aps ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

Current Directions in Psychological Science
2020, Vol. 29(1) 22–26

DOI: 10.1177/0963721419885997
www.psychologicalscience.org/CDPS
SAGE

Broaden-and-Build Effects of Contextually Boosting the Sense of Attachment Security in Adulthood

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Abstract
According to attachment theory, a sense of attachment security provides a foundation for mental health, social adjustment, and psychological thriving. In this article, we review what has been learned from laboratory experiments on the causal effects of contextually boosting a person's sense of attachment security. We begin with a brief account of attachment theory and the construct of attachment security. We then review findings from laboratory experiments showing that contextual activation of mental representations of attachment security has beneficial effects on emotion regulation, psychological functioning, and prosocial behavior.

Keywords
attachment, priming, security, emotion regulation, thriving

Attachment theory (Bowlby, 1982) emphasizes the importance of a sense of attachment security (confidence that one is competent and lovable and that others will be supportive when needed) for healthy socioemotional development and mental health. A sense of security allows people to cope effectively with threats, maintain a stable sense of self-worth and emotional equanimity, and psychologically thrive. In this article, we review laboratory experiments that have momentarily activated a sense of attachment security and examine its effects on emotion regulation, psychological functioning, and prosocial behavior.

Attachment Theory: Basic Concepts

According to Bowlby (1982), human beings are born with an innate psychobiological system (the *attachment behavioral system*) that motivates them to seek proximity to protective others (*attachment figures*) in times of need. Interactions with attachment figures who are responsive and supportive install a sense of safety and security and foster the formation of positive mental representations of self-worth and others' benevolence (Bowlby, 1973). When attachment figures are not supportive, however, a sense of security is not attained, worries about one's value and others' intentions are strengthened, and insecure patterns of relational expectations, emotions, and behaviors (*attachment orientation*) are formed (Bowlby, 1973). These attachment orientations are conceptualized as regions in a continuous two-dimensional space (e.g., Brennan, Clark, & Shaver, 1998). One dimension, attachment-related avoidance, reflects the extent to which a person distrusts others' goodwill and defensively strives to maintain behavioral and emotional independence. The other dimension, attachment anxiety, reflects the extent to which a person worries that others will not be available in times of need and anxiously seeks their love and care. People who score relatively low on both dimensions are said to have a strong sense of security.

A person's attachment orientation can be viewed as the top node in a hierarchical network of attachment-related mental representations, some of which apply only to certain kinds of relationships and others of which apply only in certain relational contexts (Collins & Read, 1994). These mental representations can be activated by actual or imagined encounters with supportive or unsupportive other people even if they

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are incongruent with a person's dominant or overall attachment orientation (Mikulincer & Shaver, 2016). In this article, we focus on the psychological effects of contextually activating mental representations of attachment security.

Mental Representations of Attachment Security

According to our model of adult attachment-system functioning (Mikulincer & Shaver, 2016), mental representations of attachment security include both declarative and procedural knowledge organized around a relational prototype or what Waters and Waters (2006) called a "secure-base script" (p. 185). This script contains something like the following if–then propositions:

> If I encounter an obstacle and/or become distressed, I can approach a significant other for help; he or she is likely to be available and supportive; I will experience relief and comfort as a result of proximity to this person; I can then return to other activities.

Having many experiences that contribute to the construction of this script makes it easier for a person to confront threats and challenges with composure, optimism, and hope. Positive interactions with responsive attachment figures also foster what we, following Fredrickson (2001), call a *broaden-and-build* cycle of attachment security, which increases a person's resilience and expands his or her perspectives and capabilities (Mikulincer & Shaver, 2016). By relying on the secure-base script, secure individuals can stay relatively unperturbed in times of stress and experience longer periods of positive affect. This heightened resilience is further sustained by a reservoir of core positive beliefs—that distress is manageable, other people are benevolent and trustworthy, and the self is valuable and lovable thanks to being valued and loved by caring attachment figures. Research has shown that all of these core beliefs are characteristic of secure individuals (see Mikulincer & Shaver, 2016, for a review).

Besides building one's emotional resilience, positive interactions with supportive others allow secure people to devote self-regulation resources that would otherwise be employed in defensive maneuvers to attachment-unrelated activities and goals. Moreover, being confident that support is available when needed, secure people can take calculated risks and accept important challenges that contribute to the broadening of their perspectives and facilitate psychological development and thriving. Indeed, research has shown that adults scoring lower on attachment anxiety and avoidance are more likely to fully engage, enjoy, and thrive in nonattachment activities, such as learning, caregiving, and sex (see Mikulincer & Shaver, 2016, for a review).

Theoretically, the broaden-and-build cycle of security is renewed and sustained by the actual or imaginary presence of a loving, security-enhancing attachment figure (Mikulincer & Shaver, 2016). We hypothesize that experiences with this figure or reminders of this figure heighten mental access to the secure-base script and to associated positive beliefs about oneself and others, which in turn biases information processing (perception, attention, memory, interpretation) toward positive aspects of social situations, mitigates distress, fosters relaxed mindfulness of current experience, and frees self-regulatory resources, allowing a person to engage productively in nonattachment activities. In both the short and long runs, these psychological processes have positive effects on well-being, mental health, interpersonal cognitions, and relationship quality (see Fig. 1). In the following section, we review findings from laboratory experiments concerning the psychological effects of contextually boosting a person's sense of attachment security.

The Psychological Effects of Activating Mental Representations of Attachment Security

Attachment researchers have used well-validated experimental techniques to activate mental representations of security (a process we call *security priming*; Mikulincer & Shaver, 2016) and have measured their psychological effects. These techniques include explicit and implicit presentation of pictures suggesting attachment security (e.g., a Picasso drawing of a mother warmly cradling an infant in her arms) or names of actual people designated by participants as security providers, guided imagery concerning the supportiveness of an attachment figure, visualization of the face of a security provider, and viewing the photograph of this person. The effects of these primes have been compared with the effects of emotionally positive but attachment-unrelated stimuli or emotionally neutral stimuli.

With regard to emotional states, research consistently shows that security priming improves participants' moods and facilitates emotion regulation. For example, Mikulincer, Hirschberger, Nachmias, and Gillath (2001) found that implicit (nonconscious) presentation of the names of participants' security providers, compared with the names of close others or acquaintances who were not nominated as attachment figures, improved implicit mood (greater liking of previously unfamiliar Chinese ideographs) even in a threatening context. Subsequent studies showed that security priming

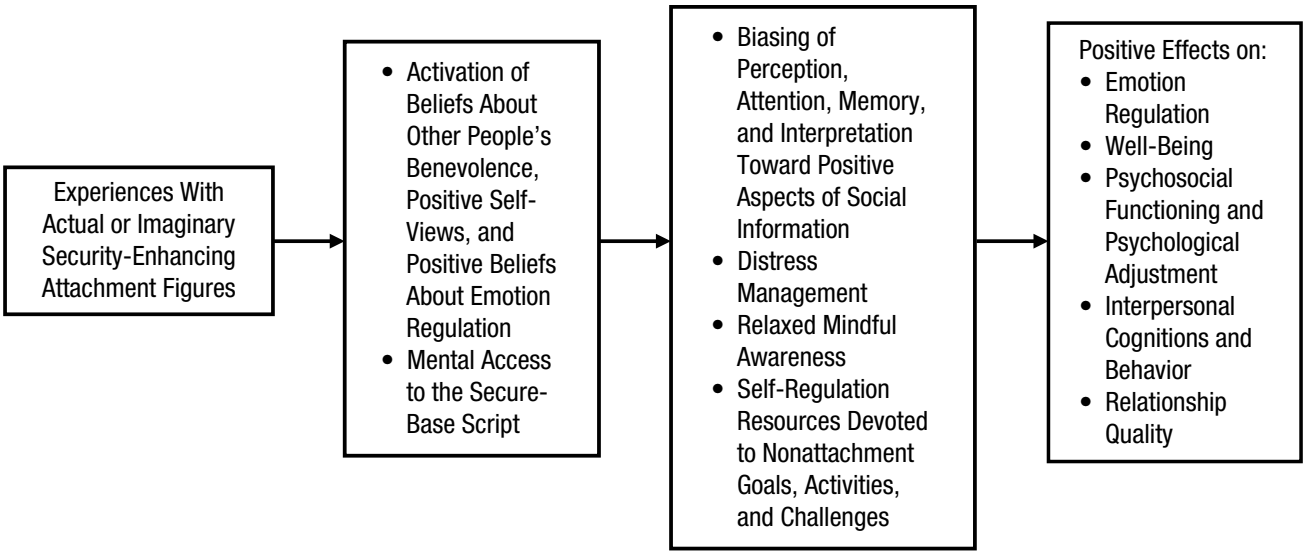

Fig. 1. The theoretical cascade of mental processes involved in the broaden-and-build cycle of attachment security.

accelerated emotional recovery after participants recalled an upsetting event (Selcuk, Zayas, Günaydin, Hazan, & Kross, 2012); inhibited unwanted intrusions of distressing memories (Bryant & Chan, 2017); attenuated activation in brain areas, such as the hypothalamus and amygdala, implicated in the experience of social threats (Karremans, Heslenfeld, Van Dillen, & Van Lange, 2011; Norman, Lawrence, Iles, Benattayallah, & Karl, 2015); and increased parasympathetic responses to stress stimuli—a physiological indicator of ease and relaxation (Bryant & Hutanamon, 2018).

In line with these findings, our research (Mikulincer, Solomon, Shaver, & Ein-Dor, 2014) found that security priming mitigates a well-known cognitive manifestation of posttraumatic responses—longer reaction times when participants named the colors in which trauma-related words were printed (indicating greater mental activation of the words). Israeli ex-prisoners of war from the 1973 Yom Kippur War who reported high or low levels of posttraumatic stress disorder (PTSD) symptoms following captivity performed a Stroop color-naming task that included, among other words, 10 war-related words. During this task, they were implicitly primed with the name of their security provider or neutral names, revealing that security priming, compared with neutral priming, reduced color-naming latencies for war-related words even among veterans who suffered from severe PTSD. That is, momentary activation of the sense of attachment security lowered the availability of trauma-related thoughts.

Attachment researchers have also found that security priming facilitates fuller engagement in exploration and learning. For example, Green and Campbell (2000) asked people to read sentences describing secure or insecure close relationships and found that the secure prime, compared with the insecure prime, led to greater endorsement of exploration-related behavior and greater liking for novel pictures. Moreover, Luke, Sedikides, and Carnelley (2012) found that security priming, compared with neutral priming, increased both vitality and willingness to learn and that these effects could not be explained by positive affect alone. In addition, we (Mikulincer, Shaver, & Rom, 2011) found that implicit exposure to the name of a security provider led to better performance on a creative problem-solving task (the remote associates test) than implicit exposure to the names of close others or acquaintances who were not nominated as attachment figures.

The broadening effects of a contextual infusion of attachment security is also evident in prosocial feelings and behaviors. In a series of studies, we (Mikulincer, Shaver, Gillath, & Nitzberg, 2005) found that security priming affected the decision to help or not help a person in distress. Each participant was implicitly primed with either the name of a security provider or a neutral name and then watched a confederate while she performed a series of aversive tasks. As the study progressed, the confederate became increasingly distressed, and the participant was given an opportunity to take her place, in effect sacrificing him- or herself for the welfare of another. Findings indicated that security priming, compared with neutral priming, increased participants' willingness to take the distressed person's place. This effect was replicated using another security

prime—asking participants to think about a security provider (Mikulincer et al., 2005).

In subsequent studies, we explored whether security priming would foster effective care for a romantic partner who was disclosing a personal problem or discussing personal goals (Mikulincer, Shaver, Bar-On, & Sahdra, 2014; Mikulincer, Shaver, Sahdra, & Bar-On, 2013). Dating couples came to a laboratory and were informed that they would be video recorded during an interaction in which one of them ("the care-seeker") disclosed a personal problem or future goals to the other ("the caregiver"). Caregivers were then exposed to either the names of security providers or the names of acquaintances. After this manipulation, couple members were video recorded while they talked for 10 min about the problem or goals the care-seeker wanted to discuss. Independent judges then viewed the recordings and coded participants' degree of supportiveness to their disclosing partner. Findings indicated that security priming, compared with neutral priming, was associated with greater supportiveness toward a dating partner who was sharing a personal problem or exploring personal goals.

Conclusions

The research findings reviewed in this article indicate that the activation of mental representations of attachment security has positive psychological effects and that a person's felt security can be changed for the better, at least temporarily, in the laboratory. This line of research contrasts with the previous emphasis that attachment researchers have placed on individual differences, which may have made attachment orientations seem too deep-seated and robust to alter. Importantly, these laboratory findings have inspired attachment researchers to examine strengthening the broaden-and-build cycle of attachment security in real-life social contexts, showing that a relationship partner's supportive behavior has long-term positive effects on attachment insecurities (e.g., Arriaga, Kumashiro, Finkel, VanderDrift, & Luchies, 2014; Davidovitz, Mikulincer, Shaver, Ijzak, & Popper, 2007). A notable example is the attachment-security-enhancement model (Arriaga, Kumashiro, Simpson, & Overall, 2018), which focuses on relational behaviors that buffer or reduce attachment anxiety or avoidance during moments of relational tension and foster attachment security within a relationship over the long term. We hope that, in the future, researchers will build on the existing work to develop and apply security-enhancing interventions in a wide variety of settings, including marital relationships and educational and health care institutions, with the goal of improving psychological functioning and enhancing the quality of life.

Recommended Reading

Arriaga, X. B., Kumashiro, M., Simpson, J. A., & Overall, N. C. (2018). (See References). A comprehensive review of studies showing how relational behaviors can promote chronic attachment security.

Mikulincer, M., & Shaver, P. R. (2016). (See References). A comprehensive review of the structure, dynamics, and cognitive, emotional, and interpersonal manifestations of attachment orientations in adulthood.

Mikulincer, M., Shaver, P. R., Sahdra, B. K., & Bar-On, N. (2013). (See References). A dyadic observational study showing the impact of security priming on actual responsiveness toward a dating partner in distress.

Mikulincer, M., Shaver, P. R., Sapir-Lavid, Y., & Avihou-Kanza, N. (2009). What's inside the minds of securely and insecurely attached people? The secure-base script and its associations with attachment-style dimensions. *Journal of Personality and Social Psychology, 97*, 615–633. A series of studies examining the psychological reality of the secure-base script and its manifestations in memory, appraisals, judgments, and decision making.

Action Editor

Randall W. Engle served as action editor for this article.

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Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

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