Social antecedents and consequences of interpersonal rejection sensitivity

J. Corey Butler *, Melissa S. Doherty, Rachael M. Potter

Department of Social Science, Southwest Minnesota State University, Marshall, MN 56258, United States

Abstract

Although there is good evidence linking interpersonal rejection sensitivity to mood and anxiety disorders, less attention has been given to the social context in which it develops. This study is an investigation of the interpersonal antecedents and consequences of rejection sensitivity. A sample of 104 college students was given the Interpersonal Sensitivity Measure (IPSM), the Teasing Questionnaire-Revised (TQ-R), the Interpersonal Competence Questionnaire (ICQ), and retrospective measures of childhood peer acceptance and social support. The results indicate that interpersonal sensitivity is associated with teasing during childhood, but not acceptance and social support. The IPSM was also related to interpersonal competence during adulthood.
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1. Introduction

The need to be accepted by others is one of the most profound of all human motivations (Baumeister & Leary, 1995; Maslow, 1954). As Aristotle stated, humans are social animals. Our natural state is to live in communities, which provide a sense of belonging, identity, and

* Corresponding author. Tel.: +1 507 537 6081; fax: +1 507 537 6115.
  E-mail address: butler@southwestmsu.edu (J.C. Butler).

purpose in our lives. But what happens when an individual is rejected or excluded by other members of the group? Research on child development indicates that anger, loneliness, anxiety, and depression are the typical results (McDougall, Hymel, Vaillancourt, & Mercer, 2001). Leary and Downs (1995) suggest that self-esteem functions as a "sociometer," keeping people continuously aware of their level of acceptance within a group. Poor interpersonal relationships are also important predictors of depression (Barnett & Gotlib, 1988).

Not only is rejection painful, but there is also the possibility that early rejection experiences could reduce one's ability to cope with future social interactions. A broad, descriptive term for this trait is "interpersonal rejection sensitivity" (Harb, Heimberg, Fresco, Schneier, & Leibowitz, 2002). This has been defined as an excessive level of awareness of the behavior and feelings of others (Boyce & Parker, 1989). More specifically, it could be described as a tendency to anxiously expect, readily perceive, and overreact to rejection (Downey & Feldman, 1996). According to the Rejection Sensitivity Model (Levy, Ayduk, & Downey, 2001), rejection experiences leave an individual in a state of hypervigilance, which is associated with anxious or hostile expectations of rejection. These expectations can distort perceptions of other people's behavior, causing defensiveness that can undermine relationships. The tragic irony of interpersonal rejection is that it can create an ever repeating cycle of self-fulfilling prophecies and additional rejection. Downey and Feldman (1996) provide convincing evidence that people who are highly sensitive to rejection are more likely to misperceive ambiguous behavior and are more dissatisfied with their romantic relationships.

At least three measures of sensitivity to rejection have been developed, the Sensitivity to Rejection Scale (SRS; Mehrabian, 1970), the Interpersonal Sensitivity Measure (IPSM; Boyce & Parker, 1989), and the Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996). We elected to use the IPSM in our research because of its compelling face validity and the extensive applied research literature it has generated. Here are three items from the scale: "I avoid saying what I think for fear of being rejected," "If other people knew what I am really like, they would think less of me," and "If someone upsets me, I'm not able to put it easily out of my mind." These statements appear to capture the heightened sensitivity and vulnerability that is implied by the Rejection Sensitivity Model.

Rejection sensitivity correlates with neuroticism (Brookings, Zembar, & Hochstetler, 2003; Mehrabian, 1994; Wilhelm, Boyce, & Brownhill, 2004), and could be viewed as measuring a more focused, interpersonal component of that global personality trait. The IPSM was specifically designed to measure a predisposition toward depression, and there is empirical evidence of this as well (e.g. Wilhelm et al., 2004). High scores on interpersonal sensitivity obtained prior to the onset of depression predict the disorder (Boyce, Parker, Barnett, Cooney, & Smith, 1991), and high scores predict poorer outcomes for those who already suffer from depression (Boyce et al., 1992). The test also distinguishes patients with major (non-melancholic) depression from those who have melancholic depression (Sato et al., 2001), as well as patients with social anxiety disorder from a non-clinical sample (Harb et al., 2002). Finally, there are associations between interpersonal sensitivity and negative problem-solving orientation, low academic performance, low self-esteem, and depression (McCabe, Blankstein, & Mills, 1999).

Although rejection sensitivity appears to be an antecedent to depression, its own antecedents are less well understood. As with most personality characteristics (Bouchard, Lykken, McGue, Segal, & Tellegen, 1990), it is very likely that there is a genetic predisposition for rejection

sensitivity. This argument has already been advanced by one set of researchers (Gillespie, Johnstone, Boyce, Heath, & Martin, 2001). Others have theorized that rejection sensitivity stems from early attachment relationships and parental rejection (Downey & Feldman, 1996), but little direct empirical data have been offered. In the case of the IPSM, some researchers have found significant though modest associations with parental bonding and sensitivity (Wilhelm et al., 2004), whereas others have found nonsignificant correlations (Luty, Joyce, Mulder, Sullivan, & McKenzie, 2002). Although their work is rooted in attachment theory, Downey and her colleagues suggested that peer rejection experiences may also play a role in the etiology of rejection sensitivity (Levy et al., 2001). This view is consistent with contemporary theories on the developmental importance of peer groups in socialization (Harris, 1999).

Bullying is an extreme variety of peer rejection that is all too common in schools and playgrounds across the country. Olweus (1993) characterizes many of the victims of bullies as quiet, anxious, sensitive, and depressed, a pattern that is at least superficially similar to interpersonal rejection sensitivity. A specific form of bullying that has been the focus of a number of recent investigations is teasing (e.g. Ledley et al., 2006; Storch et al., 2004). These researchers found that recalled teasing experiences from childhood are widespread and related to impaired interpersonal functioning. They also suggest that frequent teasing experiences contribute to maladaptive cognitions, which may in turn lead to interpersonal difficulties. It seems likely that bullying and teasing experiences are childhood antecedents to increased rejection sensitivity later in life, but no direct evidence of this has been published.

If early teasing experiences lead to low self-esteem and feelings of inadequacy, is it possible that peer acceptance provides some protection against this threat? Positive interactions with friends could potentially compensate for negative bullying and teasing. Conversely, if a child is both teased and friendless, we might expect the worst social and emotional consequences. Developmental researchers find that children with at least one mutual friend are more satisfied and less lonely than friendless children (Sandstrom & Zakriski, 2004). There is also research showing that social support serves as a moderating variable or protective buffer against the harmful effects of stress (Greenblatt, Becerra, & Serafetinides, 1982; Thoits, 1995). This leads us to the view that peer acceptance and social support could counteract the effects of social rejection. Likewise, few friends and low social support could leave an individual particularly vulnerable, and thus more likely to develop interpersonal rejection sensitivity.

The Rejection Sensitivity Model (Levy et al., 2001) suggests that highly sensitive individuals will anxiously expect rejection from others. Their low interpersonal self-efficacy may be a further contributing factor to difficult relationships and compromised psychological adjustment. We believe that as rejection sensitivity increases, both confidence and ability in social interactions decreases, particularly on the occasion of meeting new people where the chances of rejection are highest. Competence in social interaction has been studied using the Interpersonal Competence Questionnaire (ICQ) which has been validated on the basis of both self-reports and descriptions by friends and roommates (Buhrmester, Furman, Wittenberg, & Reis, 1988). A demonstrated relationship between rejection sensitivity and interpersonal competence would increase our understanding of the social behavior of highly sensitive individuals.

Our purpose is to investigate the social antecedents and consequences of interpersonal rejection sensitivity. Due to the correlational nature of this research, these terms should be viewed as temporally descriptive and not causal inferences. Our assumption is that childhood experiences

precede adult personality characteristics, and that adult personality characteristics influence social behavior. In this study, we examine three retrospective childhood variables (peer acceptance, peer support, and teasing) and two concurrent adulthood variables (rejection sensitivity and interpersonal competence). We hypothesize that (1) childhood teasing experiences are positively correlated with rejection sensitivity, (2) peer acceptance is negatively correlated with rejection sensitivity, (3) high teasing and low acceptance interact to produce the greatest amount of rejection sensitivity, (4) interpersonal competence is negatively correlated with rejection sensitivity, and (5) among the domains of interpersonal competence, the ability to initiate new relationships has the highest negative correlation with rejection sensitivity.

2. Method

2.1. Participants

The participants in this study were 104 students recruited from introductory courses in psychology and sociology at a small university in the midwestern United States. There were 42 males and 62 females. The mean age of the sample was 20.75 (SD = 5.11). All of the participants were volunteers and some of them received extra credit for being in the study.

2.2. Materials

The Interpersonal Sensitivity Measure (IPSM; Boyce & Parker, 1989) is a 36 item scale that measures heightened concern and worry about social rejection experiences. The scale has been divided into five components: (1) Interpersonal Awareness, (2) Need for Approval, (3) Separation Anxiety, (4) Timidity, and (5) Fragile Inner Self. However, this factor structure has not been replicated in every sample (Harb et al., 2002), and the Need for Approval items are not always included in the measure (Wilhelm et al., 2004). Because the lack of consensus on factor structure, we used the total IPSM score. We also reversed several negatively correlated items, as suggested by Harb et al. (2002).

According to Boyce and Parker (1989), the IPSM has good internal consistency ($\alpha = .85$) and six week test–retest reliability ($r = .70$). It was originally constructed on a 4-point scale, ranging from "very unlike me" to "very like me." For consistency with our other measures, we converted the IPSM to a 5-point scale by adding a middle rating designated as "neutral or undecided." In pilot testing ($N = 62$) this scale had an internal reliability of .86 and correlated with both neuroticism, $r = .39$, $p < .01$ and the Rejection Sensitivity Scale (Downey & Feldman, 1996), $r = .30$, $p < .05$.

The Teasing Questionnaire-Revised (TQ-R) is a 29 item scale designed to retrospectively assess memories of teasing experiences during childhood (Storch et al., 2004). Responses are made on a 5-point scale, ranging from "I was never teased about this," to "I was always teased about this." The TQ-R has five subscales consisting of Performance, Academic, Social Behavior, Family Background, and Appearance. An example from the Social domain is, "I was teased because I was shy around other kids." The overall scale has an alpha reliability of .87 and an intraclass correlation coefficient of .87 after a two week retest (Strawser, Storch, & Roberti, 2005). The reliability

estimates for the subscales are lower but acceptable. Statistically significant correlations have been reported for the TQ-R and social self-esteem, $r = -.32$ as well as adult attachment style, $r = .17$ to .22 (Ledley et al., 2006).

Peer acceptance was measured with four items that were developed especially for this study. They were, "most of the kids I knew liked me," "I did not have many friends," "I usually found it easy to make new friends," and "I was not very popular." The items were scored on 5-point Likert scale and summed ($\alpha = .80$). The scale was designed to measure overall level of acceptance or popularity. As a supplement to this instrument, we attempted to measure childhood social support by including the friendship items from the Multidimensional Scale of Perceived Social Support (MSPSS), which is a valid and reliable instrument associated with depression, $r = -.24$ (Zimet, Dahlem, Zimet, & Farley, 1988). The items were modified to serve as a retrospective measure. For example, "my friends really try to help me" was rewritten to be, "my friends really tried to help me." All of these items were combined into a single questionnaire with instructions that requested our participants to think about their experiences during childhood. Acceptance and social support were scored separately in the analysis.

The Interpersonal Competence Questionnaire (ICQ) is a 40 item scale designed to measure emotional and behavioral skills in social interaction (Buhrmester et al., 1988). The scale is divided into five domains of interpersonal competence: Initiating Relationships, Self-Disclosure, Asserting Displeasure with Others' Actions, Providing Emotional Support, and Managing Interpersonal Conflicts. These scales correlate with each other and can be combined into an overall competence score. Responses are made on a 5-point scale, ranging from "I'm poor at this" to "I'm extremely good at this." An example from the initiation subscale is, "asking or suggesting to someone new that you get together and do something, e.g., go out together." The authors of the scale report that perceptions of interpersonal competence are significantly related to a variety of social adjustment measures. As examples, self-reported dating frequency is related to Initiating Relationships, $r = .31$, assertiveness is related to Asserting Displeasure, $r = .58$, and loneliness is related to Self-Disclosure, $r = -.30$.

2.3. Procedure

The participants completed the packet of questionnaires during their regularly scheduled courses. The presentation of the measures in the packet was counterbalanced to control for possible order effects. At the beginning of the data collection, participants were verbally informed that their responses were voluntary and anonymous, and that they could stop at any time. After the data were collected, the subjects were thanked for their participation and told to contact the researchers if they had any questions or concerns.

3. Results

Internal reliability for our variables was assessed by coefficient alpha and this value was .89 for the IPSM. The reliability coefficient for the TQ-R was .92, and the subscales were .44 for performance, .85 for academic, .82 for social behavior, .51 for family, and .86 for appearance. The performance and family subscales have rather low alpha values, but these are not necessarily

unacceptable for measures with only three items each (see Burisch, 1997). The ICQ had an excellent overall reliability of .94 with .71 for initiation, .72 for negative assertion, .73 for disclosure, .72 for emotional support, and .70 for conflict management. The alpha reliability for our measure of peer acceptance was .82, and alpha was .80 for our modified MSPSS measure of social support from childhood friends.

The TQ-R and its subscales were positively skewed (ranging from 1.28 to 1.72), with a large number of participants reporting very little teasing. The remaining variables were normally distributed. Gender differences were minimal in this sample. The only variable that reached statistical significance on a series of t-tests was the appearance subscale for the teasing questionnaire. Women were significantly more likely than men to report that they had been teased on the Appearance, $M = 8.51$ to $M = 5.07$, $t(97) = 2.76$, $p < .01$. For all of the analyses that follow, the data for males and females were combined.

Our results showed that rejection sensitivity was positively correlated with childhood teasing, $r(101) = .34$, $p < .01$, and inversely correlated with peer acceptance, $r(103) = -.27$, $p < .01$, which is consistent with our first two hypotheses. Rejection sensitivity was unrelated to social support from peers, $r(103) = -.13$, ns. Teasing was negatively correlated with both peer acceptance, $r(102) = -.58$, $p < .001$, and peer social support, $r(102) = -.47$, $p < .001$. Peer acceptance and social support were strongly related to each other, $r(104) = .88$, $p < .001$. To examine our hypothesized interaction between teasing and peer acceptance on rejection sensitivity, a hierarchical multiple regression analysis was conducted, using standardized scores for the predictor variables. First, teasing was entered into the prediction equation with rejection sensitivity as the criterion variable. The model was statistically significant, $F(1,99) = 12.71$, $p < .01$, with $R = .34$, adjusted $R^2 = .11$, and $\beta = .34$. Peer acceptance and the cross-product interaction of teasing and acceptance were entered into successive equations. These yielded models with $R = .36$ (adjusted $R^2 = .11$), and $R = .36$ (adjusted $R^2 = .10$), respectively. Neither peer acceptance nor the interaction variable was statistically significant. The partial correlation between peer acceptance and IPSM scores, controlling for the effects of teasing was $r(98) = -.12$, ns. The partial correlation between teasing and rejection sensitivity, controlling for peer acceptance, was $r(98) = .22$, $p < .05$. Therefore, contrary to our prediction, rejection sensitivity can be explained best by the variable of teasing. There was no interaction and no additional predictive value of peer acceptance in our data.

An analysis of the teasing subscales indicated that rejection sensitivity correlated with being teased about Performance, $r(101) = .26$, $p < .01$, Academics, $r(101) = .28$, $p < .01$, Social Behavior, $r(101) = .37$, $p < .001$, Appearance, $r(101) = .25$, $p < .05$, but not Family Background, $r(101) = .15$, ns. The strongest predictor was Social Behavior, which contained items that measured teasing experiences about being shy around other kids, not being good at conversations, crying or acting like a baby, and speaking with a stutter or accent. A stepwise multiple regression analysis was conducted using all five teasing subscales as predictors and rejection sensitivity as the criterion. The resulting model included Social Behavior and excluded all of the other subscales, $F(1,99) = 15.50$, $p < .001$, with $R = .37$, adjusted $R^2 = .13$, and $\beta = .37$. This was the single best predictor of rejection sensitivity among all the antecedent variables measured in the study.

As hypothesized, the correlation between rejection sensitivity and interpersonal competence was statistically significant, $r(101) = -.34$, $p < .01$. Interpersonal competence was also significantly correlated with peer acceptance, $r(102) = .24$, $p < .05$, as well as peer social support, $r(102) = .34$, $p < .01$. In contrast, the correlation between the TQ-R and the ICQ was only $r(100) = -.15$, ns.

A second stepwise multiple regression analysis was conducted to determine the best predictors of interpersonal competence. Rejection sensitivity, peer social support, and peer acceptance were entered as predictor variables and ICQ scores were used as the criterion variable. This analysis yielded a model that included all three predictor variables and accounted for 23% of the variance in ICQ scores, $F(3,97) = 10.70$, $p < .001$, with $R = .50$, adjusted $R^2 = .23$. The beta weights for rejection sensitivity, peer acceptance, and social support were $-.38$, $-.52$, and $.73$, respectively.

Our final hypothesis was that rejection sensitivity would have a strong negative correlation with the Initiating Relationships subscale of interpersonal competence. The correlations for the IPSM with specific components of the ICQ were $r(101) = -.41$, $p < .001$ for Initiating Relationships, $r(101) = -.30$, $p < .01$ for Self-Disclosure, $r(100) = -.31$, $p < .001$ for Asserting Displeasure with Others' Actions, $r(99) = -.28$, $p < .01$ for providing Emotional Support, and $r(100) = -.31$, $p < .01$ for Managing Interpersonal Conflicts.

4. Discussion

The results support our first hypothesis. Teasing experiences recalled from childhood are associated with significantly higher levels of rejection sensitivity. Hypothesis two is not supported. There was only a weak correlation between peer acceptance and rejection sensitivity, and this relationship disappears when we control for the effect of teasing. There is no relationship at all between childhood social support and rejection sensitivity. Our third hypothesis, of an interaction between teasing and peer acceptance, is also unsupported. It is possible that we did not adequately measure peer acceptance and social support, and this is a consideration for future research. Nevertheless, the data from this study suggest that recalled teasing experience, not social support, is the key predictor of rejection sensitivity. Apparently, the negative outweighs the positive in this regard. It is reasonable to infer that children who are frequently teased during childhood subsequently develop greater rejection sensitivity. However, because our data are correlational, it is also possible that interpersonally sensitive individuals are more likely to focus on and recall their teasing experiences. Finally, both rejection sensitivity and vulnerability to teasing may be the result of some other, unidentified vulnerability.

Storch et al. (2004) found that the TQ-R correlates significantly with numerous variables including anxiety, $r = .30$, depression, $r = .30$, fear of negative evaluation, $r = .29$, and loneliness, $r = .28$. Our correlation of $r = .34$ between teasing and rejection sensitivity compares favorably in effect size to their results. These researchers also found that teasing in the social domain was most strongly related to later measures of psychological distress and this too is consistent with our findings. Teasing can target a multitude of areas, including sports performance, body weight, appearance, and ethnic background, but being teased about social characteristics appears to have the clearest connection with subsequent concerns about rejection. It is worth noting that the highest correlation among rejection sensitivity and the individual items on the teasing questionnaire is on the item, "I was teased because I wasn't very good at initiating and maintaining conversations with other kids," $r = .39$, $p < .001$.

Our fourth and fifth hypotheses are confirmed by our data. Interpersonal competence is significantly associated with rejection sensitivity, and among its specific domains, the ability to initiate new relationships has the highest correlation with the IPSM. Although we assume that personality

traits precede behavioral tendencies, it is possible that low interpersonal competence leads to rejection sensitivity. Genetic factors may lead to both rejection sensitivity and difficult interactions with others. Indeed, there is an impressive body of research on temperament which indicates that some children are simply more sensitive and inhibited from the outset (Kagan, 1989). The ultimate origins of both personality and behavior are complex, multifaceted, and beyond the scope of this paper. A likely scenario is one of reciprocal causation, and this is consistent with the literature on childhood peer rejection (McDougall et al., 2001). By this view, children's poor interpersonal skills may lead to teasing and other forms of rejection, which in turn exacerbate their interpersonal difficulties. Future research using larger samples and structural equation modeling may offer additional insights.

An issue that emerges from the present study is the pattern of correlations among the variables of rejection sensitivity and interpersonal competence. Rejection sensitivity is related to childhood teasing, but not acceptance and support. Parallel to this finding, interpersonal competence correlates with social acceptance and support, but not teasing. It is inadvisable to speculate too far on the meaning of these data, but it is possible that acceptance and rejection contribute uniquely to subsequent social and emotional adjustment. Nevertheless, there is a common thread of rejection sensitivity in our data. The IPSM correlates with both teasing experiences and interpersonal competence, particularly on those aspects of the measures that refer to approaching people and initiating interactions with them.

Our study provides additional validity data for the IPSM, which has the potential to be a useful tool in the assessment of individuals with mood and anxiety disorders. The knowledge that rejection sensitivity is related to both memories of childhood teasing experiences and current interpersonal difficulties may provide therapists with additional avenues for treatment. For example, our results provide a rationale for the use of such techniques as group therapy and social skills training. More broadly, the recognition that such constructs as timidity, separation anxiety and fragile inner self occur in a social context is important for understanding the etiology of these phenomena.

One complication in this line of research is that different investigators have studied rejection sensitivity with very different approaches and theoretical assumptions. Boyce and Parker (1989) take a psychiatric perspective, focusing on the construct as an element of neuroticism that creates a vulnerability to depression. The IPSM was originally developed as a personality test, on the basis of their clinical observations. In contrast, Downey and Feldman (1996) take a social psychological perspective that defines rejection sensitivity not as personality, but as a set of cognitive and affective processes. Their approach de-emphasizes traits in favor of cognitive and situational factors. Their instrument, the RSQ, is based on the concept of self-efficacy (Bandura, 1986) and includes hypothetical situations in which respondents judge their expected anxiety level and the perceived likelihood of a good outcome. Future research should attempt to integrate these different paradigms, and determine empirically what measure or measures enable the best predictions of criterion behaviors.

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