of attachment avoidance on such helping. Theoretical and practical implications are discussed.

KEYWORDS   attachment anxiety ▪ attachment avoidance ▪ helping ▪ individual differences and group behavior ▪ interpersonal organizational citizenship behavior (OCB) ▪ sociometry

As an evolutionary-developmental theory, attachment theory (Bowlby, 1973, 1988) links children's early proximity-seeking and bonding experiences with their primary caregivers to the development of personality and relatively stable patterns of affect regulation (e.g. coping) and interpersonal-relating in

1803

adulthood. These stable patterns have been referred to by social psychologists as attachment styles. Seeking to link attachment style to a variety of adult behaviors, studies have consistently shown that, above and beyond the explanatory power of high-order personality traits (e.g. extraversion, neuroticism, agreeableness) (Erez et al., 2008; Noftle & Shaver, 2006; Shaver & Brennan, 1992), attachment styles make a unique contribution in predicting relational cognition and behaviors between individuals and their caregivers, close friends and romantic partners (Feeney & Collins, 2001; Mikulincer & Shaver, 2003; Mikulincer et al., 2005). Such findings suggest that adult attachment style may be readily extendable to the workplace domain as well, and serve as a possible determinant of key employee inter-relating behaviors such as helping.

However, with the exception of a handful of largely conceptual/theoretical studies (e.g. Game, 2008; Hazen & Shaver, 1990; Joplin et al., 1999; Kahn, 1998; Popper et al., 2000; Schmidt & Bell, 2005), scholars have yet to apply attachment theory to explain workplace behaviors such as helping (Mikulincer & Shaver, 2003; Rom & Mikulincer, 2003). Moreover, while in theory the impact of employee attachment behavior on workplace interrelating should be little different from the impact of attachment on relations with non-intimate others outside of work, recent research examining the more general implications of attachment style on individuals' relations with *non*-intimate others (Mikulincer & Shaver, 2003; Rom & Mikulincer, 2003; Smith et al., 1999) has generated largely mixed findings. To the degree that context-specific factors may at least partially underlie such mixed effects, there is likely to be significant utility in generating and testing theory regarding the potentially unique effects of attachment on employees' workplace interrelating behaviors.

In the current study, we generate and test such a model with a particular focus on one form of employee inter-relating in the workplace, namely instrumental helping. Instrumental helping has been defined as those acts of consideration and cooperation aimed at assisting others in completing some work task and/or handling a work-related problem (Anderson & Williams, 1996; Van Dyne & LePine, 1998). In contrast to other forms of pro-social behavior such as caregiving and social support that revolve around ego-peripheral issues (i.e. problems that are attributed to external causes such as illness or a natural disaster), helping tends to revolve around ego-*central* concerns, or problems that are recognized by the individual as stemming from some personal failure, inability or incompatibility (Nadler, 1991). As a particular form of such behavior, *instrumental* helping is distinguishable from other forms of helping in that while these other forms of helping often focus on problems linked to the individual's emotional well-being, often

requiring the sharing of intimate thoughts and feelings, instrumental helping focuses on assistance that is more tangible and directly task-focused in nature. In this sense, instrumental helping is similar to task-focused inter-personal behavior (Bowler & Brass, 2006; Settoon & Mossholder, 2002), with examples including helping a fellow employee complete a project, perform a task, or solve a task-related problem (Bowler & Brass, 2006). We focus on instrumental helping because studies suggest that this form of helping may increase the effectiveness of individuals and work teams by facilitating idea exchange and coordination, as well as the enhancement of individual and team capabilities (Bowler & Brass, 2006; Hackman, 2002), and by promoting team spirit, morale and cohesion (Podsakoff et al., 2000).

Accordingly, our study aims to shed light on how employee attachment style may affect the amount of instrumental help individuals give to their colleagues at work. We seek to offer a theoretical contribution by proposing and testing a model of the effects of attachment that is specific to the instru-mental helping relations characteristic among workplace peers, and in this sense, distinct from models of attachment among members of more intimate relationships typically examined in the social psychology literature. Addition-ally, we seek to offer several important empirical contributions by: a) demon-strating how criterion outcomes such as helping behaviors may be assessed sociometrically in order to avoid the potential for same-source bias generated when linking attachment to self-report outcomes; and b) modeling the direct and interaction effects of the two core dimensions of attachment – anxiety and avoidance – with both parameters assessed as continuous variables.

Adult attachment styles

According to attachment theory (Bowlby, 1973, 1988), repeated childhood experiences with parents and other caregivers serve as the basis for internal working models of what to expect and how to respond when inter-rating with others. Moreover, Bowlby posits that, over time these internal working models become internalized as an integral part of personality and are manifest in the form of attachment styles – 'patterns of expectations, needs, emotions and social behavior that result from a particular history of attach-ment experiences' (Mikulincer & Shaver, 2003: 66) – that remain relatively stable across relationships over the life course (Main, 1990; Mikulincer & Shaver, 2003).

Based on her observations of infants, Ainsworth and associates (1967; Ainsworth et al., 1978) suggested three primary types of attachment styles. The first – a *secure* attachment style – is characterized by a positive working

model regarding oneself and others. Having experienced a reliable and accessible caregiver, individuals with this attachment style feel comfortable with being close to and placing their trust in others and are generally able to effectively cope with various situations by selecting the most appropriate response from a well-developed repertoire of options. The second – the insecure-*anxious* attachment style emerges as a function of inconsistent responsiveness on the part of the caregiver, resulting in a lack of confidence regarding others' reactions to oneself. Approaching interpersonal relations on the assumption that they are unloved and on the verge of abandonment (Mikulincer, 1998), these individuals often become preoccupied with their relations with their significant others, focusing the bulk of their attention on these relations and adopting behaviors aimed at eliciting affection and support from these others (Mikulincer & Shaver, 2003).

Finally, an insecure-*avoidant* attachment style emerges as a function of a model of a caregiver tending to reject proximity-seeking attempts. Those manifesting this style tend to rely on themselves and prefer emotional distance or detachment in day-to-day interpersonal relations (Mikulincer, 1998) as a means by which to cope with relational tensions and the fear that relational proximity will ultimately lead to rejection, abandonment and/or loss (Mikulincer & Shaver, 2003).

During the 1990s, a consensus emerged around a conceptualization of four attachment styles as regions in a two-dimensional space, with attachment anxiety and attachment avoidance dimensions defining that space (for a review of these studies, see Mikulincer & Shaver, 2003). According to this conceptualization, attachment anxiety captures the degree to which individuals perceive themselves as being unworthy of love and the extent to which concerns about being rejected serve as the basis of their relations with others (i.e. more negatives models of self). In contrast, the avoidance dimension captures the degree to which they perceive others to be non-responsive and the extent to which concerns about intimacy and dependency serve as the basis of their relations with others (i.e. more negative models of others). Thus secure attachment is defined by the space in which both anxiety and avoidance are low, anxious attachment is defined by the region in which anxiety is high and avoidance low, and avoidance attachment is defined by the region in which avoidance is high, regardless of the level of anxiety. While Ainsworth et al. (1978) found anxiety to be low among most avoidant infants, researchers examining adult attachment (e.g. Bartholomew & Horowitz, 1991) distinguished between the majority who, like the infants, were high on the avoidance continuum and low on anxiety (referring to them as 'dismissing avoidants'), and the minority who were high on both dimensions ('fearful avoidants'). Mikulincer and Shaver (2003: 70) note that while

the latter tend to exhibit 'disorganized' and inconsistent patterns of relational behavior, they are also relatively rare in 'normal samples of community adults', with higher prevalence rates 'more common in samples of abused adults or clinical samples'.

Although most scholars have categorized participants into one of three or four attachment style types, a growing proportion of the studies on attachment are being conducted on the basis of participant scores along the two continuous scales noted above. As noted by Coble et al. (1996: 196), because the assignment of individuals to discrete categories 'creates a bias against discovering patterns that run against conventional wisdom . . . until more research supports the existence of taxonomically distinct, discrete categories of attachment in adults, it may be more prudent to describe adult attachment in terms of continuous dimensions'. Consequently, following Coble et al. (1996), we develop our model of attachment in the workplace in terms of the two continuous dimensions of anxiety and avoidance, first generating hypotheses regarding the main effects of attachment anxiety and avoidance, and then examining how the effects of the latter on instrumental helping may be conditioned by the former.

Attachment anxiety and instrumental helping

Research on caregiving among intimate adult couples indicates a *positive* association between attachment anxiety and caregiving (e.g. Feeney & Collins, 2001), with some studies suggesting that higher levels of attachment anxiety may be associated with a pattern of *compulsive* caregiving (i.e. over-involvement with another's problems at a level of intensity well beyond what might reasonably be expected – Kunce & Shaver, 1994) or *egoistic* caregiving (i.e. caregiving aimed more at boosting self-serving motives such as self-esteem and the emotional well-being of the help-giver than at addressing the needs of the recipient – Erez et al., 2008; Gillath et al., 2005). Interestingly, however, several studies have found that individuals high in attachment anxiety tend to provide more *limited* and ineffective caregiving (Collins & Feeney, 2000; Gillath et al., 2005; Mikulincer et al., 2005), and that they exhibit more impaired instrumental functioning in group tasks, most likely owing to their tendency to focus the bulk of their personal resources on satisfying their own emotional needs (Rom & Mikulincer, 2003).

Rom and Mikulincer (2003) provide a possible explanation for such divergent findings, suggesting that attachment anxiety may result in the adoption of alternative dysfunctional strategies depending upon the help-giver's perception of his/her relationship with the recipient as more proximal

as opposed to distal. If this recipient is someone upon whom the help provider feels more emotionally dependent (i.e. someone to whom s/he turns to discuss more intimate concerns; for example, a spouse, partner or family member), consistent with the logic above, attachment anxiety is likely to be associated with more intensive (if not, compulsive and controlling) helping behavior, the intent of which is to secure the attention and love of the other (Feeney & Collins, 2001).

If, however, the recipient is someone with whom the individual has a less intimate relationship (e.g. a co-worker to whom one turns for advice on what form to use to request a reimbursement), help providers with higher levels of attachment anxiety are likely to be associated with less intensive helping behaviors. This is because, given their generally negative and 'needy' representation of the self, help providers with higher levels of attachment anxiety tend to view interactions with such generalized others as inherently threatening, and thus, something to be minimized in both frequency and intensity where possible (Gillath et al., 2005; Rom & Mikulincer, 2003). That is, preoccupied with winning love and security from those of primary concern to them and with whom they hope to build or maintain more intimate relations (e.g. spouse, partner), more attachment-anxious individuals may view the need to allocate personal resources towards attending to the needs of others as posing a further threat to their ability to achieve their primary objective (Gillath et al., 2005; Hazan & Shaver, 1990). Indeed, as suggested by Shaver and Mikulincer (2002), under such conditions, the chronic search for the support and comfort from some external (and often non-work based) other with whom the help provider is or desires to be in a close relationship, diverts attention and resources from instrumental task demands that may require the allocation of personal resources such as time or energy. Consequently, regarding the instrumental helping of peers at work, we posit that:

> *Hypothesis 1*: There is an inverse association between attachment anxiety and instrumental helping (i.e. the higher the attachment anxiety the lower the level of helping).

Attachment avoidance and instrumental helping

As noted above, those manifesting higher levels of attachment avoidance have internalized a threat-based working model of relational proximity in which closeness is assumed to increase the risk of rejection and/or abandonment. On the basis of such a working model, these individuals tend to adopt

distancing-based relational strategies aimed at allowing them to constrain, or – if possible, altogether avoid – all interactions having the potential to involve relational tensions, demand emotional involvement, or involve the risk of being taken advantage of or 'sucked in' (Feeney & Collins, 2001; Mikulincer & Shaver, 2003, 2007). Consistent with such a notion, studies report an inverse association between attachment avoidance and helping-related outcomes such as caregiving (e.g. Gillath et al., 2005; Mikulincer et al., 2005), pro-social orientation (Mikulincer et al., 2001), volunteerism (Gillath et al., 2005), and task-sharing (Rom & Mikulincer, 2003) regardless of whether the help recipient is more proximal or distal to the help provider (Mikulincer & Shaver, 2007).

We expect this main effect of attachment avoidance on instrumental helping to generalize to the workplace for two main reasons. First, lacking the skills and motivation necessary to be good caregivers (Feeney & Collins, 2001), and given their reluctance to create open and friendly relationships with others (what Mikulincer & Nachshon [1991] refer to as 'compulsive closure'), it is unlikely that attachment avoidant individuals will be among the first to whom their work-based peers will turn as a potential source of help. Second, to the degree that their peers nevertheless may turn to them for assistance, laboratory studies suggest that more avoidant individuals are likely to be less responsive (Collins & Feeney, 2000). Moreover, to the degree that they provide assistance at all, they are likely to do so in a less warm and friendly manner as a means by which to discourage any future requests for assistance (Feeney & Collins, 2001), again causing their peers to view them as offering, at best, only limited help. Consequently, we posit:

> *Hypothesis 2*: There is an inverse association between attachment avoidance and instrumental helping (i.e. the higher attachment avoidance, the lower the level of helping).

The interactive effects of attachment avoidance and anxiety on instrumental helping

While, as noted above, emotional proximity or closeness between the help provider and recipient appears to have little effect on the association between attachment avoidance and helping-related behaviors, prior research suggests that this relationship may be conditioned by the individual's level of attachment anxiety. More specifically, these studies suggest that the inverse association posited above may be amplified in those situations in which high-avoidance individuals score lower on attachment anxiety (those individuals

labeled by Bartholomew & Horowitz [1991] as 'dismissive avoidants'), and attenuated in those situations in which high-avoidance individuals score higher on attachment anxiety (those individuals labeled by Bartholomew & Horowitz [1991] as 'fearful avoidants').

Although, as noted earlier, researchers have tended to side-step the combination of high attachment avoidance and anxiety on the grounds that such individuals are rare in 'normal adult samples' (Mikulincer & Shaver, 2003: 70), a number of self-report studies (e.g. Kunce & Shaver, 1994) have explored the impact of such a combination on inter-relating behaviors such as caregiving. Most of these studies suggest that high scores on both avoidance and anxiety may be associated with *compulsive* caregiving. For example, Feeney and Collins (2001) suggest that those individuals scoring high on both attachment dimensions may have a tendency to use egoistic and controlled helping as a means by which to elicit recipient affection and support while still maintaining an emotionally safe distance from others. Similarly, Gillath et al. (2005) suggest that among such individuals, any tendency towards disengagement may be counterbalanced by the sense that precisely by providing certain forms of assistance to others, they may be able to address their own emotional neediness and self-esteem issues. Such conflicting interests suggest that when higher levels of attachment avoidance are accompanied by higher levels of attachment anxiety, any underlying tendency towards lower levels of helping, may be counterbalanced and even over-compensated by an interest in providing egoist and controlled assistance, with the upshot being the attenuation of the generally inverse avoidance-helping relationship. Consequently, we posit that:

> *Hypothesis 3*: Attachment anxiety moderates the association between attachment avoidance and instrumental helping, such that any inverse association between avoidance and helping is attenuated under conditions of high anxiety.

Method

Sample

Data were collected from 320 newly hired employees of a large Israeli telecommunications firm. All participants were employed in the firm's customer contact center and were engaged as customer service agents. We opted for this setting under the assumption that, as new employees in a demanding environment, participants would have ample opportunities to provide instrumental assistance to one another. Indeed, while each agent performed their

tasks independently, management organized the entry of its call center employees around small cohort groups with the intent that, as members of small cohort groups working within close proximity of one another, new employees would be more motivated to assist one another in learning the job.

The 320 study participants comprised the entire population of 27 new call center cohorts entering service with the company over a six-month period (mean cohort size was 12.8 workers; SD = 2.47), resulting in a 100 percent response rate. However, owing to list-wise deletion of observations with missing data, the analyses were conducted only on those 308 partici-pants for whom we had data on all study variables (effective response rate of 96%). Seventy-one percent of the participants were female, mean age was 23 and the mean years of education was 12.7 (SD = 0.5). Using a longi-tudinal study design, data were collected at two points of time. Specifically, data regarding attachment style were collected on the agents' first day of work, while helping data were collected at the end of employees' first month on the job.

Measures

Frequency of instrumental co-worker helping

We used a form of peer rating similar to that used by Bowler and Brass (2006) to assess instrumental co-worker helping. Such an approach, based on providing a roster and asking questions about each person on the roster, is a common, acceptable technique for obtaining highly reliable measures of interpersonal relations (Labianca et al., 1998; Marsden, 1990). Moreover, in contrast to assessments of helping based on self-reports, the peer rating approach reduces the risk of common-method bias, and controls for differ-ences among recipients and between recipients and help givers with regard to perceptions of an individual's helping behaviors (Flynn, 2006). Further-more, while self-reports tend to focus on the level of help given to those several co-workers receiving such assistance (neglecting the fact that others may receive no help whatsoever), the peer-rating approach captures the extent to which help may be focused on only a few individuals. Using the peer approach, Bowler and Brass (2006) asked *all* the employees (*n* > 150) of the company studied to identify those individuals from whom they receive assistance. In contrast, we focused on the immediate relational network, namely the cohort group, because previous research indicates that workers tend to focus the bulk of their instrumental assistance activity on those in their immediate relational network such as those in their work or cohort group (Bacharach et al., 2005).

Accordingly, at the end of their first month on the job, we asked all members of a cohort group to assess the degree to which they received instrumental help (i.e. 'assistance with technical or practical work-related problems') from their fellow group members during the previous month. The helping scale ranged from 0 (none) to 7 (great extent). We aggregated peers' assessments of help *received* from a given cohort member and used the mean score for a specific cohort member as our primary indicator of that member's instrumental helping. Aggregation was justified on the basis of both inter-rater agreement (r_{WG} ranged from .45 to .93; median = .77) and group-mean reliability (ICC_2 = .30), the latter consistent with values reported in other studies (e.g. Chen, 2005; Erdogan et al., 2006). From a microstructural, sociometric perspective (Davis & Leinhardt, 1972; Wasserman & Faust, 1994), the resulting metric represents the mean, degree-weighted measure of each participant's level of helping with respect to all of his/her cohort peers, capturing both the number of team members to whom help is provided (i.e. the number of members from whom the level is greater than 0; what we later refer to as the *breadth* of help provided) as well as the degree to which help is provided when it is in fact provided (the mean level of help provided to all those reporting a level of help received that is greater than 0; what we later refer to as the *depth* of help provided).

Cohort group members were also asked to self-assess (using the same seven-point scale noted above) the degree to which they *provided* help to cohort peers. We used the mean level of self-reported help provided to cohort peers in a post-hoc analysis to assess the possibility that any demonstrated effects of attachment on helping might have more to do with peer recipients' own attachment styles than that of the help-giver.

Attachment styles

Participants' attachment style was assessed on the employees' first day at work. We used the Hebrew version of the 36-item, Experiences in Close Relationships Scale (ECR Scale – Brennan et al., 1998; Hebrew version by Mikulincer & Florian, 2000) to measure attachment-related avoidance and anxiety. Using a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), participants were asked to: 'think about their close relation-ships and rate the extent to which each item-statement reflected their feelings'. Eighteen of these items tapped *attachment avoidance* (α = .85), focusing on the extent to which a person is comfortable with closeness and intimacy as well as the degree to which a person feels that people cannot be relied upon. The other 18 items, associated with the *attachment anxiety* subscale (α = .86), focused on the extent to which a person worries about being rejected or unloved. Construct validity of the two subscales has

been demonstrated in a wide variety of samples (see Gillath et al., 2005; Mikulincer & Shaver, 2007, for reviews). Although others (Bartholomew & Horowitz, 1991; Brennan et al., 1998) have demonstrated the orthogonality and discriminant validity of the anxiety and avoidance dimensions, the two subscales scores were significantly correlated in the current sample ($r = .16$; $p < .01$). Still, a confirmatory factor analysis indicates that a two-factor model offers a level of fit significantly greater than the single factor model within which it is nested ($\Delta\chi^2_1 = 488.47$; $p < .001$).

Control variables

In our model, we controlled for individual difference and situational variables with likely or previously demonstrated effects on instrumental helping in the workplace, namely: *gender cohort size,* and *mean strength of participant's friendship relations with other cohort members (friendship relations)* (see Spitzmuller et al., 2008, for a review of demographic and situational covariates of helping). Data on participant gender and cohort size were drawn from archival sources. We used an approach similar to Granovetter (1973) to assess friendship relations. Specifically, at the end of the first month of employment, participants were provided with a list of the names of his/her fellow cohort members and asked to rate on a 0 (never) to 5 (very frequent) scale the frequency with which s/he has 'friendly conversations with each one on subjects that are *not* work related'. Friendship relations were then calculated as: (the sum of cohort members' scores for participant)/(n-1), where 'n' = the number of cohort members.

Data analysis

We applied a multi-level approach to our data analysis in order to be able to account for the nested structure of participants within the 27 cohorts. Mixed models are suitable for models that include both individual (e.g. attachment anxiety) and group-level (e.g. cohort size) predictors, as they can take into account the dependency between observations that belong to the same group (Bryk & Raudenbush, 1992). In the current analysis, we took into account the correlation between individuals from the same cohort by estimating the variance of unit level intercepts in each model tested. We centered the variables involved in all interaction terms prior to their incorporation into a given model (Aiken & West, 1991). The relative predictive utility of each model was assessed on the basis of the significance of the F associated with a pseudo-R^2 (estimated as: $1 - \dfrac{\sigma^2_\varepsilon}{\sigma^2_Y}$; Xu, 2003), as well upon the difference in the '-2 log-likelihood' from that of the control model.

Results

Means, standard deviations and the correlations among the variables are presented in Table 1. As shown in this table, the mean level of overall instrumental helping was quite low (1.06; SD = .76). This can be explained by the fact that this overall helping measure taps both the breadth and the depth of helping. Particularly in larger cohorts, participants often provided no help (i.e. 0) to a significant number of cohort members, thus exerting a downward influence on the mean score. Indeed, as indicated by the mean depth of helping, when the level of helping is assessed only among those reporting having received help (help depth), the mean is substantially higher (3.94; SD = 1.18). The bivariate results shown in this table indicate an inverse association between attachment anxiety and overall instrumental helping ($r = -.18$, $p < .01$). No bivariate relationship was found between attachment avoidance and helping. Finally, confirming the importance of including the control variables in our multivariate analysis, the bivariate results indicate an inverse relationship between helping and cohort size and a positive relationship between helping and both friendship relations and male gender (i.e. males were viewed as offering more instrumental helping than females) ($p < .001$).

In order to test Hypotheses 1 and 2, which posited an inverse association between attachment anxiety and avoidance (on the one hand) and helping (on the other), we regressed instrumental helping on both attachment

Table 1 Means, standard deviations and intercorrelations of all measures (n = 308 unless otherwise specified)

	M	SD	1	2	3	4	5	6	7
1. Overall helping	1.06	.76							
2. Helping – depth[a]	3.94	1.18	.00						
3. Helping – breadth[b]	.29	.16	.92***	−.03					
4. Cohort size	12.8	2.49	−.19***	.04	−.29***				
5. Gender[c]	.29	.45	.24***	−.21***	.20***	.00			
6. Friendship relations	2.69	1.08	.20***	.04	.23***	−.32***	−.00		
7. Attachment avoidance	2.62	.80	−.03	−.21***	−.04	−.02	.16**	−.07	
8. Attachment anxiety	2.9	.86	−.18**	−.00	−.17**	.06	−.03	−.05	.13*

[a] Average degree of help provided to those reporting that help was received.
[b] Proportion of group members to whom help was given.
[c] For gender, 0 = female; 1= male.
n = 298 for all correlations with this variable.
* $p < .05$; ** $p < .01$; *** $p < .001$.

anxiety and avoidance, as well as upon the three control variables. As shown in Model 2 of Table 2, the results support Hypothesis 1 but not Hypothesis 2. More specifically, while the association between attachment avoidance and helping was not significant (estimate = −.04, NS), as posited, we found a significant inverse association between attachment anxiety and the frequency of instrumental helping behavior (estimate = −.13; $p < .01$). That is, customer service agents who were higher in attachment anxiety were viewed by their peers as providing less instrumental help to their colleagues than those who were lower in attachment anxiety. The additional variance explained by this model over and above the control model (Model 1), while marginal, was statistically significant, $(\Delta R^2 = .01; p < .01)$.

To test Hypothesis 3 (suggesting an attenuation of the inverse association between attachment avoidance and helping), we added to Model 2 the interaction of attachment avoidance and anxiety. As shown in Model 3 of Table 2, the hypothesis was supported with the interaction term being positive and significant (estimate = .09; $p < .05$) and the main effect of attachment anxiety remaining significant (estimate = −.11; $p < .01$). Moreover, the

Table 2 Results of the regression analyses examining the association between attachment anxiety and avoidance, and instrumental helping behavior ($n = 308$)

| | Instrumental helping behavior | | | | | |
| | Model 1 | | Model 2 | | Model 3 | |
Variable	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	1.15***	.30	1.61***	.34	1.18***	.30
Cohort size	−.04*	.02	−.04*	.02	−.04*	.02
Gender[a]	.44***	.09	.43***	.09	.43***	.09
Friendship relations	.11**	.04	.10**	.04	.10**	.04
Attachment anxiety			−.13**	.05	−11**	.04
Attachment avoidance			−.04	.05	−.03	.04
Anxiety × avoidance					.09*	.04
Variance of unit-level intercepts[b]	.01	.01	.01	.01	.01	.01
R^2	.15		.16		.18	
Change in R^2 from previous model	–		.01**		.02**	
−2 log-likelihood	666.7		658.5		653	

[a] For gender, 0 = female; 1 = male.
[b] Unit = cohort.
* $p < .05$; ** $p < .01$; *** $p < .001$.

change in R^2 from the model excluding the interaction term (ΔR^2 = .02; p < .01) indicates that the addition of this moderation effect significantly contributes to the explanatory potential of the model.

In order to confirm the nature of the interaction between these two attachment styles, we calculated the simple slopes and plotted the slopes of the avoidance-instrumental helping relationship (in Figure 1) at two levels of attachment anxiety, namely low (1 SD below the mean) and high (1 SD above the mean). The results indicate that for low levels of anxiety (1 SD below the mean), the slope of instrumental support on avoidance is, as, noted in our discussion leading to Hypothesis 2, significant and negative (estimate = −.12; p = < .05). However, consistent with Hypothesis 3, the avoidance-instrumental helping relationship is attenuated as a function of attachment anxiety with the slope under conditions of moderate (mean) anxiety, while still negative, being insignificant (−.03, NS), and the slope under conditions of high (+ 1 SD) attachment being positive (.06) although also not significant. In addition, the pattern presented in Figure 1 suggests
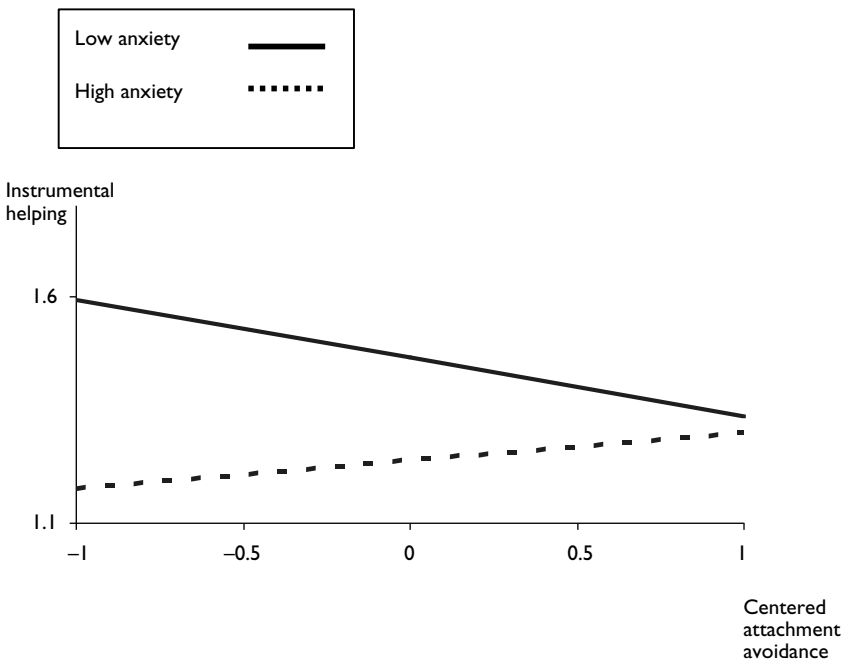

Figure 1   The differential effect of attachment avoidance on instrumental helping under high and low attachment-related anxiety

support for the notion that those lower in both attachment anxiety and avoidance, namely the secure individuals, are viewed by their peers as providing the highest level of instrumental help.

Discussion

The findings presented above suggest that, despite its grounding in children's early proximity-seeking and bonding experiences with their primary caregivers, attachment style exerts a small but significant influence on work-based helping behaviors over and above the effects of other individual (i.e. gender) and situational (e.g. work group size) factors. As posited in Hypothesis 1, we found attachment anxiety to be inversely associated with task based or instrumental helping when examined in the context of direct effect models. And while Hypothesis 2 (regarding the direct effect of attachment avoidance on instrumental helping) was not supported, as posited in Hypothesis 3, we found the expected inverse effects of attachment avoidance on helping to be attenuated as a function of attachment anxiety.

In a broad sense, the findings presented above are important in that they provide further evidence that the link between attachment style and relational behavior is not limited to strictly intimate relational contexts (e.g. marital relations), but may also have relevance in non-intimate relational contexts such as those characteristic of peer relations in the workplace. Our findings are also important in that they offer an insight into just how attachment style may affect such relations in the workplace. More specifically, our results suggest that the impact of attachment anxiety on helping among work-based peers (Hypothesis 1) may be dissimilar from that of those involved in more intimate relationships such as romantic couples. In particular, whereas in the current study, attachment anxiety was found to have an inverse direct association with helping provided to work-based peers, in previous research focusing on romantic partners or intimate relations (Feeney & Collins, 2001; Kunce & Shaver, 1994), it has been found to have a positive relationship. Consistent with the notion suggested by Collins and Read (1994) and Rom and Mikulincer (2003), it may be that those with higher levels of attachment anxiety may attempt to disengage from relations with work-based peers (with whom they tend to have more peripheral relations) so as to be able to focus their personal resources on their own needs (i.e. coping with low self-esteem or the sense that they are worthless in the eyes of others) and/or on winning the security and love of more significant others outside of the workplace, such as family members or those with whom they are or wish to be in a more intimate relationship.

Interestingly, while attachment anxiety remained a significant predictor of instrumental helping even when the model included the interaction of attachment anxiety and avoidance (indicating that the slope of anxiety is significantly negative when avoidance is at the mean), the insignificant direct effect of avoidance when that interaction is included indicates that the avoidance-helping slope is insignificant when anxiety is at the mean. However, consistent with Hypothesis 2, attachment avoidance *was* found to have a significant, inverse association with helping among those reporting *lower* levels of attachment anxiety. Indeed, as shown in Figure 1 and consistent with attachment theory in general, those with the lowest levels of attachment anxiety and avoidance (i.e. those with more secure attachment styles) were perceived by their co-workers as offering the highest frequency of instrumental helping. In contrast, the inverse association between avoidance and helping was attenuated to the point of non-significance at higher-than-mean levels of attachment anxiety.

In this sense, our findings with respect to Hypothesis 3 address a longstanding debate in attachment theory with regard to the interactive effects of attachment anxiety and avoidance on helping and other forms of prosocial behavior (Coble et al., 1996). As noted earlier, attachment researchers have either neglected or opted not to make predictions regarding the behavior of those found to exhibit higher levels of both forms of attachment insecurity, with some (e.g. Mikulincer & Shaver, 2003: 70) claiming that their behavior is simply too 'disorganized' to allow prediction or not characteristic of those typically found in 'normal samples'. Consistent with the notion that the avoidance-helping relationship may be contingent upon the level of attachment anxiety (Collins & Feeney, 2000; Kunce & Shaver, 1994), we proposed and found that an inverse avoidance-helping relationship is likely to be apparent only in those cases in which attachment anxiety is low. At higher levels of attachment anxiety, the inverse avoidance-helping relationship posited in much of the social psychology literature was likely attenuated by the counterbalancing interest of such 'fearful avoidant' individuals to also engage in controlling helping behaviors (Kunce & Shaver, 1994). A similar explanation most likely applies with respect to the anxiety-helping relationship at higher levels of attachment avoidance.

Decomposition analysis

As noted earlier, the dependent variable used in our study captures both the average degree of help provided to those reporting help received – helping depth – and the proportion of group members to whom help is given – helping breadth – of instrumental helping provided by the individual. As such, it is possible that while attachment avoidance and anxiety have the

effects noted above on this degree-weighted measure of each participant's helping relations with others in his/her cohort, they might have differential effects when the effects of attachment on the depth and breadth of helping are examined independent of one another. In order to shed light on this question, we ran a post-hoc, decomposition analysis using the same models specified above, but replacing the overall, degree-weighted measure of each participant's instrumental helping relations, with two dimension-specific variables, one capturing the breadth of helping (the proportion of group members to whom help – at any level – was given), and the other the depth of helping (the average degree of help provided to those reporting that help was received). The former was calculated as the number of group members reporting help received (at any level greater than zero) from a participant, divided by the number of individuals in the participant's group. The latter was calculated as the mean level of help given by those participants reported to have helped (at any level) at least one of their fellow cohort members (i.e. $n = 298$ instead of 308 since 10 participants failed to have even a single co-worker report help from them at any level greater than 0).

The results of these analyses, shown in Table 3, indicate that while Hypothesis 2 (regarding the direct effects of attachment avoidance on helping) is supported with respect to the average degree of help provided to those reporting receiving help (i.e. depth; see Models 2 and 3), Hypotheses 1 and 3 are supported with respect to the proportion of cohort members to whom help is given (i.e. breadth; see Models 5 and 6). With regard to the average degree of help provided to those reporting that help was received (i.e. depth), attachment avoidance had a significant inverse main effect (estimate = −.27; $p < .001$) (see Model 2), not significantly influenced by the participant's level of attachment anxiety (see Model 3). With regard to the proportion of cohort members to whom help was given (breadth), while attachment anxiety had a significantly inverse main effect on this outcome (estimate = −.02; $p < .05$ as shown in Model 5), the effect of attachment avoidance was contingent on the level of attachment anxiety (estimate = .02; $p < .05$) (see Model 6). A simple slopes test indicates that, as in the case of the degree-weighted measure of each participant's helping relations with others in his/her cohort, avoidance exerts an inverse effect on the proportion of team members helped only when attachment anxiety is low (estimate = −.03, $p < .05$), with non-significant effects at mean and high (i.e. SD + 1) levels of attachment anxiety.

These findings are of potential theoretical importance for a number of reasons. At the broadest level, the fact that the results of the breadth models were more similar to the overall helping models (shown in Table 2) suggests that, at least in larger cohort groups, degree-weighted measures of helping may be more sensitive to the degree to which helping is spread out among

Table 3 Results of the decomposition regression analyses examining the association between attachment anxiety and avoidance and: a) average degree of help provided to those reporting that help was received (depth) and b) proportion of group members to whom help was given (breadth)

| Variable | Average degree of help provided to those reporting that help was received (depth) (n = 298) | | | | | | Proportion of group members to whom help was given (breadth) (n = 308) | | | | | |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.4***	.58	4.13***	.64	3.4***	.57	.41***	.07	.50***	.07	.42***	.06
Cohort size	.04	.04	.04	.04	.04	.04	−.02***	.00	−.01***	.00	−.02***	.00
Gender[a]	−.54***	.15	−.46**	.15	−.45**	.15	.07***	.02	.08***	.02	.08***	.02
Friendship relations	.08	.06	.07	.06	.07	.06	.02**	.01	.02**	.01	.02**	.01
Attachment anxiety			−.004	.08	−.00	.07			−.02*	.01	−.02*	.01
Attachment avoidance			−.27***	.08	−.22***	.07			−.01	.01	−.00	.01
Anxiety × avoidance					−.05	.06					.02*	.01
Variance of unit-level intercepts[b]	.13*	.07	.14*	.07	.13*	.07	.00	.00	.00	.00	.00	.00
R²	.14		.18		.18		.20		.20		.22	
Change in R² from previous model	—		.04***		.00		—		.01*		.02*	
−2 log-likelihood[c]	920.5		910.2		909.5		−308.3		−315.3		−320.3	

[a] For gender; 0 = female; 1 = male.
[b] Unit = cohort.
[c] The negative −2 log likelihood values for Models 4–6 stem from the 0–1 range of the dependent variable.
* p < .05; ** p < .01; *** p < .001.

cohort others (breadth) than to the level at which help is given when it is in fact provided (breadth). This makes intuitive sense in that with the probability that a given cohort member provides assistance to any other member declining as a function of cohort size, the distribution of scores is likely to be skewed to the right and thus more heavily reflect the absence of helping (i.e. zero scores) than the variance in the amount of help given when it is given (i.e. scores greater than zero).

Additionally, the results suggest that the impact of attachment on instrumental helping likely varies depending on the way such helping is measured. To the extent that the concern is with the proportion of work group members to whom help is provided, it appears that attachment anxiety is likely to exert a more dominant influence, having significantly inverse effects as long as avoidance is at mean or lower than mean levels (i.e. $p < .01$ at -1 SD of avoidance, and .05 at mean levels of avoidance), whereas avoidance has the expected (albeit weaker) inverse effect only at lower level (e.g. -1 SD) of attachment anxiety. In contrast, when the concern is with the depth of support, attachment avoidance is likely to exert the more dominant influence with anxiety having no significant effect regardless of the level of attachment avoidance.

In this regard, the results of the decomposition analysis suggest further support for the conclusions reached by Collins and Feeney (2000) on the basis of laboratory research. Specifically, they suggest that while avoidance may have a limited and anxiety-conditioned effect on the *number* of individuals to whom assistance is provided, to the degree that help is provided, regardless of the level of attachment anxiety, such help is likely to be significantly less responsive to the recipient's needs as a function of the provider's level of attachment avoidance. As noted earlier, the 'compulsive closure' characteristic of high avoidance (Mikulincer & Nachshon, 1991) may create the impression among their help-recipient teammates that even when these individuals provide help, they do so in a minimalist manner, with their primary motivation being to both minimize any personal involvement and discourage future help requests.

Limitations and implications for research and practice

Several limitations of our study, in addition to those suggested above, might be addressed in future research. The first of these has to do with the limited effect size of attachment style on helping (i.e. just three percent of the variance in instrumental helping above and beyond the control model). We believe this limited effect size may be, in part, an artifact of the context within which we tested our hypotheses. Although, as noted earlier, we selected call

center employees' first month on the job specifically because we assumed that such new employees would have ample opportunity to provide instrumental help to one another, by the end of the study period, it became clear that many of the participants felt unsure about the legitimacy of taking time away from their own tasks (i.e. responding to customer call-ins) in order to help others. Moreover, although they were working in a group context and frequently encouraged by management 'to help their fellow cohort members get through the learning curve', they were engaged in largely *independent* work activities, were only recently introduced to one another, and were being evaluated and rewarded on the basis of strictly individual task metrics. In this context, regardless of attachment style, agents apparently had little interest or ability to help one another nor did they have the time needed to establish a basis of social exchange with one another. Consequently, future research should investigate whether the overall effects of attachment style on helping may be stronger when tested among individuals engaged in more interdependent tasks (i.e. high task interdependence) and/or who feel more secure about the legitimacy of helping one another (i.e. where there is likely to be less of a restriction of range in the dependent variable).

A second limitation has to do with the possibility that the demonstrated effects of attachment and helping had more to do with peer recipients' attachment styles than that of the help-giver. Specifically, to the extent that attachment style may systematically alter the perceptions of peer help-recipients as to the amount of help they received from a given help-provider, the attachment style composition of a work group may explain more of the variance in a given provider's helping behavior than the help-giver's objective behavior per se. Nevertheless, while in such a case we would *not* expect to find a high degree of agreement between help-giver's self-perceived helping and the mean helping assessment of his/her recipient peers, in the current study, mean peer perceptions of a given help-giver's helping were correlated at 0.88 with self-reported help-giving by help-givers. Regardless, in the future, researchers may wish to design studies allowing for the more objective assessment of peer helping behavior.

Third, in the current study no attempt was made to examine other personal, contextual, and relationship factors having the potential to explain or condition attachment style differences in helping behaviors. In terms of other personal factors, one limitation of the current study is that we did not control for higher-order personality variables, such as neuroticism and conscientiousness, which may be related to both attachment and helping. However, there is consistent evidence that to the extent that these higher order personality factors influence helping-related outcomes, their effects are largely if not entirely mediated by attachment (Erez et al., 2008; Noftle &

Shaver, 2006; Shaver & Brennan, 1992). For instance, Erez et al. (2008) found that attachment orientations are significant determinants of volunteerism even when controlling for higher-order personality traits such as the Big Five. Similarly, the findings of Noftle and Shaver (2006) suggest that while such higher-order personality traits may be predictive of attachment orientations, because the latter are more proximate to helping-related outcomes, relative to the big five traits, they tend to be more robust predictors. Consequently, we deem it very unlikely that higher-level personality traits serve as an alternative explanation for our findings.

In terms of contextual and relationship factors, another limitation may be that while our models took into account the random effects of cohort membership, they did not take into account the fixed effects of cohort characteristics such as cohesion. Thus, following on the work of Rom and Mikulincer (2003) who found that group cohesion acts as a buffer against the negative effects of attachment anxiety on instrumental functioning, future researchers may wish to examine how the effects of attachment styles on helping behavior may vary as a function of the duration and intensity of employees' relations with one another. Similarly, researchers may attempt to provide a more comprehensive understanding of these relationships by testing cross-level models of attachment and helping under varying unit or organizational contexts, or by testing mediation models explaining the social-psychological mechanisms by which attachment affects helping behaviors in the workplace (Spitzmuller et al., 2008). In particular, given the strong direct effects that task interdependency appears to have on helping (Podsakoff et al., 2000), we encourage researchers to test the attachment-helping relationship under varying conditions of task interdependence.

Finally, there may be important limitations to the external validity of our findings in that our sample was comprised of predominantly young females employed in a context known for short-term employment relations (Bamberger & Meshoulam, 2000; Connelly & Gallagher, 2004), and in that our inquiry focused strictly on task-based or instrumental forms of peer-based helping whereas peer-based, workplace helping may also be emotional in nature (Bacharach et al., 2005). And, as noted above, given the greater investment of personal resources demanded by such helping, attachment style influences on more emotional forms of peer-based helping may be very different from those uncovered in the current study. In the future, we encourage researchers to test the generalizability of our results to cohort groups with different demographic profiles, and explore the possibility of differential effects in the context of subjects with an understanding that their peer relationships are likely to be longer-term in nature, and/or having a greater potential to engage in more emotion-oriented helping behavior.

Conclusion

The current research advances previous work on adult attachment in two important ways. First, our findings regarding, a) the inverse effect of attachment anxiety on helping, and b) the attenuating effects of attachment anxiety on the impact of attachment avoidance on helping, provide some of the first evidence that adult attachment styles have meaningful effects on employee behavior in an organizational setting, as well as insight into the manner in which employees' attachment styles may manifest themselves in the workplace and influence core interpersonal organizational citizenship behaviors such as helping at work. Second, these findings may have important practical implications for management in that, particularly in team-based work settings, helping has been found to play an important role in shaping team effectiveness (Van der Vegt et al., 2006). To the extent that attachment style reflects a relatively stable pattern of affect regulation and interpersonal-relating (Mikulincer & Shaver, 2003), our findings support the possible inclusion of attachment style assessment as one element of a broader battery of personality assessment aimed at enhancing the selection of employees for assignments involving helping, caregiving, or other forms of interpersonal relating or cooperation. Still, human resource managers interested in applying the findings of the current study should proceed with caution, at least until such time that our findings are replicated and such tests are demonstrated to be valid predictors of specific parameters of job performance. While our findings may hold promise for organizations seeking to enhance their members' pro-social behaviors and/or the performance of their interdependent work teams, there is still much to learn about how employees' basic patterns of interpersonal relating manifest themselves in the work context.

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Dvora Geller is a Senior Lecturer at the School of Business Administration of Israel's College of Management. Her research focuses on diversity in work teams, social networks, leadership, and workplace helping and help-seeking. A consultant to public and private sector organizations in Israel, her research has appeared in *Leadership Quarterly*.
[E-mail: gellerd@colman.ac.il]

Peter Bamberger is an Associate Professor at the Faculty of Industrial Engineering & Management, Technion – Israel Institute of Technology, and Senior Research Scholar at the School of Industrial and Labor Relations, Cornell University. Current research interests include peer relations and helping processes in the workplace, and employee emotional well-being. Co-author of *Human resource strategy* (with Ilan Meshulam, SAGE, 2000) and *Mutual aid and union renewal* (with Samuel Bacharach and William Sonnenstuhl, Cornell University Press, 2001), Bamberger has published over 60 refered journal articles in such journals as *Administrative Science Quarterly*, *Academy of Management Journal*, *Academy of Management Review* and *Journal of Applied Psychology*.
[E-mail: peterb@techunix.technion.ac.il]