Rethinking Attachment Theory: From a Theory of Relationships to a Theory of Individual and Group Survival

Tsachi Ein-Dor and Gilad Hirschberger

School of Psychology, Interdisciplinary Center Herzliya

Abstract

Bowlby's attachment theory has stimulated research covering a variety of topics related to individual and relational well-being, such as courtship, mate selection, motivations, emotional responses, cognitions, dreams, values, and psychopathology. This research has contributed greatly to the understanding of individual differences in mental health but at the same time has gradually lost touch with the original evolutionary essence of attachment theory. In this article, we revisit Bowlby's original conceptualization and argue that although attachment styles relate to many different aspects of people's lives, their primary function is to promote survival. Accordingly, we present social-defense theory and illustrate how different attachment orientations work in synergy to promote group survival, such that a social group comprising members with different attachment patterns has clear adaptive advantages over a homogeneous group of securely attached individuals. We therefore challenge the axiomatic view of insecure attachment as a psychological liability, contending that each attachment disposition has specific adaptive advantages. In making this argument, we extend the scope of attachment theory and research by considering a broader range of adaptive functions of insecure attachment strategies, and present data to support our argument.

Recent research on individual differences in reactions to threats has yielded findings that require a reexamination and a reformulation of current theories on personality and threat. Specifically, research guided by social-defense theory (SDT; Ein-Dor, Mikulincer, Doron, & Shaver, 2010)—an extension of attachment theory—suggests that the current understanding of the function of the attachment system is limited. Whereas most research on attachment focuses on individual differences in relational motivations, behaviors, emotions and emotion regulation, stress, and coping (e.g., Mikulincer & Shaver, 2007; Mikulincer, Shaver, & Pereg, 2003; Simpson & Rholes, 2015), the attachment system as conceptualized by Bowlby (1973, 1980, 1982) is first and foremost a system that has evolved to deal with acute threats and stressors and to promote survival: Threats activate the attachment system (Bowlby, 1973), and its behavioral outcomes, such as proximity seeking, increase the likelihood of protection, support, and survival (Mikulincer, Gillath, & Shaver, 2002).

From this perspective, individual differences in attachment should be primarily related to the different strategies humans use when confronted with threat. When examined at the individual level, however, the human ability to effectively deal with threat is severely limited, because humans are weak and slow; have poor senses (eyesight, hearing, smell); have no claws, sharp teeth, or tail to hang from; and cannot fly or swim effectively (e.g., Bergman, 2004; Blanchard, 2009). Humans are thus endowed with poor physical skills; their main adaptive advantage is a superior cognitive system that has enabled them to devise a solution to the problem of survival at the group level. When faced with danger, they can seek support from others and significantly improve their ability to deal with threat through effective cooperation, utilizing the strength of numbers (e.g., Axelrod & Hamilton, 1981).

Corresponding Author:

Tsachi Ein-Dor, School of Psychology, Interdisciplinary Center Herzliya, P.O. Box 167, Herzliya 46150, Israel
E-mail: teindor@idc.ac.il

This ability to seek support from others and effectively rely on their help when facing danger is at the very heart of the attachment system. Specifically, we argue that an effective human response constitutes a balance between individual-level fight-or-flight responses (governed by the anxiety and fear systems; Blanchard, Griebel, & Nutt, 2011; Perkins & Corr, 2006; Tovote, Fadok, & Lüthi, 2015) and social reliance on the assistance of others (governed by the attachment system; Ein-Dor, 2014; Ein-Dor & Perry-Paldi, 2014).

Individual differences in attachment orientations exemplify diverse responses to threat that range on the fight-or-flight and social-defense axes. People high in attachment avoidance are often described as having a deactivated attachment system (Cassidy & Kobak, 1988) that leads them to be self-reliant and avoid proximity to others. When responding to threat, these individuals rely heavily on the fight-or-flight response while neglecting the social responses of proximity seeking and attachment (because of their attachment system's deactivation). According to SDT, an avoidant person may, independently of others, identify and enact the quickest self-protective maneuver or quickly notice the best escape route from a threatening situation, reactions we have termed *rapid fight-or-flight* behavior. This self-protective strategy may sometimes inadvertently save other group members' lives by thwarting a threat or identifying an escape route.

People high in attachment anxiety have the opposite response to threat. These individuals place their bets on the social-defense response of attachment (because their attachment system is hyperactivated), which increases their vigilance to threats while also rendering their fight-or-flight response ineffective because they are compulsively dependent on others (Ein-Dor & Doron, 2015). As a result, people who score high on attachment anxiety constantly monitor the environment for threats and are quick to alert others when a threat is detected (J. A. Feeney & Noller, 1990). According to SDT, their pattern of responses can be termed *sentinel* behavior because they serve as guardians, constantly alert and on the lookout for the faintest sign of threat or danger.

Secure individuals, who are low in both attachment avoidance and attachment anxiety, seem to possess the perfect balance between individual-level fight-or-flight responses and the ability to effectively recruit help from close others. They are, therefore, better than insecure people at leading and coordinating group activities (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007) and work more effectively with other group members when solving problems (Rom & Mikulincer, 2003; Smith, Murphy, & Coats, 1999). Secure people, however, are not as efficient as anxious individuals in detecting threat because they tend to down-regulate emotions and minimize the severity of threat (Ein-Dor, 2014). They are also not as effective as avoidant individuals at quickly responding to threat because they tend to look out for others' well-being, sometimes at the expense of rapid self-protective behaviors (Ein-Dor, 2014).

On this basis, we propose that humans strategically utilize individual differences in the activation of the fear, anxiety, and attachment systems when an emergency situation presents itself. In other words, people with secure and insecure attachment styles have unique adaptive advantages (which increase inclusive fitness; Hamilton, 1964) and disadvantages (which decrease inclusive fitness). Thus, when viewed from an inclusive-fitness perspective, groups that include individuals with different attachment strategies may have advantages over homogenous groups of relatively secure individuals. This type of cooperation between individuals in social groups, which may be unintentional at times, could have been perfected by evolution through the same individually based selection processes that shaped other types of cooperation (Axelrod, 2006). Thus, social-defense behaviors do not need group-selection processes to take form.

Advantages and Disadvantages of People High in Attachment Anxiety

A closer look at the unique characteristics of each attachment style reveals a mixed picture of advantages and disadvantages. People high in attachment anxiety often appraise their own functioning in groups as imperfect and are judged by others as falling short in their ability to effectively lead team efforts in completing various tasks (Davidovitz et al., 2007). Despite these shortcomings, the sentinel-related strategies that anxious people adopt when dealing with threats are invaluable to groups because they significantly increase the chances of group and individual survival at times of acute threat.

A growing body of research provides empirical evidence in support of the function of anxiously attached individuals as sentinels. For example, attachment anxiety is associated with heightened access to core components of the sentinel schema—noticing danger quickly and warning others about the danger (Ein-Dor, Mikulincer, & Shaver, 2011a): When participants were asked to write about a frightening scenario based on a Thematic Apperception Test–style prompt, those higher in attachment anxiety composed stories with more sentinel-related narratives.

Anxiously attached individuals also report that at times of threat they are more likely to exhibit sentinel-related (yelling) and fear-related (escaping) responses (Ein-Dor & Perry-Paldi, 2014), and they exhibit these responses in real-life threatening situations: Research conducted in a small group setting wherein an experimentally manipulated threatening situation was created—a room

progressively filled up with nontoxic smoke from an ostensibly malfunctioning computer—indicated that groups higher in attachment anxiety detected the presence of smoke more quickly than less anxious groups. In addition, the person with the highest score on attachment anxiety detected the presence of smoke in the room better than predicted by chance alone (Ein-Dor, Mikulincer, & Shaver, 2011b). Anxious individuals do not only detect threat rapidly; they also have a tendency to deliver a warning message without delay (Ein-Dor & Orgad, 2012): Using a designated computer program, participants were led to believe that they accidently activated a Trojan horse that completely erased the experimenter's hard drive and possibly the campus's server. Participants were then asked to alert the computer technicians about the threat. On their way, they encountered four obstacles created in an attempt to delay them on the way to deliver the warning (e.g., a request for help). In line with SDT, high attachment anxiety was linked with significantly fewer delays.

Anxious individuals' unique ability to detect and respond to threat seems to reflect greater sensitivity to cues in the environment, including social cues. In one study, anxious people were better than others at determining whether a stranger's statements were truthful or not, and in another study conducted with semiprofessional poker players, people higher in attachment anxiety were more accurate in calling their opponents' bluffs and won a larger sum of money in the game (Ein-Dor & Perry, 2014). Taken together, this research suggests that anxious individuals are not mere alarmists prone to crying wolf but are highly sensitive and accurate detectors of social and contextual threats, which renders them invaluable sentinels, always on guard to protect their group.

Advantages and Disadvantages of People High in Attachment Avoidance

People high in attachment avoidance also possess a mixed bag of social advantages and disadvantages. They tend to be poor teammates and do not collaborate with others (Rom & Mikulincer, 2003); their emotional instability makes them bad leaders in the eyes of others, and their compulsive self-reliance (Bowlby, 1973) often leads them to underestimate the effectiveness of the teams they belong to (Davidovitz et al., 2007). Even in emergency situations, they tend to down-relegate appraisals of threat and sensations of pain and vulnerability (e.g., Fraley & Shaver, 1997) and are therefore less vigilant and slower to detect signs of danger than others (Ein-Dor et al., 2010). Their typical response in threatening situations is to take self-protective actions that promote their own interests (B. C. Feeney & Collins, 2001), and their metabolic processes work in support of this self-reliant strategy (Ein-Dor

et al., 2015): They maintain higher levels of glucose in their bloodstream, which makes them better prepared for asocial responses to threat. As a result, whereas anxious and secure individuals focus their attention on the whereabouts of significant others around them, often at the expense of averting personal danger, avoidant people do not concern themselves with the welfare of others, and instead are highly efficient at discovering ways to deal with the threat and minimize their personal vulnerability.

Ironically, the seemingly asocial strategies of avoidant people may be of great value to the group, because although avoidant people are first and foremost concerned with saving their own skin, they may inadvertently help other people around them find the path to safety. Indeed, the sight of people running from danger can motivate the escape of others and unintentionally save lives (e.g., Mawson, 2012). Avoidant people often do more than just flee the scene, however. To escape a dangerous situation, it is sometimes necessary to take action, such as by extinguishing a fire, clearing an escape route, or removing obstacles. By doing so, avoidant people may serve as unintended heroes who show others the way to safety by sheer coincidence.

Research supports the social-defense function of the avoidant schema: When people high in avoidance were asked to write a story about a scary scenario, they were more likely than others to describe (a) escaping a perilous event without helping others, (b) acting without collaborating or deliberating with others, and (c) reacting quickly (Ein-Dor et al., 2011a). People high in avoidance also show a tendency to fight, run away, or assess the level of risk depending on their appraisal of the degree of dangerousness and the clarity of the threat (Ein-Dor & Perry-Paldi, 2014). These avoidant schemas are reflected in actual behavior; in the study on reactions to a room gradually filling up with smoke, groups higher in attachment avoidance were quicker to escape the room than were more secure groups (Ein-Dor et al., 2011b). Taken together, these findings support the social-defense function of attachment avoidance through the actions of rapid fight-or-flight trailblazers who show others the route to safety.

Social Defense at the Group Level: Diversity Matters

Over the course of evolution, humans lived in relatively small groups or tribes of kin and faced many different threats and dangers. According to SDT, survival under such conditions necessitates skills and abilities that one person could never hope to have: heightened vigilance to threats and danger, quick responses to threats once they are detected, and calm and calculated efforts to organize and lead the group. These incongruous

responses—comprising high arousal and calmness, concern for others and concern for self—can be achieved only by combining the efforts of people with different attachment dispositions.

Our research supports the social-defense advantage of diverse, heterogeneous groups. In the study in which a room gradually filled up with smoke, independent judges appraised groups comprising a mix of attachment patterns as dealing more effectively with the threat than less diverse groups (Ein-Dor et al., 2011b). Heterogeneity in attachment patterns is related to group performance in non-emergency domains as well, such that teams' heterogeneity in attachment anxiety and avoidance scores was related to better academic grades (Lavy, Bareli, & Ein-Dor, 2015).

Concluding Comments

For decades, research stemming from attachment theory has viewed only one attachment style as adaptive while branding the others maladaptive. Belsky and colleagues (Belsky, 1997, 1999; Belsky, Steinberg, & Draper, 1991; Belsky, Steinberg, Houts, & Halpern-Felsher, 2010; Chisholm, Quinlivan, Petersen, & Coall, 2005; Del Giudice & Belsky, 2011; Simpson & Belsky, 2008) were the first to address the possibility that there are potential adaptive benefits, under particular environmental conditions, of insecure attachment styles. Specifically, they proposed that the potential to develop different attachment patterns evolved because, under certain ecological conditions, they promote reproductive fitness. SDT was also developed as a critique of the prevailing perspective on attachment, offering a more nuanced and complex view of individual differences in attachment. In line with the French saying "*Il faut de tout pour faire un monde*" ("It takes all sorts to make a world"), SDT contends that attachment styles are unique constellations that offer both advantages and disadvantages, and that the main strength of human societies and their resilience in the face of threat stems not merely from the characteristics of a certain type of individual but from the synergetic and compounded effects of different characteristics of different people. By acknowledging the social advantages of both security and insecurity, we can move away from simplistic notions of "good" and "bad" personality characteristics, reconsider the misguided notion that insecure attachment (i.e., attachment anxiety and avoidance) needs to be fixed, and celebrate human diversity as a remarkable and highly effective symphony of imperfections.

Recommended Reading

Ein-Dor, T., Coan, J. A., Reizer, A., Gross, E. B., Dahan, D., Wegener, M. A., Carel, R., . . . Zohar, A. H. (2015). (See References). Research demonstrating the metabolic processes that facilitate rapid fight-or-flight behavior.

Ein-Dor, T., Mikulincer, M., Doron, G., & Shaver, P.R. (2010). (See References). The theoretical basis of social-defense theory.

Ein-Dor, T., Mikulincer, M., & Shaver, P. R. (2011b). (See References). The first study to demonstrate the advantages of attachment heterogeneity.

Ein-Dor, T., & Orgad, T. (2012). (See References). Research demonstrating the social benefits of attachment anxiety.

Ein-Dor, T., & Perry, A. (2014). (See References). Research demonstrating the threat-detection functions of attachment anxiety.

Declaration of Conflicting Interests

Funding

References

Axelrod, R. (2006). *The evolution of cooperation*. New York, NY: Basic Books.

Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, *211*, 1390–1396.

Belsky, J. (1997). Theory testing, effect-size evaluation, and differential susceptibility to rearing influence: The case of mothering and attachment. *Child Development*, *68*, 598–600.

Belsky, J. (1999). Modern evolutionary theory and patterns of attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 141–161). New York, NY: Guilford Press.

Belsky, J., Steinberg, L., & Draper, P. (1991). Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. *Child Development*, *62*, 647–670.

Belsky, J., Steinberg, L., Houts, R. M., & Halpern-Felsher, B. L. (2010). The development of reproductive strategy in females: Early maternal harshness → earlier menarche → increased sexual risk taking. *Developmental Psychology*, *46*, 120–128.

Bergman, J. (2004). Why mammal body hair is an evolutionary enigma. *Creation Research Society Quarterly*, *40*, 240–243.

Blanchard, D. C. (2009). Of lion manes and human beards: Some unusual effects of the interaction between aggression and sociality. *Frontiers in Behavioral Neuroscience, 3* Article 45. doi:10.3389/neuro.08.045.2009

Blanchard, D. C., Griebel, G., & Nutt, D. J. (2011). *Handbook of anxiety and fear* (Vol. 17). Philadelphia, PA: Elsevier.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York, NY: Basic Books.

Bowlby, J. (1980). *Attachment and Loss: Vol. 3. Sadness and depression*. New York, NY: Basic Books.

Bowlby, J. (1982). *Attachment and Loss: Vol. 1. Attachment* (2nd ed.). New York, NY Basic Books.

Cassidy, J., & Kobak, R. R. (1988). Avoidance and its relationship with other defensive processes. In J. Belsky &

T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 300–323). Hillsdale, NJ: Erlbaum.

Chisholm, J. S., Quinlivan, J. A., Petersen, R. W., & Coall, D. A. (2005). Early stress predicts age at menarche and first birth, adult attachment, and expected lifespan. *Human Nature*, *16*, 233–265.

Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R., & Popper, M. (2007). Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health. *Journal of Personality and Social Psychology*, *93*, 632–650.

Del Giudice, M., & Belsky, J. (2011). The development of life history strategies: Toward a multi-stage theory. *Development*, *2*, 6.

Ein-Dor, T. (2014). Facing danger: How do people behave in times of need? The case of adult attachment styles. *Frontiers in Psychology*, *5*, Article 1452. doi:10.3389/fpsyg.2014.01452

Ein-Dor, T., Coan, J. A., Reizer, A., Gross, E. B., Dahan, D., Wegener, M. A., . . . Zohar, A. H. (2015). Sugarcoated isolation: Evidence that social avoidance is linked to higher basal glucose levels and higher consumption of glucose. *Frontiers in Psychology*, *6*, Article 492. doi:10.3389/fpsyg.2015.00492

Ein-Dor, T., & Doron, G. (2015). Attachment and psychopathology. In J. A. Simpson & S. Rholes (Eds.), *Attachment theory and research: New directions and emerging themes* (pp. 346–373). Washington, DC: American Psychological Association.

Ein-Dor, T., Mikulincer, M., Doron, G., & Shaver, P. R. (2010). The attachment paradox: How can so many of us (the insecure ones) have no adaptive advantages? *Perspectives on Psychological Science*, *5*, 123–141.

Ein-Dor, T., Mikulincer, M., & Shaver, P. R. (2011a). Attachment insecurities and the processing of threat-related information: Studying the schemas involved in insecure people's coping strategies. *Journal of Personality and Social Psychology*, *101*, 78–93. doi:10.1037/a0022503

Ein-Dor, T., Mikulincer, M., & Shaver, P. R. (2011b). Effective reaction to danger: Attachment insecurities predict behavioral reactions to an experimentally induced threat above and beyond general personality traits. *Social Psychological & Personality Science*, *2*, 467–473.

Ein-Dor, T., & Orgad, T. (2012). Scared saviors: Evidence that people high in attachment anxiety are more effective in alerting others to threat. *European Journal of Social Psychology*, *42*, 667–671.

Ein-Dor, T., & Perry, A. (2014). Full house of fears: Evidence that people high in attachment anxiety are more accurate in detecting deceit. *Journal of Personality*, *82*, 83–92. doi:10.1111/jopy.12035

Ein-Dor, T., & Perry-Paldi, A. (2014). Human reaction to threats: Examining the interplay between personality dispositions and situational features. *Psychology Research*, *4*, 599–622.

Feeney, B. C., & Collins, N. L. (2001). Predictors of caregiving in adult intimate relationships: An attachment theoretical perspective. *Journal of Personality and Social Psychology*, *80*, 972–994.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, *58*, 281–291.

Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, *73*, 1080–1091.

Hamilton, W. D. (1964). The genetical evolution of social behaviour: I and II. *Journal of Theoretical Biology*, *7*, 1–52.

Lavy, S., Bareli, Y., & Ein-Dor, T. (2015). The effects of attachment heterogeneity and team cohesion on team functioning. *Small Group Research*, *46*, 27–49.

Mawson, A. R. (2012). *Mass panic and social attachment: The dynamics of human behavior*. Burlington, VT: Ashgate Publishing.

Mikulincer, M., Gillath, O., & Shaver, P. R. (2002). Activation of the attachment system in adulthood: Threat-related primes increase the accessibility of mental representations of attachment figures. *Journal of Personality and Social Psychology*, *83*, 881–895.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, *27*, 77–102.

Perkins, A. M., & Corr, P. R. (2006). Reactions to threat and personality: Psychometric differentiation of intensity and direction dimensions of human defensive behaviour. *Behavioural Brain Research*, *169*, 21–28.

Rom, E., & Mikulincer, M. (2003). Attachment theory and group processes: The association between attachment style and group-related representations, goals, memories, and functioning. *Journal of Personality and Social Psychology*, *84*, 1220–1235.

Simpson, J. A., & Belsky, J. (2008). Attachment theory within a modern evolutionary framework. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed.; pp. 131–157). New York, NY: Guilford Press.

Simpson, J. A., & Rholes, S. W. (2015). *Attachment theory and research: New directions and emerging themes*. New York, NY: Guilford Press.

Smith, E. R., Murphy, J., & Coats, S. (1999). Attachment to groups: Theory and management. *Journal of Personality and Social Psychology*, *77*, 94–110.

Tovote, P., Fadok, J. P., & Lüthi, A. (2015). Neuronal circuits for fear and anxiety. *Nature Reviews Neuroscience*, *16*, 317–331.