Rejection Sensitivity as a Predictor of Affective and Behavioral Responses to Interpersonal Stress
A Defensive Motivational System

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THE LEGACY OF REJECTION

As much of the research in this volume attests, the need to secure acceptance and avoid rejection from others, especially from significant and valued others is a powerful motivational drive (Baumeister & Leary, 1995; and see in this volume Fiske & Yamamoto; Sommer & Rubin; Williams & Zadro). While the need to secure acceptance and avoid rejection is universal, people differ

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considerably in how they process information about acceptance and rejection. People's history of acceptance and rejection can lead them to develop particular cognitive-affective networks that are activated in social situations where issues of acceptance and rejection are of particular salience. The activation of this network, in turn, gives rise to particular coping strategies and behaviors that individuals have learned can prevent rejection or gain acceptance. One such system is the cognitive affective processing dynamic known as sensitivity to rejection (Downey & Feldman, 1996).

In this chapter we present some of the work that we have conducted to explore the impact of rejection sensitivity on people's reactions to the real or imagined threat of rejection, as well as to actual experiences of rejection. We will show evidence in support of the idea that the rejection sensitivity (RS) processing dynamic can serve as a defense motivational system (DMS) that impacts and sometimes dictates what the individual thinks is the appropriate response to the possibility of rejection and to an actual rejection experience. Much of the work on social exclusion shows the existence of systems that allow individuals to monitor and process information about acceptance and belongingness (Pickett & Gardner, this volume; Williams & Zadro, this volume). These systems also impact the way that people respond to their social environment. We believe that rejection sensitivity is one of these systems, one that has developed from a history of repeated rejection. Rejection sensitivity generally leads to maladaptive responses to rejection, responses that ultimately bring about exclusion and rejection.

What is RS?

Downey and Feldman conceptualized rejection sensitivity as a cognitive-affective processing dynamic or disposition to anxiously expect, readily perceive and react in an exaggerated manner to cues of rejection in the behavior of others (Downey & Feldman, 1996; Downey, Freitas, Michaelis, & Khouri, 1998). As a cognitive-affective, information-processing framework, RS affects individuals' perception of their social reality by means of expectations, perceptual biases, and encoding strategies activated in interpersonal contexts. Generally, individuals who are highly sensitive to rejection approach a social situation with anxious expectations of rejection that make them hypervigilant for signs of potential rejection. When environmental or interpersonal cues are interpreted as rejection, the high RS individual actually experiences feelings of rejection, which are likely to incite an affective or behavioral overreaction such as hostile behavior, depression, or socially inappropriate efforts to prevent, or in some way obviate the rejection (Downey & Feldman, 1996; Downey et al., 1998; Ayduk, Mendoza-Denton, Mischel, Downey, Peake, & Rodriguez, 2000). These efforts, in turn, often elicit rejection from the target of the behavior, and so the feared outcome becomes a reality for the rejection sensitive person. Because additional experiences of rejection serve to perpetuate the expectations of rejection, the RS dynamic is strengthened.
Much of the work that we have carried out over the past 10 years has investigated the functioning of the RS dynamic. Through a gamut of survey, experimental, and diary studies, we have sought to map the mechanisms that are activated in rejection sensitive individuals during social interactions. We have sought to identify the strategies that rejection sensitive people deploy in anticipation or in response to social encounters.

Consistent with our conceptualization of RS and reflecting our adoption of an expectancy-value framework (Bandura, 1986), we measure RS by looking at the expectations of rejection the individual experiences in particular situations, as well as the concern with the possibility of being rejected in the situation. Throughout our studies we have used the Rejection Sensitivity Questionnaire (the RSQ), the psychometric properties of which were documented by Downey & Feldman (1996). The RSQ for adults consists of 18 situations in which rejection by a significant other is possible. For each situation, respondents are first asked to indicate the degree of anxiety or concern about the outcome of the situation on a 6-point scale ranging from 1 (very unconcerned) to 6 (very concerned). Using a 6-point scale ranging from 1 (very unlikely) to 6 (very likely), respondents then indicate the likelihood that the other person in the situation would respond to the respondent’s request in an accepting fashion. To compute the overall RS score the ratings of expectations of acceptance are reverse-coded to transform them into ratings of expectation of rejection. This score is then weighted by the rating of anxiety by multiplying the two ratings for each situation. A total, cross-situational score is obtained by averaging the product score of all, 18 situations in the measure. RSQ scores are normally distributed and reflect a relatively enduring and coherent information-processing disposition (Downey & Feldman, 1996).

When studying children, we employ the Children’s Rejection Sensitivity Questionnaire (CRSQ), which is quite similar in structure to the adult RSQ (Downey, Lebolt, Rincon, & Freitas, 1998). Unlike the RSQ for adults, the CRSQ asks respondents to make a rating of how angry they would be in each of the 12 theoretical situations that constitute the measure. By multiplying the ratings of expected rejection times the anxiety score, the CRSQ yields a score of anxious expectations of rejection. Multiplying the rating of anger times the rating of expectations of rejection generates an angry expectations of rejection score.

We have used the RSQ and the CRSQ in a wide range of projects that explore the impact of RS on affective, interpersonal, and cognitive functioning. We begin a summary of this work with a theoretical account of the origins of RS and the empirical evidence in support of this theory.

THE ORIGINS OF RS

The origins of the rejection sensitivity dynamic lie in early experiences of rejection (Feldman & Downey, 1994) that teach the individual to anxiously expect rejection.
from significant others, and from people in general. Rejection from caretakers is one important source of these anxious expectations. Parental rejection is conveyed to children through abuse, cruelty, hostility, and physical and emotional neglect and abuse, all of which carry a message of rejection. These experiences are internalized into a legacy of rejection experiences that will impact the person's functioning in interpersonal relationships (Feldman & Downey, 1994). When the legacy of rejection is internalized, it leads the individual to expect rejection and to be concerned with its occurrence. Thus, individuals come to anxiously expect rejection. It is this expectation of rejection, and the concern with it what lies at the core of the RS dynamic.

Support for our idea that expectations of rejection originate in early experiences comes from both the attachment literature and from research on clinical disorders of interpersonal relating and functioning. Specifically, rejection sensitivity—when measured in clinical interviews as an intense, negative emotional reaction following a perceived rejection—is considered one of the core symptoms of extreme social avoidance and extreme social preoccupation. Extreme social avoidance characterizes social phobia and avoidant personality disorder, while extreme social preoccupation is characteristic of dependent depression, dependent personality disorder, and borderline personality disorder (Feldman & Downey, 1994). Research has shown that atypical or dependent depressives and social phobics are more likely than a normal person to have experienced parental rejection as children (Blatt & Zuroff, 1992; Liebowitz, Gorman, Fyer, & Klein, 1985; Parker, 1979; Parker & Hadzi-Pavlovic, 1992; Stravynski, Elie, & Franche, 1989). The behavior of individuals diagnosed with these disorders parallels that of children who are insecurely attached.

Two forms of insecure attachment styles parallel the disorders of interpersonal functioning outlined above. Individuals that were identified as anxious-avoidant, insecurely attached children are more likely to display social avoidance like that of social phobics as adults. Anxious-avoidant, insecurely attached children grow up to be adults who are distressed by intimacy and find trust difficult (Hazan & Shaver, 1987). Similarly, the social preoccupation of dependent and atypical depressives has many parallels in the behavior of children who were anxious-ambivalently, insecurely attached. As children, anxious-ambivalent children make continuous demands for reassurance from caretakers, but these are often accompanied by displays of hostility (Ainsworth, Blehar, Waters, & Wall, 1978). Adults who were anxious-ambivalent children tend to be plagued by concerns about the possibility of rejection and are preoccupied with avoiding it (Hazan & Shaver, 1987).

In a large survey study of college students, we learned that respondents who reported witnessing higher levels of family violence or discord during childhood were more likely to have an insecure attachment style as adults (Feldman & Downey, 1994). Participants who had anxious-avoidant or anxious ambivalent attachment styles also had significantly higher scores on the RSQ relative to participants who were securely attached. Respondents' RSQ scores mediated the impact of exposure
to family violence on adult attachment style. Domestic violence and discord are forms of rejection expressed in a covert or overt fashion and as such, exposure to violence at home predicted higher levels of rejection sensitivity, which in turn predicted an insecure adult attachment style. In these analyses, RS accounts for nearly 50% of the variance in adult attachment for which exposure to violence accounted in regression models that did not include rejection sensitivity as a predictor. While this study was strictly correlational, it did provide support for our account of the origins of RS and for the impact of this processing dynamic on the patterns of behavior that people display as adults in interpersonal situations.

**Peer Rejection as Predictor of Rejection Sensitivity.** Recently, we have explored the origins of the RS dynamic in children by considering the impact of another source of acceptance and rejection, the peer group (Downey, Bonica, London, & Paltin, 1997). Work by other researchers had found a link between peer rejection and increases in internalizing (Burks, Dodge, & Price, 1995; Hodges & Perry, 1999; Rubin, LeMare, & Lollis, 1990) and externalizing problems in adolescents (Coie, Lochman, Terry, & Hyman, 1992; Coie, Terry, Lenox, & Lochman, 1995; DeRosier, Kupersmidt, & Patterson, 1994; Haselager, Cillessen, Van Lieshout, Riksen-Waraven, Marianne, & Hartup, 2002; Kupersmidt & Coie, 1990; Kupersmidt & Patterson, 1991). However, less empirical evidence from longitudinal studies was available to document the causal role of peer rejection in shaping the social-cognitive processes underlying these behavioral maladjustments (cf., Dodge et al., 2003; Panak & Garber, 1992). We believed that rejection sensitivity was a good candidate for the role of a mediator of the link between peer rejection and troubled behavior. Through a 2-wave, 4-month study of middle-school students, we tested the hypothesis that rejection by peers would lead to higher self-reported levels of rejection sensitivity.

Participants in Downey et al. (1997) were 6th-grade students attending a public grade school in a large city in the northeastern United States. During the first wave of data collection, participants completed the CRSQ and a peer nomination measure that would serve to measure each child’s sociometric status. A week later, all participants completed the CRSQ once again, as well as measures of social avoidance and loneliness. Four months later, in the second wave of the study, participants once again completed the CSRQ and the measures of social avoidance and loneliness.

The peer nominations measure asked each child to report the names of the three children in their class they liked the best, and the name of the three children they liked the least. With this information, two social preference scores were obtained for each child: an index of how liked and an index of how disliked the child was. In a regression analysis, these indexes had unique predictive value when each child’s RS scores were the predicted variable. The likeability score alone predicted a reduction in anxious expectancies of rejection from time 1 to time 2, even when controlling for the index of how much peers disliked each child. We
have interpreted these findings as a clear indication that children's experiences of rejection with their peers can contribute to the increase of their rejection sensitivity over time.

Work tracing the origins of rejection sensitivity has allowed us to see a clear association between the development of the RS dynamic and experiences of rejection from caretakers and peers. In the following section, we summarize some key findings from what has been the main part of the body of research about RS.

THE IMPACT OF RS ON PERSONAL AND INTERPERSONAL FUNCTIONING AFTER REJECTION

As we have conceptualized the RS dynamic, it serves as a defensive motivational system that impacts behavior and psychological functioning in many ways. Part of the research conducted over the past 10 years has looked at the way RS influences adjustment in children and adults by directing, to different extents, long-term and short-term affective responses to rejection.

RS and Internalizing Problems in Children and Adolescents

As part of our study on the impact of peer rejection in the development of the RS dynamic, (Downey et al., 1997) we explored the hypothesis that RS could predict children's maladjustment. In the study, rejection sensitivity clearly predicted troubled affect in children. Anxious expectations of rejection at the onset of the project were associated with increases in scores in social avoidance scales at time of the second data collection, 4 months later. Both angry and anxious expectations of rejection at the start of the study predicted loneliness 4 months later. Children who anxiously expected rejection were more likely to become socially avoidant and experience loneliness because they had little contact with others. Children who angrily expected rejection were more likely respond to cues of rejection in a hostile manner, eliciting rejection.

We believe that the RS dynamic of children is maintained into adulthood, and as such, it impacts psychological and social functioning in adults, much like attachment researchers have theorized that an individual's attachment style as a child will shape adult attachment style (Hazan & Shaver, 1987). The behavioral pattern of high RS children perpetuates the RS dynamic by eliciting rejection or minimizing positive social interactions that may lead to acceptance. High RS children who anxiously expect rejection are socially withdrawn, and high RS children who angrily expect rejection are aggressive toward their peers. Those who anxiously expect rejection and avoid social contact will not experience acceptance or learn to interact with peers and significant others, while those who angrily expect rejection will continue to elicit the feared outcome, expanding the gamut of their rejection experiences, thus strengthening their angry expectations.
RS and Internalizing Problems in Adults

Given the theorized causal role of personal loss on the onset of depression (Brown & Harris, 1978; Bowlby, 1980), we have explored the possibility that RS may be one of the links between rejection and depression (Ayduk, Downey, & Kim, 2001). We reasoned that interpersonal loss should lead to depressive symptoms to the extent that the said loss conveys a rejection message. We theorized that individuals who expect rejection and are highly concerned with its occurrence are more likely to become depressed after a rejection experience. Expecting rejection alone, without concern about its occurrence (and vice versa) should not be sufficient to elicit depressive symptoms. This vulnerability to post-rejection depression is captured in RS itself.

Women are at a higher risk for depression than are men (Kessler & Zhao, 1999) and find interpersonal difficulties to be more distressful than do men (Rudolph & Hammen, 1999). Hence, when looking at the impact of RS on depression, we looked at college age women. Two weeks prior to arriving at their college, participants in our study completed the RSQ and various other measures, including the Beck Depression Inventory (BDI), and Levy and Davis’ (1988) Adult Attachment Questionnaire. At the end of their school year, participants completed the same measures and, in addition completed a questionnaire that served to generate their dating history over the past year, including information about break-ups and about who had initiated those break-ups (Ayduk et al., 2001).

Because we predicted that RS would lead to depression after an interpersonal loss that is perceived as a rejection, we compared the impact of RS on depressive symptoms among participants who had recently experienced a breakup and among those who had not. Furthermore, we were interested in showing that after a partner initiated the breakup, individuals who were higher in RS would report more depressive symptomatology relative to individuals low in RS. A partner-initiated breakup should be interpreted as a rejection by all people whereas a mutually-initiated or self-initiated rejection would not, due in large part to the greater degree of control the individual exercises over those situations.

As expected, RS predicted higher scores on the BDI at the end of the school year for participants who had experienced a partner-initiated breakup during the 6 months preceding the end of the school year. The experience of a partner-initiated breakup alone was not a predictor of depression, but the interaction of rejection sensitivity and having experienced a romantic rejection was a statistically significant predictor. For those women whose partners had initiated a breakup, RS did predict more depressive symptomatology. By contrast, RS had no statistically reliable effect on the BDI scores of participants who had not experienced any breakups or on the BDI scores of participants who had initiated the breakup in some manner.

In order to ensure that RS is not a general vulnerability to depression following stress, we looked at RS as a predictor of depression after an academic setback (Ayduk et al., 2001) by comparing young women who had not met their own...
expectations of academic success to those who had met or exceeded them. RS did not predict depressive symptomatology for either group, a fact consistent with our assumption that high RS individuals react in intensely negative ways to rejection because it represents failure to attain a goal (avoid rejection and gain acceptance) in an important domain, that of interpersonal relations. When the relevant goal is not in the highly valued domain of interpersonal relations, RS does not predict the impact of failure to meet the goal.

We have found that RS can also predict depressive symptoms in men (Romero-Canyas, Downey & Cavanaugh, 2003). Unlike high RS women, high RS men seem to develop more depressive symptomatology when they experience a lower social status, or feel devalued by peers, a fact that is consistent with work by other researchers on sex differences in collective identity (Baumeister & Sommer, 1997; Brewer & Gardner, 1996; Gabriel & Gardner, 1999). Hence, we find that on a college campus where the political atmosphere is predominantly liberal, conservative men who are highly rejection sensitive report feeling devalued and disliked by their peers. These same men obtain higher scores in the depressive symptoms scale of the SCL-90. We find no relation between RS and depressive symptoms in men from the same sample who consider themselves to be liberal. For women, political orientation does not interact with RS to predict their feelings of trust or belonging at the university, or their scores on the depressive symptoms scale of the SCL.

We have conducted research suggesting that RS can also impact social avoidance in adult males, just as it does in children. In a study of dating violence, anxious expectations of rejection predict different outcomes depending on the level of involvement of the individual in the maintenance and pursuit of romantic relationships (Downey, Feldman, & Ayduk, 2000). For young men who were romantically involved with someone and who valued being in a romantic relationship, RS predicted a greater probability of engaging in some sort of violent behavior against their partner. Anxious expectations of rejection did not predict social anxiety, or any other sign of social withdrawal in men who valued involvement in their relationship.

For men who reported that being in a romantic relationship was not important to them, RS did not predict violence against a romantic partner (all participants were dating someone at the time of the study). For these men who do not value romantic relationships, anxious expectations of rejection predicted higher levels of social anxiety, a finding that mirrors those we have obtained with children. More importantly, for these men, RS predicted having a smaller number of close friends, relative to their low RS peers who were not invested in romantic relationships. Finally, high RS, un-invested men also reported a smaller number of significant, past, dating relationships.

It seems that for young men, anxious expectations of rejection are highly correlated with socially avoidant coping strategies, just as in children, and, in many ways, as is the case for women with many symptoms of depression. These finding are consistent with our hypothesis that anxious expectations of rejection interact with
other personality (e.g., need for romantic involvement) and environmental factors (e.g., rejection cues) and dictate different defensive strategies such as social avoidance. These social withdrawal strategies are long-term responses to the rejection experience that do not occur in one discrete instance, but rather over an extended period of time. While the affective states that result from social withdrawal are not likely to be permanent or reach clinical levels, they may become the established response pattern to stressful social situations. Most of these maladaptive strategies probably lead to the social outcome that rejection sensitive individuals fear the most: rejection and absence of acceptance.

Much of our work over the past 10 years has looked at a different set of sequelae to rejection and cues of possible rejection, the immediate, behavioral, and affective responses to rejection. We have studied these responses not only in terms of when and how they are elicited from the high RS individual, but also in terms of the impact that they have on those around highly rejection sensitive people. As we will present in the following section, these immediate, short-term responses are just as likely to lead to the feared outcome as the long-term responses. Furthermore, we have evidence that these short-term responses are very likely to elicit rejection from the socially desirable target, and thus perpetuate the rejection sensitive individual’s expectations of rejection, and paradoxically, their reliance on the maladaptive coping strategies that RS activates.

RS AS A PREDICTOR OF HOSTILE AND DISTRESSED RESPONSES TO REJECTION

Early in the research on RS, we detected a link between rejection and hostile intentions on the part HRS individuals toward those who they believe have rejected or could reject them (Downey & Feldman, 1996; Feldman & Downey, 1994). This is consistent with research on the experience of rejection in general, which has documented a robust link between the experience of rejection and aggression against others (Twenge, Baumeister, Tice, & Stucke, 2001). We have investigated the impact of RS on the rejection-aggression link extensively, and have documented it in both adults and children.

**RS as a Predictor of Hostility in Children**

Building on the work of other researchers (Dodge, 1980), we set out to show that children’s expectations about the behavior of their peers toward them could impact their responses to perceived cues of rejection and acceptance. We presented a group of children with two situations in which a teacher or a group of peers treated them in an ambiguous manner that could be interpreted as rejecting (Downey et al., 1998). We found that RS predicted a greater endorsement of hostile responses to the rejection. In the case of the teacher, an example item was “I would feel like
hitting someone or something” or “Next time when the teacher wants me to be quiet in class, I won’t.”

We tested the link between RS and hostile affect in an experimental study. An experimenter came to the middle school and interviewed each child individually in a private classroom. After a few minutes, the experimenter mentioned that it would be useful to continue the interview with another child, and asked the participant to choose a friend from class to join them. A research assistant went to get the child’s friend, and returned a few minutes later. The research assistant reported to half of the children that the child’s chosen peer did not want to join them. The other half of the children were told that the teacher could not let their friend leave the classroom at the moment. For those children who were led to believe that their friend had refused to help, RS predicted an increase in levels of emotional distress.

We also looked at RS as a predictor of aggression against and from peers at school. A year after completing the CRSQ, children completed a questionnaire that allowed them to report incidents of aggression in which they were either the victim or the aggressor. RS at time 1 was strongly associated with reporting more incidents of aggression and victimization. Likewise, RS as measured at time 1 predicted the probability of conflict with adults and peers when we used official school data as the index of conflict.

**RS and Emotional Distress After a Perceived Rejection Experience in Adults**

Downey and Feldman (1996) showed that high RS adult participants in a laboratory study felt more rejected after an interaction with a friendly confederate ended without explanation. Through experiments such as this, and from diary studies (that we will describe below) we came to realize that the distress experienced by highly rejection sensitive individuals after what they interpret as a rejection is noticeable to others and can take many forms. One reaction that was particularly salient was a display of hostility immediately after a rejection experience, much like the hostile intent manifested by children (Downey et al., 1998). While both boys and girls reported this impulse toward aggression, in adults, the rejection-aggression linked seemed more salient in women than in men (Ayduk, Downey, Testa, Yen, & Shoda, 1999).

We set out to explore the possibility that a link between thoughts of rejection and thoughts of aggression exists in the cognitive-affective networks that are activated in women when they think of rejection. To this end we conducted a study of the automaticity of the link between thoughts of aggression and rejection using a sequential priming-pronunciation paradigm (Ayduk et al., 1999). Using this paradigm, we tested the idea that rejection words would facilitate pronunciation of aggression and hostility-related words in highly rejection sensitive women.
As we expected, high RS women responded to hostility words following rejection words significantly faster than did low RS women. RS did not impact response time to rejection words following hostility words, thus showing that the link between rejection and hostility is unidirectional. Non-rejection negative words or neutral words did not facilitate pronunciation of hostility words for high or low RS women. We have interpreted this pattern of findings as indicative of the fact that thoughts of hostility are not more chronically accessible to high RS women, but rather, that they are made more accessible when the high RS person is primed with thoughts of rejection.

Recently, we have replicated these findings with college age men (Ayduk & Downey, 2003). Consistent with research about young men's concerns with social status (Gabriel & Gardner, 1999), college age men are quicker to respond to hostility words when these are preceded by a rejection word that implies rejection from individuals and groups (e.g., banish, ditch). Hence, we know that thoughts of rejection prime thoughts of hostility in men and in women. Knowing this, we set out to show that the hostile thoughts activated by RS can translate into hostile behavior. In an experimental study, we explored the link between RS and indirect, retaliatory hostility as expressed in the form of the evaluation participants make of those who have rejected them.

In the first study (Ayduk et al., 1999), women were brought into the laboratory and told that they would be interacting with an opposite sex individual over the Internet. Participants were asked to write a biographical sketch and received a bio-sketch of the individual with whom they would be interacting, purportedly, in a few minutes. After the exchange of biographical information, participants in the experimental condition were told that the second participant did not want to continue being a part of the study. Those in the control condition were told that there had been some equipment failure and that the experiment would have to end at that moment. All participants were then given the opportunity to evaluate the fictitious other participant. As we expected, for women in the experimental condition, RS scores predicted a more negative evaluation of the partner while RS had no effect on the ratings made by participants in the control condition.

When we used this very same paradigm with male participants, RS did not predict retaliatory hostility. Given our findings, and anecdotal suggestions from participants, we decided to create a new situation that would make the rejection public (Ayduk & Downey, 2004). We conducted a study with a paradigm that was almost identical to the one described above, but implemented an additional manipulation. At the onset of the study, participants were told another same sex participant would be watching them through a video circuit. A camera was set up in the lab to make the cover story believable. While this manipulation did not impact the behavior of women in any way, it did impact men's behavior. For male participants in the condition in which the fictitious partner left the study and a second participant was watching the proceedings, RS predicted a less positive evaluation of the ambiguously rejecting partner. In the control condition, the addition
of the camera did not modify the behavior of male participants. Thus, consistent with our findings about the impact of social devaluation on high RS men, we find that after a public rejection, RS predicts defensive, reactive hostility as it does for women after a private rejection by the other member of a dyad.

Our work on RS and violence in romantic relationships (Downey et al., 2000) also showed us that RS predicts aggression in men under the threat of rejection. High RS male college students who are highly invested in their relationships are more likely to report in survey studies that they would engage in dating violence. Rejection sensitivity did not predict more violence in male college students who were involved in relationships but did not regard being in a relationship as important to them.

Through a series of diary studies we have examined the rejection-hostility link in the natural context of people’s relationships (Ayduk et al., 1999; Downey et al., 1998; Ayduk & Downey, 2004). In all of these studies both members of heterosexual couples completed a daily diary study for at least two weeks. Every day, as part of the daily diary, participants were asked to make ratings of how they had felt that day. Every day participants also reported whether or not they had experienced some sort of conflict with their partner. Overall RS does not predict probability of reporting conflict in these studies. However, we found that RS does predict probability of conflict on days after days when participants feel higher levels of rejection (Ayduk et al., 1999; Ayduk & Downey, 2003).

**The Great Paradox Inherent in RS: The Self-Fulfilling Prophecy**

Our study of the emergence of hostility after rejection has led us to observe that high RS people, overtly concerned as they are with rejection, are more likely to elicit rejection from significant others. As outlined above, some rejection sensitive people withdraw socially in an effort to avoid rejection, but in so doing they also avoid opportunities for acceptance. Other high RS individuals respond with hostility and negative affect to cues of rejection, a reaction that is likely to elicit rejection.

In diary studies we have looked at RS as a predictor of breakup for romantic couples. In one study (Downey et al., 1998) we found that a year after completing a daily diary study, 44% of the participating couples that had included a high RS woman had separated, whereas only 15% of the couples that included a low RS woman had done so. Of those couples that included a high RS man, 42% had broken up a year after the diary study, and only 15% of the couples that included a high RS man had broken up.

In this study, the RS score of one member of the couple affected the second member’s ratings of dissatisfaction with the relationship on days preceded by conflict. We believed that RS would predict more dissatisfaction after conflict, and found that this was the case. Partners of high RS women reported significantly higher levels of relationship dissatisfaction after a conflict relative to partners of
low RS women. We found no such pattern for days that were not preceded by conflict (or for partners of men in general).

These data also revealed that low and high RS individuals differed in the extent to which they were aware of their partner’s affective response to the conflict. High RS women perceived their partners to be less accepting on days preceded by conflict, while low RS women did not. These findings suggest that the partners’ reactions were evident in their behavior to some degree on days preceded by conflict. This idea is supported by the finding that partners’ dissatisfaction partially mediated the effect of RS on women’s feelings of rejection on days preceded by conflict, so that the more dissatisfied the partners were, the more rejected the women felt.

Spurred by these findings, we sought to study the mediating role of partners’ feelings in a controlled environment. We conducted a laboratory experiment (Downey et al., 1998) in which both members of a couple engaged in a discussion about a topic from a pre-selected list of topics we had pilot-tested among college students. The videotaped interactions were coded by independent raters who were trained to use the Marital Interaction Coding system-IV (MICS-IV; Weiss & Summers, 1983) and who looked for signs of negative affect and of negative behavior toward the partner.

We found that for partners of men, having a high RS partner did not predict negative mood after the discussion. For partners of women, partner’s RS predicted greater levels of anger after the discussion, even when controlling for pre-conflict anger. Rejection sensitivity also predicted more negative behavior during the discussion for women, even when controlling for their partner’s initial mood (Downey et al., 1998). Hence, high RS women were more likely than low RS women to assume a negative mindset or motivation on the part of their partner, use a hostile tone of voice, deny responsibility for a problem, express disgust or displeasure, demean or mock their partner, and show dysphoric affect (depression, sadness, or a whiny voice). After we introduced the coders’ ratings of women’s negative behaviors toward their partners as a mediator of the impact of women’s RS on their partner’s post-conflict anger, we found that the ratings of negative behavior account for 54% of the effect of women’s RS on their partner’s negative affect after the discussion.

These findings provide support for our proposal that the behavioral and affective responses of highly rejection sensitive individuals to the threat of rejection (e.g., a discussion or conflict) tend to elicit negative affect from those around them. In turn, this negative affect may impel the recipient of these maladaptive strategies to withdraw and realize the high RS individuals’ fears of being rejected.

Given our findings about high RS men’s responses to conflict in relationships (Downey et al., 2000), we were not surprised by the gender differences that have emerged in some of the studies. Our work suggests that for college age men (the group of men most commonly used in our work) conflicts in relationships evoke responses similar to those of women if the young men are invested in the relationship to a great degree, or if the rejection results in a loss of social status or a
humiliation (Ayduk & Downey, 2004). Some of our most recent work, which we outline below, supports this idea that the focus of young men’s rejection concerns is the larger social group.

The two studies described above and those described previously all looked at the link between RS and negative affective responses, or socially avoidant behaviors. The negative response of high RS individuals to cues of rejection engenders a correspondingly negative response in their romantic partners or significant others. In turn these negative responses are perceived as rejection and strengthen the expectations of rejection held by the rejection sensitive individual.

Hostility and anger, however, are not the only behaviors that may elicit a negative response from others. Sometimes, positive and typically benign behaviors, when manifested in a socially inappropriate time and place, may elicit rejection. The link between these behaviors and rejection sensitivity has recently become part of the scope of our work.

RS AND EFFORTS TO SECURE ACCEPTANCE

Within the last couple of years, we have begun to explore a different set of behaviors that rejection sensitive individuals manifest when threatened with rejection. These behaviors are not, on the surface, as negative as those described in the preceding sections of this chapter. However, these responses may be equally maladaptive for the individual and, possibly, as likely to elicit rejection and hostility from significant others and desirable social targets. These behaviors are generally benign acts—such as buying a gift or doing a favor for someone—but high RS individuals manifest them in an exaggerated and inappropriate manner and time. We believe that high RS individuals deploy these strategies, ingratiation behaviors, when they are faced with situations and social encounters in which they have come to expect rejection (and which some high RS individuals would rather avoid, but may not be able to). Ingratiation behaviors are especially likely to appear when the threat of rejection is concomitant with the possibility of securing acceptance from the person from whom rejection is expected or from other members of a plural social unit, like a group of peers or friends.

This line of work stemmed from the study of RS as a predictor of adolescent girls’ problems in romantic relationships (Purdie & Downey, 2000). In a survey study of 154 minority girls from disadvantaged backgrounds, we learned that higher levels of rejection sensitivity predicted greater feelings of jealousy about romantic partners, expressed as preoccupations for what the partner was doing when not with the respondent. We reasoned that the constant concern about their boyfriends’ whereabouts manifested by high RS girls could be interpreted not only as a sign of jealousy but also of need to monitor the significant other and keep him close. If that was the case, high RS girls should also be more willing to engage in behaviors that they believe would keep their boyfriends close and secure
acceptance. We found that, indeed, high RS girls reported being more willing to do anything to keep their boyfriends, even if that meant doing something they thought was wrong (Purdie & Downey, 2000).

Inspired by this work, we set out to see if RS would predict other-directed behavior in situations laden with the simultaneous possibility of rejection and acceptance. We wanted to carry out this exploration by putting people in a situation in which even high RS individuals that are generally socially avoidant would be forced to interact with the social target. We conducted our studies looking at participants’ efforts to gain acceptance from novel social targets that were unknown to the participant until the time of the study. Our rationale was that as they approached a novel social target all people should see that the possibility of acceptance and rejection coexist in that first encounter. The prior history that accompanies an established relationship would not interfere with the participants’ efforts to gain acceptance. The first behavior we studied was self-presentation, how the participants presented themselves to the new social target.

**RS and Self-Presentation in Anticipation of Rejection**

In the first of our studies on the role of RS on efforts to secure acceptance, we brought participants into the lab and had them complete a battery of measures that included a series of questions about their attitudes about politics, religion, arts, and sports, as well as their involvement with campus activities in these domains. The experimenters then told them that we would be assigning them to an Internet group based on their responses to the questionnaire and that they would then have a chance to create an online profile to introduce themselves to the group members. During a second session, participants would purportedly get to see the responses the other group members made to their profiles.

While participants completed a battery of measures, an experimenter pretended to assign the participant to an Internet group and opened a Web-site containing the profiles of six individuals. Each profile included a short narrative written by real participants in past studies, as well as a series of numerical self-ratings that the group members have purportedly made about their beliefs and attitudes. In essence, each profile mirrored the first questionnaire the participant had completed at the start of the experiment.

Once participants had completed the second questionnaire packet, they were asked to sit at the computer and read the profiles of the group members. After the last profile came up, participants found a Web page that allowed them to create their own profile by writing an introduction and completing an online version of the attitudes questionnaire they had completed earlier. After they had filled out the online form, the experimenter handed participants a brief questionnaire and explained that there would be no second session of the experiment.

We used this paradigm to see if RS would predict changes in the ratings that participants made of themselves along various dimensions as a function of how
different from the group participants were. We focused on the differences between the private ratings participants made in their questionnaire packet and the ratings they made in the public profile that group members would see. We found that all participants shifted toward or away from the group mean in accordance of campus stereotypes. In the small, liberal arts environment of our campus, having interest in the arts and humanities is highly valued, while being athletic is associated with the stereotype of the “jock,” and thus carries with it some negative connotations. In accordance with these stereotypes, participants who rated themselves less artistic than their Internet group tended to shift toward the group mean. RS had a powerful impact on this shift and magnified it. Likewise, we predicted that for athleticism, those participants who were much more athletic than the group would decrease their public ratings and shift toward the group mean, presenting themselves as less athletic than they did initially. This was the case only for high RS individuals, and the impact of RS was particularly strong for high RS women.

We used this same paradigm to look at whether high RS individuals would shift their ratings along a dimension that was particularly important to them, one that could also be a reason for rejection because it carries some stigma (Romero-Canyas, Downey, Pelayo, & Bashan, 2004). We decided to look at whether RS would predict changes in self-ratings of political conservatism when the participant was placed in a group of highly liberal individuals as opposed to a situation in which the participant was placed in a highly conservative group. Past work (Romero-Canyas et al., 2003) had shown that RS predicted depressive symptoms among conservative men, as well as feelings of alienation and stigmatization; hence, we knew that high RS, conservative men believe that being conservative would be likely to elicit rejection. We anticipated that these feelings would be particularly salient when we conducted the study—at the onset of President George W. Bush’s efforts to depose Iraq’s Saddam Hussein, a time when the campus was particularly anti-conservative.

Participants in this study were brought into the lab and received the same cover story as all other participants, but they were randomly assigned to a highly liberal group or a highly conservative group. As we expected, highly conservative, high RS men who were placed in the liberal group decreased their self-ratings of conservatism at the time of their public presentation to the group. We also found a similar trend for conservative women. By contrast, we did not find that liberal individuals changed their ratings of conservatism significantly in the highly conservative condition.

Encouraged by these findings, we decided to look at the efforts high RS individuals would make after an initial, rejecting encounter to gain acceptance from a social target. Again, we looked at a group situation, assuming that if participants did not know how many members there were in the group, rejection by some of them would not lead them to discard the possibility of gaining acceptance from other members of the social group.
RS as a Predictor of Ingratiation Efforts Following Rejection Experiences

Our laboratory has looked at the efforts high RS individuals make after rejection to obviate that rejection and to secure acceptance. We believe that high RS individuals may do this by engaging in ingratiating behaviors. Other rejection researchers have found that after rejection experiences, people often manifest prosocial behaviors if they are given the opportunity to win back acceptance and replenish their belonging needs (Sommer, Williams, Ciarocco, & Baumeister, 2001; Sommer & Rubin, this volume).

Our first study exploring ingratiating utilized a paradigm similar to the one we used in the study of self-presentation. This time, however, participants did not read about their Internet groups in advance. Rather, they sent out an e-mail to the members of their group through an e-mail account set up for them by the experimenter. Participants sent out their introduction without any knowledge about the group members other than the fact that the group was “compatible” with them. Participants returned to the lab a day later to read the responses other group members had made to their introduction and to complete a series of questionnaires. The e-mail groups were not real, but were simulated by an automatic responder that sent out automatic messages and by experimenters using a pre-established template. All participants received four e-mails, one from each of four characters. We randomly assigned participants to one of three conditions, in each of which the purported members of the group sent the same e-mail messages, except for minor modifications, intended to create the three conditions. In the acceptance condition, all four messages were warm and welcoming. Two of the messages were automatic, and two were tailored to the participant by including mention of something the participant liked to do. Hence, if the participant said she enjoyed reading poetry and dancing, one character said that he enjoyed poetry as well, and another said that she liked dancing, too. Similarly, in a rejection condition, all four messages were cold, rude and rejecting. One character would say that he hated some activity the participant liked, and a second character would say he hated another activity or like of the participant. The final condition was one in which the group was ambivalent about the participant. There were no personalized messages in this condition, but all characters were rather lukewarm and questioned the match between the group and the participant.

During the second experimental session participants read responses they received from the group and sent out a response to the group. They then filled out a questionnaire packet in which we assessed their ingratiation intentions. We measured these intentions by asking participants how likely they would be to carry out a series of tasks for the group, including organizing a live meeting of the group, cooking dinner, and sorting and archiving past messages exchanged by group members. The questionnaire also asked participants to report how much
money they would be willing to donate to a possible group meeting, and to make ratings about their mood, their feelings toward the group, and their interest in meeting the group.

In the acceptance condition, participants’ RS scores predicted more willingness to carry out tasks for the group and to make a larger donation, as well as more positive feelings toward the group. However, in the ambiguous condition, RS predicted less willingness to ingratiate, a smaller donation, and more negative feelings toward the group. When we compare the rejection condition to the other condition, we find some interesting gender differences. After rejection, RS predicts a response from women that is consistent with our past work (Ayduk et al., 1999). Hence, following rejection RS predicts less ingratiation intentions, a smaller donation, and more negative feelings toward the group for women. Consistent with work on the importance of collective identity and status for men (Brewer & Gardner, 1996; Gabriel & Gardner, 1999), being denigrated by some group members elicits efforts to secure acceptance from the other group members, even though the participant has not encountered them. Thus, RS predicts the opposite for men as it does for women. After the rejection from some group members, RS predicts more willingness to ingratiate and to make a large monetary contribution to the live meeting of the group, more interest in that meeting and more positive feelings toward the group.

In a more recent study we have found that RS also predicts ingratiating behaviors toward the experimenter after a rejection. In a replication of the above study we added a new component. At the end of the experiment, before debriefing, the experimenter accidentally knocks off a container of thumbtacks as he exits the room to get the participants’ payment. We measured the length of time that elapses from the moment the container falls until the participant begins to pick up the tacks. We also count the number of tacks that are collected by each participant.

In the acceptance condition no participant helps the experimenter pick up the spilt tacks. In the ambiguous condition, RS is unrelated to picking the tacks. In the rejection condition RS does predict the onset of pick up of the thumbtacks and the number of tacks that are collected. So, high RS men and women both begin to pick up the tacks more quickly, sometimes even before the experimenter has left the room. High RS participants are also more likely to collect all the tacks, even though they end up hurting their fingers.

The findings from these experiments are consistent with our past findings of RS as leading to social rejection. Their willingness to transform themselves into a different person to gain acceptance, and their apparently servile behavior after a rejection experience may elicit mistrust and suspicion from the social target from whom the high RS individual seeks acceptance. These findings are also consistent of with our view of RS as a defensive motivational system that prepares the individual to function in their social environment but which has gone awry because of early experiences of rejection.
RS AS A DEFENSIVE MOTIVATIONAL SYSTEM

In recent years we have begun to think of RS as a defensive motivational system sensitive to the social environment, but because it has resulted from a history of rejection, the system functions in a way that generates a maladaptive response. Our work suggests that high RS individuals seem incapable of assessing the socially appropriate response to the cues of rejection that they perceive around them. Perhaps because they are overly anxious about the possibility of the realization of their fears, high RS individuals cannot allow themselves the time to assess the socially appropriate response, or the most adaptive and least harmful response. Instead, high RS individuals act on an automatic impulse. Thus, some high RS individuals shun others to avoid rejection while others confront the potential rejecter in a “fight or flight” response. Similarly, other high RS individuals counteract the negative social experience by making efforts to obviate the rejection and engage in what can be deemed as tend-and-befriend (Taylor, Klein, Lewis, Gruenewald, Gurung, & Updegraff, 2000) behaviors, like ingratiation.

While we have shown that RS tends to lead to maladaptive behavior, we also have hints that under certain situations, the RS dynamic can lead to adaptive behaviors that are beneficial to the individual. Specifically, we have found that when women who are high in RS are asked to recall a rejection they experienced and are then given the opportunity to perform on a cognitive task, they actually perform better on the task than if asked to recall an acceptance or nothing at all. This is not true of women low in RS (Halim & Downey, 2004). Although these findings are preliminary, they have led us to speculate that for rejection sensitive women, the opportunity to engage in and do well in another task may be particularly appealing as a way out of thinking about rejection. Doing well on the task may also provide an opportunity for gaining the positive regard of others (in this case the experimenter). Thus, when high RS individuals are consciously aware of their rejection concerns they may be able to actively and consciously distract when the possibility for engaging in tasks that may provide alternative sources of acceptance or gratification are available, a fact consistent with work on rejection experiences in general (Sommer & Rubin, this volume). We would suggest that this ability to pursue alternative sources of acceptance or personal gratification illustrates how RS is distinct from low self-esteem. High RS individuals are motivated by a desire to gain acceptance or avoid rejection and when such opportunities present themselves they will act energetically to pursue them. An essential component of global low self-esteem is negative evaluation of the self and of one’s abilities to achieve one’s goals. It is can be construed as a simple evaluative framework for interpreting the world: “I’m no good and others agree and treat me accordingly. If their behavior indicates otherwise they are being insincere.” By contrast we view RS as a defensive motivational system that becomes activated quickly and automatically when cues of rejection are present leading to actions to defend against the threat of rejection.
What evidence is there that supports the view that RS operates as a defensive motivational system? In addition to the behavioral data outlined above, we have recently found evidence in support of this assumption in a startle paradigm study showing that in the face of rejection-relevant cues individuals high in RS showed heightened potentiation of the startle response, a robust autonomic nervous system indicator of activation in the defensive motivational system (Lang, Bradley, & Cuthbert, 1990; see Dawson, Schell, & Boehmelt, 1999). Research on both animals and humans suggests that when the DMS is activated by the potential of danger, there is an amplification of physiological responses to newly encountered threat-congruent cues, and an attenuation of physiological response to threat-incongruent cues. That is, the organism is oriented to detect cues that are congruent with a state of threat and to act when confirmatory cues are detected (see Lang, et al., 2000). When the appetitive system is activated there should be a relative dampening of physiological responses to threatening cues. The rationale underlying this paradigm is that when an organism is already in a high-arousal, negatively valenced state, independently evoked defensive responses such as the eye-blink response to an unexpected loud noise are augmented (Lang et al., 1990; 2000). For example, when individuals are viewing a picture depicting a gun pointing toward them, they show exaggerated startle (indexed by the magnitude of their eye-blink response) when disturbed by an unexpected loud noise. The eye-blink is a reflexive defensive response that follows unexpected and aversive stimuli. Both the picture and the noise are unpleasant and both evoke defensive responses. The magnitude of the startle response to the loud noise is potentiated, however, because the individual is already in a defensive state due to viewing the unpleasant, arousing picture. Conversely, when viewing a positively arousing pictorial stimulus, independently evoked defensive responses are attenuated because the individual is in an appetitive state. Thus, startle reflex magnitude changes systematically with the valence of the psychological context (Lang et al., 1990).

Previous studies have used the startle probe paradigm to infer individual differences in the extent to which DMS is activated in a particular psychological context. For example, people with a specific phobia are more responsive than non-phobics to a startle probe such as a noise burst that is presented in the presence of a phobia-relevant stimulus, but not to the same probe when it is presented in the presence of a phobia-irrelevant negative stimulus (e.g., Hamm, Cuthbert, Globisch, & Vaitl, 1999).

Capitalizing on this research, we used the startle probe paradigm to examine individual differences in DMS activation in the presence of rejection cues as a function of RS (Downey, Mougios, Ayduk, London, & Shoda, 2004). We hypothesized that the operation of the RS dynamic entails a context-dependent activation of the DMS, and thus expected HRS people, relative to those low in RS, to show a greater relative increase in eye-blink magnitude following a startle probe presented in a rejection-relevant context (e.g., when viewing pictures depicting rejecting themes).
We expected no differences between high and low RS people in the magnitude of startle response in a negative but rejection-irrelevant context.

In contrast to rejection, we hypothesized that RS would not covary systematically with reactions to acceptance. Thus, we expected that high and low RS people would not differ in their eye-blink magnitude following a startle probe presented in an acceptance-relevant context (e.g., when viewing pictures depicting acceptance themes) compared to a positively valenced but acceptance-irrelevant context.

Based on extensive pilot work, we used pictures by Edward Hopper to depict rejection and by Renoir to depict acceptance. As controls, we identified artists whose work was characterized by non-representational depictions of positive (Miró) and negative themes (Rothko). Consistent with predictions, when viewing art depicting rejection themes by Hopper, people high in RS showed an amplified eye-blink following a loud noise, relative to their eye-blink response when viewing the other types of art work. Those low in RS did not. This finding indicates that when HRS individuals are viewing rejection-related stimuli they show heightened DMS activation. We found no evidence that acceptance cues (Renoir) elicit a positive, appetitive motivational state in HRS individuals to a greater extent than in LRS individuals. These findings support our view that acceptance and rejection are not of equivalent importance for HRS individuals and that RS system develops specifically to protect the self against the threat of rejection. Work is underway to link peripheral evidence of DMS activation with more direct evidence of DMS activation using neuroimaging techniques. It is also important to link evidence of DMS activation in response to rejection stimuli with behavior in HRS individuals. For example, estimates of individual differences in reactivity to rejection stimuli obtained in studies like the present one could be used to predict behavior in real life situations deemed likely to activate rejection concerns. Such a study design exemplifies a way of linking biological with cognitive-affective and contextual influences to further the understanding of self-defeating and socially harmful responses to rejection.

CONCLUSION

Our goal in this chapter has been to show the ways in which heightened sensitivity to rejection develops and can influence the individual’s relations to significant others and social groups and, through this, the individual’s well-being. Our approach is guided by the view that RS develops to defend the self against rejection while maintaining social connection. Drawing on research on the neurobiology of emotion (Cacioppo & Gardner, 1999; Lang, Bradley, & Cuthbert, 1990; LeDoux, 1996), we propose that situations where high RS individuals expect rejection (e.g., conflict) activate the DMS, a generic affectively-based system evolved to guide rapid and intense responses to threats of danger. Where rejection is the danger,
activation of this system should orient and prepare the individual to detect signs of interpersonal negativity and to use prior expectations to determine whether the danger is directed to the self when negativity is detected. At the same time, DSM activation should motivate vigorous efforts to prevent the occurrence of rejection. Because the desired outcome is to maintain connection with the threat source—a significant other—the fight-or-flight responses typically associated with activation of the DMS are not preferred options initially. Thus, we would expect that rejection prevention efforts should take the form of highly-regulated efforts to accommodate the partner, even at the expense of important personal goals. Failure of prevention efforts and the detection of the feared rejection should trigger hostile and depressive overreactions that ultimately undermine relationships, thus fulfilling rejection expectations.

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