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Pers Soc Psychol Bull 2006; 32; 1375
DOI: 10.1177/0146167206290339

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Automatic Activation of Attachment-Related Goals

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When people encounter threats, their attachment systems are activated and they become motivated to seek protection and support through proximity to their attachment figures. Theoretically, therefore, mental representations of attachment figures should be associated with goals related to attaining proximity and safety. The present studies explore this idea by examining the effects of a person's chronic attachment style and exposure to a particular attachment figure's name on the automatic activation of attachment-related goals. Studies 1 and 2 examine effects of exposure to the name of a security-providing attachment figure on willingness to self-disclose and seek support (two behaviors related to gaining proximity). Study 3 examines how exposure to names of different relationship partners (with whom a participant has felt secure, anxious, or avoidant) affects the mental accessibility of attachment-related goal words. Taken together, the studies support the idea that mental representations of attachment figures are associated with attachment-related goals.

Keywords: *attachment style; priming; goals; automaticity*

People rely on their attachment figures (close relationship partners who provide protection, comfort, and support; Bowlby, 1969/1982) when they encounter stresses, threats, or disappointments. Consequently, these figures and mental representations of them are associated in memory with particular emotions or feelings and, presumably, also with motives and goals. When exposed to names of their security-providing

attachment figures, people experience an increase in positive mood (Mikulincer, Hirschberger, Nachmias, & Gillath, 2001), become more tolerant toward otherwise threatening outgroup members (Mikulincer & Shaver, 2001), and exhibit greater willingness to help others (Mikulincer, Shaver, Gillath, & Nitzberg, 2005). Bowlby (1969/1982), the creator of attachment theory, described some of the goals and motives associated with "activation of the attachment behavioral system" and with attachment figures who respond to attachment system activation. However, little research has examined associations between mental representations of attachment figures and activation of behavioral goals.

In recent years, social motivation researchers have shown that behavioral goals are cognitive structures (e.g., Bargh, 1990; Kruglanski, 1996) that can be implicitly triggered by features of a situation and then pursued without conscious guidance (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001; Chartrand & Bargh, 1996). Numerous studies have demonstrated that it is possible to assess the automatic goal activation associated with relevant social stimuli. For example, Bargh et al. (2001) assessed the activation of achievement and

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PSPB, Vol. 32 No. 10, October 2006 1375-1388

DOI: 10.1177/0146167206290339

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cooperation goals after study participants had been exposed implicitly to words related to high performance or cooperation. As expected, exposure to such words (relevant to particular goals) resulted in pursuit of the corresponding goals (e.g., performing better on an intellectual task after exposure to high-performance words). In studies that are especially relevant to ours, Fitzsimons and Bargh (2003) and Shah (2003) found that relationship goals become automatically activated when specific relationships are primed.

The present article extends research on the pursuit of social goals into the domain of attachment theory and tests the hypothesis that priming people with mental representations of their attachment figures will automatically trigger attachment-related goals, such as attaining proximity, safety, and security. We begin by briefly summarizing attachment theory, research on attachment-related mental representations, and research on goals and goal activation.

Attachment Theory and Research

In his books on attachment theory, Bowlby (e.g., 1969/1982) claimed that humans, and especially infants, rely on “stronger and wiser” others (attachment figures) for protection and assistance with emotion regulation. When threatened or in pain, humans seek proximity to and comfort from their attachment figures, who in childhood are often their primary caregivers. Interactions with attachment figures, and the subsequent effects on coping with threats, shape a person’s attachment style—an organized set of mental representations of self, close others, and the social world that guide emotion regulation and social behavior (e.g., Ainsworth, Blehar, Waters, & Wall, 1978). Ainsworth and her colleagues described three main attachment styles that characterized children’s behavior when separated from and reunited with their attachment figure: secure, anxious, and avoidant. These styles were later identified by Hazan and Shaver (1987) in the realm of adolescent and adult romantic relationships as well.

Today, attachment style often is assessed in terms of two underlying dimensions: attachment-related anxiety and avoidance (e.g., Brennan, Clark, & Shaver, 1998). Attachment anxiety comprises fear of rejection and abandonment by relationship partners, including doubts about one’s own desirability as a relationship partner; attachment avoidance, on the other hand, includes emotional distancing and extreme independence and self-reliance associated with not feeling comfortable being close to or depending on others. The two dimensions have been examined in hundreds of studies and found to be associated with the ways people experience romantic relationships, cope with threats and stresses, and behave with relationship partners.

The dimensions are also associated with individual differences in the operation of other behavioral systems discussed by Bowlby (1969/1982), such as exploration, caregiving, and sex (for a review, see Mikulincer & Shaver, 2003). It is therefore expected that the two dimensions will also be associated with specific goals.

Goals of the Attachment System

Goals are an essential part of any behavioral system (Bowlby, 1969/1982; Mikulincer & Shaver, 2006) because to perform its biological function (e.g., attaining proximity and safety, exploring the environment to attain knowledge, or finding a sexual partner), each system must motivate appropriate behaviors. The goals of the attachment system are thought to be universal because every human being, especially in childhood, needs to maintain proximity to caregivers and remain safe enough to survive (and later reproduce). Although the attachment-system goal of maintaining proximity, safety, and emotional support is thought to be innate, it can be shaped or distorted by significant experiences with attachment figures (Collins & Read, 1994; Shaver, Collins, & Clark, 1996). Instead of increasing proximity to a stronger, wiser other when distressed, the goal may become to retain proximity to an attachment figure at all times (anxious clinging) or to avoid the experience of vulnerability and need (avoidant distancing). Although there are general individual differences in attachment style (secure, anxious, and avoidant), it is assumed that every adolescent or adult has had experiences of all three; that is, times when attachment figures have been supportive and protective, times when they have been unreliable, and times when they have been cool or rejecting. Thus, it is possible, in principle and in fact, to increase a person’s similarity to one of these attachment patterns by reminding the person of times when he or she felt relatively secure, anxious, or avoidant (Baldwin, Fehr, Keedian, & Seidel, 1993; Collins & Read, 1994).

Goals, when viewed as mental representations, can be considered parts of schemas. According to Baldwin and colleagues (1993), the various components of an attachment schema are connected through an associative memory network. When the schema is triggered, all of its elements (including goals) become active through a process of spreading activation. This activation renders the components of the schema more available to other cognitive and motivational processes. Baldwin, Keelan, Fehr, Enns, and Koh-Rangarajoo (1996) suggested that of the numerous schemas a person might access, it is the current (often situationally primed) schema that most influences perceptions, expectations, and behaviors. In other words, it is not simply a general attachment style that affects thoughts and behavior but also the attachment schema that is most active at a given moment (see

also Andersen & Baum, 1994). Baldwin et al. (1993) showed, for example, that priming the sense of attachment-related avoidance was associated with shorter reaction times (RTs) to words suggesting negative relationship outcomes, whereas priming the sense of attachment security was associated with shorter RTs to words suggesting positive relationship outcomes.

Activation of Relationship-Related Goals

The idea that a specific history of attachment relationships or the mental representation of a particular relationship partner is associated with certain interpersonal goals fits with recent research on the association between a mental representation of a significant other and activation of specific goals (Fitzsimons & Bargh, 2003). For example, when college students were primed with thoughts of their mother, they showed increased achievement motivation and better performance on an achievement test, but only to the extent that they wanted to please their mothers by achieving at the university.

Similar findings have been obtained in studies of attachment style. For example, Mikulincer (1998) found that attachment-related anxiety (one of the two major attachment-style dimensions; Brennan et al., 1998) was associated with the goal of attaining security, whereas attachment-related avoidance was associated with the goal of maintaining personal control. Rom and Mikulincer (2003) found that attachment-related anxiety was associated with the goal of maintaining extreme closeness, whereas attachment-related avoidance was associated with the goal of maintaining interpersonal distance (i.e., avoiding intimacy). In addition, based on the research by Fitzsimons and Bargh (2003), it seems likely that specific attachment figures, or mental representations of particular attachment figures, will influence which goals become activated when that person is encountered or mentioned (see also Andersen, Reznik, & Manzella, 1996; Shah, 2003). Therefore, we expected that goals activated by an attachment figure will be jointly affected by a person's attachment style and his or her experiences with that particular attachment figure.

Hypotheses

Specifically, we hypothesized that subliminally exposing a person to the name of a particular attachment figure would activate inclinations to self-disclose and seek support because these are common behaviors associated with attachment figures. We further hypothesized, however, that this activation would be moderated by attachment style: Among attachment-anxious people, the goal of proximity seeking and the inclination to self-disclose, as well as the goal of support seeking, might be relatively active most of the time, regardless of the attachment-figure prime, whereas among avoidant

people, these goals and their associated motivational inclinations would be less active. Studies 1 and 2 examined these hypotheses.

In Study 3, we explored the possibility that the effects of an attachment-figure prime would depend partly on the nature of a person's relationship with that person. For example, when people are asked to think about a relationship in which they felt relatively anxious, the goals associated with attachment anxiety (e.g., clinging) should become temporarily more accessible. When asked to think about a relationship in which they felt relatively avoidant, the goals associated with attachment avoidance (e.g., maintaining distance) should become more accessible. Although activation of mental representations can be successfully accomplished either supraliminally or subliminally, we presented the names of attachment figures subliminally to minimize the effects of social desirability, experimental demands, or deliberate defenses.

STUDY 1

The aim of Study 1 was to examine the effects of subliminal priming with the name of an attachment figure on participants' willingness to self-disclose. Self-disclosure is a common way for adults to increase interpersonal closeness (e.g., Collins & Feeney, 2004; Mikulincer & Nachshon, 1991). Therefore, we predicted that subliminally exposing people to the name of an attachment figure would result in automatic activation of the goal to increase psychological proximity or closeness, which would be manifested in a fairly general increased willingness to self-disclose, as long as the target of self-disclosure was not viewed as threatening. Willingness to self-disclose is known to be affected by attachment style (Mikulincer & Nachshon, 1991): Secure and anxious people tend to disclose more than avoidant people. Thus, we expected to see both an effect of subliminal exposure to an attachment figure's name and an effect of attachment style. Finally, we were interested in the effects of the subliminal attachment-figure prime and attachment style on the time taken to complete the self-disclosure questionnaire items. High willingness to disclose might accelerate responses, whereas conflict about self-disclosure might slow responses.

Because both attachment security and attachment anxiety are known to be associated with higher self-disclosure, we had three interrelated hypotheses: (a) Priming people with the name of an attachment figure will lead to higher scores on the Self-Disclosure Index (SDI; Miller, Berg, & Archer, 1983) and shorter response times when completing the SDI, both implying a stronger, less ambivalent tendency to self-disclose and, hence (by inference), a more salient goal to

increase proximity; (b) attachment anxiety will be positively correlated with the SDI and negatively correlated with response times, implying a stronger tendency to self-disclose; and (c) avoidant attachment, on the other hand, will be negatively correlated with scores on the SDI and positively correlated with time taken to complete the SDI items, implying less inclination to self-disclose or more conflict associated with this inclination.

Method

Participants. Seventy-two Israeli undergraduates (36 men, 36 women) participated in the study. Their ages ranged from 18 to 32, with a median of 23.

Materials and procedure. Two to 3 weeks before the experimental session, preliminary testing took place during regular class time. In this session, participants completed the Experiences in Close Relationships Scale (ECR; Brennan et al., 1998), a 36-item measure of attachment anxiety and avoidance. Participants rated the extent to which each item was descriptive of their experiences in close relationships on a 7-point scale ranging from *not at all* (1) to *very much* (7). Eighteen items tapped attachment anxiety (e.g., "I worry about being abandoned") and 18 items tapped attachment avoidance (e.g., "I find it difficult to allow myself to depend on close relationship partners"). The reliability and validity of the scales have been repeatedly demonstrated in both English and Hebrew (e.g., Brennan et al., 1998; Mikulincer & Florian, 2000). In the current study, Cronbach's alphas were high for the anxiety and avoidance scales (.91 and .86, respectively), and the correlation between anxiety and avoidance scores was low, as intended ($r = -.01$, *ns*). Higher scores on one or both dimensions indicate attachment insecurity, whereas low scores on both dimensions indicate security. Participants also completed other scales that could be used to evaluate alternative explanations of the findings (Rosenberg's [1965] Self-Esteem Scale; Marlowe-Crowne's Social Desirability Scale [Crowne & Marlowe, 1960]; and Spielberger's [1983] Trait Anxiety Scale).

In the second session, participants completed three brief questionnaires, the first of which was the WHOTO measure, developed by Fraley and Davis (1997; based on previous work by Hazan, Hutt, Sturgeon, & Bricker, 1991) to identify the names of people to whom a person turns for proximity, safety, and security. (We will refer to these individuals as security-providing attachment figures.) Participants answered such questions as "Who is the person you turn to when you're feeling down?" by providing the first name and the nature of the relationship with that person (romantic partner, mother, sister, etc.). In the second brief questionnaire, participants provided names of a broad set of close persons (mother, father, siblings, grandparents, close friends, romantic

partner) who had not necessarily been mentioned as attachment figures. Finally, in the third questionnaire, participants indicated which of a list of 100 names designated people they knew personally but to whom they were not particularly close (see Mikulincer, Gillath, & Shaver, 2002). From these questionnaires, a computer program generated a file for each participant with the names of his or her security-enhancing attachment figures, the names of close others who were not attachment figures, and the names of mere acquaintances.

After completing the three questionnaires, participants completed a 20-item life habits questionnaire (hobbies, TV programs, etc.), which served as a filler. Participants were then randomly divided into three priming conditions. In each one, they were subliminally exposed to a particular person's name. One third of the participants ($n = 24$) were exposed to the name of one of their attachment figures, one third ($n = 24$) to the name of a close other who was not an attachment figure, and one third ($n = 24$) to the name of an acquaintance. Participants were exposed to the prime name before rating each one of the items on the SDI scale that was presented to them on the computer screen.

The SDI is a 10-item scale that measures the tendency to self-disclose. Participants received the following instructions (in Hebrew):

Imagine you have become very friendly with someone you didn't previously know and the person is in this room. Imagine talking with him or her. On the computer screen, you will see a series of statements that describe topics you might or might not be willing to discuss with this person. For each one, rate the extent to which you would be willing to do what is described. Please use the following scale: 1 = *not at all willing*, 5 = *very willing*.

Sample items include, "My deepest feelings" and "Things I have done that I feel guilty about." Each item appeared on the screen individually and participants provided a response by pressing a button on the computer's number pad. Previous research using this scale has yielded alpha coefficients ranging from .85 to .95 (e.g., Miller et al., 1983); in the present study, alpha was .94. We also computed an average response time, which had an alpha of .85.¹

Each SDI item was presented for 1,500 ms. Before seeing each one, a participant was rapidly exposed (foveally, for 22 ms) to a name designated by his or her experimental condition, followed by a letter-string mask (XXXXX) shown for 500 ms. The mask minimized conscious awareness of the primes by eliminating their afterimage on the fovea. The computer was a standard PC with a Pentium processor and a 15-in. monitor running a Windows-based experimental software program, SuperLab Pro, Version 2.0.

TABLE 1: Effects of Subliminal Priming on Willingness to Self-Disclose and the Tendency to Seek Support (Studies 1 and 2)

Measure	Subliminal Priming Conditions		
	Names of Attachment Figures	Names of Close Persons	Names of Acquaintances
Study 1			
Willingness to self-disclose			
<i>M</i>	3.68	2.89	2.92
<i>SD</i>	1.33	1.12	1.07
RTs for willingness-to-self-disclose ratings (in seconds)			
<i>M</i>	3.70	4.49	4.47
<i>SD</i>	1.34	1.38	1.44
Study 2			
Seeking instrumental support			
<i>M</i>	4.44	4.32	4.08
<i>SD</i>	0.98	0.74	0.82
Seeking emotional support			
<i>M</i>	4.41	4.09	3.84
<i>SD</i>	1.10	0.85	1.03

NOTE: RT = reaction time.

At the end of the task, participants were fully debriefed using Bargh and Chartrand's (2000) funneled debriefing technique. No participants reported awareness that names had been presented subliminally and none drew a connection between the experimental session and the pretest measure taken months earlier. Finally, no participant guessed that the flashes were intended to affect their ratings of the SDI items. Therefore, we believe we can safely conclude that effects of the primes on reaction times and ratings occurred outside of awareness.

Results

An ANOVA examining the effects of the subliminal priming manipulation on willingness to self-disclose revealed a significant main effect, $F(2, 69) = 3.49$, $p = .03$, $MSE = 1.40$. As shown in Table 1, in line with the first hypothesis (that the attachment-figure prime would increase the tendency to self-disclose), the subliminally presented name of an attachment figure, compared with the names of nonattachment figures, heightened the reported willingness to self-disclose. No significant difference was found between the two nonattachment-figure priming conditions (whose means were virtually identical). An ANOVA examining the effects of the subliminal priming manipulation on item response times revealed a marginally significant trend, $F(2, 69) = 2.92$, $p = .06$, $MSE = 1.96$. As can be seen in Table 1, and again compatible with our first hypothesis, priming with the

name of an attachment figure led participants to respond more quickly when rating their willingness to self-disclose, as compared with nonattachment-figure primes. There was again no significant difference between the means for the two nonattachment-figure prime conditions. The same pattern of significant results was obtained after controlling statistically for self-esteem, trait anxiety, and social desirability.

To examine our other hypotheses regarding the influence of chronic attachment style on goal activation, we centered attachment anxiety and attachment avoidance and computed two dummy variables: attachment-figure priming (a contrast comparing the attachment-figure prime, weighted 2, with the other two primes, both weighted -1) and close-person priming (a contrast comparing the close nonattachment-figure prime, 1, to the acquaintance prime, -1). We then computed a two-step hierarchical regression analysis. In the first step, we included attachment anxiety, attachment avoidance, attachment-figure priming, and close-person priming as the predictors. In the second step, we included the two-way interactions between each attachment score and each priming variable.²

Beyond the significant main effect for attachment-figure priming (see the regression coefficients in Table 2), the regression for willingness to self-disclose revealed a significant main effect of attachment avoidance (see Table 2). As predicted by our third hypothesis, attachment avoidance was associated with lower levels of willingness to self-disclose. There were no significant unique effects of attachment anxiety or close-person priming and no significant interactions. As predicted by our second hypothesis, the regression for reaction times revealed, in addition to the significant main effect for attachment-figure priming, a main effect for attachment anxiety (see Table 2), that is, both attachment-figure priming and attachment anxiety were associated with shorter reaction times when rating self-disclosure willingness, providing further support for our first and second predictions. There were no significant unique effects of attachment avoidance or close-person priming and no significant interactions. All of the same significant effects remained after controlling for self-esteem, trait anxiety, and social desirability.

Discussion

As expected, attachment-figure priming increased the tendency to self-disclose to a nonthreatening new friend and led to faster reaction times when deciding about self-disclosure, regardless of individual differences in attachment anxiety or avoidance. The faster response times may reflect decreased conflict about self-disclosing. Although attachment-style dimensions did not moderate

TABLE 2: Regression Coefficients for the Unique and Interactive Effects of Attachment Scores and Priming Variables on Willingness to Self-Disclose and the Tendency to Seek Support (as Predicted in Studies 1 and 2)

Effect	Study 1				Study 2			
	Willingness to Self-Disclose		RT for SDI Items		Seeking Instrumental Support		Seeking Emotional Support	
	b	β	b	β	b	β	B	β
Attachment anxiety	.04	.03	-.31	-.25*	.12	.13	.32	.32**
Attachment avoidance	-.52	-.44**	.07	.04	-.28	-.31**	-.40	-.39**
Attachment figure prime	.39	.45**	-.26	.26*	.08	.13	.14	.20*
Close person prime	-.08	-.05	-.04	-.02	.17	.15	.16	.13
Anxiety \times AFP	-.06	-.06	.03	.02	-.06	-.11	-.06	-.08
Avoidance \times AFP	-.06	-.07	-.01	-.01	-.21	-.33**	-.17	-.25*
Anxiety \times CPP	.14	.10	-.21	-.12	.14	.12	-.01	-.01
Avoidance \times CPP	-.01	-.01	-.28	-.16	.04	.04	-.02	-.02

NOTE: RT = reaction time; SDI = Self-Disclosure Index; AFP = Attachment Figure; Prime CPP = Close Person Prime.

* $p < .05$. ** $p < .01$.

the priming effects, they did independently affect self-disclosure scores. As expected, avoidance was related to lower willingness to self-disclose and anxiety was associated with shorter decision times regarding self-disclosure, suggesting less conflict about disclosing.

STUDY 2

The aim of Study 2 was once again to examine the effects of subliminal priming with the name of an attachment figure, but this time to examine the tendency to seek support in times of need. Seeking support is the primary strategy of the attachment behavioral system. Getting closer to an attachment figure can provide needed protection and support when a person is threatened. Therefore, we expected that subliminally exposing participants to the name of an attachment figure in an imagined time of need would result in greater willingness to seek help or support. However, as with willingness to self-disclose, seeking help is known to be affected by attachment style (e.g., Larose, Bernier, Soucy, & Duchesne, 1999; Vogel & Wei, 2005). We therefore expected to see momentary effects of priming with the name of an attachment figure as well as effects of attachment style on the tendency to seek help.

Help—and more specifically social support—has been conceptualized in terms of two dimensions (Cutrona, 1990). Instrumental support refers to services or resources such as help with daily tasks. Emotional support refers to comfort and caring, such as listening sympathetically to a person's problems. Although the two types of support are correlated (e.g., Brown, 1986), they are distinguishable and respond to two different kinds of need (e.g., Brookings & Bolton, 1988; Vaux, Reidel, & Stewart, 1987). We therefore measured both.

The two kinds of support seeking have different patterns of association with attachment style. Among insecure individuals, the more anxious ones do not generally seek instrumental support even when it is available, perhaps because of their preference for emotional support. Vogel and Wei (2005) found that attachment anxiety was related to seeking therapeutic help, a form of emotional support, whereas avoidance was related to reluctance to seek such help. Avoidant individuals generally seek support less than do secure individuals (e.g., DeFronzo, Panzarella, & Butler, 2001), but if they seek support at all, they tend to prefer instrumental over emotional support, perhaps because it does not require talking about emotional needs (Alonso-Arbiol, Shaver, & Yarnoz, 2002).

On the basis of both attachment theory and previous findings, we predicted that (a) subliminally exposing people to the name of an attachment figure would result in greater willingness to seek help (both emotional and instrumental), but this effect would be moderated by attachment style. In particular, (b) anxious individuals would be more inclined to seek support, especially emotional support, whereas (c) avoidant individuals would be less inclined to seek help, but if they did seek it, they would seek instrumental support rather than emotional support.

Method

Participants. Seventy-eight Israeli undergraduates (41 men, 37 women) participated in the study. Their ages ranged from 18 to 31, with a median of 22.

Materials and procedure. As in Study 1, a first session was conducted during regular class time. A second session, conducted individually with each participant, occurred 2 to 3 weeks later. In the first session, participants

completed the ECR (with alphas of .92 and .88, for anxiety and avoidance, respectively, and a nonsignificant correlation between these two subscales, $r = -.08$, *ns*) and the other self-report scales mentioned in Study 1 (Rosenberg's [1965] Self-Esteem Scale; the Marlowe-Crowne Social Desirability Scale [Crowne & Marlowe, 1960]; and Spielberger's [1983] Trait Anxiety Scale).

In the second session, participants completed the WHOTO questionnaire (described in Study 1), which identified a security-providing attachment figure. They also provided names of close individuals who were not designated as attachment figures on the WHOTO and indicated the names of acquaintances based on a pre-prepared list (as described in Study 1). From the lists of close persons and acquaintances, a computer program chose one of each to be used in the priming procedure.

After answering the questionnaires, participants completed a filler measure and then performed a computerized digit-addition task, during which the name of a security-providing attachment figure, a close nonattachment figure, or an acquaintance was subliminally presented as a prime (each participant was exposed to only one kind of name based on the experimental condition to which he or she was randomly assigned). The procedure was a modification of a standard parafoveal priming technique (e.g., Bargh & Pietromonaco, 1982). The modification required participants to tabulate a running sum of numbers presented in the middle of the screen to ensure that focal attention was maintained at that point, thus minimizing the drift of attention to peripheral locations where a prime was presented (Bargh & Chartrand, 2000; Fitzsimons & Bargh, 2003).

On each trial, an asterisk appeared in the center of the screen, followed by a randomly selected number between 1 and 13 that appeared in the center of the screen for a random period between 1,000 and 2,500 ms. During presentation of the number, the stimulus word and mask flashed at one of the four corners of the screen, randomly determined each time. Each flash consisted of a prime stimulus presented for 60 ms, immediately followed (masked) by a letter-string mask (XXXXX) for 60 ms. The flashes were presented in the participant's parafoveal processing region (to minimize conscious awareness), 7.6 cm from the central fixation point, in one of the four quadrants of the screen, at angles of 45°, 135°, 225°, and 315° from the fixation point. The computers were standard PCs with Pentium processors and 15-in. monitors running SuperLab Pro, Version 2.0. At three points, participants were asked to write down the total they had reached so far and then begin adding again. To eliminate the possibility that any participant happened to be looking at one of the parafoveal locations during a prime presentation (thus making the presentation foveal rather than parafoveal),

we excluded from the analyses any participant who did not compute the correct total on that third of the task.

Before the digit-addition task, participants were randomly divided into three experimental conditions according to the name to which they would be subliminally exposed: (a) attachment figure ($n = 26$), (b) close person ($n = 26$), and (c) acquaintance ($n = 26$). Immediately after the digit-addition task, participants completed paper-and-pencil questionnaires. Among them was a 10-item scale measuring the tendency to seek instrumental and emotional support in times of need (Florian, Mikulincer, & Bucholtz, 1995). Ratings were made on 6-point scales. Five items tapped the tendency to seek instrumental support ($\alpha = .84$) and five tapped the tendency to seek emotional support ($\alpha = .83$). Across all participants, the correlation between the two scales was $r = .34$, $p < .01$.

As in Study 1, at the end of the task, participants were fully debriefed using Bargh and Chartrand's (2000) funneled debriefing technique. None of them realized that names had been presented subliminally and none drew a connection between the experimental session and the pretest measure taken months earlier. Finally, no one guessed that the flashes were intended to affect their ratings of support seeking. Therefore, we believe we can safely conclude that the effects of the primes on reaction times and ratings occurred outside of awareness.

Results

ANOVAs examining the effects of the subliminal priming manipulation on the tendencies to seek instrumental and emotional support in times of need revealed no significant main effects for priming condition: $F(2, 75) = 1.12$, $p = .33$, $MSE = 0.79$, for instrumental support; $F(2, 75) = 2.12$, $p = .13$, $MSE = 0.99$, for emotional support. As shown in Table 1, although priming with the name of an attachment figure seemed to heighten the reported tendency to seek support, as compared with priming with the name of a close person or the name of an acquaintance, these group differences were not statistically significant. This same lack of a significant effect occurred after controlling for self-esteem, trait anxiety, and social desirability.

Two, two-step hierarchical regression analyses similar to the ones described in Study 1 were conducted, one predicting the tendency to seek instrumental support and the other predicting the tendency to seek emotional support (see Table 2 for regression coefficients from these analyses).

Instrumental support. The regression analysis for the tendency to seek instrumental support revealed, contrary to Hypothesis 3, a significant negative effect for attachment avoidance (see Table 2), indicating that

more avoidant participants were less likely to seek instrumental support. Also, contrary to Hypotheses 1 and 2, there were no unique effects of attachment-figure priming or chronic attachment anxiety (see Table 2).

There was a significant interaction between attachment-figure priming and avoidance, suggesting moderation of the effect of the prime on instrumental support seeking by avoidance (see Table 2). Examination of the significant interaction revealed that subliminal priming with the name of an attachment figure, as compared with the combination of the other two priming conditions, heightened the tendency to seek instrumental support among participants who scored low on avoidance ($\beta = .54$, $p = .0005$) but not among those who scored high ($\beta = -.11$, *ns*). These same effects were obtained when self-esteem, trait anxiety, and social desirability were statistically controlled. The interaction suggests that avoidant people's general reluctance to seek help is immune to the effects of being reminded of their attachment figure. No other interactions were significant.

Emotional support. Regarding the tendency to seek emotional support, the regression analysis revealed, as predicted in all three hypotheses, significant main effects for attachment-figure priming, attachment anxiety, and attachment avoidance (see Table 2). Although the effect of subliminal priming was not significant in the ANOVA, the contrast comparing the attachment-figure prime with the two other primes was significant: Priming with the name of an attachment figure heightened the tendency to seek emotional support. In addition, attachment anxiety was associated with a stronger tendency to seek emotional support, whereas attachment avoidance was associated with a lower tendency to seek emotional support. As expected, priming with the name of someone other than an attachment figure had no significant effect.

Again, there was an interaction between avoidance and attachment-figure priming (see Table 2), indicating that subliminal priming with the name of an attachment figure, as compared to priming with the name of a close nonattachment figure or the name of a mere acquaintance, heightened the tendency to seek emotional support only among participants who scored low on avoidance ($\beta = .57$, $p = .0003$) but not among those who scored high ($\beta = .01$, *ns*). Again, avoidant attachment seemed to block the effect of the attachment-figure prime. All of the obtained effects remained significant after controlling for self-esteem, trait anxiety, and social desirability. There were no other significant interactions.

Discussion

Whereas Study 1 demonstrated that priming with the name of an attachment figure increased the tendency to

self-disclose regardless of individual differences in chronic attachment anxiety and avoidance, Study 2 showed that such primes activated support-seeking goals (both instrumental and emotional) only among people who scored relatively low on avoidance. Study 2 provided further support for our hypothesis that priming mental representations of attachment figures leads to automatic activation of goals related to the attachment system, such as self-disclosure and seeking support. However, possibly because support seeking implies dependence or neediness, avoidant people seem to resist it. This result fits with previous findings indicating that avoidance is associated with reluctance to seek professional help when needed (Vogel & Wei, 2005).

The findings of Study 2 were especially clear with respect to seeking emotional support, which makes sense theoretically because attachment figures provide a psychological "safe haven" and "secure base" in times of need but (especially in adulthood) they are not necessarily relied on for instrumental support. In Study 2, attachment anxiety was associated with stronger seeking of emotional support and avoidance was associated with weaker support seeking. Avoidance affected both emotional and instrumental support seeking. Avoidant people seemed reluctant to seek help of any kind, and only people low on avoidance were affected by subliminal priming with the name of an attachment figure. These results are reminiscent of Ainsworth et al.'s (1978) original discovery that avoidant infants tended not to seek physical comfort and reassurance from their attachment figure (mother, in the case of Ainsworth's studies), even when the infants were distressed by their mother's absence for 3 minutes in the Strange Situation. The most avoidant infants actually turned away from their mother when she returned after a brief separation.

STUDY 3

While Studies 1 and 2 primed participants with the names of security-providing attachment figures, Study 3 investigated the effects of priming with the names of significant others with whom participants had felt relatively anxious, avoidant, or secure. In particular, Study 3 tested the hypothesis that priming with the names of attachment figures who had caused participants to feel either relatively secure, anxious, or avoidant would systematically affect the mental accessibility of goal words theoretically related to secure or insecure attachment styles. To test this hypothesis, we used a lexical decision task (Meyer & Schvaneveldt, 1971) to measure the mental accessibility of words related to particular goals. Participants were subliminally exposed to the names of the three relationship partners with whom they had felt

most secure, anxious, or avoidant. After each such subliminal prime, they responded to a string of letters (e.g., *cling*, *inclg*; *dismiss*, *msidsis*) by indicating whether the string was or was not a word. The target words were chosen based on attachment theory (e.g., Bowlby, 1969/1982; Mikulincer & Shaver, 2003) and previous research (e.g., Mikulincer et al., 2005) to apply to one attachment style more than another (see the appendix). We also asked a group of 10 graduate students who were well acquainted with attachment theory to rate each word on the degree to which its meaning is associated with secure, anxious, and avoidant attachment, and the means for the word groups shown in the appendix were all in the intended directions. Control words were chosen based on similar length, word frequency, and valence to provide a comparison with the attachment-related goal words.

We hypothesized that priming participants with the name of a relationship partner who had caused them to feel relatively anxious would yield faster RTs to interpersonal goal words related to attachment anxiety (words such as *cling* and *possess*). Similarly, we hypothesized that priming participants with the name of a relationship partner who had caused them to feel relatively secure would yield faster response times to goal words related to attachment security (e.g., *comfort* and *support*), and priming with the name of a partner who had caused them to feel relatively avoidant would yield faster response times to goal words related to avoidant attachment (e.g., *avoid* and *withdraw*).

Method

Participants. Forty New York University undergraduate students participated in the study, for which they were eligible if they had completed two questionnaires in a mass-testing session at the beginning of the semester—the ECR (Brennan et al., 1998) and a modified version of Baldwin et al.'s (1996) questionnaire asking for the names of relationship partners (significant others) with whom participants had felt either anxious, secure, or avoidant. There were 24 women and 16 men age 18 to 34 ($Mdn = 19$).

Materials and procedure. In a mass-testing session at the beginning of the semester, participants completed a questionnaire that provided three descriptions of relationships (Hazan & Shaver, 1987; see Baldwin et al., 1996, for a description of the procedure) and asked them to think of a relationship and a relationship partner that had made them feel most like each of the descriptions. Participants were then asked to provide the first name of each of these people. They also completed the ECR. In the present sample, Cronbach's alphas were high for both anxiety (.91) and avoidance

(.95). As in Studies 1 and 2, the two scales were not significantly correlated ($r = -.22$, *ns*).

Participants, who were run individually, were told that they would be doing a computerized task designed to create normed data representing the speed with which people respond to words and nonwords. They were told that the task would be short but repetitive and that it was important to stay focused even when responding to repeated words or nonwords. After this short set of instructions, the remaining instructions were given onscreen.

The lexical decision task began with a set of practice trials. Participants were asked to press the "F" key if a word was presented and the "J" key if a nonword was presented (half of the participants were asked to press the "F" key for nonwords and the "J" key for words) as quickly and accurately as possible. On each trial, the prime name appeared in the center of the screen for 15 ms, backward and forward masked by a string of Xs, each presented for 25 ms. After presentation of the prime, there was a blank screen for 500 ms and then the target word (e.g., *detach*) was presented until the participant responded. For the practice trials, no prime was presented.

There were 150 experimental trials, with each target word appearing three times. The presentation order of both prime and target words was randomized. The primes consisted of the three names participants provided during mass testing (the name of a person with whom they had felt secure, anxious, or avoidant—one name of each type). Target words consisted of 5 secure goal words, 5 anxious goal words, 5 avoidant goal words, 5 positive noninterpersonal words, 5 negative noninterpersonal words, and 25 nonwords generated through a slight modification of familiar English words (e.g., *listened* was transformed into *lisrened*). The design was completely within-subject: All participants were subliminally exposed to names of individuals who had caused them to feel anxious, avoidant, or secure, and all made lexical decision responses to words from secure, avoidant, and anxious goal types. After completing the task, participants completed a funneled debriefing questionnaire that probed for suspicion or awareness of the primes (Bargh & Chartrand, 2000). They were then fully debriefed and thanked for participating.

Results

Preliminary analyses. A mean reaction time was calculated for each of the prime-target sets by averaging across relevant trials for correct responses. Primes did not affect reaction times to nonwords or to positive and negative control words: A 3×3 repeated-measures ANOVA was performed on RTs to the three kinds of

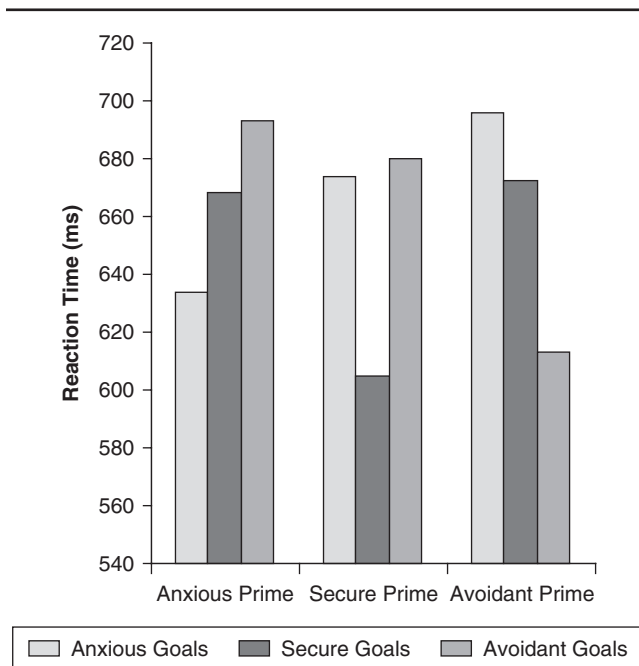


Figure 1 Reaction time means for deciding whether presented letter strings are words as a function of goal-word type (anxious, secure, and avoidant) and type of prime (anxious, secure, and avoidant).

nonattachment words. The type of prime (anxious relationship, avoidant relationship, secure relationship) and the target word type (positive, negative, nonword) were the within-subject factors, and word-identification time served as the dependent variable. A significant main effect of target word emerged, showing that participants recognized positive control words more quickly ($M = 566.80$) than negative control words ($M = 643.80$) or nonwords ($M = 713.56$), $F(1, 38) = 28.40$, $p < .001$. (All three means were significantly different from each other.) No other main effects or interactions were found (all F s < 1). We also conducted a repeated-measures ANCOVA, including dispositional attachment anxiety and avoidance (measured with the ECR) as covariates, and this yielded no significant effects. Because neither individual differences nor primes differentially affected RTs to the control words and nonwords, they were dropped from subsequent analyses. Analyses reported below include only the avoidant, secure, and anxious goal words.

Effects of prime and target type. To examine the effects of the type of prime (secure relationship, anxious relationship, avoidant relationship) and the type of target goal word (security-related goals, anxiety-related goals, and avoidance-related goals), a 3×3 repeated-measures ANOVA with prime and target type as the within-subject factors, and reaction time as the dependent variable,

was conducted. No main effects of prime type, $F(2, 78) < 1$, or target word type, $F(2, 78) = 1.14$, ns , were found.

As predicted, the interaction between type of target and type of prime was significant, $F(4, 176) = 7.13$, $p < .001$. As shown in Figure 1, after being exposed to a secure relationship prime (the name of a security-providing relationship partner), participants more quickly identified words related to secure attachment goals ($M = 604.79$) than words related to anxious attachment goals ($M = 674.03$), $F(1, 39) = 9.96$, $p < .01$, or avoidant attachment goals ($M = 679.67$), $F(1, 39) = 13.37$, $p < .001$. After receiving a secure relationship prime, participants did not differ in their reaction times to the avoidant and anxious goal words, $F < 1$.

Also as predicted, being exposed to an anxious relationship prime (the name of anxiety-provoking attachment figure) led participants to respond significantly faster to words related to anxious attachment goals ($M = 633.50$) than to words related to avoidant attachment goals ($M = 692.86$), $F(1, 39) = 8.13$, $p < .01$, and marginally faster than to words related to secure attachment goals ($M = 668.25$), $F(1, 39) = 2.87$, $p < .10$. No significant difference was found between RTs to avoidance- and security-related goal words following exposure to an anxious relationship prime, $F < 1$. Finally, as predicted, after being primed with the name of an avoidance-inducing relationship partner, participants responded significantly faster to avoidant goals ($M = 613.30$) than to anxious goals ($M = 695.92$), $F(1, 39) = 9.97$, $p < .01$, and secure goals ($M = 672.05$), $F(1, 39) = 4.85$, $p < .05$. No difference was found in reaction times to security- and anxiety-related goal words following exposure to an avoidant relationship prime, $F < 1$.

Effects of the two dispositional attachment-style dimensions. Although the effects of attachment style on RTs were not the main concern of Study 3, it seemed possible that attachment style would affect participants' responses, so we conducted a secondary analysis. Because there was insufficient statistical power for hierarchical linear modeling (which might otherwise have been the ideal analysis strategy), we conducted a series of nine exploratory regression analyses. Seven of the nine analyses revealed no significant effects of attachment-style dimensions. The other two yielded interesting results but should be interpreted with caution pending subsequent replications.

The two regression analyses were conducted on the mean RTs for each of the target word types (secure, anxious, and avoidant) when primed by each of the relationship prime types (secure, anxious, avoidant). In the first step of each regression analysis, for example, when considering anxious goal words presented after a participant's exposure to an anxious relationship prime, two control variables were entered: the mean RTs for the other two kinds of goal words presented

after the same prime. (In the example just mentioned, these were the mean RTs for avoidant and secure target words presented after exposure to the anxious relationship prime.) This control procedure was used to remove the effects of individual differences in general response speed to goal words.

In the second step of each regression analysis, the two attachment-style scores (anxiety and avoidance) were centered around their respective means and then entered as predictors to examine their main effects on the RTs for identifying target goal words of the particular type under investigation in the analysis. In the third step, the two-way interaction between anxiety and avoidance (i.e., the product term) was entered.

The regressions conducted on the RTs to anxious goal words following a secure relationship prime revealed a significant main effect of chronic attachment anxiety ($\beta = .27$), $t(4, 34) = 2.04$, $p < .05$. (Similar results were obtained when the RTs for recognizing the same word following the other two types of primes were entered as covariates.) Anxious people took longer to respond to anxious goal words after being exposed to secure primes, suggesting that the secure prime lowered anxious people's quick identification of anxiety-related words. No other main effects or interactions were obtained.

The regressions conducted on secure goal words following a secure relationship prime revealed a significant two-way interaction between attachment anxiety and attachment avoidance ($\beta = -.29$), $t(5, 33) = 2.04$, $p < .05$. No other main effects or interactions were significant in this analysis. To examine the source of the two-way interaction between attachment anxiety and avoidance on RTs to secure goal words following secure primes, we followed Aiken and West's (1991) recommendations and calculated two regression lines for RTs to secure goal words: one representing the relationship between attachment avoidance and RTs when attachment anxiety was 1 *SD* above the mean and the other representing the same relationship when attachment anxiety was 1 *SD* below the mean. The slope of the line was significantly positive when attachment anxiety was 1 *SD* below the mean ($b = .34$), $t(18) = 2.07$, $p < .05$, but not when anxiety was 1 *SD* above the mean ($b = -.23$), $t(17) = -1.04$, *ns*, in which case the sign of the association changed from positive to negative. These effects indicate that people high on avoidance and low on anxiety (the ones called "dismissing" or dismissingly avoidant, in Bartholomew & Horowitz's [1991] attachment-style typology) were slower to identify secure words after being exposed to a secure prime, whereas those who were high on avoidance and high on anxiety (the ones called "fearful" or fearfully avoidant, in Bartholomew & Horowitz's typology) were quicker to identify secure words after being primed with a secure relationship partner's name.

One possible interpretation of these results is that dismissing individuals are defensive about being tempted to think about relying on a security-providing attachment figure, whereas fearful individuals are open to having a security-providing relationship partner if they can find one. The measure of dismissing avoidance used by Bartholomew and Horowitz emphasizes being "independent and self-sufficient," whereas the measure of fearful avoidance refers specifically to "want[ing] emotionally close relationships, but [finding] it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others." As mentioned, however, this effect should be regarded as tentative until it is extensively replicated.

Discussion

The findings of Study 3 support our hypothesis that goals are components or close associates of mental representations of attachment figures and that the goals become automatically activated when the corresponding attachment representations are brought to mind, even unconsciously. Subliminally priming people with the first name of a relationship partner who had caused them to feel relatively secure, anxious, or avoidant systematically affected the accessibility of attachment-related goal words associated with secure, anxious, or avoidant attachment. These findings extend Fitzsimons and Bargh's (2003) notion that people can encode not only person-specific goals but also goals related to particular kinds of relationships or feelings within particular kinds of relationships.

The effects of the secure relationship prime were modified by attachment style. The higher a person's level of attachment anxiety (regardless of the person's level of avoidance), the longer he or she took to identify anxious goal words after being exposed to a secure relationship prime. It is possible that for anxious people, the combination of a secure relationship prime and anxious goal words resulted in more ambivalence, which in turn led to longer RTs to the anxious goal words. Among avoidant individuals who were also low on anxiety (referred to as "dismissing" in Bartholomew & Horowitz's typology), identifying secure goal words after being exposed to a secure relationship prime resulted in longer reaction times, perhaps suggesting that highly avoidant people are actively resistant to, or thrown into conflict by, the effects of the secure relationship prime. Being both avoidant and anxious seems to remove this conflict or inhibition: Participants high on both avoidance and anxiety were relatively quick to identify secure words as words after being subliminally primed with the name of a security-providing attachment figure. This result deserves attention in future studies.

Prime awareness. As in Studies 1 and 2, participants were fully debriefed using Bargh and Chartrand's (2000) funneled debriefing technique. No participants reported awareness that names had been presented subliminally, and none drew a connection between the experimental session and the pretest measure taken months earlier. Finally, no participant guessed that the flashes were designed to affect their speed of recognizing different kinds of target words. Therefore, we believe we can safely conclude that effects of the primes on reaction times occurred outside of conscious awareness.

GENERAL DISCUSSION

The three studies reported here provide substantial support for the hypothesis that activating mental representations of attachment figures also would activate the goals of closeness and support seeking. As predicted, subliminally priming people with the first name of a security-providing attachment figure heightened their willingness to self-disclose, their tendency to seek support, and their speed of identifying security-related goal words. In Study 3, being reminded unconsciously of one of two kinds of insecurity-inducing relationship partners increased people's speed in recognizing the corresponding kinds of insecure goal words in a lexical decision task. Moreover, the predicted experimental results were obtained both when dependent variables were measured explicitly, with questionnaires (in Studies 1 and 2), and when goal-activation was measured implicitly in a lexical decision task (Study 3).

All three studies also produced effects of individual differences in attachment style (i.e., differences on the attachment anxiety and avoidance dimensions assessed by the ECR). Specifically, although presenting the name of a security-providing attachment figure increased willingness to self-disclose regardless of scores on the anxiety and avoidance dimensions, avoidance was negatively related to willingness to self-disclose. Attachment anxiety, in contrast, was associated with shorter reaction times for answering the self-disclosure questionnaire items and with heightened support seeking (in Study 2), in line with previous studies (e.g., Mikulincer, Shaver, & Pereg, 2003).

Although the attachment scores did not moderate the effects of security priming on goal activation in Study 1, in Study 2, avoidance did moderate the association between security priming and willingness to seek support. The security prime affected only participants who were relatively low on avoidance, replicating previous studies indicating that avoidant people are reluctant to seek help even when situational factors suggest that help is available. Attachment avoidance and anxiety also moderated the relation between security priming and

response times to secure and anxious goal words (in Study 3). Avoidance slowed responses to secure goal words following exposure to a secure prime, and anxiety slowed responses to anxiety-related goal words following exposure to a secure prime.

Finally, as predicted in Study 3, activation of mental representations of specific security- or insecurity-inducing relationship partners (i.e., partners who caused participants to feel relatively secure, anxious, or avoidant) resulted in higher activation of corresponding relationship-specific goal words (e.g., anxious goal words were activated by priming with the name of a relationship partner who had caused the participant to feel relatively anxious). These findings fit with previous evidence that although most people have a single general attachment style, they also have had memorable experiences during which they had feelings characteristic of a different style (e.g., feeling anxious despite being generally secure, feeling secure despite being generally avoidant).

As Baldwin et al. (1996; also Maio, Fincham, & Lycett, 2000) suggested, although most people have memories and perhaps even relational schemas corresponding to different attachment orientations, the relative availability and accessibility of this knowledge at a given moment determines how people are likely to think about relationships or be motivated to act. This idea fits well with Andersen's extensive research on transference (e.g., Andersen & Baum, 1994), which shows that activation of mental representations of a previous relationship partner affects attitudes, emotions, and behavior toward a new potential relationship partner.

One limitation of Studies 1 and 2 is that we were unable to investigate fully whether the effects we obtained resulted, as intended, from activation of specific goals or, instead, might have occurred because we increased participants' sense of security. Both the willingness to self-disclose and the tendency to seek support could be interpreted in terms of lowered defensiveness, caused by feeling safer and less threatened. (This is the way Mikulincer & Shaver, 2001, for example, interpreted the effects of security priming on tolerance for out-group members.) Study 3 is not subject to the same alternative interpretation, however, because in that case the activation of goal words was specific to particular attachment representations, some of which were associated with particular kinds of insecurity-inducing partners. However, in Study 3, the results might reflect semantic associations between mental representations of particular relationship partners and particular goal words (e.g., thinking of anxiety-inducing partners might have made anxiety-related goal words more available in the lexical decision task) and thus may not indicate that these goals are active enough to guide complex social behaviors. Thus, although the results of

all three experiments are compatible with our theoretical reasoning, future studies should include direct measures of goal-directed behavior.

Future studies also should focus on ways to distinguish between goals and habitual behavior patterns, both of which might be affected by attachment-system activation. Many previous studies have convincingly supported the existence of automatic goal activation (e.g., Bargh et al., 2001). Here, we interpreted our results in terms of goals that underlie a range of goal-related behaviors, partly because attachment theory itself is a theory about what Bowlby (1969/1982) called goal-directed and “goal-corrected” behavior patterns (i.e., an infant can achieve proximity to a parent by crying, crawling, pleading, calling, or clinging, and whichever of these behaviors works in a particular situation is sufficient to achieve the goal). Our dependent variables were diverse: willingness to self-disclose, tendency to seek emotional and instrumental support, and reaction times to identify goal-related words. Although it might be possible to interpret these results in terms of automatically activated specific behaviors, it seems more reasonable to interpret them in terms of goals whose effects are fairly general and that lead to particular behaviors in interaction with response options made available by particular situations.

Despite these limitations and the need for further research, the studies reported here strongly suggest that attachment representations, or working models, are associated with particular goal constructs, which may be related to activation of goal-directed attachment behavior. This work integrates the evolving literature on automatic goal activation (e.g., Bargh et al., 2001) with the empirical literature testing attachment theory (reviewed by Mikulincer & Shaver, 2003). It also indicates that attachment-related goal constructs are mentally activated by a combination of situational forces and chronic individual differences in attachment style. The interaction of the two different kinds of forces is well worth understanding because it is likely to occur often in real life, including in circumstances that lead to personal and relational difficulties. By understanding how mental and social contexts interact with individual differences in attachment history and attachment style, we will be better able to guide relationships in constructive directions and assist people who wish to move away from insecurity and toward security in their close relationships.

APPENDIX
Word List

Anxious targets

Plead
Possess
Cling

Demand
Merge

Avoidant targets

Avoid
Distance
Dismiss
Withdraw
Detach

Secure targets

Comfort
Entrust
Support
Explore
Rely

NOTES

1. Because it seemed possible that the two indexes, Self-Disclosure Index (SDI) and reaction times (RT), might be related, we computed a correlation between the two: $r = .04$, ns . SDI scores also might have been related to RTs in a curvilinear manner if high and low SDI scores (perhaps indicating easier judgments) were associated with lower RTs. We therefore computed correlations between the quadratic component of SDI (SDI^2) and the RT means and still found no significant correlations (ns of $-.11$ and $-.06$ before and after controlling for the linear component of SDI). Thus, there was neither a linear nor a curvilinear association between SDI and RT.

2. In Studies 1 and 2, we also conducted three-step hierarchical regressions examining the interaction between attachment anxiety and avoidance and the three-way interactions between the two attachment scores and each priming variable. Because none of these interactions were significant, we report only the two-step hierarchical regressions examining main effects of attachment scores and priming variables and two-way interactions between these variables.

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Received November 14, 2005

Revision accepted April 14, 2006