Self-Esteem and "If. . . Then" Contingencies
of Interpersonal Acceptance

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The degree to which an individual perceives interpersonal acceptance as being contingent on suc-
cesses and failures, versus relatively unconditional, is an important factor in the social construction
of self-esteem. The authors used a lexical-decision task to examine people's "if. . . then" expectan-
cies. On each trial, participants were shown a success or failure context word and then they made a
word–nonword judgment on a second letter string, which sometimes was a target word relating to
interpersonal outcomes. For low-self-esteem participants, success and failure contexts facilitated
the processing of acceptance and rejection target words, respectively, revealing associations between
performance and social outcomes. Study 2 ruled out a simple valence-congruency explanation.
Study 3 demonstrated that the reaction-time pattern was stronger for people who had recently been
primed with a highly contingent relationship, as opposed to one based more on unconditional ac-
ceptance. These results contribute to a social-cognitive formulation of the role of relational schemas
in the social construction of self-esteem.

Little League sporting events provide an excellent opportu-
nity for observing the interpersonal roots of self-evaluative
styles. At a recent soccer game, one player's father strode up and
down the sidelines, yelling at his son to "do something with the
ball." If the boy managed to kick the ball in the right direction,
his father beamed approvingly and called out, "That's more like
it" or "That's my boy!" If, instead, the young player was unsuc-
cessful, his father seemed angry, frustrated, and ashamed of
him, often yelling out nothing more than a tormented "No!"
and burying his face in his hands as he turned away.

Many psychologists would suspect that repeated experience
with this kind of interaction might have an impact on the boy's
sense of self. Theorists of self-construal and self-evaluation typ-
ically maintain that the sense of self is largely, if not entirely,
socially constructed, through interaction with and feedback
from significant others (e.g., Cooley, 1902; James, 1890; Mead,
1934; Shotter & Gergen, 1989). If so, one of the principal mes-
sages the boy is likely to learn from this kind of feedback is that
he is accepted by significant others and worthy of praise to the
extent he is successful but that he is likely to be rejected when
showing any signs of incompetence or failure.

A concern with such contingencies of interpersonal accep-

tance may be shared by all people to a degree and, indeed, may
be the basis of self-feelings and socialization. Sullivan (1953),
for example, held that to maintain a sense of secure relatedness
to others, children are generally motivated to act in ways that
make significant others more responsive and nurturing, rather
than anxious and rejecting. More recently, Leary and colleagues
(e.g., Leary, Tambor, Terdal, & Downs, 1995; see also Baldwin
& Holmes, 1987; Baumeister & Tice, 1990; Greenberg, Pyszc-
zynski, & Solomon, 1986; Hogan, Jones, & Cheek, 1985; Sa-
fran, 1990) argued that feelings of self-esteem proceed from a
sense of acceptance by others. Successes and failures, therefore,
bolster or undermine feelings of self-esteem precisely because
they affect one's expectations of being accepted or rejected by
others. The specific content of these contingencies may vary,
depending on one's culture and upbringing, of course, but most
people would have no difficulty identifying socially desirable
traits and behaviors (e.g., success, competence, morality, physi-
cal attractiveness, and social skills) that generally lead a person
to be accepted and included by others and corresponding nega-
tive traits and behaviors (failure, incompetence, immorality,
unattractiveness, and lack of social skills) that lead a person to
be rejected or avoided by others (see, e.g., Leary et al., 1995).

Still, as Rogers (1959) and numerous authors since pointed
out, individuals differ in the degree to which they anticipate that
interpersonal acceptance is conditional versus unconditional.
The sense that one's social world is characterized by highly con-
ditional acceptance, or *contingent acceptance,* has been identi-
fied as a significant contributor to self-esteem problems, depres-
sion, and anxiety (e.g., Deci & Ryan, 1995; Hewitt & Flett,
1991; Kuiper & Olinger, 1986; Rogers, 1959). This type of ex-
pectation can make an individual overly concerned and perfec-
tionistic about his or her performance outcomes, highly vigilant
for interpersonal feedback, and prone to instability in self-es-
teem and related affects (e.g., Brown & Dutton, 1995; Kernis &
Waschull, 1995). Ultimately, the repeated experience of con-

tingent acceptance can produce chronically low self-esteem, as the person learns that he or she is less worthy as a person if failing or not performing the behaviors desired by others (Harter, 1993).

We had two major goals in conducting the present studies. The first was to develop a social–cognitive model of contingency expectations, which could facilitate research into the dynamics of self-esteem. Many theorists have written of the importance of interpersonal expectations, but little work has been done to examine their structure and information-processing effects. Recently, however, research and theory in a number of diverse literatures began to focus on the cognitive representation of interpersonal information of various sorts (e.g., Cantor & Kihlstrom, 1987; Horowitz, 1988; Planalp, 1987; Safran, 1990; see Baldwin, 1992, for a selective review). The central construct is the *relational schema*. Relational schemas are conceptualized as associative networks of knowledge about typical interpersonal situations and the thoughts (e.g., self-schemas and other-schemas) and feelings (e.g., trust or shame) experienced in those situations. After repeated experience with a disapproving father, for example, a boy might develop a set of overlearned interpersonal expectations, cognitively represented as a script for the typical interaction between self and other. This script is hypothesized to be represented in "if. . . then" expectancies; in this case, "If I fail, then my father will reject me" or "If I succeed, then my father will love me more."

As argued elsewhere (e.g., Baldwin, 1992, 1994, 1995), the advantage of conceptualizing interpersonal expectations as relational schemas is that they can then be examined using all the tools of the social–cognitive trade, including recall, attention, and reaction time paradigms. After a failure, for example, people might be especially vigilant for negative responses, might interpret ambiguous responses as rejection, and might preferentially recall rejection when thinking back on the event (see Baldwin, 1992, for an elaboration of these hypotheses). The development of information-processing paradigms such as these (see also, Williams, Watts, MacLeod, & Mathews, 1988) is a welcome addition to self-report techniques, which, despite their recognized limitations, have tended to dominate research into self-evaluative and interpersonal beliefs.

One experimental paradigm that has proven useful in the past is based on the principle of *construct activation*, or *priming* (e.g., Higgins & King, 1981; Sedikides & Skowronski, 1991): A number of studies have shown that subtly reminding a person of a contingently accepting significant other makes the person momentarily more self-critical about current failures and shortcomings, mimicking the self-evaluative dynamics seen in chronically low-self-esteem individuals. In one experiment (Baldwin & Holmes, 1987; see also Baldwin, 1994), participants performed a guided visualization, in which they imagined interacting with someone who was either contingently or noncontingently accepting of them. When participants later were made self-aware while performing poorly on a memory task, those who had visualized a contingent person reported much more critical self-evaluations. Thus, priming studies have demonstrated that the activation of contingency expectations influences participants' self-evaluative styles. In the current article, we report yet another priming study (Study 3).

Our major methodological goal with these studies, however,

was to introduce an additional research paradigm that might prove useful in this area. As the field progresses, numerous methods are being developed to assess the structure and functioning of relational schemas. One promising method from cognitive psychology that has not been fully exploited in the study of relational expectations is the *lexical-decision* task (Meyer & Schvaneveldt, 1971; see Neeley, 1991, for a review). In this task, the participant reads a string of letters and attempts to identify as quickly as possible whether it is a word or a nonword. Reaction times for words are quicker if a context that is related to the target word has been provided. For example, participants recognize *nurse* as a word more quickly if they have just read *doctor* than if they have just read an unrelated word, such as *bread.*

Previous social psychological research with the lexical-decision task has shown that it can be used to reveal the associative links between elements of social knowledge. For example, in a study of stereotyping, Gaertner and McLaughlin (1983) showed that participants were quicker to identify the word *ambitious* if they had been primed with *Whites* than if they had been primed with *Blacks* (see also Fazio, Jackson, Dunton, & Williams, 1995, for a review of related research).

With respect to relational schemas, the lexical-decision task can be used to determine whether certain behavioral contexts are associated in cognitive structure with expectations of certain interpersonal outcomes. In a recent study of attachment orientations in close relationships (Baldwin, Fehr, Keedian, Seidel, & Thomson, 1993), participants read context sentences, such as, "If I trust my partner, then my partner will . . . ," and then tried to identify a letter string as a word or nonword. As predicted, people were quicker to identify words that matched their interpersonal expectations; for example, avoidantly attached participants were somewhat quicker to identify the target word *hurt* after being given the context of trust.

In the present studies, we used the lexical-decision approach to assess expectations about contingencies of acceptance. Through repeated experience with some "if. . . then" pattern, a script can become overlearned to the point of functioning automatically to create interpersonal expectations. Therefore, if a person has a relational schema to the effect that interpersonal acceptance is contingent on successful performance, then this expectation will facilitate a lexical-decision trial in which a context of *success* is followed by a target word representing *acceptance*. Similarly, a context of *failure* will facilitate the identification of target words representing *rejection*. Thus, findings of this sort would support the notion that people have relational schemas representing conditional acceptance and simultaneously demonstrate the utility of the lexical-decision task as a means of identifying these expectations.

In a pilot study (Baldwin & Brugger, 1995), participants read, on a computer screen, sentence stems relevant to success or failure, such as, "If I fail a test, then I will be. . . ." After each sentence stem, they performed a lexical decision on letter strings that included words relevant to acceptance or rejection, such as *disliked.* We chose the contexts of success and failure on the assumption that for North American university students, the dimension of competence is likely to be a critical one underlying contingent acceptance. Indeed, the lexical-decision task was effective at revealing expectations of contingencies be-

tween interpersonal acceptance and performance: The predicted Context (success vs. failure) × Target (acceptance vs. rejection) interaction was significant, and planned contrasts showed that people were 103.08 ms quicker to identify acceptance words in the context of success than in the context of failure and nonsignificantly (27.76 ms) quicker to recognize rejection words in the context of failure than in the context of success.

Contrary to predictions, however, this contingency pattern was no more pronounced for low-self-esteem individuals than for high-self-esteem individuals. The absence of individual differences might have been due to the particular format of the lexical-decision task used. Neeley (1991; see also Power & Brewin, 1990) argued that when stimuli are presented slowly, as the context sentences were in this pilot study, participants have time to deliberately formulate expectations about, and prepare for, the target that is likely to follow. This issue may be inconsequential in many studies, but the possibility exists that such controlled processing might interfere with the effects of interest if these are determined by more automatic processes. Leary et al. (1995) argued that the process of judging social acceptance often takes place at a preconscious, automatic level. Accordingly, expectations of contingency should influence reactions to even subtly or briefly presented stimuli and should not require the degree of explicitness reflected in the sentences in the pilot study. Reasoning that the predicted effects of individual differences might be more likely to emerge under conditions in which controlled processing is kept to a minimum, therefore, we refined the paradigm by replacing the sentence stems with single-word contexts.

In Study 1, high- and low-self-esteem individuals performed a lexical-decision task in which success and failure context words were followed by acceptance and rejection target strings. In Study 2, we added additional targets of positive and negative valence, to examine the possibility that valence congruency was the basis of the findings in Study 1. Finally, in Study 3, participants performed the lexical-decision task after a priming manipulation, which was designed to activate a sense that acceptance was either noncontingent or else highly contingent on success.

Study 1

In Study 1, undergraduate participants read context words relevant to success or failure and then performed a lexical decision on letter strings that included words relevant to acceptance or rejection, such as *disliked*. We expected that low-self-esteem individuals would show a pronounced Context × Target interaction in their reaction times, so that they would identify acceptance targets more quickly after the presentation of a success context word and rejection targets more quickly after the presentation of a failure context word.

Method

Participants. One hundred thirteen undergraduate students participated voluntarily for course credit. They were asked to volunteer only if they were completely fluent in English; however, interactions with some participants, as well as their high level of error rates, suggested that this might not have been the case for them. For this reason, data from 8

participants were discarded, due to their not meeting the criteria of at least two error-free trials for each stimulus condition and fewer than two error trials per condition on average. Data from 1 participant were discarded because of an equipment failure. This left a final sample of 104 (32 male and 72 female) participants, with ages ranging from 18 to 44 and a median age of 18 years.

Stimuli. We used a thesaurus to generate 96 words for the lexical-decision task. Of these words, 48 served as the context stimuli. These included 16 success words (e.g., *win* and *competent*), 16 failure words (e.g., *lose* and *incompetent*), and also 16 neutral words (e.g., *begin* and *estimate*), to allow an examination of target effects independent of the performance context. The remaining 48 words served as the target stimuli and comprised 24 acceptance words (e.g., *cherished* and *respected*) and 24 rejection words (e.g., *abandoned* and *ridiculed*). By taking common words (e.g., *listened* and *hammer*) and changing one letter (e.g., *lisrened* and *hammen*), we generated 48 nonwords. The 96 target strings were then combined with the 48 context words. Counterbalancing was performed by first separating context words into subsets of success, failure, and neutral stimuli and separating outcome targets into acceptance and rejection words. The three sets of context words were then paired with each set of outcome words, to create six different lists of context-target pairs (within sets, the specific words were paired randomly for each participant by the computer). This allowed for the independent assessment of target and context effects while controlling for possible variation in reaction times to individual target words.

Additionally, each context word was also paired with a nonword. Thus, each of the 48 context words was presented twice in the lexical-decision task (once with a nonword and once with either an acceptance or rejection word), for a total of 96 trials. Each of the 48 target words was presented only once. Context–target pairs were presented in a different random order for each participant.

Apparatus. We programmed the lexical-decision task by means of the Micro Experimental Laboratory (Schneider, 1990), a package that allows one to create customized programs for psychological experiments. The task was run on IBM-compatible personal computers that had been adjusted to a uniform level of brightness and contrast using a light meter. Levels were set somewhat low, and the lexical-decision targets were displayed in light-gray letters, because degrading the target has been shown to increase the lexical-decision relatedness effect (Stanovich & West, 1983). The context words and all instructions were displayed in white lettering on a black background.

Procedure. Each participant was seated at a computer and asked to read over and sign a consent form and then follow the instructions on the screen. To familiarize participants with the lexical-decision task, they first were given nine practice trials, in which they were shown a letter string and asked to decide if it was a word or nonword. They pressed the space bar to initiate each trial and then pressed either the 1 key on the number pad, to indicate that the letter string was a word, or the 2 key, to indicate a nonword. It was emphasized that they should respond quickly but accurately.

After a set of practice trials, participants were told that "to make this task a little more difficult" they would be shown some distractor words before the target words appeared. On each trial, a context word was presented for 700 ms, followed by a 300-ms pause, and then the target letter string was shown for 2 s.[1] Participants were instructed to attend to

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[1] Reaction time data exhibit a significant degree of variability and skewness, typically requiring researchers to transform the data (e.g., with logarithmic transformations) before analyses. We have found that by programming a time limit of 2 s per trial, extremely long latencies (which quite likely are produced by inattention or lack of familiarity with the target word) are coded as missing, and so the data do not need to be transformed. This approach typically yields results very similar to those of transformed data and produces means based on raw latencies rather than transformed data, which would be less directly interpret-

Table 1

Mean Reaction Times to Acceptance and Rejection Target Words as a Function of Context and Self-Esteem (Study 1)

	Target words			
	Low self-esteem		High self-esteem	
Context	Acceptance	Rejection	Acceptance	Rejection
Failure				
M	803.99	828.80	786.92	846.77
SD	147.74	162.33	126.43	156.97
Success				
M	790.06	856.81	793.34	833.96
SD	157.33	166.59	142.34	151.47
d(F − S)	13.93	−28.01	−6.42	12.81

Note. Reaction times are in milliseconds. For low self-esteem, $n = 53$; for high self-esteem, $n = 51$. $d(F - S)$ represents the difference between means in the failure and success conditions. Positive numbers indicate quicker identification of the target words in the success condition; negative numbers indicate quicker identification in the failure condition.

success, $t(52) = 1.84$, $p = .04$, one-tailed. Conversely, they were 13.93 ms quicker at identifying acceptance targets in the success than the failure condition, although this contrast was not significant, $t(52) = 1.03$, *ns.* Thus, reaction times to rejection targets seemed particularly responsive to the contingency associations held by low-self-esteem individuals.[4]

Discussion

In keeping with many models of the interpersonal roots of self-esteem, low-self-esteem individuals appeared to have a chronically accessible relational schema, in which success and failure are associated with acceptance and rejection, respectively. Reaction times showed the predicted three-way interaction between self-esteem, context, and target: Low-self-esteem individuals recognized rejection words, in particular, 28.01 ms more quickly in the failure context than in the success context. The interaction also comprised the opposite trend for acceptance words, which low-self-esteem individuals identified somewhat more quickly in the success context than in the failure context. The planned contrast, however, was not significant. High-self-esteem individuals, in contrast, did not show any evidence of this contingency pattern. Thus, the lexical-decision task was able to detect individual differences in interpersonal expectancies.

There was also a main effect for valence of the target, in the success and failure contexts as well as in the neutral context, so that acceptance words were recognized more quickly overall than failure words. This effect is suggestive of a bias toward recognizing positive social information, as has been found in some previous research (e.g., Niedenthal & Setterlund, 1994; also in the Baldwin & Brugger, 1995, pilot study). People may be able to process acceptance words more quickly and efficiently than rejection words, which may be associated with negative or defensive reactions. (Other research showed, however, that under some conditions, people process negative information more efficiently; see, e.g., Pratto & John, 1991.) Because the main

effect for target valence was not a prediction or focus of the study, no effort was made to carefully control the many graphic and semantic characteristics of the acceptance and rejection words. The task of generating 24 acceptance and 24 rejection words did not need to be rendered even more difficult by trying to match the word lists carefully on number of characters, familiarity, and so on. Therefore, the overall reaction time difference between these sets of targets may simply reflect some specific characteristics of the words chosen; for example, positive words are more common in our language than negative words, so it should not be surprising that they are recognized more quickly.

In any event, the focus of this research was on interaction effects reflecting contingency between performance contexts and interpersonal outcomes, and this study showed clear evidence that contingency expectations were stronger for low-self-esteem than high-self-esteem individuals. Having established this basic finding, we conducted two additional studies to examine possible alternative explanations and then extend the finding to priming effects.

Study 2

One plausible alternative explanation of the contingency finding could be that it may simply represent affect or valence congruency between the context and target words. Although the literature on affective congruency in the lexical-decision task is

[4] Preliminary analyses involving other individual-difference variables revealed two unanticipated interactions involving gender. Women showed faster reaction times than men to rejection words ($M = 830.13$ vs. 867.43) but not to acceptance words ($M = 792.34$ vs. 796.59), interaction $F(1, 102) = 4.31$, $p < .05$. This finding was consistent with some previous research, showing that women tend to be more sensitive than men to interpersonal cues (e.g., Josephs, Markus, & Tafarodi, 1992) and perhaps to rejection, in particular (e.g., Leary et al., 1995). Gender also interacted with self-esteem, so that across conditions, low-self-esteem men and high-self-esteem women had quicker reaction times in general than high-self-esteem men and low-self-esteem women, $F(1, 100) = 8.06$, $p < .01$. Because this latter finding extended across contexts and targets, it perhaps represented participants' overall level of motivation or attention to the task. Gender did not interact with the critical Context × Target interaction, however; and there were no gender effects in Studies 2 and 3, so subsequent analyses were conducted collapsing across gender. Two additional individual-difference measures, the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991) and the Trait Self-Criticism Scale (Barnett & Gotlib, 1988) were also included, to explore the possibility that contingency expectations on the lexical-decision task might correlate with other self-evaluative styles related to self-esteem. In this first study, people who were high in socially prescribed perfectionism were quicker than their low-perfectionism counterparts to identify rejection words ($M = 829.29$ vs. 853.94) but not acceptance words ($M = 796.89$ vs. 790.41), $F(1, 102) = 4.49$, $p < .05$. Similarly, highly self-critical participants were quicker than low-self-critical participants to identify rejection words ($M = 826.30$ vs. 858.80) but not acceptance words ($M = 798.34$ vs. 788.71), $F(1, 102) = 8.38$, $p < .01$. Although these findings make intuitive sense, they were not replicated in Study 2, and as a result, perfectionism and self-criticism were not addressed in Study 3. Because self-esteem was the only individual-difference variable to interact with the Context × Target contingency effect, we chose to focus on this variable.

mixed (e.g., Challis & Krane, 1988; Clark, Teasdale, Broadbent, & Martin, 1983), some studies showed that positively and negatively valenced words are responded to differentially in contexts involving positive and negative moods (e.g., Niedenthal & Setterlund, 1994). Therefore, one could surmise that, for example, when low-self-esteem individuals read a failure word, this induces negative affect, and this makes them quicker at identifying any negatively valenced word, whether or not it has anything at all to do with interpersonal rejection (see, e.g., Fazio, Sanbonmatsu, Powell, & Kardes, 1986, for related findings in the attitude literature). Although this might be an interesting finding in itself, it is not the hypothesis of the current studies, which are intended to focus on interpersonal contingencies, so we sought to rule out this explanation.

In Niedenthal and Setterlund's (1994) lexical-decision study, in which they found evidence of mood congruency, moods facilitated the processing only of words that specifically matched the primed mood (e.g., *joy* and *despair*), but not of other similarly valenced words (e.g., *wisdom* and *decay*). In Study 2, therefore, we introduced an additional set of target words involving positively and negatively valenced—but noninterpersonal—words. We predicted that the contingency pattern of means, observed in Study 1 for low-self-esteem individuals, would be evident only for interpersonal outcomes and not for other positive and negative target words.

Method

Participants. Seventy-four undergraduate students participated voluntarily for course credit. Data from 3 participants were discarded following the same criteria as in Study 1. This left a final sample of 71 (21 male, 49 female, 1 unspecified) participants, with ages ranging from 17 to 47 and a median age of 19 years.

Stimuli. The stimulus sets from Study 1 were modified by replacing half the acceptance and half the rejection target words with 12 positive (e.g., *freedom, amuse,* and *tranquil*) and 12 negative (e.g., *stealing, decay,* and *vulgar*) noninterpersonal words. These words were drawn from norm lists prepared by Taglia and Battig (1978) and represented the most positive and most negative items from a list of moderately familiar words. Counterbalancing was done in the same way as in Study 1, with the modification that each participant received four, rather than eight, trials of each form of pairing (e.g., success–acceptance and success–positive). As in Study 1, each target word was presented only once, and context–target pairs were presented randomly for each participant.

Procedure. The procedure and apparatus were identical to Study 1.

Results

Preliminary analyses. Participants were designated as high or low self-esteem on the basis of a median-split procedure ($Mdn = 57$). Participants responded incorrectly or after the time limit on 11.0% of the nonword and 7.1% of the word trials; these error trials were discarded. We computed a mean reaction time for each of the context–target pairings, averaging across the constituent trials. Analyses of the nonword trials showed no significant effects ($Fs < 1.65$). For word trials in the neutral condition, there was an effect only for target valence, showing that across interpersonal and noninterpersonal targets, positive words were recognized more quickly ($M = 785.05$, $SD = 145.11$) than negative words ($M = 868.98$, $SD = 167.68$), $F(1, 69) = 25.54$, $p < .001$. This effect was significant for noninter-

personal words ($M = 788.39$ vs. 885.48 ms) as well as interpersonal words ($M = 781.70$ vs. 852.47 ms), thus extending the valence finding beyond the specific targets used in Study 1.

Major analyses. The primary analysis was a repeated measures ANOVA involving the success and failure contexts and the interpersonal and noninterpersonal target words. As in Study 1, there was no evidence of an overall context effect ($F < 1.00$, ns), but there was a significant effect for target valence, $F(1, 70) = 57.25$, $p < .001$, so that positive words ($M = 787.04$ ms, $SD = 139.91$) were identified 74.38 ms more quickly than negative words ($M = 861.42$, $SD = 135.41$). This effect was moderated by a significant Target Valence × Target Type interaction, $F(1, 70) = 4.11$, $p < .05$, indicating that although the valence effect was significant for both types of target words, it was larger for interpersonal words (93.78 ms) than for noninterpersonal words (54.98 ms). Finally, also in keeping with Study 1, the overall Context × Valence interaction did not approach significance ($F < 1$).

The primary prediction was that reaction time patterns would not be identical across interpersonal and noninterpersonal targets. The predicted four-way interaction between self-esteem, context, target valence, and target type was significant, $F(1, 69) = 4.36$, $p < .05$ (see Table 2). This effect can be interpreted by examining the effects of context and target valence, within each level of the self-esteem and target-type variables. First, as anticipated on the basis of Study 1, for the interpersonal

Table 2
Mean Reaction Times to Interpersonal and Noninterpersonal Target Words as a Function of Context and Self-Esteem (Study 2)

	Low self-esteem		High self-esteem	
Context	Acceptance	Rejection	Acceptance	Rejection
	Interpersonal target words			
Failure				
M	811.37	869.42	749.77	869.96
SD	197.02	162.97	192.78	151.31
Success				
M	764.96	867.21	768.49	863.94
SD	140.36	192.36	154.31	158.19
d(F − S)	46.41	2.21	−18.72	6.02
	Noninterpersonal target words			
	Positive	Negative	Positive	Negative
Failure				
M	803.79	886.83	793.93	809.38
SD	165.29	215.48	182.64	164.34
Success				
M	823.57	860.58	778.82	862.96
SD	172.66	166.33	145.62	177.71
d(F − S)	−19.78	26.25	15.11	−53.58

Note. Reaction times are in milliseconds. For low self-esteem, $n = 36$; for high self-esteem $n = 35$. d(F − S) represents the difference between means in the failure and success conditions. Positive numbers indicate quicker identification of the target words in the success condition; negative numbers indicate quicker identification in the failure condition.

targets, the Context × Valence interaction was not significant for high-self-esteem individuals ($F < 1.00$). This interaction also was not significant for the low-self-esteem individuals in this study ($F = 1.00$), but the pattern of means was consistent with the findings in Study 1, and the planned comparisons showed that low-self-esteem people recognized acceptance words 46.41 ms faster in the success than in the failure context, $t(35) = 1.71, p < .05$, one-tailed test. Low-self-esteem individuals, then, again showed some indication of contingency expectations on these interpersonal items, particularly on the acceptance words in this study.

Our major goal with this study was to test whether low-self-esteem individuals would show a similar contingency pattern on noninterpersonal words. As displayed in Table 2, low-self-esteem individuals did not show the same pattern on the noninterpersonal items, and the Context × Valence interaction effect was nonsignificant ($F < 1.10$) with these stimuli. Therefore, although the pattern for interpersonal acceptance and rejection words was consistent with Study 1, the pattern for noninterpersonal positive and negative words was not. The significant four-way interaction argues against a simple valence-congruency interpretation of the contingency findings.

When considering the responses of high-self-esteem participants to the affect targets, the Context × Valence interaction was marginally significant, $F(1, 34) = 3.70, p = .063$. High-self-esteem participants recognized negative (noninterpersonal) words somewhat more quickly in the failure than the success context. This effect was unanticipated and is discussed shortly.

Discussion

The predicted four-way interaction effectively ruled out the possibility that the contingency effect observed for low-self-esteem individuals in Study 1 was due simply to a valence-congruency effect. Although for low-self-esteem participants in this study, the contingency interaction did not reach conventional levels of significance, the means were clearly in the predicted direction, and the planned comparisons showed evidence of contingency. More to the point, however, the noninterpersonal words showed an entirely different pattern. Given this finding, it would be difficult to argue that the contingency effects in Study 1 were due simply to valence congruency between the context and target words. Rather, it seems to be interpersonal rejection and acceptance, in particular, that low-self-esteem individuals associate with failure and success.

There was some evidence for valence congruency on the noninterpersonal stimuli, but only for high-self-esteem individuals. It is not immediately apparent why this should be the case, and this finding deserves to be replicated. It suggests, however, that high-self-esteem people do find failure a negative event, even though they do not seem to automatically link their performance with the interpersonal outcomes of acceptance and rejection. Deci and Ryan (1995) recently argued that although high-self-esteem people may be less likely to base their self-evaluations on feedback from others, they still may feel dissatisfaction from not meeting their own standards. Further research is required to explore the nature of this finding. In terms of our goals in designing the study, however, this effect involving noninterpersonal words is welcomed because it demonstrates that

the lack of effect for low-self-esteem individuals on these targets was not simply due to a total insensitivity of these stimuli.

Once again, there was a main effect for valence of the target words, with positive words identified more quickly than negative words. Although this effect was largest for interpersonal words, it was also significant for the noninterpersonal words, further attesting to the robustness of the phenomenon.

As we hoped to establish with this study, the evidence was fairly clear that the contingency effect for interpersonal words cannot easily be attributed to valence congruence; indeed, the patterns of means for high- and low-self-esteem individuals were almost opposite for the interpersonal and noninterpersonal words. In the final study, we examined the question again but investigated the effects of a temporary manipulation of evaluative style rather than the correlates of chronic self-esteem.

Study 3

The first two studies were designed to test the hypothesis that people with low self-esteem have chronically accessible relational schemas, representing expectations of conditional acceptance, and also that the lexical-decision task would be a useful tool for studying these expectancies. In the final study, we took an experimental rather than correlational approach and attempted to manipulate directly the psychological mechanism hypothesized to underlie the individual-difference effects in the first two studies. By means of the guided-visualization procedure used in previous research (Baldwin, 1994; Baldwin & Holmes, 1987; Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996), we sought to activate contingent-acceptance relational schemas in a random sample of participants. We then assessed whether the lexical-decision task would be sufficiently sensitive to register the information-processing effects of temporarily activated relational schemas.

Method

Participants. Forty undergraduate students participated voluntarily for course credit. Data from 3 participants were discarded following the same criteria as in the previous studies. This left a final sample of 37 (10 male and 27 female) participants, with ages ranging from 18 to 39 and a median age of 19 years.

Procedure. The lexical-decision stimuli and apparatus were identical to those used in Study 3. The procedure was modified slightly, in that the measures were changed somewhat and the priming phase was introduced. After signing the consent form, participants indicated their gender and age and then completed the 10-item Rosenberg (1965) Self-Esteem Scale. Next, participants filled out a short questionnaire, asking them to provide the name or initials of people matching four descriptions, including a famous person, a casual acquaintance, and a classmate. Depending on the experimental condition (noncontingent vs. contingent prime), the remaining description was either of "a person who tends to be very accepting and nonevaluative of you and simply accepts you for who you are" or of "a person who tends to be very evaluative of you and seems to accept you only if you live up to certain standards of performance." Then, participants were instructed to visualize first the casual acquaintance and then the accepting or contingent person (depending on condition), ostensibly to compare which of their two visualizations was the easiest and most vivid. For each visualization, participants were given written instructions to follow, on the basis of those used by Baldwin and Holmes (1987). For example, in this study

they were instructed to "see a picture of the person's face" and "imagine the person is there with you" (Baldwin & Holmes, 1987, p. 1089). After each visualization, there were three rating scales (clarity, ease, and realism), to support the cover story that we were comparing visualizations. After the priming manipulation, participants turned to the computer and performed the lexical-decision task. Participants then were debriefed and thanked.

Results

Preliminary analyses. Participants responded incorrectly or after the time limit on 12.2% of the nonword and 7.1% of the word trials; these error trials were discarded. Mean reaction times were computed for each of the context–target pairings. Analyses of the nonword trials showed only an effect of context, $F(2, 70) = 4.49$, $p < .05$, so that nonwords were identified as such more quickly in the neutral context ($M = 921.95$, $SD = 222.25$) than in the success context ($M = 956.46$, $SD = 225.62$) or failure context ($M = 965.50$, $SD = 218.06$). For word trials in the neutral condition, there was only an effect for target valence, showing that across interpersonal and noninterpersonal targets, positive words again were recognized more quickly ($M = 794.80$, $SD = 175.21$) than negative words ($M = 875.11$, $SD = 177.88$), $F(1, 35) = 14.95$, $p < .001$. Preliminary analyses showed no effects involving chronic self-esteem, so subsequent analyses were conducted collapsing across this variable. The absence of self-esteem effects in this study is perhaps not surprising due to the impact of the visualization manipulation, because individual-difference effects are known to be more influential when situational pressures are low (e.g., Monson, Hesley, & Chernick, 1982).

Major analyses. The primary analysis was a repeated measures ANOVA, involving the success and failure contexts and the interpersonal and noninterpersonal target words, with priming condition as a between-subjects variable. As in the previous studies, there was no evidence of an overall context effect ($F < 1.00$, ns) but there was a significant effect of target valence, $F(1, 35) = 25.91$, $p < .001$, so that once again, positive words ($M = 788.90$, $SD = 146.68$) were identified more quickly than negative words ($M = 863.13$, $SD = 190.04$). In this study, the overall Context × Valence interaction also was significant, indicating that positive words were recognized 10.09 ms more quickly in success than in failure contexts and negative words were recognized 34.89 ms more quickly in failure contexts than in success contexts, interaction $F(1, 35) = 5.37$, $p < .05$. Although this contingency pattern was somewhat more pronounced for interpersonal words, the Context × Target Valence × Target Type interaction did not approach significance ($F < 1$).

The predicted four-way Prime × Context × Target Valence × Target Type interaction was not significant ($F < 2.00$; see Table 3). On the strength of the previous studies, the effects of context and target valence were examined within each level of the prime and target-type factors. First, as anticipated on the basis of the previous studies, for individuals in the noncontingent condition, the two-way Context × Valence interaction was not significant for interpersonal targets ($F < 1.00$). For those in the contingent-prime condition, however, there was a clear pattern of contingency associations: The Context × Target Valence interaction reached conventional levels of significance, $F(1, 19) = 5.44$, $p < .05$, and the pattern of means was consistent with

Table 3
Mean Reaction Times to Interpersonal and Noninterpersonal Target Words as a Function of Context and Prime Condition (Study 3)

| | Prime condition | | | |
| | Contingent | | Noncontingent | |
Context	Acceptance	Rejection	Acceptance	Rejection
	Interpersonal target words			
Failure				
M	824.43	838.41	778.40	859.31
SD	199.41	238.57	150.68	182.89
Success				
M	783.34	921.44	753.83	827.01
SD	159.04	257.18	138.84	134.67
d(F − S)	41.09	−83.03	24.47	32.30
	Noninterpersonal target words			
	Positive	Negative	Positive	Negative
Failure				
M	784.35	862.58	784.94	820.62
SD	213.46	252.89	143.44	154.16
Success				
M	800.17	891.29	795.30	873.55
SD	190.17	252.20	149.42	166.75
d(F − S)	−15.82	−28.71	−10.36	−52.93

Note. Reaction times are in milliseconds. For contingent-prime condition, $n = 17$; for noncontingent prime condition, $n = 20$. $d(F − S)$ represents the difference between means in the failure and success conditions. Positive numbers indicate quicker identification of the target words in the success condition; negative numbers indicate quicker identification in the failure condition.

the findings in the previous studies. The planned comparisons showed that these contingent-prime participants recognized rejection words 83.03 ms faster in the failure than in the success context, $t(19) = 2.38$, $p = .01$, one-tailed test. They also recognized acceptance words 41.09 ms faster in the success than in the failure context, but this comparison was nonsignificant, $t(19) = 1.13$, ns. People who had visualized a contingent relationship, then, showed clear evidence of contingency expectations on the interpersonal items. As seen in Table 3, participants again did not show a similar pattern on the noninterpersonal items: The Context × Valence effect for both the contingent- and noncontingent-prime groups was nonsignificant ($Fs < 1.00$).

Discussion

People who were temporarily primed by visualizing a contingently accepting relationship showed effects very similar to those of the chronically low self-esteem participants in Studies 1 and 2. Their reaction times indicated that as hypothesized in previous research (Baldwin, 1994; Baldwin & Holmes, 1987), the prime activated a relational schema in which failure was associated with rejection and, perhaps to a lesser extent, success was associated with acceptance. This provides further support

for theoretical models holding that the cognitive structures relevant to chronically low self-esteem involve the kinds of relational expectations that arise from interaction with highly evaluative, conditionally accepting others. The finding that these expectations can be activated in a random sample of participants, however, suggests that the critical feature in low self-esteem may not be the mere presence in memory of such representations: Most people probably have experienced contingent acceptance often enough to establish a representation of that form of relatedness, and when it is activated the effects are powerful enough to overshadow individual differences. Rather, low- and high-self-esteem people may differ in the chronic accessibility, or likelihood of activation, of these dysfunctional relational schemas. Probably all of us know what it is like to be accepted conditionally, but for low-self-esteem individuals, this may be a predominant state of mind.

General Discussion

Charlie Brown, hapless protagonist from the comic strip "Peanuts," scuffs his way home after dropping a fly ball and losing the championship for his baseball team. Earlier, as he was positioning himself to catch the ball, his contingency expectations had become apparent as he thought, "If I catch it, we'll win the championship, and I'll be the *hero;* If I miss it, I'll be the *goat.*" Now, looking over at the winning team proudly carrying their manager on their shoulders, he reflects on the symbolism of his solitary trek homeward, wistfully observing, "Heroes ride. Goats walk" (Schultz, 1957).

As our results indicate, other low-self-esteem individuals seem also to link success with acceptance and failure with rejection. The perception that interpersonal acceptance is conditional on performance is theorized to lead people to develop a precarious or vulnerable sense of self-esteem, rather than a feeling of unconditional positive self-regard (Rogers, 1959). It is thus not surprising that persons with this perception become highly ego involved in their performances, as their self-worth is continually "on the line" (Kernis & Waschull, 1995, p. 99).

These findings are consistent with a number of recent self-esteem theories derived from the classic writings of Rogers (1959), Sullivan (1953), and the symbolic interactionists (e.g., Cooley, 1902; Mead, 1934). In most models, truly high self-esteem is assumed to be based in unconditional self-acceptance, derived in large part from secure, affectionate relationships with parents (Brown & Dutton, 1995; Deci & Ryan, 1995). Contrasted with this is contingent self-esteem, in which feelings of self-worth are dependent on matching evaluative standards; this evaluative style is assumed to derive from relationships with critical, inconsistent, or judgmental significant others (Deci & Ryan, 1995; Higgins, 1987; Kernis & Waschull, 1995). Some authors (e.g., Brown & Dutton, 1995; Harter, 1993) argue that, as our data indicated, this latter style tends to be closely associated with low self-esteem because it implicitly undermines any sense of intrinsic self-worth and also repeatedly leaves the person feeling unworthy as a result of life's inevitable failures and disappointments. Others (e.g., Deci & Ryan, 1995) point out that it is also possible to have contingent *high* self-esteem, so long as one is continuously successful (although, as they argue, this form of tenuous self-regard takes its own toll in terms of

reduced intrinsic motivation and autonomy feelings). We suspect that both views are correct and anticipate conducting further research to clarify the nature of high and low self-esteem and the specific self-evaluative problems that tend to be associated with contingent relational schemas. For example, the lexical-decision pattern found in the current studies might correlate with the stability, as well as the overall level, of self-esteem (Kernis & Waschull, 1995); people who feel that acceptance is precarious and conditional might be expected to have strong emotional reactions to even minimal successes and failures.

Previous research indicated that individual differences in reactions to failure outcomes (e.g., Brown & Dutton, 1995) and interpersonal rejections (e.g., Leary et al., 1995) tend to be greater than reactions to success and acceptance. In our data, there was some inconsistency in the locus of the effects: The lexical-decision reaction times were more pronounced on the acceptance items in Study 2 but the rejection items in Studies 1 and 3. It seems plausible that people with accessible contingency expectations might be able to shift between a positive and a negative outcome focus—between seeking acceptance and avoiding rejection—based on extraneous factors such as mood, recent experiences, and so on (see, e.g., Higgins, Roney, Crowe, & Hymes, 1994). Therefore, perhaps some subtle differences across the studies contributed to variation in the contingency pattern. We are currently investigating this general idea, examining various personality variables and how they interact with acceptance versus rejection primes, to see if different people might be differentially responsive to certain types of feedback. We also plan to investigate different types of criteria for contingent acceptance: The focus in the present studies was on success and failure, as competence is unquestionably a central standard in our culture (e.g., Baumeister & Tice, 1990; Harter, 1993). Individuals surely vary immensely, however, on the specific criteria they attend to, such as attractiveness, wealth, piety, powerfulness, or unselfishness, and these specific contingencies contribute substantially to individual differences in social behavior (Mischel & Shoda, 1995).

One advantage of the social–cognitive approach is that it lends itself to the study of both temporary and chronic differences between individuals. Consider the representation of interpersonal experience in memory: People presumably store episodic memories about past interactions and social feedback, and these memories can influence the processing of current information. For example, in Study 3, it was possible to activate contingency expectations in a random sample of participants, merely by having them visualize a single contingent relationship. If a person experiences this kind of feedback on a regular basis, though, contingency associations can become overlearned to the point that low-self-esteem individuals suffer from a "virtually automatic connection between failure and feelings of worthlessness" (Brown & Dutton, 1995, p. 720). For these individuals, current evaluative situations resonate with similar behaviors and contexts from the past, automatically guiding their attention and motivation toward the possibilities of success, failure, acceptance, and rejection. As demonstrated, the lexical-decision task can detect both temporarily and chronically accessible structures.

These findings touch on a number of important issues in the social–cognitive study of self-construal. Most clearly, rather

than focusing on the self-schema in isolation, researchers must continue to examine people's sense of self with other, or their interpersonal self (e.g., Baldwin, 1992; Kihlstrom & Klein, 1994; Markus & Cross, 1990; Ogilvie & Ashmore, 1991). Thus, whereas self-esteem might be related to the accessibility of certain thoughts about the self (e.g., "I am a failure") or others ("People don't like me"), it also seems closely related to the "if . . . then" relational scripts that combine and activate these images (e.g., "If I fail, people won't like me").

Therefore, it is important to look beneath self-views toward the associative networks, activation patterns, and interpretive rules that operate to define various senses of self. We believe the notion of "if. . . then" associations is a useful concept for interpreting self-construal and personality. For example, an interactionist view of personality attributes the situation specificity of people's behavior largely to the kinds of "if . . . then" outcome expectancies we have examined in this article (Mischel, 1973; Mischel & Shoda, 1995). Thus, to understand individual differences in attachment, social dominance, or emotional behavior, one should examine expectancies such as, "If I trust him, he will hurt me" (Baldwin et al., 1993); "If I try to dominate her, she will respond submissively" (Baldwin & Keelan, 1995); or "If I get angry, she will withdraw" (Fehr & Baldwin, 1995). Such contingencies can activate the kinds of troublesome self-concepts associated with low self-esteem. As argued by Vitousek and Hollon (1990), for example, the critical cognitive structures in eating disorders may not be self-schemas such as, "I am fat," but rather, outcome expectancies such as, "If I were thin, then. . . ."

A somewhat different, but highly relevant, form of "if . . . then" association is found in production-system models of social inference (Anderson, 1983; Cantor & Kihlstrom, 1987; Smith, 1984, 1994). Smith, Stewart, and Buttram (1992), for example, argued that impression formation is guided by inference rules such as, "If a person refuses to help his or her classmate with homework, he or she is unfriendly." Inference rules for construing self can be seen as organized in the same manner: Consider self-perception ("If I eat a lot of brown bread, I must like it"); social comparison ("If I am better than my peers, I am pretty good"); or overgeneralization ("If I do poorly at this task, I am a failure and a worthless person"). These are the kinds of inference rules that define the sense of self and feelings of self-esteem.

The critical next step is to explore how these different versions of "if . . . thens"—outcome expectancies and inference rules—are linked together. Smith et al. (1992) gave the illustration of a person whose performances have been evaluated and criticized repeatedly by perfectionistic parents. They suggested that these experiences might lead the person to form an inference procedure in which a specific behavior (e.g., "did not get an A on a test") automatically activates a view of self (e.g., "failure"). Thus, the relational schema representing the well-learned interaction pattern comes to be used as a lens through which the self is perceived (see Baldwin, 1992, 1994, for further discussions). There is ample evidence in the depression literature that such outcome expectations can lead to self-evaluative problems. Hooley and Teasdale (1989), for example, found that the best predictor of relapse among recovered depressives

was the perceived criticalness of the person's spouse (see also Higgins, 1987; Kuiper & Olinger, 1986).

We see the present findings as contributing to an empirical analysis of how the sense of self is socially constructed. Although narrative approaches to self-construal (e.g., Hermans, 1996; Shotter & Gergen, 1989) often are rich and provocative, the social–cognitive perspective adds a valuable degree of experimental control and a powerful array of well-developed models and methods. As the present Study 3 indicates, for example, because self-construal rules are based in relational schemas, they are not likely to be entirely fixed and stable. In fact, different relational schemas can be activated in various ways, producing very different patterns of information processing. Past research has shown that the activation of a contingent-acceptance schema can lead people to evaluate themselves negatively, perceive themselves as less talented than others, and overgeneralize from single negative instances to global inferences about self (Baldwin, 1994; Baldwin, Carrell, & Lopez, 1990; Baldwin & Holmes, 1987)—construal procedures known to be closely associated with low or unstable self-esteem (e.g., Brown & Dutton, 1995; Kernis, Brockner, & Frankel, 1989).

To understand the self-evaluative reactions of Charlie Brown, then, or the soccer player with the demanding father, we need to find ways to map out people's "if . . . then" interpersonal expectancies and the situations in which they become activated. The lexical-decision task promises to be a useful tool in this endeavor.

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