

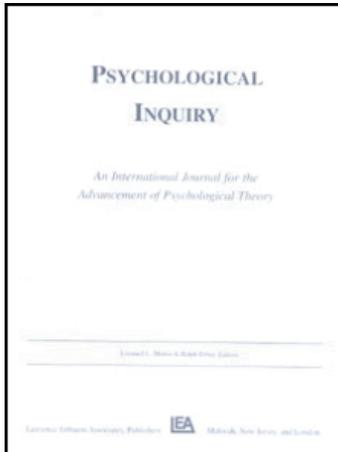
This article was downloaded by: [Canadian Research Knowledge Network]

On: 26 November 2008

Access details: Access Details: [subscription number 782980718]

Publisher Psychology Press

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Psychological Inquiry

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t775648164>

### On Priming Security and Insecurity

Mark W. Baldwin <sup>a</sup>

<sup>a</sup> McGill University, Montreal, Quebec, Canada

Online Publication Date: 13 August 2007

**To cite this Article** Baldwin, Mark W.(2007)'On Priming Security and Insecurity',Psychological Inquiry,18:3,157 — 162

**To link to this Article:** DOI: 10.1080/10478400701512703

**URL:** <http://dx.doi.org/10.1080/10478400701512703>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

---

## COMMENTARIES

---

### On Priming Security and Insecurity

Mark W. Baldwin

McGill University, Montreal, Quebec, Canada

#### On Priming Security and Insecurity

It is exciting to see the remarkable advances made in our understanding of relationship cognition as the field matures. Mikulincer and Shaver (2007) offer an articulate and persuasive overview of their recent work on security-enhancing interventions, clearly documenting many positive effects of “security priming.” I find little to argue with in this well-crafted piece, so I will focus my attention instead on some of the remaining questions the authors identify for future research. In particular, Mikulincer and Shaver point out that much research remains to be done to identify the precise mechanisms whereby security primes have their effects, and to work toward interventions that might be long lasting. I agree that these are critical questions.

I believe that some answers to these questions, or at least some helpful clues, might actually be found by revisiting some of the earlier literature regarding the activation of security (and insecurity). I will examine some of these studies, shaping my comments around several questions: *What are some core elements of security primes? Are the cognitive mechanisms of security largely rooted in associations? Can security-providing activation patterns be modified? When do security-providing interventions work best and last longest?*

#### What Are Some Core Elements of Security Primes?

There remain plenty of questions about the precise nature of the cognitive/emotional/motivational structures that underlie security. Presumably there is some sort of self-with-other working model or relational schema (Baldwin, 1992) that can be activated by a security prime, to trigger feelings of warmth and safety, and set up a confident expectancy that others will be warm, accepting, trustworthy, supportive, and so on. There is still much to be done to go beyond this basic notion, however, and it may be worthwhile to keep in mind a range of theoretical perspectives that might in-

form our understanding of security and, for that matter, insecurity.

The earliest research of which I am aware that arguably involved priming security was the program of work by Silverman and colleagues (Silverman, Lachmann, & Milich, 1982). Silverman drew from a psychoanalytic perspective that, essentially, insecurity was rooted in a feeling of separation from the “good mother” of childhood, and that emotional security could therefore be momentarily produced by stimulating the wished-for fantasy of total union with the mother. As their prime, these researchers briefly presented participants with the phrase “Mommy and I are one.” Presentations were done via tachistoscope, with 4-millisecond exposures given four times in succession. Silverman reported that participants receiving this prime (compared to control primes such as “People are walking”) showed various positive outcomes including greater success in school and in smoking cessation or weight-loss programs, and among some schizophrenics the prime even led to a reduction in symptoms.

Although I have always found Silverman’s work (and subsequent research using this methodology, such as Sohlberg & Birgegard, 2003, whom Mikulincer & Shaver, 2007 also cite) important and fascinating, I share at least some of the concerns raised by skeptics: Some have questioned whether it is possible to subliminally prime complex multi-word phrases (Greenwald, 1992), for example. Also, Silverman’s theoretical perspective feels at times unnecessarily removed from everyday experience: Granted, security certainly seems to be rooted in a sense of social connection, but many forms of social connection provide people with security feelings and it seems premature to argue that all of these are based in fantasies of merging self with (m)other (although see Aron’s work on merging self and other representations; Aron et al., 2005). Clearly, additional meticulous research is still needed to clarify the effects and boundary conditions of this particular prime before we can draw firm conclusions about

underlying mechanisms. The notion that the essence of security may lie in a sense of merging with another, while maintaining an individuated sense of self (Silverman et al., 1982), remains a provocative idea, however.

In the early 1980s, when John Holmes (who was my graduate supervisor) and I first set about to prime security we were more taken by the perspectives of theorists such as Karen Horney (e.g., 1937), Carl Rogers (e.g., 1959), and Harry Stack Sullivan (e.g., 1953), who all wrote at length about security and insecurity broadly defined. These theorists agreed that security is engendered by warm and soothing connections with others, and taken away by anxious, conflictual, and rejecting interactions. They (particularly Rogers and Sullivan) observed that a key component of security is the experience that reassuring social connection is, in a word, *secure*. That is, the person trusts that acceptance by a significant other is stable and predictable; it can be counted on and will not be taken away. In particular, security derives from the feeling that social acceptance is relatively unconditional, not contingent on being successful (or attractive, or well-behaved), and is readily available through both good times and bad.

We decided to apply the priming techniques of the day to examine the impact of conditional and unconditional acceptance on security after an ego-threat. In our *noncontingent acceptance* condition we had male undergraduate participants visualize the following scenario:

Imagine that you have come into a cafeteria somewhere on campus to eat lunch. You see a good friend there, someone who you like being with and who likes being with you. This is a person, either male or female, who you feel would stick by you and support you through good times and bad. Your friend notices you and waves to come over, so you go over and sit down. You start chatting about things in general. It is pleasant to be with this person. Try to feel yourself being there. Experience the warm feeling you get with this person. You talk about school, and also things that go on outside of school. You might be laughing or talking. You feel quite comfortable. Picture this person sitting across from you. Try to get a good image or experience of them there. Try to feel the warmth and acceptance with this person. After awhile you both have to leave to go to different classes. You both leave, saying, "See you around" (Baldwin & Holmes, 1987).

We found that this prime helped people cope, when a state of heightened self-focused attention was later induced after a failure on a very difficult memory task. The effect of the prime, combined with self-focused attention, appeared to make people less likely to blame themselves for a poor performance, and more likely to assume that peers would also perform at roughly the same level. We interpreted this self-accepting pattern as

an expression of the non-evaluative orientation of the primed relationship, and the emotional security provided by the sense that acceptance and support are unconditionally available "through good times and bad."

One core element of security, then, as Rogers and Sullivan (and later Bowlby) observed, seems to be the expectation that acceptance is reliable, unconditional, and unlikely to be disrupted. The "unconditional" or "noncontingent" nature of social connection is key. My students and I have continued to be particularly interested in the degree to which security is often undermined by evaluation and criticism, due to an implicit anticipation that disapproval may lead to rejection. For example, in two studies aimed at clarifying the dynamics of insecurity we subliminally presented images of scowling evaluators: either presenting Professor Robert Zajonc to the graduate students in his department, or presenting Pope John Paul II to Catholic women who had just read a sexually permissive passage. In both cases these disapproving images undermined self-evaluations. In two other studies (Baldwin, 1994) we experimented with simply presenting significant others' names to see if the interpersonal styles associated with those significant others might later shape the person's sense of security. Participants were asked to provide the name of one significant other who tended to be critical and rejecting, and another who tended to be warm and accepting; who "simply accepts you for who you are." One of these names was later presented, either subliminally or supraliminally during a bogus lexical decision task, and the primes were found to influence participants' self-evaluations after failure on a difficult test. In the absence of a no-prime control condition it was not possible to draw firm conclusions about the relative contribution of the accepting versus the critical prime, but several results indicated that both likely played a role in the effects. Whether priming with faces or names, then, it is clear that cues for critical rejection versus unconditional acceptance can have dramatic effects on security in self-evaluations.

What, then, are the active ingredients in security primes? I think the jury is still out on this, even after two decades of research. The attachment theory notions of secure base and safe haven are persuasive, certainly. And Mikulincer and Shaver's (2007) emphasis on establishing proximity to the caregiver, as a core element of connection, makes sense and is well rooted in the evolutionary theory from which attachment theory grew. Some attachment theorists identify other elements, such as the reflective function that allows a person to think about mental states (own and others'), that may be key to attachment security (e.g., Fonagy, Steele, Moran, Steele, & Higgitt, 1991) and may also be relevant to the *mindfulness* issues discussed by Mikulincer and Shaver (2007). Other theoretical perspectives, such as psychoanalytic models of fantasies about union with

another, may offer additional insights. Also (and complementing Bowlby's emphasis on the reliable availability of attachment figures), I suggest that a key issue in security is the degree to which social connection is experienced as unconditional; versus conditional on, for example, possessing socially desirable characteristics. This latter idea is generally underappreciated in attachment research. More generally, as the field moves forward we will need to work out a consensus regarding the use of the term "security," in order to clarify the role of factors such as proximity, merger, reflective function, unconditional acceptance, and so on, in creating the sense of security.

### Are the Cognitive Mechanisms of Security Largely Rooted in Associations?

In recent years there have been some ambitious and stimulating efforts to spell out the social cognitive mechanisms underlying security and insecurity, within the context of attachment theory (e.g., Mikulincer & Shaver, 2003; 2005) or relationship cognition more generally (e.g., Murray, Holmes, & Collins, 2006). The emphasis in these models is often on *if . . . then* procedural rules for how to regulate interpersonal behavior in response to judgments about the partner's availability and caring (which might be framed, for example, as *if threatened, then seek proximity and protection*, or *if attachment figure is available, then relax*; see Mikulincer & Shaver, 2007). Although I certainly agree that such strategic rules are central to relationship cognition and functioning, I think it is critically important to figure out the nuts and bolts of how it is that people make their judgments about interpersonal dynamics: How does a person make the complex prediction about whether a significant other can be expected to be available, caring and responsive? My colleagues and I have therefore been examining a slightly different (although related) *if . . . then* contingency, which involves the *behavior-outcome* expectancies that make up interpersonal scripts. This kind of expectancy is one instance of a cognitive association that can produce the activation of security-providing representations. We hypothesize that an outcome expectancy is represented as an association between *if* and *then*, so that the activation of the *if* (i.e., "If I behave in such and such a way . . .") is thought to lead, via spreading activation across an associative link, to activation of the *then* (" . . . then my significant other will react in such and such a way.")

This idea can be tested fairly directly using sequential priming techniques to identify patterns of spreading activation. In the early 1990s, my colleague Beverly Fehr and I were struck by the burgeoning adult attachment literature, and began to work with our students to examine the nature of the working models that underpin attachment orientations. We used a lexical deci-

sion task (in which participants quickly identify letter strings as words or nonwords) to identify automatic social expectations (Baldwin et al., 1993). We found that on trials when chronically avoidant individuals were primed with a sentence fragment about "trust," this made them quicker to identify the target string "hurt"—thus revealing an automatic association between trusting significant others and being hurt. Chronically secure individuals did not show this pattern of association.

I later used the same measurement approach in self-esteem research done with Lisa Sinclair (Baldwin & Sinclair, 1996), but here we added primes for security and insecurity to see how they would affect people's associations. First we determined that people who tended to be chronically insecure (as revealed by low scores on the Rosenberg Self-Esteem Scale) showed an activation pattern where ideas of "failure" primed ideas of "rejection"—the cognitive signature of contingent or conditional acceptance. In a subsequent study we found that people primed with a critical other tended to show this pattern very strongly, whereas others who were primed with a security prime ("someone who simply accepts you for who you are") did not. By using measures of association, then, we were able to examine the cognitive structures activated by security (and insecurity) primes.

As the field continues to progress in our detailed analysis of relationship security and insecurity, it will be important to keep in mind the differences between *if . . . then* expectancies, *if . . . then* inference rules, *if . . . then* strategies and *if . . . then* situation-behavior patterns (see Baldwin & Dandeneau, 2005, for a discussion). Although all of these surely play a role in security, my own hunch at this point is that the associations that lead to the activation of security expectations (particularly, associations between behaviors and outcomes) are at the core of security-providing (and security-undermining) cognitive structures. This is because the network of associations determines whether thinking about failure, or stress, or need, leads automatically to thoughts about security-providing nurturance or rather to thoughts of rejection and abandonment. For example, I submit that the core of the secure base script described by Mikulincer and Shaver (2007; also Bretherton, 1990; Waters, Rodrigues, & Ridgeway, 1998) is the expectancy *If I reach out for help, then my significant other will help me*: Other elements, such as the strategy of reaching out or the anticipation of emotional relief, are likely derivative of this expectancy. I am open to the idea that expectancies, strategies, and emotional associations may become somewhat independent and functionally autonomous (and may even be represented in different brain areas; Sakellaropoulou & Baldwin, 2005), but still the expectancy is likely the critical element—and may also be the easiest to modify.

### Can Security-Providing Activation Patterns Be Modified?

Mikulincer and Shaver (2007) argue persuasively for the potential value of security-enhancing interventions that might last longer than one-time primes. Toward this end, in recent years my students and I have been looking beyond priming paradigms toward techniques for producing a modification of working models and relationship cognition. I will mention these studies only briefly here (for more detailed reviews see Baldwin & Dandeneau, 2005; Baldwin et al., in press). Mikulincer and Shaver (2007) describe two of our paradigms: one in which the self-concept is repeatedly associated with smiling, accepting feedback (Baccus, Baldwin, & Packer, 2004), and another in which the person practices inhibiting attention to rejecting feedback (Dandeneau & Baldwin, 2004; Dandeneau, Baldwin, Baccus, Sakellaropoulo, & Pruessner, 2007). In a third paradigm, based on simple Pavlovian conditioning, the participant repeatedly hears a distinctive computer tone paired with images of accepting feedback, thereby experimentally creating a conditioned cue that can be used later to prime acceptance (e.g., Baldwin & Main, 2001; Baldwin & Meunier, 1999). Using these interventions to increase security we have found increases in implicit and explicit self-esteem (Baccus et al., 2004; Baldwin, Granzberg, Pippus, & Pritchard, 2003; Dandeneau et al., under review), reductions in aggressive feelings (Baccus et al. 2004), reductions in stress among students during exams, and in stress-hormone release among telemarketers at work (Dandeneau et al., under review), improvements in performance (Dandeneau et al., 2007) reductions in social anxiety during a stressful interaction (Baldwin & Main, 2001), and changes in information-processing patterns for rejection and acceptance information (Dandeneau & Baldwin, 2004; Dandeneau et al., 2007; Baldwin & Meunier, 1999; Baldwin & Kay, 2003; Baldwin & Main, 2001).

One message I can offer on the basis of this research is that manipulations such as these can indeed modify relationship cognition. It is clearly possible to create novel cues for acceptance, or to teach people to inhibit attention to rejection, for example. I believe that as we go forward in exploring the possibilities for security-enhancing interventions, it will be critical to continue to design the interventions around the mechanisms we hypothesize to be at work in day-to-day feelings of security. Because we believe that activation patterns arising from associations (rather than, say, inference procedures for making causal attributions) are at the core, we have designed most of our interventions to address these aspects of relationship cognition. And, the results have been supportive.

I will note that to the extent this research involves the conditioning of associations, it is different from priming. In the Baccus et al. (2004) study (which Mikulincer and Shaver characterize as an example of priming), experimental participants repeatedly saw their name and other self-relevant information paired with smiling faces, and other information paired with frowns and neutral faces. This condition was compared to a control condition in which the exact same faces were shown, but were not paired systematically with self-relevant information. My point here is that the active ingredient in the experimental treatment was not the simple priming or activation of smiling faces (since all subjects saw the same images), but rather the strengthening of an association between self and acceptance (which only happened in the experimental condition). Simply put, conditioning is not the same as priming. Conditioning creates, or modifies the strength of, an association, which can then reshape the flow of spreading activation in the working model. In principle, these effects should not automatically decay the way priming does, but rather may persist unless experience modifies the associations again.

### When Do Security-Providing Interventions Work Best and Last Longest?

As more and more researchers begin to experiment with relationship priming it might be helpful to bear in mind some lessons from previous experience, so I will offer a few observations. One lesson we have learned along the way is that *subtlety* often counts. In my earliest pilot studies for my dissertation research (Baldwin & Holmes, 1987), I blithely set about trying to identify security primes by essentially asking participants to tell me the name of someone who loved them unconditionally. I quickly discovered that this often produced a kind of boomerang effect, whereby some people found it difficult to come up with such a perfectly devoted loved one in their life, and this lack of fluency led to a feeling of being relatively unloved rather than loved (cf. Schwarz et al., 1991, for research on boomerang effects in self-perception, and Baldwin et al., 1996, for a discussion of the importance of fluency/ease of accessibility experiences in attachment orientations). From then on I have usually modified the instructions to ask for the name of someone “who comes closest to this description,” which is easier for most people to answer (see also Mikulincer & Shaver, 2007, for a review of other unobtrusive primes). Subtlety counts also in the method of priming. As the general literature on priming indicates (see e.g., Martin, 1986, for an example in the context of impression formation), very blatant primes can sometimes lead to contrast or overriding effects: Therefore it may be best to embed the prime in another activity (e.g., a bogus lexical decision

task) or to build some kind of cover story around it (e.g., giving guided visualizations in the context of a visual imagination study). Subliminal presentations also get around this problem, of course, but subliminal priming is actually quite difficult to do properly so I would not recommend it for the faint of heart. Subtlety can be assisted, in some sense, by distracting the participant's attention from the prime: For example, security and insecurity primes sometimes seem to have a greater impact, in particular on people's self-evaluations, if the person's attention is directed away from the prime and toward the self-concept instead, via a standard self-awareness manipulation (Baldwin & Holmes, 1987; Baldwin, 1994).

Beyond the issue of subtlety in presenting security-enhancing interventions, the question is how to make them last. We can probably assume that if security-enhancing interventions are to have a lasting impact, they will have to come to influence people's actual interactions. As Mikulincer and Shaver (2007) describe, such interventions might stimulate a broaden-and-build cycle that can help the effect generalize, and last beyond the short-term effects of momentary priming. Fortunately there is plenty of evidence that activated relationship structures can produce self-fulfilling prophecies, which can feed back and strengthen the activated orientations (e.g., Berk & Andersen, 2000).

The impact of primes on interpersonal orientations may even be relatively immediate. In our work with attachment primes (Baldwin et al., 1996), Beverley Fehr and I wondered how momentarily primed attachment working models might come to have an impact on real relationships. It seemed to us that a critical moment in the process of forming adult attachments, at least among young single people with a range of options, was at the point of deciding whether to initiate a relationship with a given person. One question, then, is whether a momentarily activated sense of security might lead someone to make a healthier choice of dating partner. Our participants were undergraduate men and women who were not currently in a dating relationship. Our prime was straightforward: In an initial session we asked participants to nominate one relationship from their lives for each of three Hazan & Shaver (1987) attachment orientations. That is, they were to give the name of one person with whom they felt relatively *secure*, one with whom they felt relatively *avoidant*, and one with whom they felt relatively *anxious/ambivalent*. Several days later they returned for a second session, and we randomly selected one of their significant others for them to visualize in a 2-minute guided visualization. They then were taken down the hall, ostensibly to take part in a "second study," where we asked them to consider how much they would like to date each of a number of potential dating partners. The profiles of these potential partners had been created (in earlier research by Frazier, Byer, Fischer,

Wright, & DeBord, 1996) to reflect secure, anxious, or avoidant traits. Participants' dating choices were, as we had hypothesized, shaped by the earlier primes: In particular, those given the secure prime tended to be more attracted to secure partners, and less attracted to avoidant partners (who, for example, had "never been in love"), than were participants in the other groups. Although we did not follow up these preferences by arranging an actual meeting with the potential dating partners (who were, after all, fictitious), it is not hard to imagine how initial choices like this—influenced by momentarily activated attachment orientations—might have a lasting impact on security or insecurity in relationships. In order to learn how to make interventions long lasting, then, we may need to clarify the dynamic interplay between activated expectancies and interpersonal choices.

### Final Comments

As I said at the outset, I believe Mikulincer and Shaver (2007) offer a splendid review of their recent priming research, in which they have documented many important outcomes from heightened security. I agree with them that we need to continue to work to determine the mechanisms of security (and insecurity), through theoretical analyses, priming studies, social cognitive analyses of activation patterns, and also through attempts to manipulate the mechanisms of security in a lasting way. I think this project will be aided by integrating insights from recent attachment-theory work, from other theoretical perspectives on security and insecurity, and from other priming research on these topics.

### Acknowledgement

Commentary on Mikulincer & Shaver target article, for *Psychological Inquiry*, 2007. Please do not cite or quote without permission. I thank Patricia Csank for her helpful comments. This paper was prepared with the support of a grant from the Social Sciences and Humanities Research Council of Canada.

### Note

Address correspondence to Mark W. Baldwin, Department of Psychology, McGill University, 1205 Docteur Penfield, Montreal, Quebec, Canada, H3A 1B1. E-mail: mark.baldwin@mcgill.ca

### References

- Aron, A., Mashek, D., McLaughlin-Volpe, T., Wright, S. C., Lewandowski, G., & Aron, E. N. (2005). Including close others

- in the cognitive structure of the self. In M. W. Baldwin (Ed.), *Interpersonal Cognition* (pp. 206–232). New York: Guilford.
- Baccus, J. R., Baldwin, M. W., & Packer, D. J. (2004). Increasing implicit self-esteem through classical conditioning. *Psychological Science*, *15*(7), 498–502.
- Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, *112*, 461–484.
- Baldwin, M. W. (1994). Primed relational schemas as a source of self-evaluative reactions. *Journal of Social and Clinical Psychology*, *13*, 380–403.
- Baldwin, M. W., Baccus, J. R., Dandeneau, S. D. M., & Sakellaropoulou, M. (in press). Time for some new tools: Toward the application of learning approaches to the study of interpersonal cognition. In J. Wood, A. Tesser, and J. G. Holmes (Eds.) *The Self and Social Relationships*.
- Baldwin, M. W., Carrell, S. E., & Lopez, D. F. (1990). Priming relationship schemas: My advisor and the Pope are watching me from the back of my mind. *Journal of Experimental Social Psychology*, *26*, 435–454.
- Baldwin, M. W., Fehr, B., Keedian, E., Seidel, M., & Thomson, D. W. (1993). An exploration of the relational schemata underlying attachment styles: Self-report and lexical decision approaches. *Personality and Social Psychology Bulletin*, *19*, 746–754.
- Baldwin, M. W., Granzberg, A., Pippus, L., & Pritchard, E. T. (2003). Cued activation of relational schemas: Self-evaluation and gender effects. *Canadian Journal of Behavioural Science*, *35*, 153–163.
- Baldwin, M. W., & Holmes, J. G. (1987). Salient private audiences and awareness of the self. *Journal of Personality and Social Psychology*, *53*, 1087–1098.
- Baldwin, M. W., & Kay, A. C. (2003). Adult attachment and the inhibition of rejection. *Journal of Social and Clinical Psychology*, *22*, 275–293.
- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology*, *71*, 94–104.
- Baldwin, M. W., & Main, K. J. (2001). The cued activation of relational schemas in social anxiety. *Personality and Social Psychology Bulletin*, *27*, 1637–1647.
- Baldwin, M. W., & Meunier, J. (1999). The cued activation of attachment relational schemas. *Social Cognition*, *17*, 209–227.
- Baldwin, M. W., & Sinclair, L. (1996). Self-esteem and “if . . . then” contingencies of interpersonal acceptance. *Journal of Personality and Social Psychology*, *71*, 1130–1141.
- Berk, M. S., & Andersen, S. M. (2000). The impact of past relationships on interpersonal behavior: Behavioral confirmation in the social-cognitive process of transference. *Journal of Personality and Social Psychology*, *79*, 546–562.
- Bretherton, I. (1991). Communication patterns, internal working models, and the intergenerational transmission of attachment relationships. *Infant Mental Health Journal*, *11*, 237–252.
- Dandeneau, S. D., & Baldwin, M. W. (2004). The inhibition of socially rejecting information among people with high versus low self-esteem: The role of attentional bias and the effects of bias reduction training. *Journal of Social and Clinical Psychology*, *23*, 584–602.
- Dandeneau, S. D., Baldwin, M. W., Baccus, J. R., Sakellaropoulou, M., & Pruessner, J. C. (2007). Cutting stress off at the pass: Reducing stress and hypervigilance to social threat by manipulating attention. *Journal of Personality and Social Psychology*.
- Fonagy, P., Steele, H., Moran, G., Steele, M., & Higgitt, A. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, *13*, 200–217.
- Frazier, P., Byer, A. L., Fischer, A. R., Wright, D. M., & DeBord, K. A. (1996). Adult attachment style and partner choice: Correlational and experimental findings. *Personal Relationships*, *3*, 117–136.
- Greenwald, A. G. (1992). New Look 3: Reclaiming unconscious cognition. *American Psychologist*, *47*, 766–779.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524.
- Horney, K. (1937). *The neurotic personality of our time*. New York: Norton.
- Martin, L. L. (1986). Set/reset: Use and disuse of concepts in impression formation. *Journal of Personality and Social Psychology*, *51*, 493–504.
- Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 53–152). San Diego, CA, US: Elsevier Academic Press.
- Mikulincer, M., & Shaver, P. R. (2005). Mental representations of attachment security: Theoretical foundation for a positive social psychology. In M. W. Baldwin (Ed.), *Interpersonal cognition* (pp. 233–266). New York, NY: Guilford Press.
- Mikulincer, M., & Shaver, P. R. (2007). Boosting attachment security to promote mental health, prosocial values, and inter-group tolerance. *Psychological Inquiry*, *18*, 139–156.
- Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing Assurance: The Risk Regulation System in Relationships. *Psychological Bulletin*, *132*, 641–666.
- Rogers, C. R. (1959). Therapy, personality, and interpersonal relationships. In S. Koch (Ed.), *Psychology: A study of a science* (Vol. 3). Toronto: McGraw-Hill.
- Sakellaropoulou, M., & Baldwin, M. W. (2005). *Are attachment working models represented in three parallel memory systems?* Poster presentation at the Society for Personality and Social Psychology (SPSP) Annual Conference. New Orleans, January.
- Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, *61*, 195–202.
- Silverman, Lloyd H.; Lachmann, Frank M.; Milich, Robert H. (1982). *The search for oneness*. New York: International Universities Press.
- Sohlberg, S., & Birgegard, A., (2003). Persistent complex subliminal activation effects: First experimental observations. *Journal of Personality and Social Psychology*, *85*, 302–16.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Waters, H. S., Rodrigues, L. M., & Ridgeway, D. (1998). Cognitive underpinnings of narrative attachment assessment. *Journal of Experimental Child Psychology*, *71*, 211–234.