Approach and Avoidance Social Motives and Goals

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ABSTRACT It was predicted that approach social motives and goals would be linked to outcomes characterized by the presence of positive social features, and avoidance social motives and goals would be linked to outcomes characterized by the presence of negative social features and that the link between approach motives and outcomes would be mediated by different processes than the link between avoidance motives and outcomes. These hypotheses were examined in three studies (two of them longitudinal) that measured participants' dispositional social motives, short-term social goals, and social outcomes (e.g., loneliness). Approach motives and goals were reliably associated with less loneliness and more satisfaction with social bonds, whereas avoidance motives and goals were reliably associated with more loneliness, negative social attitudes, and relationship insecurity. Results also suggested that these associations were mediated by different processes. Implications for the conceptualization of close relationships along these two dimensions are discussed.

Across the lifespan, human beings are motivated to form and maintain strong and stable interpersonal relationships (for reviews see Baumeister & Leary, 1995, and Reis, Collins, & Berscheid, 2000). Indeed, people routinely list successful interpersonal relationships among their most important life goals (e.g., Emmons, 1999) and as

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what gives their life meaning (Klinger, 1977). Moreover, many theories of psychological well-being assert that successfully fulfilling belongingness goals through healthy social ties with others are integral components of health and well-being (e.g., Deci & Ryan, 1985; Ryff, 1995), and empirical evidence supports this link. Those who do not place relatedness needs in their top tier of life goals have poorer outcomes (Kasser & Ryan, 1996), and poor social integration is a risk factor for mortality at a level paralleling the risk of smoking (House, Landis, & Umberson, 1988).

Despite the wealth of evidence that humans have a basic motivation to belong, little work has investigated the motivational processes involved in establishing and keeping social bonds. These processes are to a great extent determined by the focus of social motives and goals. Social motives and goals can be focused on a rewarding, desired end-state (approach); or social motives and goals can be focused on a punishing, undesired end-state (avoidance). In this article, the processes and outcomes associated with approach and avoidance social motives and goals are examined in two short-term longitudinal studies and one cross-sectional study.

Appetitive and Aversive Motivation

Viewing motives to move toward desired end-states (appetitive/approach) and motives to avoid undesired end-states (aversive/avoidance) as independent and distinct motivations has a long and prolific history (e.g., Atkinson, 1958; Higgins, 1998; Lewin, 1935; Miller, 1959; Pavlov, 1927; Schneirla, 1959), as well as current support from theories of motivation and behavioral self-regulation. For example, (Gray, 1987, 1990; Fowles, 1994) posits independent appetitive and aversive motivational systems, referred to as the Behavioral Activation System (BAS) and the Behavioral Inhibition System (BIS). The appetitive/approach system (BAS) activates behavior in response to signals of reward, whereas the aversive/avoidance system (BIS) inhibits behavior in response to signals of punishment and novelty. Higgins' (1998) theory of regulatory focus also distinguishes between two independent forms of self-regulation, one focused on the promotion (attainment) of positive end-states, the other focused on the prevention of negative end-states. In a similar manner, Carver and Scheier's (1990) model of self-regulation posits that some feedback processes are aimed at reducing the discrepancy between input from

the environment and the individual's internal reference (called discrepancy reducing), whereas other feedback processes are aimed at enlarging this discrepancy (called discrepancy enlarging). Carver (1996) has likened these two systems to approach and avoidance processes, respectively. Elliot has also distinguished between approach and avoidance goals, examining these forms of self-regulation in terms of domain-general personal strivings (Elliot & Sheldon, 1998) and in the specific domain of academic achievement (Elliot & Church, 1997).

Approach and avoidance motivational systems are also hypothesized to be relatively independent (e.g., Gray, 1987). Carver (1996) noted, "Although these two tendencies (approach and avoidance) are often layered across each other in the topography of behavior, they are conceptually distinct from each other. Being distinct, they may be managed by different structures in the nervous system" (p. 320). Recent empirical evidence from neurophysiological investigations provides some support for separate structures. For example, Sutton and Davidson (1997) found that Gray's BIS and BAS constructs predicted different components of resting prefrontal asymmetry as measured with electroencephalographic (EEG) technology. Specifically, subjects with higher BAS showed more relative left prefrontal activation, whereas those with higher BIS scores showed greater relative right prefrontal activation. Similarly, laboratory examinations of neural activity changes as recorded by the EEG have shown that anticipation of a reward corresponds with left frontal activation, and anticipation of punishment is associated with right frontal activation (Sobotka, Davidson, & Senulis, 1992).

The relative independence of the two systems also implies that each may operate through different processes. Gable, Reis, and Elliot (2000) found support for this idea in a study on motivational dispositions and reactions to daily events. In three studies Gable and colleagues (2000) operationalized the appetitive dimension in terms of Gray's Behavioral Activation System (BAS) and the aversive dimension in terms of Gray's Behavioral Inhibition System (BIS; Carver & White, 1994). As predicted, they found that high BIS sensitivity was associated with more daily negative affect (NA), and high BAS sensitivity was predictive of increased daily positive affect (PA). However, the relationship between BAS and PA was explained by a differential exposure process, and the relationship between BIS and NA was explained by a differential sensitivity hypothesis. People

with more sensitive BAS experienced more daily PA because they experienced more frequent positive events (differential exposure), and people with more sensitive BIS did not report experiencing more frequent negative events, although they reacted more strongly to the occurrence of negative events (differential reactivity). Examination of the distinct processes mediating the relationship between motives and outcomes advances our understanding of the underlying systems.

The distinction between approach and avoidance motives and goals has implications for understanding behavior, health, and well-being (e.g., Derryberry & Reed, 1994; Elliot & Sheldon, 1998; Higgins, Shah, & Friedman, 1997). For example, in terms of basic perceptual attention, Derryberry and Reed (1994) found that individuals with strong appetitive motivation were biased toward positive cues (i.e., cues indicating gain) and those with strong aversive motivation were biased toward negative cues (i.e., cues indicating loss) during a basic visual target detection task. In terms of emotional experience, Higgins and colleagues (1997) have shown that promotion-focused goals produce cheerfulness-dejection responses and prevention-focused goals produce quiescence-agitation responses. And in terms of health, Elliot and Sheldon (1998) found that avoidance personal goals were positively related to physical symptom reports, both prospectively and retrospectively. Very little of this research, however, has focused explicitly on social motives and goals. Given the near constant need to regulate social behavior, and the potential impact of individual differences in perspectives on social bonds (e.g., attachment), explicit examination of social motives and goals is overdue.

Social Motives and Goals

Early work on social motivation defined the need for affiliation as motives stemming from insecurity, rejection, and social isolation (Atkinson, Heyns, & Veroff, 1954; DeCharms, 1957; Shipley & Veroff, 1952). Interesting but apparently contradictory results emerged from this early work; for example, need for affiliation was negatively correlated with popularity and positively correlated with observers' ratings of approval-seeking behavior and self-confidence (Atkinson et al., 1954). Later, the distinction between approach and avoidance social regulation emerged (Mehrabian, 1976; see also Boyatzis,

1973). Two types of social motives—need for affiliation and fear of rejection—were posited, based on expectations of positive and negative reinforcers in interpersonal relationships, respectively (Mehrabian & Ksionzky, 1974; Russell & Mehrabian, 1978). This line of work showed that people high in need for affiliation elicited more positive affect from others and were more self-confident, whereas those high on fear of rejection were judged more negatively by others and were less confident. More recent work by Downey and her colleagues (Downey, Freitas, Michaelis, & Khouri, 1998) has focused exclusively on the construct of rejection sensitivity, defined as the disposition to anxiously expect and intensely react to rejection by significant others. High rejection sensitivity is associated with negative behavior and hostility following rejection in women and incidents of violence in dating relationship in men (Ayduk, Downey, Testa, Yen, & Shoda, 1999; Downey, Feldman, & Ayduk, 2000).

Although previous research has been informative, several large gaps remain. First, despite the exceptions described above, earlier work has consistently failed to distinguish approach social motivation from avoidance social motivation. It is clear from research examining both general motivation (e.g., Gray, Higgins) and achievement motivation (e.g., Elliot) that motives and goals focused on obtaining desired outcomes are independent of those focused on avoiding negative outcomes. Also, in many early studies of affiliation motivation, the outcomes examined were often not socially relevant outcomes, but rather achievement outcomes such as performance in a work group. These studies also mostly examined superficial relationships created in the experimental setting, presumably not the types of social bonds closely related to well-being and health. Thus, little is known about how approach and avoidance social motives differentially influence interpersonal outcomes such as loneliness, social anxiety, feelings of social support, and emotional well-being in the context of ongoing social relationships, which inherently entail both desirable (e.g., love) and undesirable (e.g., conflict) elements. Moreover, recent research across myriad domains such as work on affect, attitudes, and marital satisfaction has suggested that appetitive and aversive features are not merely opposite ends of single dimension but rather are separate dimensions (see Gable, Reis, & Elliot, 2003; Cacioppo, Gardner, & Berntson, 1997; and Fincham & Linfield, 1997,respectively). Social motivation has also been largely viewed from a dispositional perspective or relatively stable across

time. That is, the assumption has been that, all other things being equal, the strength of social motivation is an individual difference. In the present research both social motives and goals were examined, as several researchers have shown the utility of distinguishing motives from goals (e.g., Brunstein, 1993; Cantor, 1994; Elliot, 1997; Emmons, 1986). Motives are the underlying wishes and desires that people possess and are often viewed as dispositional in nature, whereas goals (also called strivings and life tasks) are short-term cognitive constructs representing areas in life toward which a person currently directs his or her energies. Very little work examines short-term, cognitively accessible goals that people may adopt regarding their social lives or specific relationships, and the present research will examine both distal motivation and proximal goals.

Finally, much of the work explicitly examining social motivation has looked only at social motives that emphasize the formation, but not the maintenance, of social bonds (e.g., affiliation motivation). One exception was McAdams' research (1982) that also examined intimacy motivation, which is a social bond-maintenance motive. He found that intimacy motivation (and not affiliation motivation) predicted self-disclosure among friends, listening behavior, and concern for friends' well-being (McAdams, Healy, & Krause, 1984). Another exception stems from Sanderson and Cantor's (1997, 2001) work on intimacy goals and relationship satisfaction, which has shown that people with a strong focus on intimacy goals tend to experience more relationship satisfaction. These two lines of research highlight the importance of examining social goals aimed at both the formation and maintenance of social ties. Moreover, the maintenance of close relationships is likely to involve multiple goals simultaneously, such as sharing fun experiences, building a family, not being betrayed, and minimizing conflict, Understanding the approach–avoidance distinction among these goals offers a rich theoretical roadmap for understanding their role in relationship processes.

An Approach–Avoidance Model of Social Motivation: Predictions and Implications

The present research examined the need to form and maintain social relationships from an approach–avoidance motivational perspective. The theory guiding this work is shown in Figure 1. The influence of dispositional individual differences (i.e., social motives) and short-

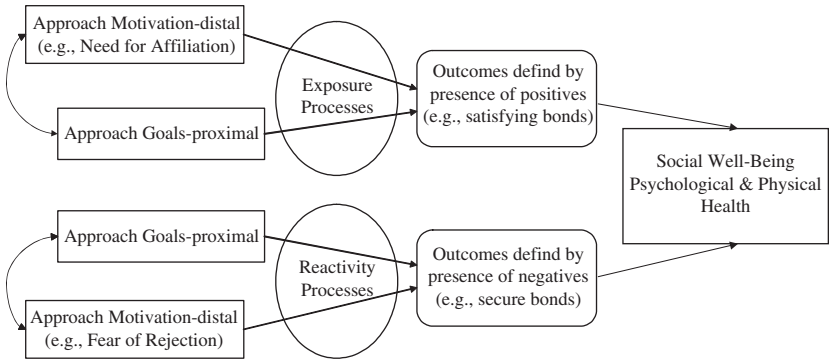

Figure 1
The proposed model of approach and avoidance social motives and goals.

term strivings (i.e., social goals) on behaviors and outcomes are simultaneously addressed. It is anticipated that dispositional approach social motives are likely to predispose people to adopt short-term approach social goals, and dispositional avoidance social motives are likely to predispose people to adopt avoidance social goals. For example, on a first date, a person who has strong appetitive social motives will be more likely to adopt approach goals, such as "I want to have a great time and make a good impression," whereas someone who has strong aversive motives will be more likely to adopt avoidance goals, such as "I don't want to be bored or make a fool of myself."

In addition, the two types of motives and goals will predict different social outcomes. Approach social motives and approach goals will be associated with outcomes defined by the presence of rewarding social bonds, such as affiliation and intimacy. Thus, to someone who is predominantly approach oriented, pleasing interactions and relationships are defined as those which provide such rewards as companionship, understanding, and fun; painful relationships are those that fail to provide these rewards. Aversive social motives and avoidance goals will be associated with outcomes defined by the presence of punishing social bonds, such as rejection and conflict. Thus, to someone who is predominantly aversively oriented, pleasing interactions and relationships are defined as those that lack uncertainty, disagreements, and anxiety; painful relationships are those that possess these negative qualities. The social outcomes (affiliation,

intimacy, rejection, and conflict) in turn, are predicted to contribute to personal well-being and health.

More specifically, in the three studies reported in the current article, dispositional social motivation (operationalized here as need for affiliation and fear of rejection, (current social goals, and baseline assessments of social outcomes (loneliness, attitudes toward social bonds, insecurity, and satisfaction with social life) were assessed at Time 1. At Time 2, social outcomes were reassessed in Studies 1 and 2. Given the hypotheses outlined above, it was important to differentiate social outcomes defined by the presence of positives from those defined by the absence of negatives. It was predicted that satisfaction with one's social life and positive attitudes toward social bonds were primarily appetitive social outcomes, whereas security and negative attitudes toward social bonds were primarily aversive outcomes. Moreover, it was predicted that loneliness would be a function of both a lack of positive relationships and the presence of negative relationships. It thus was predicted to be both an appetitive and aversive social outcome because loneliness has been defined as a discrepancy between actual and desired social relationships (Perlman & Peplau, 1981).

Finally, two possible mediating processes will be explored. It is hypothesized that an exposure process will primarily mediate the relationship between appetitive motivation and social outcomes, such that strong appetitive motives and approach goals will be associated with an increased frequency of positive social events. That is, people with strong appetitive motives will be more likely to seek out positive social interactions, creating social opportunities and taking advantage of potentially rewarding social situations. People who do not have strong appetitive motives will be less likely to create positive interactions and less apt to recognize potentially rewarding social situations. On the other hand, the relationship between aversive motivation and outcomes is hypothesized to occur primarily through a reactivity process, such that strong aversive motives and avoidance goals will lead to stronger reactions to negative social events when they do occur. That is, people with strong aversive goals define social success (or failure) by the absence (or presence) of negative social outcomes, such as conflict.

In an attempt to present the model more clearly, I have referred to people who have appetitive motives as separate from those who have aversive motives. However, it is hypothesized that these motives are

independent, such that individuals with strong appetitive social motives do not necessarily possess weak aversive motives, and vice versa.

STUDY 1

Method

Participants and Procedure

Participants at Time 1 were 155 undergraduates (41 males and 114 females) at a private university in upstate New York. At Time 1 they completed a battery of assessments designed to measure approach and avoidance social motives, and baseline levels of the quality of social bonds. Then, at Time 2 (approximately 8 weeks later), 132 participants (32 males and 100 females) returned to complete a subset of questionnaires from Time 1, including the measures of the quality of their social bonds. Participants also answered a social events checklist designed to measure the frequency and importance of positive and negative social events experienced in the past week.

Measures: Motives

Approach and avoidance social motivation. Individual differences in approach and avoidance social motivation were measured with two methods. A semiprojective measure called the Multi-Motive Grid (MMG) technique developed by Schmalt (1999) was used to measure fear of rejection and hope for affiliation. The MMG contains 14 TAT-type ambiguous pictures, followed by a series of statements about the picture used to measure hAff and fRej. Participants indicated whether the statement described the way they would think or feel in the situation depicted in the picture. Previous research has established good internal and test-retest reliability of the MMG and provided evidence of external validity (Sokolowski, Schmalt, Langens, & Puca, 2000). Example statements are "Feeling good about meeting other people" and "Being afraid of being rejected by others." Twelve statements comprise the hAff scale and 12 statements comprise the fRej scale. The MMG hAff and fRej scales were correlated $r = .12$, $p = .14$. In the present study, $\alpha = .70$ for the hAff scale and $\alpha = .73$ for the fRej scale.

Appetitive and aversive social motivation were also measured with traditional self-report measures. Appetitive social motivation was measured with Jackson's (1974) Need for Affiliation scale, which has 16 statements with a true–false response style. An example statement is "I choose hobbies that I can share with other people." Higher scores indicate more hope

for affiliation. Reliability of the Need for Affiliation scale in the present study was $\alpha = .84$. Aversive social motivation was measured with Mehrabian's (1976) Fear of Rejection scale. This scale contains 25 items, and uses a 1–7 response scale. Reliability was $\alpha = .77$ in the present study. An example statement is "I would be very hurt if a close friend contradicted me in public." Higher scores indicated more fear of rejection. Need for Affiliation and Fear of Rejection were negatively correlated, $-.38$, $p < .01$.

In accordance with the expectation that the semiprojective and the self-report measures both assess approach and avoidance motivation (see Thrash & Elliot, 2002), the MMG fRej scale was positively correlated with the self-report Fear of Rejection scale ($r = .45$, $p < .01$). The MMG hAff scale was also positively correlated with the self-report Hope for Affiliation scale ($r = .17$, $p < .05$). The correlation between the MMG fRej and the self-report Hope for Affiliation was $r = .19$, $p < .05$ and the correlation between the MMG hAff and the self-report Fear of Rejection was $r = .02$, $p > .80$.

It was expected that the two measures of the hope for affiliation would be more strongly correlated and that the MMG fRej and self-report Hope for Affiliation measures would be less strongly correlated. To test the assumption that the four scales represented two factors (approach and avoidance social motivation), a confirmatory factor analysis was conducted in which the MMG fRej scale and the self-report Fear of Rejection scale were indicators of a latent avoidance factor and the MMG hAff scale and the self-report Hope for Affiliation scale were indicators of a latent approach factor. The results of this analyses indicated that this two-factor model fit the data well: $\chi^2_{(3)} = 4.2$, $p = .24$, GFI = .99, CFI = .98, RMSEA = .05.

One score representing participants' hope for affiliation was computed by combining standardized MMG hAff and self-report Hope for Affiliation scores, and one score representing participants' fear of rejection was computed by combining standardized MMG fRej and self-report Fear of Rejection scores. The new combined hope for affiliation (HFA) and combined fear of rejection (FOR) scales were negatively correlated ($r = -.16$, $p < .05$). Also, the reliability for the combined scores was calculated with Nunnally's (1978, p. 249) formula for linear combinations. The reliability of the combined HFA scale was .79, and the reliability of the combined FOR scale was .80.

Measures: Social Goals

Social goals. At Time 1, participants were asked to generate six social goals; three concerning their romantic life and three concerning any other aspect of their social life. Goals were defined as "areas in your life in which you have been or are expecting to be directing your energies." The measure asked respondents to take some time to consider their goals and

use the provided piece of scratch paper for possible candidates. This type of protocol has been used previously by Emmons (1986). Participants were instructed that goals could be about past, present, or future relationships; that goals could be about things they were trying to change or maintain; and that goals could be about outcomes they'd like to accomplish or those they'd like to avoid. After participants generated six social goals, they were asked to rate how important each goal was to them on a 1–5 scale.

Coding goals for approach or avoidance. Goals were coded as either approach goals or avoidance goals by trained coders using a coding system developed by Elliot and colleagues (Elliot, 1997; Elliot & Sheldon, 1998). Approach goals were defined as goals focused on obtaining positive outcomes, while avoidance goals were defined as goals focused on avoiding negative outcomes. Examples of approach social goals generated by participants in the current study were "Spend more quality time with my girlfriend," "Fall in love," "Make some new friends," "Get along better with my mother"; and examples of avoidance goals were "To not be single," "Avoid a relationship with a girl who isn't perfect for me," "Fight less with my mom," and "Avoid people who are shallow, phony, and materialistic." Two coders rated every goal and coders agreed on 97% (Kappa = .89) of the goals. Discrepancies were resolved by the author.

It was desirable to create a measure of avoidance goal strength and a measure of approach goals strength. Therefore, participants' ratings of the importance of their approach goals (i.e., how important the participant rated that goal) were summed and divided by the number of approach goals. This score reflects the average importance of participants' approach goals (APPROACH). Participants' ratings of the importance of their avoidance goals were also summed and divided by the number of avoidance goals. This score reflects the average importance of participants' avoidance goals (AVOID). Fifty-two (33.5%) participants generated all approach goals and therefore had no avoidance goals. Therefore, an AVOID score could not be calculated for these participants. The participants without avoidance goals did not differ from those who listed at least one avoidance goals on any of the quality of social bonds measures at Time 1 or 2, nor on the HFA or FOR variables. The APPROACH ($m = 3.94$, $SD = 0.52$) and the AVOID ($m = 3.89$, $SD = 0.92$) scores were positively correlated, $r = .20$, $p < .05$.

Measures: Quality of Social Bonds

Loneliness. Feelings of loneliness were assessed with ten items of the UCLA Loneliness scale (Russell, Peplau, & Cutrona, 1980). Participants

indicated how often they felt this way during the past week, using a 5-point scale ranging from "Never" to "Very often." The ten items were the following: "I felt in tune with people around me," (reversed) "I lacked companionship," "I felt isolated from others," "I felt like I was part of a group of friends" (reversed), "I was an outgoing person" (reversed), "There was no one I could turn to," "I felt left out," "I could find companionship when I wanted it" (reversed), "I felt that no one really knows me well," and "My interests and ideas were not shared by those around me." Reliability of the loneliness scale (LONELY) at Time 1 was $\alpha = .82$ and at Time 2 $\alpha = .78$.

Relationship anxiety. Feelings of anxiety about interpersonal relationships were measured with 10 items adapted from the anxiety subscale in Brennan, Clark, and Shaver's (1998) self-report attachment style measure. The items were modified to reflect feelings about social relationships (as opposed to feelings only about a particular person) during the past week. Participants indicated how often they felt this way during the past week using a 5-point scale ranging from "Never" to "Very often." Sample items comprising the relationship anxiety scale were as follows: "I worried a lot about my relationships," "I often wished that my romantic partner's or friends' feelings for me were as strong as my feelings for them," "I needed a lot of reassurance from my friends or romantic partner." The interpersonal relationship anxiety (ANXIETY) scale's reliability at Time 1 was $\alpha = .87$ and Time 2 was $\alpha = .87$.

Satisfaction with social bonds. A satisfaction with social life scale was constructed, based on Diener's (1996) 5-item Satisfaction with Life scale. Participants responded to each item using a 5-point scale (*disagree* to *agree*) according to how they had felt during the preceding week. Sample items were: "During the past week, my social life was close to my ideal," "During the past week, I was able to get the important things that I wanted in my social life." The satisfaction with social life (SATISFACTION) was reliable at Time 1 $\alpha = .89$ and Time 2 $\alpha = .93$.

Attitudes toward social relationships. Positive and negative attitudes toward social relationships were measured with the positivity and negativity items from the Bivariate Evaluations and Ambivalence Measures (BEAMs form B; Cacioppo et al., 1997). The BEAMs consists of 16 words describing feelings toward an object. Participants indicated to what extent each of the words described how they felt and thought about their social relationships in general during the past week using a 5-point scale ranging from "Not at all" to "Extremely." The BEAMS provides two attitude subscales, a positive evaluation scale (BEAMpos) and a negative

evaluation scale (BEAMneg). Example BEAMpos items were "Positive," and "Attractive"; sample BEAMneg items were "Unfavorable," and "Punishing." The BEAMpos reliability at Time 1 was $\alpha = .92$ and Time 2 was $\alpha = .94$), and the BEAMneg was αs = .88 and .92, respectively.

Social Events

At Time 2 participants completed an events checklist consisting of eight positive social events and eight negative social events. They were asked to indicate how often (on a 0–4 scale; 0 = *did not occur*, 1 = *rarely*, *1–2 times*; 2 = *a few times, 3–4 times*; 3 = *several times, 5–6 times*; and 4 = *often, more than 6 times*) each event occurred during the past week and how important, on average, each event was if it did occur (0 = *did not occur, not applicable*; 1 = *not important*; 2 = *somewhat important*; 3 = *pretty important*; 4 = *extremely important*). Examples of positive events were "I went out socializing with friends/date (e.g. party, dinner, club)," "I laughed a lot when I was with my friends, family, or romantic partner," and "I did something special for a friend/steady date which was appreciated." Examples of negative events were "Others acted disinterested in something I said or did," "Something happened that made me feel awkward or embarrassed in public," "My friends were not available when I wanted to socialize." The majority of events included in this list have been used in previous daily diary research (Gable et al., 2000). From this list frequency scores for positive and negative events were calculated (POSFREQ, NEGFREQ, respectively). The two frequency measures were correlated $r = .10$, $p = .26$. In addition, ratings of the impact of events were created by dividing the importance ratings by the frequency of events. This was done separately for positive and negative events (POSIMPACT, NEGIMPACT). The two impact measures were correlated $r = .14$, $p = .10$.

Results

The full correlation matrix of predictor and outcome variables is presented in Appendix A. T-tests were conducted to test for gender differences. Females scored significantly higher on hope for affiliation than males did, $t_{(130)} = 2.3$, $p < .05$. However, males scored higher on loneliness (LONELY) Time 1 ($t_{(153)} = 2.9$, ps $< .01$) and Time 2 ($t_{(130)} = 3.1$, ps $< .01$) than women did. Men also scored lower than women on satisfaction with social life (SATISFACTION) at Time 1 ($t_{(153)} = 2.5$, ps $< .05$); and exhibited the same trend at Time 2 ($t_{(130)} = 1.5$, ps $< .13$). Finally, women scored higher

than men on positive attitudes toward social relationships (BEAM-pos) at Time 1 ($t_{(153)} = 2.6$, $ps < .05$) and at Time 2 ($t_{(129)} = 2.1$, $ps < .05$), and women scored lower than men on negative attitudes (BEAMneg) at Time 1 ($t_{(153)} = 2.6$, $ps < .05$) and at marginally lower than men at Time 2 ($t_{(129)} = 1.81$, $ps < .10$). Due to these gender differences in both the predictor and outcome variables, gender was controlled in all subsequent regression analyses. T-tests were also conducted to examine possible differences in the group who completed the Time 2 follow-up ($n = 132$) from those who did not ($n = 23$). No significant differences (or marginally significant differences) emerged between these two groups on any of the predictor variables or Time 1 outcomes variables (all $ps > .15$). In addition, a chi-square analysis showed that men and women were equally likely to participate in Time 2 data collection ($\chi^2 = 2.23$, $p = .14$).

Motives Predicting Concurrent Social Outcomes

To examine relationships among motives and the three outcome variables at Time 1, a series of hierarchical regression analyses was conducted in which gender, hope for affiliation (HFA) and fear of rejection (FOR) were entered simultaneously.[1] A summary of the results are presented in Table 1. The analyses showed that HFA was negatively associated with loneliness and positively associated with positive social attitudes and satisfaction (marginal). FOR was positively associated with loneliness, negative social attitudes, and anxiety about relationships and negatively related to satisfaction with social life. That is, people with strong hope for affiliation motives were less lonely, more satisfied with their social lives, and had more positive attitudes toward their social bonds at Time 1, and those with strong fear of rejection motives were lonelier, had more negative attitudes toward their social bonds, were more anxious about relationships, and were less satisfied with their social lives.

[1] Additional regression analyses were conducted in which the motive interaction term was entered in the final step of each regression equation. Two significant interactions emerged in the equations predicted Time 1 loneliness and Time 1 satisfaction with social life. In short, high fear of rejection was particularly detrimental (more loneliness, less satisfaction) for those also low on hope for affiliation. Another set of regression analyses tested the interaction of sex with motives; none of these interaction terms were significant.

Table 1
Summary of Hierarchical Regression Analyses for Motives Predicting Time 1 Outcomes Study 1

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT.
HFA	−.35**	.14†	.04	.24**	.02
FOR	.28**	−.26**	.40**	−.27**	.24**
Total R^2	.28**	.14**	.16**	.19**	.10**

Note: $n = 155$. † = $p < .10$, * = $p < .05$, ** = $p < .01$.
Both motives entered simultaneously. FOR = Fear of Rejection, HFA = Hope for Affiliation, LONELY = loneliness, SATISFACTION = satisfaction with social bonds, ANXIETY = anxiety about social bonds, POS-ATT = positive attitude toward social bonds, and NEG-ATT = negative attitude toward social bonds. To control for gender effects, sex of participant entered with the motives.

Motives Predicting Time 2 Outcomes

To determine the relationships among motives and change in social outcomes from Time 1 to Time 2, another series of hierarchical regression equations was conducted. In these equations, the Time 1 outcome and gender were entered in Step 1, and hope for affiliation (HFA) and fear of rejection (FOR) were entered in Step 2. A summary of the results is presented in Table 2. At Time 2, HFA predicted loneliness, positive attitudes, and satisfaction with social life, and FOR marginally predicted anxiety about social relationships and positive attitudes. That is, controlling for Time 1 loneliness, satisfaction, and anxiety, people with higher HFA scores were less lonely, more satisfied, and had more positive attitudes at Time 2, whereas those with higher FOR were marginally more anxious and less positive about their current social relationships.

Goals Predicting Concurrent Social Outcomes

To examine the relationships among approach and avoidance goals and the outcome variables at Time 1, a series of hierarchical regression analyses was conducted in which gender, approach goal importance (APPROACH), and avoidance goal importance

Table 2
Summary of Hierarchical Regression Analyses for Motives Predicting Time 2 Outcomes—Study 1

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT.
Step 1					
Time 1 Outcome	.63**	.26**	.30**	.50**	.31**
Step 2					
HFA	−.16*	.26**	−.04	.24**	−.10
FOR	.09	−.09	.17†	−.13†	.12
R^2 Δ at Step 2	.03*	.08**	.03	.08**	.03
Total R^2	.47**	.16**	.12**	.34**	.15**

Note: $n = 132$. † = $p < .10$, * = $p < .05$, ** = $p < .01$.
To control for gender effects, sex of participant was always entered in Step 1 with the Time 1 outcome.

(AVOIDANCE) were entered in one step. The 52 participants who did not list any avoidance goals could not be included in these analyses, so the analyses were based on the 103 participants who generated at least one avoidance goal. A summary of these results is presented in Table 3. Overall, goals accounted for less variance in Time 1 outcomes than motives did, as illustrated by the lower R^2 for each equation. More specifically, approach and avoidance goal importance did not predict satisfaction with social bonds, loneliness, or positive social attitudes. But, as expected, more important avoidance goals were associated with more relationships anxiety and more negative attitudes at Time 1.

Motives and Goals

The relationships among distal motives and the more proximal goals were also examined. As predicted, hope for affiliation (HFA) was positively correlated with approach goals importance, $r_{(155)} = .16$, $p < .05$, but uncorrelated with avoidance goal importance, $r_{(103)} = .11$, $p = .27$. Fear of rejection (FOR) was uncorrelated with approach goal importance, $r_{(155)} = -.002$, $p = .98$. However, con-

Table 3
Summary of Hierarchical Regression Analyses for Goals Predicting Time 1 Outcomes—Study 1

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT
APPROACH	− .07	.08	.08	− .02	.02
AVOIDANCE	.06	− .10	.21*	− .01	.19*
Total R^2	.12*	.11*	.13*	.06	.13*

Note: $n = 103$. $^{\dagger} = p < .10$, * $= p < .05$, ** $= p < .01$.
APPROACH = approach goal importance, and AVOIDANCE = avoidance goal importance. To control for gender effects, sex of participant entered with goals (Total R^2 includes gender effect).

trary to predictions, FOR was not significantly correlated with avoidance goal importance, $r_{(103)} = .10$, $p = .30$.

Goals Predicting Time 2 Outcomes

To determine the relationships among goals and Time 2 social outcomes, controlling for Time 1 outcomes, another series of hierarchical regression equations was conducted. Similar to the equations used for motives, the Time 1 outcome and gender were entered in Step 1; APPROACH and AVOIDANCE goal importance scores were entered in Step 2. Only participants who provided data at Time 2 and listed at least one avoidance goal at Time 1 could be included in these analyses (N = 90). A summary of the results is presented in Table 4. At Time 2, approach goal importance was significantly related to satisfaction with social life and loneliness and marginally related to positive and negative social attitudes. Specifically, more important approach goals at Time 1 were associated with increases in satisfaction and positive social attitudes and decreases in loneliness and negative social attitudes at Time 2. Avoidance goals predicted increases in anxiety and loneliness (marginally) and decreases in positive attitudes from Time 1 to Time 2. Thus, although goals were not strongly predictive of the concurrent outcomes (i.e., at Time 1), they were consistently predictive of changes in the outcomes over time in the theoretically hypothesized pattern.

Table 4
Summary of Hierarchical Regression Analyses for Goals Predicting Time 2 Outcomes—Study 1

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT
Step 1					
Time 1 Outcome	.54**	.27**	.19†	.45**	.29**
Step 2					
APPROACH	−.20*	.31**	−.16	.18†	−.18†
AVOIDANCE	.14†	−.09	.23*	−.23*	.12
R^2 Δ at Step 2	.05*	.09*	.06†	.07*	.04
Total R^2	.43**	.19**	.14*	.28**	.15**

Note: $n = 90$. † = $p < .10$, * = $p < .05$, ** = $p < .01$.
To control for gender effects, sex of participant was entered in Step 1.

Mediating Processes

It was hypothesized that an exposure process would primarily mediate the relationship between appetitive motivation/goals and social outcomes, whereas the relationship between aversive motivation/goals and outcomes was hypothesized to occur primarily through a reactivity process. To test the exposure hypothesis, regression analyses were conducted in which event frequencies were regressed onto HFA and FOR in one step, controlling for gender (i.e., whether the IV predicted the mediator). As predicted, HFA significantly predicted the frequency of positive events ($\beta = .33$, $p < .001$), and FOR was not significantly related to the frequency of positive events ($\beta = -.06$, $p > .40$.). Also as predicted, neither HFA nor FOR significantly predicted the frequency of negative events (βs $= -.09$ and .09, respectively, ps $> .29$.). These analyses indicate that high hope for affiliation was associated with more exposure to positive social events, but high fear of rejection was not associated with greater exposure to negative social events.

To test whether this increased exposure accounted for the relationship between HFA and Time 2 loneliness, satisfaction, and positive attitudes, a test of mediation was performed (Baron & Kenny, 1986;

MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Specifically, the equations predicting Time 2 LONELY, SATISFACTION, and BEAMpos presented in Table 2 were repeated (i.e., controlling for Time 1 outcome, FOR, and sex), and positive and negative event frequencies were entered in the last step. However, we first determined whether the mediator predicted the outcomes, controlling for HFA, FOR, sex, and negative event frequencies, which they did: the β's for positive event frequency and loneliness, satisfaction, and positive attitudes were $-.23$, .38, and .32, respectively, all ps $<.01$.

The direct effect of HFA on loneliness at Time 2 was $\beta = -.16$, $p<.05$, and this effect dropped to $\beta = -.11$, $p<.10$ when positive event frequency was added to the equation. The Sobel's test showed that the indirect path was significant, ($z = 2.18$, $p<.05$), which is evidence for partial mediation (approximately a 25% reduction in β). The direct effect of HFA on satisfaction with social life at Time 2 was $\beta = .26$, $p<.01$, and this effect dropped to $\beta = .13$, $p<.10$ when positive event frequency was added to the equation. Sobel's test showed that the indirect path was significantly different from zero ($z = 2.97$, $p<.01$)—evidence for partial mediation. Finally, the direct effect of HFA on positive attitudes toward social life at Time 2 was $\beta = .24$, $p<.01$, and this effect dropped to $\beta = .14$, $p<.05$ when positive event frequency was added to the equation. Sobel's test showed that the indirect path was significantly different from zero ($z = 2.5$, $p<.05$); again, evidence for partial mediation. In each step of the mediation tests, I also controlled for frequency of negative event occurrence.

To test the reactivity hypothesis, regression analyses were conducted in which event impact (importance/frequency) was regressed onto HFA and FOR in one step. As predicted, neither HFA or FOR significantly predicted the impact of positive events ($\beta = -.08$ and $\beta = -.03$, $p > .30$). More importantly, and also as predicted, FOR significantly predicted the impact of negative events (β's = 19, $p<.05$), and HFA did not predict the impact of negative events, $\beta = .11$, $p > .20$.). These analyses indicate that high fear of rejection was associated with greater reactivity to negative social events. Mediation analyses were not conducted because the direct effect of FOR on Time 2 relationship anxiety was only marginally significant. Similarly, social goals did not significantly predict event frequency or importance (although the pattern of coefficients was theoretically consistent), which is the first step in mediation; thus, these analyses were not conducted.

In sum, analyses of event frequencies were consistent with predictions. Approach motives (HFA) at Time 1 were associated with increased *exposure* (but not reactivity) to positive events at Time 2. Moreover, this relationship partially mediated the effect of HFA on Time 2 loneliness and satisfaction with social bonds. Also as predicted, avoidance motives (FOR) at Time 1 were associated with increased *reactivity* (but not exposure).

Discussion of Study 1

Consistent with predictions, Study 1 showed that both approach and avoidance motivation predicted concurrent social outcomes. Specifically, approach social motives (HFA) were associated with less loneliness and more positive attitudes at Time 1, and avoidance social motives (FOR) were associated with less satisfaction with social bonds and more anxiety and negative attitudes about relationships at Time 1. Thus, higher approach motives and lower avoidance motives predicted more satisfaction and positive social attitudes and less loneliness, negative social attitudes, and relationship anxiety. Moreover, approach social motives predicted Time 2 loneliness (negatively) and satisfaction (positively), whereas avoidance social motives marginally predicted Time 2 relationship anxiety. There was also evidence that approach social motivation was associated with an exposure process, such that HFA predicted increased frequency of positive events. On the other hand, there was evidence that avoidance social motivation was associated with reactivity processes, such that FOR predicted increased impact of negative events. These findings were consistent with predictions.

The results for short-term goals were mixed. First, as predicted, avoidance goals were positively correlated with relationship anxiety and negative attitudes at Time 1, whereas approach goals did not predict Time 1 outcomes. However, goals did predict changes in outcomes from Time 1 to Time 2 in theoretically consistent ways (see Table 4). One potential limitation of Study 1 was the goal-generating task. Participants were asked to list only six goals, which may not have provided a clear picture of their social goals. Second, there were 52 participants who did not list any avoidance social goals. Perhaps the six-goal task was not sufficient to tap goals that were not immediately cognitively accessible. It was also interesting that approach and avoidance goals were positively correlated, such that participants'

ratings of both approach and avoidance goals tended to be similar; that is, there may be some consistency within individuals regarding the importance of social goals. The main tasks of Studies 2 and 3 were to test the social goals portion of the model with alternative measures.

STUDY 2

Participants and Procedure

Participants were 114 undergraduates (21 males and 93 females) attending a public university in an urban setting in California. The self-reported ethnicity of the sample was diverse: 3.5% African Americans, 40.4% Asians, 32.5% Caucasians, 16.7% Latinos, and 7% reported other ethnic backgrounds. Their mean age was 19.1 years ($SD = 1.7$). All participants agreed to receive a follow-up survey, and 66 (58%) returned them. At Time 1, participants completed the Social Goals Questionnaire (see below), followed by four measures of the quality of their social bonds and the social events measure. In addition, participants completed a measure of general approach and avoidance motivation. Approximately 6 weeks after the initial assessment, participants were sent (via e-mail or regular mail) a follow-up survey containing two measures of the quality of social bonds completed at Time 1.

Measures

Social goals. To assess the importance of approach and avoidance goals independently, participants completed a new measure, the Social Goals Questionnaire (SGQ). The SGQ was developed from an original pool of over 6,600 personal goals and strivings generated by participants in Study 1, other previous personal-goals studies,[2] and examples provided in Emmons' personal goal scoring manual. In the first pass, all nonsocial goals were eliminated from the list of 6,600. Second, similar goals were combined, and the wording of idiosyncratic goals was changed to extend applicability. For example, "Not argue with my sister Sarah" and "Not to fight with my older bother" was changed to "Not argue or fight with my sibling(s)." Elliot and Sheldon (1997) used this method successfully to develop an assessment of approach and avoidance achievement goals.

[2] Thank you to Andrew Elliot for providing goals gathered in previous studies.

From the original pool of items, 74 goals were retained for the current study. Each goal was coded independently by two judges as either an approach goal (34) or an avoidance goal (40), and the agreement rate was 100%. Participants were instructed to indicate "How much each goal describes what you are trying to do at this time in your life" on a scale of 1–9, ranging from "Not at all" to "Perfectly." Participants were also instructed to enter N/A for "Not applicable" for any goal that pertained to a relationship that was not relevant to them (e.g., a goal regarding siblings for a participant who was an only child, a goal regarding a romantic partner for a participant who was single). Participants were also given spaces at the end of the measure to list any additional social goals that were not contained on our list. For each participant, the average magnitude of each applicable approach goal (APPROACH; $\alpha = .91$) and the average magnitude of each applicable avoidance (AVOID; $\alpha = .94$) goal were computed. Finally, participants were asked to nominate their eight most important goals from the list of 74 goals or any self-generated goals. The number of avoidance goals listed (out of eight) was also tabulated and represented the frequency of avoidance goals (AVOID_FREQ).

General approach and avoidance motivation. Carver and White's (1994) Behavioral Inhibition System (BIS) and Behavioral Activation System (BAS) scales were used to measure individual differences in dispositional general approach and avoidance motivation (BAS and BIS, respectively). The BIS/BAS measure is a 20-item scale based on Gray's conceptualization of aversive and appetitive systems. A single unidimensional scale consisting of seven items, reflecting BIS sensitivity has a reported reliability of .74 (Carver & White, 1994, Study 1). The remaining 13 items make up three subscales reflecting BAS sensitivity. The Reward-Responsiveness scale (BAS-RR) has items describing positive responses to the occurrence of a reward; the Drive subscale (BAS-D) reflects four items describing the willingness to approach positive outcomes, and the Fun Seeking (BAS-FS), consists of four items reflecting the willingness to try new things. For the present research, all three subscales were relevant to the conceptualization of BAS dispositions, and therefore, all 13 items were combined to provide a single total BAS score ($\alpha = .79$ for BAS and $\alpha = .71$ for BIS in the present study). Example items include "I worry about making mistakes" (BIS) and "I will often do things for no other reason than that they might be fun" (BAS).

Loneliness. Loneliness was assessed with the full 20-item UCLA Loneliness scale (Russell et al., 1980) at Time 1, and the shortened 10-item scale (described in Study 1) was used at Time 2. Participants were asked to assess how they felt in the past week. Reliability of the full loneliness scale at Time 1 was $\alpha = .91$, and the reliability of the 10-item version at Time 2 was $\alpha = .88$.

Satisfaction with social bonds. The satisfaction with social life scale constructed for Study 1 and based on Diener's (1996) 5-item Satisfaction with Life scale was administered in the present study at Times 1 and 2. Participants responded according to how they had felt during the previous week. Reliability was Time 1 was $\alpha = .91$, Time 2 α was .93.

Attitudes toward social relationships. Positive and negative attitudes toward social relationships were measured with the positivity and negativity items from the Bivariate Evaluations and Ambivalence Measures (BEAMs form B; Cacioppo et al., 1997). As in Study 1, participants indicated to what extent each of the words described how they had felt and thought about their social relationships in general during the past week using a 5-point scale ranging from "Not at all" to "Extremely." The positive and negative BEAMS scales were reliable (αs = .93 and .93, respectively).

Social events. At Time 1, participants completed the social events checklist described in Study 1. They were asked to indicate how often (on a 0–4 scale) each of eight positive social events and eight negative social events event had occurred during the past week and how important, on average, each event, if it did occur, had been. As in Study 1, frequency scores for positive and negative events were calculated (POSFREQ, NEGFREQ, respectively). In addition, ratings of the impact of events were created by dividing the average importance rating by the frequency of events. This was done separately for positive and negative events (POSIMPACT, NEGIMPACT).

Results

In contrast to Study 1, *t*-tests revealed no significant gender differences. To be consistent with Study 1, gender was controlled in all subsequent regression analyses (however, leaving gender out of sub-

sequent equations did not alter the results). *T*-tests were also conducted to examine possible differences in the group who completed the Time 2 follow-up ($n = 66$) from those who did not ($n = 48$). No significant differences (or marginally significant differences) emerged between these two groups on any of the predictor variables or Time 1 outcomes variables. In addition, as in Study 1, a chi-square analysis showed that men and women were equally likely to participate in Time 2 data collection ($\chi^2 = 0.17$, $p = .68$). The full correlation matrix of predictor and outcome variables is presented in Appendix A.

Social Goals Predicting Time 1 and Time 2 Outcomes

The main focus of this study was to determine whether the new systematic measures of approach and avoidance social goals were reliable predictors of loneliness and satisfaction with social bonds at Times 1 and 2. Examination of the approach and avoidance scales revealed that they were highly positively correlated, $r = .77$, $p < .001$. This was unexpected because it was predicted that approach and avoidance goals would have independent effects on social goals. It seems that some people rated all the social goals as more important than did other people. Each score (approach goals and avoidance goals) likely assessed a combination of both current general concerns for the social domain and the importance of the specific focus (approach or avoidance) of the goal. Moreover, the bivariate correlations between approach goals and the outcomes were not significant (loneliness, $r = -.06$; satisfaction, $r = .06$; positive attitude, $r = .15$; and negative attitude, $r = .09$). The bivariate correlations between avoidance goals and the outcomes revealed one significant correlation with negative attitudes, $r = .22$, $p < .05$ and three nonsignificant correlations (loneliness, $r = -.06$; satisfaction, $r = .06$; and positive attitude, $r = .15$).

However, because the approach and avoidance goal scores were thought to contain both a measure of the importance of the social domain in general and a measure of the importance of the focus of the goal, both approach and avoidance scores were entered simultaneously in one step in hierarchical regression (after controlling for gender). These analyses allowed for the examination of the differential effects of approach and avoidance goals after partialling out the common variance associated with the importance of the social domain in general. Results of these analyses, presented in Table 5,

Table 5
Summary of Hierarchical Regression Analyses for Current Goals Measure Predicting Time 1 Outcomes—Study 2

	Standardized Regression Coefficients (β)			
Variable	LONELY	SATISFACTION	POS-ATT.	NEG-ATT
APPROACH	− .45**	.39**	.55**	− .20
AVOIDANCE	.50**	− .43**	− .52**	.38**
Total R^2	.13**	.08*	.13**	.10**

Note: $n = 114$. ** = $p < .01$.
APPROACH = mean approach goal score, and AVOIDANCE = mean avoidance goal score. To control for gender effects, sex of participant was entered with goals.

were consistent with hypotheses. Approach goals significantly and negatively predicted loneliness and positively and significantly predicted satisfaction with social bonds and positive attitudes toward social bonds. Avoidance goals significantly and positively predicted loneliness and negative attitudes toward social bonds, and negatively and significantly predicted satisfaction with social bonds and positive attitudes toward social bonds. Thus, although approach and avoidance goal scores were highly positively correlated, higher avoidance goal endorsement was associated with more loneliness and less satisfaction and higher approach goal importance was associated with less loneliness and more satisfaction.

Obviously, these analyses revealed a statistical suppression effect because there was a strong, positive correlation between the two predictor variables, whereas the subsequent regressions with the two predictor variables showed consistent relationships with the dependent measures in the opposite direction. A common threat to the theoretical interpretation of the suppression effect is that an outlier(s) may have unduly influenced the regression estimates. To examine how the exclusion of each case would influence the regression estimates, Cook's Ds were calculated. As recommended by Cohen, Cohen, West, and Aiken (2003), cases producing a Cook's D with a magnitude greater than the critical value of the $F_{(4,110)}$ at $\alpha' = .50$, or 0.845 are large and thus problematic. Across all four outcome variables, Cook's D's did not exceed 0.279; thus there was no evidence for outliers influencing the regression estimates.

Table 6
Summary of Hierarchical Regression Analyses for Current Goals Measure Predicting Time 2 Outcomes, Controlling for Time 1 Outcomes—Study 2

	Standardized Regression Coefficients (β)	
Variable	LONELY	SATISFACTION
Step 1		
Time 1 outcome	.59**	.18
Step 2		
APPROACH	− .38*	.32
AVOIDANCE	.41*	− .23
R^2 Δ at Step 2	.07*	.04
Total R^2	.42**	.09

Note: $n = 65$ for LONELY and 66 for SATISFACTION. * = $p < .05$, ** = $p < .01$. APPROACH = mean approach goal score, and AVOIDANCE = mean avoidance goal score. To control for gender effects, sex of participant was entered in Step 1.

Analyses predicting Time 2 outcomes with the 66 participants who completed the follow-up survey were conducted by regressing the Time 2 outcome onto the Time 1 outcome in Step 1 and the approach and avoidance goal scores in Step 2. The results are shown in Table 6. Time 1 loneliness, approach goals, and avoidance goals significantly predicted Time 2 loneliness such that people who were lonelier at Time 1 and endorsed approach goals less and avoidance goals more were lonelier at Time 2. Time 2 satisfaction with social life showed the same pattern of results; the betas, however, did not reach significance.

In addition to rating each goal, participants were asked to choose the eight goals that were currently most relevant to them. The proportion of avoidance goals (the reciprocal of the proportion of approach goals) was correlated with Time 1 outcomes. As expected, number of avoidance goals was negatively correlated with satisfaction with social life ($r = -.26$, $p < .01$) and positive attitudes ($r = -.24$, $p < .05$) and positively correlated with loneliness ($r = .34$, $p < .01$) and negative attitude ($r = .19$, $p < .05$). However, controlling for Time 1 outcomes, the number of avoidance goals did not significantly predict Time 2 loneliness or satisfaction.

Additional Analyses

General approach and avoidance motivation and social goals. Partial correlations between the general approach and avoidance motivation scales and the social goals scales were conducted to examine the relationship among general appetitive and aversive motives and domain-specific measures of current social goals. The partial correlation between the measure of general approach motivation, BAS, with approach social goals, controlling for avoidance goals, was significant ($r = .25$, $p < .01$). But the partial correlations of BAS with avoidance social goals, controlling for approach goals, was not significant ($r = -.14$, $p = .13$). These results are consistent with expectations. Also consistent with expectations, the partial correlation between the measure of general avoidance motivation, BIS, and avoidance goals, controlling for approach goals, was marginally significant, ($r = .16$, $p < .10$), whereas the partial correlation between BIS and approach goals, controlling for avoidance goals, did not approach significance ($r = .03$, $p > .75$).

Finally, regression analyses were conducted to determine whether approach and avoidance social goals were significant predictors of the social outcomes (loneliness and satisfaction) above and beyond the effects of general reward and punishment sensitivity (i.e., BAS and BIS). BAS and BIS were entered in Step 1 of an equation predicting Time 1 loneliness. In Step 2, approach and avoidance social goals were entered as predictors. Results showed that BIS was a significant predictor of loneliness ($\beta = .25$, $p < .01$), but both approach and avoidance goals remained as significant predictors as well (βs $= -.44$ and .43, respectively, ps $< .01$). Results of the identical equation predicting satisfaction showed that BIS was also a significant predictor of satisfaction ($\beta = -.21$, $p < .05$), but, again, both approach and avoidance goals remained as significant predictors as well (βs $= .39$ and $-.38$, respectively, ps $< .01$). BIS and BAS also predicted positive attitudes toward social bonds (βs $= -.25, .20$, ps $< .05$, respectively), but approach and avoidance scores remained as significant predictors (βs $= .53, -.44$, ps $< .01$). Finally, BIS predicted negative social attitudes ($\beta = .28$, $p < .05$), but avoidance goals remained a significant predictor ($\beta = .34$, $p < .05$). Therefore, although general sensitivity to punishment and reward (BIS and BAS) predicted social outcomes, the more specific measure of social goals accounted for variance in the outcomes above and beyond these general motivations.

Social Events

As in Study 1, it was hypothesized that an exposure process would account for the relationship between approach goals and social outcomes, whereas the relationship between avoidance goals and outcomes was hypothesized to occur primarily through a reactivity process. However, unlike Study 1, the measure of positive and negative social events was collected concurrently with goals. That is, participants were asked to rate the occurrence and importance of social events that occurred in the week prior to indicating their current goals (Time 1), and thus these events were unlikely to be mediators of outcomes 2 months later. It was possible, though, to examine the correlates of approach and avoidance goals with concurrent events to determine if concurrent goals were correlated with retrospective recall of event occurrence in the past week. Consistent with Study 1, and as predicted, approach goals (controlling for avoidance goals and gender) were positively correlated with the frequency of positive social events ($pr_{(110)} = .37$, $p < .001$) but not correlated with negative social event frequency ($pr_{(110)} = -.12$, $p = .19$). Contrary to predictions, though, avoidance goals (controlling for approach goals and gender) were significantly correlated with recall of both positive event ($pr_{(110)} = -.30$, $p < .01$) and negative event occurrence in the past week ($pr_{(110)} = .22$, $p < .05$).

To examine the reactivity hypothesis, similar analyses were conducted to test whether the importance of approach and avoidance goals correlated with the impact of events that occurred in the past week. Consistent with predictions, avoidance goals (controlling for approach goals and gender) were significantly correlated with negative event impact ($pr_{(109)} = .27$, $p < .05$), but not with positive event impact ($pr_{(109)} = -.16$, $p = .10$). Also as predicted, approach goals were not significantly correlated with positive or negative event impact ($pr_{(104)}$'s $= -.06$ and $.03$, p's $> .54$, respectively).

Discussion of Study 2

Study 1 was limited by the brief open-ended measure of social goals. The objective of Study 2 was to examine the correlates of approach and avoidance social goals as assessed by a more systematic measure of social goals. The 74-item measure was culled from a pool of more than 6,000 goals generated by participants in previous studies. As predicted, approach goals were positively correlated with

satisfaction and positive attitudes at Time 1 and negatively correlated with loneliness at Times 1 and 2. Also, avoidance goals were negatively correlated with satisfaction and positive attitudes at Time 1 and positively correlated with negative attitudes at Times 1 and loneliness at Times 1 and 2. In addition, these effects remained when general motivational dispositions (BIS and BAS) were controlled for. There was also evidence that approach social goals were associated with an exposure process, such that approach goals predicted increased frequency of positive events. On the other hand, there was evidence that avoidance social goals were associated with reactivity processes, such that avoidance goals predicted increased impact of negative events. Inconsistent with the differential processes prediction was the finding that avoidance goals predicted frequency of event occurrence. The main tasks of Study 3 were to administer the social goals measure to an independent sample in order to replicate the effects, especially in light of the high positive correlation between the two scales and to examine the relationship between approach and avoidance social goals and the appetitive and aversive dispositional motives used in Study 1.

STUDY 3

Participants and Procedure

Participants were 73 undergraduates (25 males and 48 females) attending a public university in an urban setting in California. The self-reported ethnicity of the sample was diverse: 1.4% African Americans, 56.2% Asians or Pacific Islanders, 21.9% Caucasians, 13.7% Latinos, and 4.1% reported "other" ethnic background; their mean age was 18.81 years ($SD = 1.1$). Participants completed the Social Goals Questionnaire, five measures of the quality of their social bonds, and a measure of social approach and avoidance motivation (Hope for Affiliation and Fear of Rejection).

Measures

Social goals. The Social Goals Questionnaire (SGQ) developed in Study 2 was administered. For each participant, the average magnitude of each applicable approach goal (APPROACH) and the average magnitude of each applicable avoidance (AVOID) goal were computed (see measure description in Study 2 for details). Reliability

of the approach goals measure was $\alpha = .91$, and the reliability of the avoidance goal scale was $\alpha = .90$.

Loneliness. Loneliness was assessed with the 20-item UCLA Loneliness scale (Russell et al., 1980) used in Studies 1 and 2. Reliability of the loneliness scale was $\alpha = .90$.

Satisfaction with social bonds. The 5-item satisfaction with social life scale used in Studies 1 and 2 was administered in the present study. Reliability was $\alpha = .93$.

Relationship anxiety. As in Study 1, feelings of anxiety about interpersonal relationships were measured with the 10 items adapted from the anxiety subscale in Brennan and colleagues'(1998) self-report attachment style measure. The interpersonal relationship anxiety scale reliability was $\alpha = .91$.

Attitudes toward social relationships. Positive and negative attitudes toward social relationships were measured with the positivity and negativity items from the Bivariate Evaluations and Ambivalence Measures (BEAMs form B; Cacioppo et al., 1997). As in Studies 1 and 2, the positive and negative BEAMS scales were reliable (αs = .91 and .88, respectively).

Approach and avoidance social motivation. Individual differences in approach and avoidance social motivation were measured with the self-report measures used in Study 1. Appetitive affiliation motivation was measured with Jackson's (1974) Need for Affiliation scale, and the reliability was $\alpha = .74$. Aversive affiliation was measured with Mehrabian's (1976) Fear of Rejection scale, and reliability was $\alpha = .76$.

Results

T-tests revealed two significant gender differences. Men scored higher than women on loneliness ($t_{(71)} = 2.0$, $p < .05$), and women scored higher than men on Fear of Rejection ($t_{(71)} = 3.4$, $p < .01$). As in Studies 1 and 2, gender was controlled in all subsequent regression analyses. The full correlation matrix of predictor and outcome variables is presented in Appendix A.

Social Goals Predicting Outcomes

Consistent with Study 2, approach and avoidance scales were highly positively correlated, $r = .78$, $p < .001$. As in Study 2, it was predicted that approach and avoidance goals would have independent effects on social goals. The bivariate correlations between approach goals and the outcomes were similar to those in Study 2: loneliness, $r_{(73)} = -.14$, $p = .23$, satisfaction, $r_{(73)} = .08$, $p = .48$, relationship anxiety, $r_{(73)} = .18$, $p = .15$, positive attitude, $r_{(73)} = .24$, $p < .05$, and negative attitude, $r_{(73)} = .04$, $p = .71$. The bivariate correlations between avoidance goals and the outcomes were also similar to those in Study 2: loneliness, $r_{(73)} = .05$, $p = .65$, satisfaction, $r_{(73)} = -.04$, $p = .75$, relationship anxiety, $r_{(73)} = .30$, $p < .05$, positive attitude, $r_{(73)} = .04$, $p = .71$, and negative attitude, $r_{(73)} = .21$, $p < .09$. As in Study 2, both approach and avoidance scores were entered simultaneously in one step in hierarchical regression (also controlling for gender) to allow for the examination of the differential effects of approach and avoidance goals after partialling out the common variance associated with the importance of the social domain in general. Results of these analyses, presented in Table 7, were consistent with the original hypotheses and nearly identical to the results obtained in Study 2. Approach goals significantly and negatively predicted loneliness and positively and significantly predicted positive attitudes toward social bonds. Avoidance goals significantly and positively predicted loneliness, relationship anxiety, and negative

Table 7
Summary of Hierarchical Regression Analyses for Goals Predicting Outcomes—Study 3

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT.
APPROACH	−.43*	.27	−.13	.48*	−.28
AVOIDANCE	.42*	−.26	.40*	−.35†	.43*
Total R^2	.13*	.04	.10†	.13*	.08

Note: $n = 73$. $^{\dagger} = p < .10$, * $= p < .05$.
Both goal measures entered simultaneously. To control for gender effects, sex of participant entered with the motives.

attitudes toward social bonds and negatively and marginally predicted positive attitudes toward social bonds. Thus, consistent with Study 2, although approach and avoidance goal scores were positively correlated, higher avoidance goal endorsement was associated with more loneliness, relationship anxiety, and negative attitudes; higher approach goal importance was associated with less loneliness and more positive attitudes. However, to again test for the possibility that an outlier(s) might have unduly influenced the regression estimates, Cook's Ds were calculated. Again, the magnitude of the Cook's D statistics did not exceed the critical values recommended by Cohen and colleagues (2003); the critical value of the $F_{(4,70)}$ at $\alpha' = .50$, or 0.848 (across the five outcome variables Cook's D's did not exceed 0.178). Thus, as in Study 2, there was no evidence for outliers influencing the regression estimates.

Approach and avoidance social motivation. Correlations between the social motivation scales and the social goals scales were conducted to examine the relationship among motives and goals. The correlation between the measure of social approach motivation, Hope for Affiliation, and approach social goals was significant ($r_{(73)} = .39$, $p < .01$); the correlation of Hope for Affiliation with avoidance social goals was not significant ($r_{(73)} = .12$, $p = .29$). These results are consistent with expectations. Also consistent with expectations, the correlation between the measure of social avoidance motivation, Fear of Rejection, and avoidance goals was significant, ($r_{(73)} = .23$, $p < .05$, whereas the correlation between Fear of Rejection and approach goals was not significant ($r_{(73)} = .19$, $p = .11$). Hope for Affiliation and Fear of Rejection were marginally correlated with each other ($r_{(73)} = -.20$, $p = .09$).

Moreover, the inclusion of social motives in the current study allowed me to test whether findings of Study 1 would replicate. Specifically, as in Study 1, Hope for Affiliation and Fear of Rejection were entered in one step in hierarchical regression (after controlling for gender). Results of these analyses, presented in Table 8, were consistent with hypotheses and, again, very similar to the results obtained in Study 1.

Finally, regression analyses were conducted to determine whether goals accounted for variance in the outcomes above and beyond motives. Specifically, significant motive predictor(s) (Hope for Affiliation or Fear of Rejection) from Table 8 were entered in Step 1 of

Table 8
Summary of Hierarchical Regression Analyses for Motives Predicting Outcomes—Study 3

	Standardized Regression Coefficients (β)				
Variable	LONELY	SATISFACTION	ANXIETY	POS-ATT.	NEG-ATT.
Hope for Affiliation	−.34**	.14	.18	.27*	.02
Fear of Rejection	.27*	−.14	.53**	−.07	.25†
Total R^2	.28**	.06	.23**	.13*	.05

Note: $n = 73$. † = $p < .10$, * = $p < .05$, ** = $p < .01$.
Both motives entered simultaneously. To control for gender effects, sex of participant entered with the motives.

an equation predicting the outcome (after controlling for gender), and in step 2, approach and avoidance social goals were entered as predictors. First, a regression analysis examined whether approach goals were significant predictors of positive attitudes above and beyond the effects of Hope for Affiliation. Results showed that approach goals remained a marginally significant predictor of positive attitudes ($\beta = .34$, $p < .10$), but Hope for Affiliation dropped to nonsignificance ($\beta = .19$ and $p > .14$). Next, regression analyses examined whether avoidance goals were significant predictors of relationship anxiety and negative attitudes above and beyond the effects of Fear of Rejection. Results showed that avoidance goals remained a significant predictor of negative attitudes ($\beta = .39$, $p < .05$), but Fear of Rejection dropped to nonsignificance ($\beta = .20$ and $p > .10$). Avoidance goals also remained a marginally significant predictor of relationship anxiety ($\beta = .30$, $p < .08$), and Fear of Rejection remained significant as well ($\beta = .43$ and $p < .01$). Finally, a regression analysis examined whether both approach and avoidance goals were significant predictors of loneliness above and beyond the effects of Hope for Affiliation and Fear of Rejection. Results showed that both approach and avoidance goals remained moderate predictors of loneliness but became nonsignificant (β's = −.20 and .23, respectively, p' s > .15), while both Fear of Rejection and Hope for Affiliation

remained significant predictors (β's = −.30 and .26, respectively, $ps < .05$). Therefore, although social motives predicted social outcomes, the more specific measure of social goals accounted for variance in all of the outcomes, except loneliness, above and beyond the motives.

META-ANALYSES OF STUDIES 1–3

In order to determine the overall probability of obtaining the regression estimates in Studies 1–3 and their corresponding effect sizes, the results were meta-analyzed according to recommendations provided by Rosenthal and Rosnow (1991) for combining the results of two of more studies. Specifically, the combined *Z*s of the coefficients from the Time 1 regression equations, in which motives predicted outcomes that were reported in Studies 1 and 3, and from the regression equations in which goals predicted outcomes in Studies 1, 2, and 3 were computed using the Stouffer Method. Also, the average effect sizes (*r*s) across the studies were computed by converting each beta to a *Fisher Z* and then converting the mean *Fisher Z* back to *r*. For both the significance testing and effect size meta-analyses, coefficients were weighted by the degrees of freedom of study. The results are shown in Table 9. As can be seen, hope for affiliation and approach goals were significantly negatively associated with loneliness and positively associated with satisfaction and positive attitudes. Fear of rejection was significantly negatively associated with satisfaction and positive attitudes and positively associated with loneliness, anxiety, and negative attitudes. Neither hope for affiliation or approach goals significantly predicted anxiety or negative attitudes across the studies, as predicted.

GENERAL DISCUSSION

The present research took as its foundation the premise that human beings are motivated by a fundamental need to form and maintain close social bonds. This need was examined from the motivational perspective that there are two distinct self-regulatory systems—one related to appetitive processes, the other related to aversive processes—guiding social processes. The results offered initial support for a model in which approach and avoidance social motives and goals

predicted different social outcomes, and worked through a different process.

Social Motivation and Social Goals

An initial question asked was whether distal approach and avoidance social motives were correlated with more proximal approach and avoidance social goals. As predicted, approach social motivation was positively correlated with approach social goals but not with avoidance social goals; avoidance social motivation was positively correlated with avoidance social goals but not with approach social goals. Also, general approach motivation (Behavioral Activation) was positively correlated with approach goals but not with avoidance goals; general avoidance motivation (Behavioral Inhibition) was positively correlated with avoidance goals but not with approach goals. Together, these findings provide support for the first section of the model depicted in Figure 1. That is, distal motives predicted more proximal goals, such that those with strong approach motives were more likely to adopt short-term approach goals and those with strong avoidance motives were more likely to adopt short-term avoidance goals. Thus, sensitivity to social rewards is associated with the adoption of goals focused on obtaining social rewards, and sensitivity to punishment is associated with adoption of goals focused on avoiding social punishments. The present studies operationalized social motives as hope for affiliation and fear of rejection, but there are other types of social motives (e.g., intimacy, power) that need to be examined.

Approach and avoidance motivation (both social motivation and general motivation) were uncorrelated. This implies that the adoption of approach social goals does not exclude the adoption of avoidance goals, and vice versa. However, in Study 2, the goal measure yielded approach and avoidance social goals scores that were highly positively correlated. Thus, having more important approach goals was correlated with more important avoidance goals. This effect suggests co-activation (Cacioppo et al., 1997). That is, those who found the social domain important were likely to endorse both approach and avoidance goals. It is likely that the proximal social goals tapped into both the general importance people were placing on the social domain and the preferred regulatory focus (approach or avoidance). Another interpretation is that the high correlation between the

Table 9
Meta-Analysis of Studies 1–3

Predictor Variable	Standardized Regression Coefficients (β)									
	LONELY		SATISFACTION		ANXIETY		POS-ATT.		NEG-ATT.	
	Z	***r***	***Z***	***r***	***Z***	***r***	***Z***	***r***	***Z***	***r***
Motivation										
Hope for Affiliation	**−4.55**	**−.35**	**2.02**	**.14**	0.84	.09	**3.77**	**.25**	0.24	.02
Fear of Rejection	**4.72**	**.27**	**−3.42**	**−.22**	**5.41**	**.45**	**−3.50**	**−.20**	**3.62**	**.25**
Goals										
APPROACH	**−3.47**	**−.31**	**2.87**	**.25**	0.30	.01	**3.37**	**.35**	−1.41	−.14
AVOIDANCE	**3.65**	**.33**	**−3.17**	**−.27**	**3.00**	**.29**	**−3.02**	**−.31**	**4.03**	**.33**

Note: Z = combined Z using Stouffer Method, Zs > 1.96, $p < .05$ are in bold; r = estimated effect size based on conversion of β to *Fisher Z* before combining and converting back to r. Motivation analyses are based on β from Time 1 hierarchical regressions in which both motives entered simultaneously, control for gender effects, and include results from Studies 1 and 3. The Goals analyses are based on β from Time 1 hierarchical regressions in which both goals are entered simultaneous, control for gender effects, and include results from Studies 1–3, with the exception of the Anxiety outcome which was only used in Studies 1 and 3. Each result in both sets of analyses was weighted by degrees of freedom of study, using regression estimates from analyses of Time 1 outcomes.

two types of goals reflects a response set, that is. people may only vary on how they rate social goals overall. This interpretation, however, is unlikely because, despite their positive correlation, approach and avoidance goals showed a different pattern of relationships with the social outcomes (this is discussed later). Moreover, this pattern was found in Study 2 and replicated in Study 3.

The results showed that the relationship between distal motivation and more proximal goals was moderate and in predicted directions. These moderate correlations likely reflect the notion that goals about specific relationships (compared to more abstract goals about relationships in general) may be strongly related to factors other than motivational tendencies. That is, concrete goals regarding marriage, for example, may reflect strategies that fit the current circumstances of the relationship more than strategies that fit the dispositional qualities of the individual. A person with a high appetitive disposition may adopt avoidance marital goals if his or her current marital relationship is saturated with negative interactions. In this hypothetical scenario, negative outcomes would be salient, perhaps leading to the adoption of avoidance goals. In fact, previous research (Gable, 2000; Study 2) showed that the more satisfied a married couple was, the less likely either spouse was to adopt avoidance goals for their marriage.

The above implies that both dispositional tendencies and current circumstances influence the adoption of approach goals and avoidance goals; a view consistent with previous research showing that the adoption of avoidance goals and prevention strategies can be manipulated in the laboratory (e.g., Crowe & Higgins, 1997; Elliot & Harackiewicz, 1996; Higgins, Shah, & Friedman, 1997). Perhaps, when satisfaction in a relationship is average, or when circumstances are unclear, individual dispositional tendencies are closely associated with the adoption of approach or avoidance goals, but when satisfaction with the relationship is high or low, circumstances may dictate goal adoption. Future research is needed to confirm these qualifications and elaborations on the model.

Motives, Goals, and Social Outcomes

All three studies in the current article supported the prediction that social motives and goals are reliably associated with social outcomes such as loneliness, satisfaction with social life, anxiety about relationships, and attitudes toward social bonds. In addition, both no-

mothetic and ideographic methods were used to assess the predictors. Evidence was presented for concurrent associations and, more importantly, the ability of motives and goals to predict change in outcomes over time. More specifically, it was predicted that avoidance motives and goals would be associated with changes in social outcomes defined by the absence of negatives (e.g., security). Consistent with this, studies showed that avoidance motives and avoidance goals (but not approach motives or goals) consistently predicted increased anxiety and negative attitudes toward social bonds *over time*.

To be more specific, people with strong avoidance motives and goals were focused on avoiding negative social outcomes such as conflict, anxiety, and loneliness. However, despite their apparent intentions to avoid these negative outcomes, the change analyses show that they actually experienced increases in these outcomes or, at the very least, did not experience as much of a decrease in these negative outcomes as those with weak avoidance goals and motives. Although the predicted results at first seem counterintuitive, they are consistent with study hypotheses and previous research on avoidance goals and prevention-focused self-regulation. Focusing on avoiding negative outcomes is, in general, not an effective strategy (e.g., Elliot & Harackiewicz, 1996).

One possible explanation for this unfortunate paradox is that avoidance motivation leads people to focus attention on negative stimuli. For example, previous work suggests that avoidance and approach motives influence the amount of attention that potentially punishing and rewarding stimuli receive (Derryberry & Reed, 1984). High avoidance people may orient their attention quicker, and linger longer, on potentially punishing social cues. Hypervigilance to negative social stimuli may lead to increased negative affect, negative attitudes toward relationships, and relationship anxiety and create the sort of self-fulfilling prophecy noted by Downey and colleagues (1998). Research on negative ruminative thinking supports this explanation. For example, Nolen-Hoeksema and her colleagues have shown that recently bereaved people who ruminate on negative thoughts show more distress one year later than those who did not ruminate (Nolen-Hoeksema, McBride, & Larson, 1997).

It was also predicted that approach motives and goals would be associated with social outcomes defined by the presence of positives (e.g., social life satisfaction). Approach motives and goals did predict positive attitudes toward social bonds and increases in satisfaction

and positive attitudes over time, and approach goals also predicted concurrent satisfaction and positive attitudes. Thus, strong tendencies to focus on positive social outcomes were consistently related to increased satisfaction with one's social life and positive attitudes. It seems that these motives and goals were successful in terms of obtaining the positive outcomes of their foci. Possible processes mediating these associations are discussed below. Of note here is that approach motivation has also been associated with anger (e.g., Harmon-Jones & Allen, 1998). Thus, how approach motives and goals influence the expression of anger in relationships is unclear, and it is possible that the approach dimension could have negative consequences for relationship partners. On the other hand, successful management of disagreements and conflict is part of healthy, close relationships. Research on approach motives and goals and anger expression in relationships would be fruitful.

Finally, it was expected that loneliness would be related to both approach and avoidance motives and goals because loneliness has been defined as a discrepancy between the social relationships one wants and those one actually has (Perlman & Peplau, 1981). This definition implies the presence of negatives and the absence of positives in current social bonds. This hypothesis was supported, such that approach motives and goals negatively predicted loneliness and avoidance motives and goals positively predicted loneliness. On the other hand, the findings that avoidance motives were negatively related to concurrent satisfaction and positive attitudes were not expected. One explanation is that these measures are not "pure" measures of the presence of positives (satisfaction) or the absence of negatives (low anxiety). That is, these measures may represent more global assessments of the quality of one's social life (see box on far right of Figure 1). Another explanation for these findings is that activation of the avoidance system may co-activate or dampen the approach system, and vice versa (e.g., Cacioppo et al., 1997). The circumstances under which co-activation and inhibition of the systems occurs is a potentially rich area of investigation. Of course, more data with different measures are needed to differentiate these two explanations.

Processes

Many of the predicted associations among motives, goals, and social outcomes were supported. The next step was to examine two of the

processes that may be mediating changes in social outcomes. It was predicted that approach motives and goals would be associated with increased exposure to positive events. This prediction was tested and supported in Study 1, such that approach motives predicted an increased frequency in positive social events 2 months later. Also, in Study 2, approach goals predicted increased frequency of positive events in the preceding week. Moreover, approach motives or goals did not predict the frequency of negative social events, nor did avoidance motives predict either positive or negative events (but avoidance goals did predict recall of events in Study 2, which may have been confounded because events were recalled at the same time goals were predicted). The increased exposure to positive events mediated the link between approach motives and outcomes in Study 1.

Also, as predicted, avoidance motives and goals were correlated with increased reactivity to negative social events. That is, even though individuals with high fear of rejection did not report experiencing more negative social events in Study 1, they did report them to be more important when they did occur. Avoidance motives did not predict reactivity to positive events, nor did approach motives predict reactivity to positive or negative events. Therefore, it is likely that approach motives are linked to social outcomes because they are associated with an increased exposure to positive social events and avoidance motives are linked to social outcomes because they are associated with increased reaction to negative social events when they inevitably occur.

Limitations and Concluding Comments

The present research provided support for the importance of the approach–avoidance distinction in social motivation and goals. The outcomes assessed were limited to general social outcomes, such as anxiety, loneliness, attitudes, and satisfaction about one's social life in general. These measures did not separately assess specific relationships, and future studies might extend the model to specific relationships. For example, goals at the beginning of a dating relationship could be assessed and then the relationship followed over time. Gable and Reis (2001) suggested that close-relationship researchers would benefit from conceptualizing the presence and absence of positive features in relationships as separate from the presence and absence of negative features in relationships. The

approach–avoidance model provides a framework for conceptualizing and investigating the two distinct dimensions of relationships.

The current study focused largely on explicit motives and goals, not implicit motives and goals, although the semiprojective motivation measure (the MMG) and the goal generation task used in Study 1 tap both implicit and explicit motives. Nevertheless, this is an important distinction, as noted by McClelland, Koestner, and Weinberger (1989). Specifically, these authors suggest that implicit motives (as measured in narrative responses to picture cues) predict a different class of outcomes (e.g., spontaneous behavior) than explicit motives and are derived from affective experience rather than cognitive constructs. The distinction between approach and avoidance motives and goals and the model described earlier should also be relevant to implicit motives and goals. Future research is needed to test this assumption.

The studies presented here suggest that approach motives and goals and their corresponding processes organize behavior and affect regarding positive and otherwise rewarding stimuli in relationships, whereas avoidance motives and goals and their corresponding processes organize behavior and affect regarding negative and otherwise punishing stimuli. Thus, the existence of positive features in a relationship does not necessarily imply the absence of negative features, and vice versa. More importantly, the motivation to obtain the positive benefits of social bonds in relationships differs in important ways from the motivation to avoid the negative aspects of relationships.

Moreover, there is myriad evidence that social relationships are potent sources of both physical and emotional pleasure and of physical and emotional pain. Berscheid and Reis (1998) noted that "despite the wealth of evidence that relationships are people's most frequent source of both happiness and distress, there is inadequate evidence of the causal mechanisms responsible and of the types of relationships that are most beneficial or harmful, even though these issues form the course of much theorizing and research" (p. 243). The outcomes sought by approach motives and goals include intimacy, fun, validation, and companionship. The outcomes that avoidance motives and goals attempt to evade include rejection, betrayal, manipulation, and loss of control. It seems that pleasure in social bonds stems from the presence of the positive features and the absence of the negative ones, whereas pain in social bonds stems from the presence of the negative features and the absence of the

positive ones. Future research on close relationships and interpersonal processes may benefit from this distinction.

In conclusion, the present work was an attempt to synthesize research from the divergent fields of personal relationships and approach and avoidance motivation. It is clear that more work is needed to understand how approach and avoidance motives, goals, processes, and outcomes operate in close relationships. The present results do, however, show that investigation of interpersonal relationships from this framework is likely to inform us about both motivation and relationships.

REFERENCES

Atkinson, J. W. (Ed.) (1958). *Motives in fantasy, action, and society*. Princeton, NJ: Van Nostrand.

Atkinson, J. W., Heyns, R. W., & Veroff, J. (1954). The effects of experimental arousal of the affiliation motive on thematic apperception. *Journal of Abnormal and Social Psychology*, **49**, 405–410.

Ayduk, O., Downey, G., Testa, A., Yen, Y., & Shoda, Y. (1999). Does rejection elicit hostility in rejection sensitive women? *Social Cognition. Special Issue: Social cognition and relationships*, **17**, 245–271.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological-research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, **51**, 1173–1182.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, **117**, 497–529.

Berscheid, E., & Reis, H. T. (1998). Interpersonal attraction and close relationships. In S. Fiske, D. Gilbert, G. Lindzey, & E. Aronson (Eds.), *Handbook of social psychology* (Vol. 2, 4th ed., pp. 193–281). New York: Random House.

Boyatzis, R. E. (1973). Affiliation motivation. In D. C. McClelland & R. S. Steele (Eds.) *Human motivation: A book of readings* (pp. 252–276). Morristown, NJ: General Learning Press.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.) *Attachment theory and close relationships* (pp. 46–76). New York: The Guilford Press.

Brunstein, J. C. (1993). Personal goals and subjective well-being: A longitudinal study. *Journal of Personality and Social Psychology*, **65**, 1061–1070.

Cacioppo, J. T., Gardner, W. L., & Berntson, G. G. (1997). Beyond bipolar conceptualizations and measures: The case of attitudes and evaluative space. *Personality and Social Psychology Review*, **1**, 3–25.

Cantor, N. (1994). Life task problem solving: Situational affordances and personal needs. *Personality & Social Psychology Bulletin*, **20**, 235–243.

Carver, C. S. (1996). Emergent integration in contemporary personality psychology. *Journal of Research in Personality*, **30**, 319–334.

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, **97**, 19–35.

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: TheBIS/BAS scales. *Journal of Personality and Social Psychology*, **67**, 319–333.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes*, **69**, 117–132.

DeCharms, R. C. (1957). Affiliation motivation and productivity in small groups. *Journal of Abnormal and Social Psychology*, **55**, 222–226.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Derryberry, D., & Reed, M. A. (1994). Temperament and attention: Orienting toward and away from positive and negative signals. *Journal of Personality and Social Psychology*, **66**, 1128–1139.

Diener, E. (1996). Traits can be powerful, but are not enough: Lessons from subjective well-being. *Journal of Research in Personality*, **30**, 389–399.

Downey, G., Feldman, S., & Ayduk, O. (2000). Rejection sensitivity and male violence in romantic relationships. *Personal Relationships*, **7**, 45–61.

Downey, G., Freitas, B. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology*, **75**, 545–560.

Elliot, A. J. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In M. Maehr & P. Pintrich (Eds.), *Advances in Motivation and Achievement* (Vol. 10, pp. 243–279). Greenwich, CT: JAI Press.

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, **72**, 218–232.

Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, **70**, 461–475.

Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology*, **73**, 171–175.

Elliot, A. J., & Sheldon, K. M. (1998). Avoidance personal goals and the personality-illness relationship. *Journal of Personality & Social Psychology*, **75**, 1282–1299.

Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, **51**, 1058–1068.

Emmons, R. A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York: The Guilford Press.

Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriage? *Journal of Family Psychology*, **11**, 489–502.

Fowles, D. C. (1994). A motivational theory of psychopathology. In W. D. Spaulding (Ed.), *Nebraska Symposium on Motivation, Vol. 41: Integrative views of motivation, cognition, and emotion* (pp. 181–238). Lincoln: University of Nebraska Press.

Gable, S. L. (2000). *Appetitive and Aversive Social Motivation*. Unpublished doctoral dissertation, University of Rochester.

Gable, S. L., & Reis, H. T. (2001). Appetitive and aversive social interaction. In J. H. Harvey & A. E. Wenzel (Eds.). *Close romantic relationship maintenance and enhancement* (pp. 169–194). Mahwah, NJ: Erlbaum.

Gable, S. L., Reis, H. T., & Elliot, A. J. (2000). Behavioral Activation and Inhibition in Everyday Life. *Journal of Personality and Social Psychology*, **78**, 1135–1149.

Gable, S. L., Reis, H. T., & Elliot, A. J. (2003). Evidence for bivariate systems: An empirical test of appetition and aversion across domains. *Journal of Research in Personality*, **37**, 349–372.

Gray, J. A. (1987). *The psychology of fear and stress* (2nd ed.). New York: Cambridge University Press.

Gray, J. A. (1990). Brain systems that mediate both emotion and cognition. *Cognition and Emotion*, **4**, 269–288.

Harmon-Jones, E., & Allen, J. J. B. (1998). Anger and prefrontal brain activity: EEG asymmetry consistent with approach motivation despite negative affective valence. *Journal of Personality and Social Psychology*, **74**, 1310–1316.

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology*, **30**, 1–46.

Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology*, **72**, 515–525.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, **241**, 540–545.

Jackson, D. N. (1974). *Personality Research Form manual*. Goshen, NY: Research Psychologists Press.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality & Social Psychology Bulletin*, **22**, 280–287.

Klinger, E. (1977). *Meaning and void: Inner experiences and the incentives in people's lives*. Minneapolis: University of Minnesota Press.

Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, **7**, 83–104.

McAdams, D. P. (1982). Intimacy Motivation. In A. J. Stewart (Ed.) *Motivation and Society* (pp. 133–171). San Francisco: Jossey-Bass Publishers.

McAdams, D. P., Healy, S., & Krause, S. (1984). Social motives and patterns of friendship. *Journal of Personality and Social Psychology*, **47**, 828–838.

McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review*, **96**, 690–702.

Mehrabian, A. (1976). Questionnaire measures of affiliative tendency and sensitivity to rejection. *Psychological Reports*, **38**, 199–209.

Mehrabian, A., & Ksionzky, S. (1974). *A theory of affiliation*. Lexington, MA: Lexington Books.

Miller, N. E. (1959). Liberalization of basic S–R concepts: Extensions to conflict behavior, motivation and social learning. In S. Kock (Eds.), *Psychology: A study of a science* (pp. 198–292). New York: McGraw-Hill.

Nolen-Hoeksema, S., McBride, A., & Larson, J. (1997). Rumination and psychological distress among bereaved partners. *Journal of Personality and Social Psychology*, **72**, 855–862.

Pavlov, I. (1927). *Conditioned reflexes: An investigation into the physiological activity of the cortex* (Trans. G. Anrep). New York: Dover.

Perlman, D., & Peplau, L. A. (1981). Toward a social psychology of loneliness. In S. Duck & R. Gilmour (Eds.), *Personal relationships. 3: Personal relationships in disorder* (pp. 31–56).

Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin*, **126**, 844–872.

Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis* (2nd ed.). New York: McGraw-Hill.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity. *Journal of Personality and Social Psychology*, **39**, 472–480.

Russell, J. A., & Mehrabian, A. (1978). Approach–avoidance and affiliation as functions of the emotion-eliciting quality of an environment. *Environment and Behavior*, **10**, 355–387.

Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, **4**, 99–104.

Sanderson, C. A., & Cantor, N. (1997). Creating satisfaction in steady dating relationships: The role of personal goals and situational affordances. *Journal of Personality and Social Psychology*, **73**, 1424–1433.

Sanderson, C. A., & Cantor, N. (2001). The association of intimacy goals and marital satisfaction: A test of four mediational hypotheses. *Personality and Social Psychology Bulletin*, **27**, 1567–1577.

Schmalt, H. D. (1999). Assessing the achievement motive using the grid technique. *Journal of Research in Personality*, **33**, 109–130.

Schneirla, T. C. (1959). *An evolutionary and developmental theory of biphasic processes underlying approach and withdrawal* (Nebraska Symposium on Motivation, Vol. 7, pp. 1–43). Lincoln: University of Nebraska Press.

Shipley, T. E., & Veroff, J. (1952). A projective measure of need for affiliation. *Journal of Experimental Psychology*, **43**, 349–356.

Sobotka, S. S., Davidson, R. J., & Senulis, J. A. (1992). Anterior brain electrical asymmetries in response to reward and punishment. *Electroencephalography and Clinical Neurophysiology*, **83**, 236–247.

Sokolowski, K., Schmalt, H. D., Langens, T. A., & Puca, R. M. (2000). Assessing achievement, affiliation, and power motives all at once: The Multi-Motive Grid (MMG). *Journal of Personality Assessment*, **74**, 126–145.

Sutton, S. K., & Davidson, R. J. (1997). Prefrontal brain asymmetry: A biological substrate of the behavioral approach and inhibition systems. *Psychological Science*, **8**, 204–210.

Thrash, T. M., & Elliot, A. J. (2002). Implicit and Self-Attributed Achievement Motives: Concordance and Predictive Validity. *Journal of Personality*, **70**, 729–755.

Appendix A

Study 1

Pearson Product Moment Correlations of Predictor and Outcome Variables. * = $p < .05$, † = $p < .10$.

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. HFA		−.17*	.11	.16*	−.43*	.22*	−.06	.32*	−.07	−.41*	.31*	−.07	.39*	−.14†
2. FOR			.10	−.01	.33*	−.27*	.39*	−.30*	.23*	.26*	−.17†	.27*	−.27*	.19*
3. AVOID				.20*	.03	−.07	.20*	.01	.18†	.17	−.06	.24*	−.23*	.15
4. APPROACH					−.16*	.11	.08	.05	−.04	−.24*	.27*	−.04	.13	−.13
5. LONELY T1						−.64*	.47*	−.62*	.46*	.66*	−.19*	.23*	−.43*	.24*
6. SATISFACTION T1							−.48*	.70*	−.53*	−.44*	.28*	−.20*	.32*	−.25*
7. ANXIETY T1								−.41*	.48*	.27*	−.05	.30*	−.19*	.11
8. POS-ATT. T1									−.61*	−.52*	.25*	−.28*	.51*	−.32*
9. NEG-ATT T1										.29*	−.01	.22*	−.22*	.33*
10. LONELY T2											−.51*	.47*	−.68*	.55*
11. SATISFACTION T2												−.41*	.61*	−.45*
12. ANXIETY T2													−.50*	.60*
13. POS-ATT. T2														−.67*
14. NEG-ATT T2														

Study 2
Pearson Product Moment Correlations of Predictor and Outcome Variables = $p<.05$, $^{\dagger} = p<.10$.

Measure	1	2	3	4	5	6	7	8	9	10
1. BIS		.06	.23*	27*	.26*	−.20*	−.23*	.28*	.04	.01
2. BAS			.22*	.08	−.09	.08	.19†	.05	−.03	.26*
3. APPROACH				.77*	−.07	.06	.15	.09	−.13	.16
4. AVOID					.15	−.13	−.10	.22*	.16	.00
5. LONELY T1						−.52*	−.71*	.62*	.59*	−.23†
6. SATISFACTION T1							.66*	−.44*	−.23*	.22†
7. POS-ATT. T1								−.66*	−.43*	.19
8. NEG-ATT T1									39*	−.21†
9. LONELY T2										−.68*
10. SATISFACTION T2										

Study 3
Pearson Product Moment Correlations of Predictor and Outcome Variables = $p<.05$, $^{\dagger} = p<.10$.

Measure	1	2	3	4	5	6	7	8	9
1. HOPE		−.20†	.39*	.12	−.42*	.06	.18	.30*	−.04
2. FEAR			.19	.23*	.22†	.42*	−.12	−.04	.20†
3. APPROACH				.78*	−.14	.18	.08	.24*	.04
4. AVOID					.05	.30*	−.04	.04	.21†
5. LONELY						.40*	−.59*	−.67*	.41*
6. ANXIETY							−.32*	−.26*	.66*
7. SATIFACTION								.60*	−.46*
8. POS-ATT.									.44*
9. NEG-ATT T1									