Predicting the Psychological Health of Older Adults: Interaction of Age-Based Rejection Sensitivity and Discriminative Facility

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Predicting the psychological health of older adults: Interaction of age-based rejection sensitivity and discriminative facility

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Abstract

We hypothesize that older adults who anxiously expect, readily perceive, and intensely react to social rejection because of their old age (i.e., have high age-based rejection sensitivity) are vulnerable to depression and poor social functioning. We further hypothesize that the association between age-based rejection sensitivity and poor psychological health would be attenuated among older adults who possess adequate cognitive coping ability—they can discern and respond discriminatively to subtle variations in situational demands (i.e., have high discriminative facility). Based on the results of a focus group study, we constructed an age-based rejection sensitivity measure, which predicts greater depression, poorer social functioning, greater loneliness, and lower life satisfaction among individuals in late adulthood. As hypothesized, the relationship between age-based rejection sensitivity and poor psychological health was weaker among older adults with high (vs. low) discriminative facility.

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Keywords: Older Adults; Rejection Sensitivity; Discriminative Facility

1. Introduction

Rejection sensitivity is a predisposition to anxiously or angrily expect, readily perceive, and intensely react to rejection (Downey, Khouri, & Feldman, 1997). When people high in
rejection sensitivity encounter rejection cues, however minimal or ambiguous, they readily perceive intentional rejection and feel rejected (Downey & Feldman, 1996). The perceived rejection automatically activates affect-laden defensive processes (Downey, Mougios, Ayduk, London, & Shoda, 2004), and triggers hostile thoughts and other behavioral over-reactions (Ayduk, Downey, Testa, Yen, & Shoda, 1999). Eventually, such overreactions may lead to negative mood states and poor interpersonal relationships (Downey & Feldman, 1996; Downey, Lebolt, Rincon, & Freitas, 1998).

People entering a new phase in their lives may experience heightened rejection sensitivity (Levy, Ayduk, & Downey, 2001). A life transition that tends to be inherently stressful for most people is the one into late adulthood. Due to failing health, gradual loss of mental and physical functions, and increasing lack of control in their lives, some older adults may worry that their age status and its attendant mental and physical changes may elicit rejection from younger people and the society (Hong & Liu, 2000). In this article, age-based rejection sensitivity refers to older adults’ anxious expectations, ready perceptions, and overreactions to social rejection because of their age status. We hypothesize that older adults who anxiously expect, readily perceive, and intensely react to rejection because of their old age would have relatively poor psychological health. According to a report by the World Health Organization (2000), the population of people over 60 will double between 2000 and 2025, and by 2050, one in five people in the world will be over 60. Therefore, it is of paramount importance to understand the relationship of age-based rejection sensitivity to psychological health during transitions into late adulthood.

In addition, we hypothesize that the relationship between age-based rejection sensitivity and poor psychological health would be weaker when individuals have adequate self-regulatory competence. Rejection sensitivity is a “hot” reflexive cognitive-affective response to rejection cues, but its impact on psychological health is reduced when individuals engage in “cool” reflective processes (Ayduk et al., 2000). We propose that one such cool process involves attention to subtle differences in the nuances of different situations, and discriminative responses to the changing demands in the situation. Individuals with a chronic proclivity to engage in this process are said to possess discriminative facility (Cantor & Kihlstrom, 1989; Chiu, Hong, Mischel, & Shoda, 1995).

2. Rejection sensitivity

Drawing from the attachment theory (Bowlby, 1969, 1973, 1980), Downey and Feldman (Downey & Feldman, 1996; Feldman & Downey, 1994) propose that early experiences shape a child’s internal working model of relationships. Central to the internal working model is the expectation about whether significant others would be accepting or rejecting. Children whose needs were rejected tend to develop an insecure internal working model, whereas those whose needs were reliably met in a caring manner tend to develop a secure internal working model. An insecure internal working model fosters rejection sensitivity because it incorporates doubts and anxieties that others may not accept and support the self. In contrast, a secure working model incorporates the expectation that other people would accept and support them.

There is considerable evidence that rejection sensitivity, once activated, may elicit cognitive-affective reactions such as feelings of anger and being hurt, self-blaming, and/or other-blaming. These reactions, in turn, fuel other reactions such as dejection, aggression, and withdrawal. For example, other-blaming following perception of rejection may fuel
aggressive reactions (Downey & Feldman, 1996; Downey et al., 1998), whereas self-blaming following perception of rejection tends to exacerbate depressive symptoms and withdrawal (Ayduk, Downey, & Kim, 2001). Furthermore, rejection-sensitive individuals also tend to attribute harmful intent to potential sources of rejection (Downey & Feldman, 1996; Downey et al., 1998). Integrating these findings, Levy et al. (2001) posit that there may be a self-fulfilling quality of rejection sensitivity: Expectations of rejection facilitates subjective perceptions of rejection, which results in maladaptive behaviors that ultimately evokes objective rejections from others, reinforcing expectations of rejection. This vicious cycle is difficult to disrupt due to the “hot” nature of the process, which is initiated when rejection-sensitive individuals feel emotionally aroused or threatened (Ayduk et al., 1999; Reis & Downey, 1999).

Rejection-sensitive individuals heavily invested in a relationship may cope with their rejection anxiety by seeking intimacy or avoiding it. These individuals may try to avoid rejection through compliance and self-silencing. Alternatively, they may try to protect themselves from rejection through reduced involvement in intimate relationships (Ayduk, May, Downey, & Higgins, 2003). Although both strategies help to avoid stormy interpersonal relationships in the short run, they also reduce the chance of being accepted by others. In some situations, these strategies might even perpetuate rejection expectations and put rejection-sensitive individuals at risk for constant loneliness and depression. For instance, in an exploitative relationship, compliance and self-silencing tend to legitimize and reinforce a perpetrator’s abusive behavior and hence increase the risk of future victimization (Purdie & Downey, 2000).

Most rejection sensitivity studies were conducted in relationships involving significant others during childhood and early adulthood. The present study extends the existing literature by investigating how individuals with high rejection sensitivity cope with the transition into late adulthood. Life transitions often make people vulnerable to self-doubt, and research has shown that rejection-sensitive individuals are particularly likely to experience social relationship difficulties in college transition (see Levy et al., 2001). We contend that transition to late adulthood may also trigger concerns about age-based rejection by younger people and by the society, and hence increase the risks of social and affective maladjustment. Because no measures are available to tap sensitivity to rejection based on an older adult’s age status, the first goal of the current research is to develop such a measure and to assess whether age-based rejection sensitivity predicts social and affective functioning among older adults.

3. Discriminative facility

Another factor that may predict older adults’ psychological health in the context of age-based rejection sensitivity is discriminative facility. Discriminative facility as a self-regulatory competence could protect rejection-sensitive individuals against the maladaptive social-affective consequences of anxious rejection expectations. Research shows that among rejection-sensitive adolescents, self-regulatory competence (measured by delay of gratification) is associated with higher self-esteem, self-worth, and the ability to cope with stress (Ayduk et al., 2000). We propose that discriminative facility may serve a similar function.

Within the social cognitive approach to personality, discriminative facility is an encoding and regulatory competence that facilitates a person’s sensitivity to subtle cues about
the psychological meaning of the situation (Chiu et al., 1995). Central to the concept of discriminative facility is the ability to encode social information in conditional “if... then...” terms (Mischel & Shoda, 1995). Such encoding strategy enables individuals to discern subtle variations in situational demands and respond to different situations discriminatively and appropriately (Chiu et al., 1995). People with high discriminative facility tend to encode social information in contextualized and conditional terms, while those with low discriminative facility tend to encode social information globally (Cheng, Chiu, Hong, & Cheung, 2001).

Discriminative facility involves two component processes (Cheng, 2001): (a) flexibility in cognitive appraisal or sensitivity to the varying levels of controllability (controllable versus uncontrollable) in different situations, and (b) flexibility in deploying different coping strategies under controllable and uncontrollable situations. For example, when a threatening cue (including rejection cues) is registered, individuals may choose to monitor the threats in the environment (monitoring) or distract themselves from the cue (blunting) (Miller, 1992). Thus, flexible deployment of monitoring strategies in controllable situations and blunting strategies in uncontrollable situations is the behavioral signature of a person’s discriminative facility. Research has shown that discriminative facility measured through flexible use of monitoring and blunting strategies in situations with varying levels of controllability is associated with effective coping with stress (Lee, Leung, Chiu, & Maggenis, 2002): Individuals under stress reported fewer negative emotions (anxiety and depression), fewer somatic complaints (Cheng, Hui, & Lam, 1999, 2000), and lower risks of psychosomatic problems (Cheng, 2001, 2003) if they have high (vs. low) levels of discriminative facility.

In the present research, we hypothesize an interaction effect of age-based rejection sensitivity and discriminative facility on older adults’ psychological health. Among rejection-sensitive older adults, situational cues that signal age-based rejection triggers anxious expectations of rejection, such that even an innocuous social interaction is encoded as a sign of intentional rejection. By comparison, older adults with lower levels of age-based rejection sensitivity are less anxious about being rejected because of their age and should therefore have better psychological health than their rejection-sensitive counterparts. However, rejection-sensitive older adults with high (vs. low) discriminative may be capable of discerning the controllability of the situation and deciding whether active monitoring of the rejection cues or distraction from them are adaptive in the situation. Older adults with low age-based rejection sensitivity are not anxious about being rejected and therefore may not need discriminative facility to navigate interpersonal situations.

The present research was conducted in Hong Kong, and is comprised of two phases. Phase 1 aims to develop an Age-Based Rejection Sensitivity Questionnaire (ABRSQ) suitable for measuring the construct of age-based rejection sensitivity among older adults. Phase 2 aims to explore the hypothesized interaction effect of age-based rejection sensitivity and discriminative facility.

4. Pilot study

The first phase of the study is to develop a valid measure of the age-based rejection sensitivity. Rejection sensitivity is defined as anxious (Downey & Feldman, 1996) or angry (Downey et al., 1998) expectations of rejection in situations that present the possibility of rejection by significant others. The first step in developing the measure is to identify situations that afford the possibility of age-based rejection. After these situations are identi-
fied, questions are written to tap into anxious expectations of being rejected in these situations. A pilot study was conducted to identify the appropriate situations for inclusion in the measure. A poster seeking voluntary participants for this meeting was placed in a local community centre that caters to the needs of older adults.

Nine older adults (all Chinese, mean age = 70.56, SD = 6.21, range = 63–82) volunteered to take part in a focus group discussion concerning family and social stress of the elderly. Six participants had grade school education, 1 had high school education, and 2 had no education at all. Seven were married, 1 was divorced, and 1 was widowed. Five lived with their spouses, 2 lived alone, and 2 lived with children or other relatives. Participants who took part in the focus group were offered a free relaxation training session at the end of the discussion.

The discussion lasted for 1.5 hours. During this session, participants were encouraged to talk about their interpersonal stress, focusing on situations where acceptance or rejection from others (such as family members, friends, and unfamiliar others) was possible. After eliminating situations that are unlikely to happen, 9 rejection situations were selected for inclusion in the ABRSQ. These situations involve possible rejection by significant others such as spouse, children, other family members, friends, and peers, or by people of other social groups such as the general public, young couples, and younger people.

5. Main study

The goal of the main study was to establish the internal reliability and test the interaction effect of age-based rejection sensitivity and discriminative facility on older adults’ psychological health.

6. Method

6.1. Participants

A community sample of 80 Chinese older adults (18 male and 62 female) were recruited from nursing homes (N = 27), a psychiatric day-hospital (N = 8), and a community centre for the elderly (N = 45). Their mean age was 70.09 years (SD = 11.24). Most had grade school education (36.3%) or no education at all (36.3%). Others had high school (22.5%) or college education (5.0%). Half of them were married, 40% were widowed, and others were single (5%) or divorced/separated (5%). A third of them lived in nursing homes (34%), and most of the others lived (58%) with their spouses and/or children. The remaining 8% lived alone. Eight participants were diagnosed with psychiatric illnesses. Among them, 5 had mood disorders and 3 had anxiety disorders.

Participants were recruited through posters or after a recruitment meeting. Prior approval was sought from the nursing homes, hospital, and community centers before formal recruitment commenced. Due to the participants’ illiteracy, advanced age, and physical frailty, the first author conducted individual interviews with the participants.

6.2. Measures

ABRSQ. The ABRSQ has the same format of the original Rejection Sensitivity Questionnaire (RSQ) developed by Downey and Feldman (1996). It contains the 9 rejection situations identified in the pilot study. For each situation, the participants indicated their
degree of concern/anxiety about the outcome of the situation on a 6-point Likert scale, ranging from 1 (very unconcerned) to 6 (very concerned). A sample item is: “How concerned or anxious would you be over whether or not your family members would accompany you to medical clinic?” Next, the participants indicated the likelihood that the other person(s) would respond with acceptance or rejection on a 6-point scale ranging from 1 (very likely) to 6 (very unlikely). A sample item is: “Do you expect that your family members would accompany you?” For this item, high likelihood represents strong acceptance expectations and low likelihood represents strong rejection expectations.

Following the expectancy-value model (Bandura, 1986) and the scoring procedure of the original RSQ (Downey & Feldman, 1996), a separate score was constructed for each situation by multiplying the expected likelihood of rejection with the degree of concern over its occurrence. Next, a total rejection sensitivity score is computed for each participant by taking the average of the rejection sensitivity scores of the 9 situations. Thus, the total ABRSQ score can range from 1 to 36, with higher scores reflecting higher levels of age-based rejection sensitivity. Participants with high ABRSQ scores were those who expected rejection and experienced anxiety in anticipation of a potentially rejecting encounter in a variety of interpersonal situations. The internal reliability of the scale was .82 in the current study (for the sake of comparison, the internal reliability of the original RSQ was .83 for young adults, Downey & Feldman, 1996, and that of the Children’s Rejection Sensitivity Questionnaire ranged from .72 to .83, Downey et al., 1998).

**Discriminative facility.** Discriminative facility was measured by the Extended Version of the Miller Behavioral Style Scale (EMBSS) developed by Cheng et al. (2001) based on an earlier version (Miller, 1980; Miller & Mangan, 1983). The EMBSS asks participants to imagine themselves in eight different hypothetical situations, and decide whether they would use monitoring strategies (i.e., attending to adverse cues) and/or blunting strategies (i.e., distracting from adverse cues) to cope with each situation. For each situation, four monitoring and four blunting strategies are presented. The eight situations vary in levels of outcome controllability and the instrumentality of adopting monitoring versus blunting strategies (Cheng et al., 2001; Chiu et al., 1995). An example of high controllability situation is: “You are being held hostage by a group of armed terrorists in a public building”. An example of monitoring response in this situation is “I would make sure I knew where every possible visit was”, and example of blunting response is “I would think about how nice it’s going to be when I get home”. An example of low controllability situation is: “Due to a large drop in sales, it is rumored that several people in your department at work will be laid off. Your supervisor has turned in an evaluation of your work for the past year. The decision about lay-offs has been made and will be announced in several days.” An example of monitoring response in this situation is “I would try to remember any arguments or disagreements I might have had with the supervisor that would have lowered his opinions of mine”, and example of blunting response is “I would go to the movies to take my mind off things”. The number of situation-appropriate strategies chosen across the eight situations is used to form the total discriminative facility score (range from 0 to 64). Evidence attesting to construct validity of the EMBSS can be found in Cheng et al. (2001). The internal reliability of the discriminative facility scale was .70 in the current study.

Because of the participants’ low literacy level, the first author orally presented the eight hypothetical situations. Additionally, visual illustrations of the situations intended to assist the participants to vividly imagine themselves encountering the situations were presented on a screen during the narration.
Geriatric Depression Scale-Short Form (GDS-SF). To assess affective adjustment, the 15-item short form of Geriatric Depression Scale (Sheikh & Yesavage, 1986) was used. This measure is commonly used to screen for depressive symptoms of the elderly people. Participants provided yes/no responses to a list of 15 depressive symptoms such as depressed mood, diminished interest/pleasure, feelings of worthlessness, and helplessness. Presence (absence) of each of these symptoms was assigned a score of 1 (0). The mean of the 15 items constituted the total depression score, which could range from 0 to 1, with higher scores indicating higher levels of depression. A Chinese version of the scale (Chiu et al., 1994) was used. This version has satisfactory psychometric properties (Lee, Chiu, & Kwok, 1994; Lee et al., 1993). In the current study, the GDS-SF had acceptable internal reliability ($\alpha = .82$).

Social functioning. The social functioning (SF) subscale in the SF-36 Health Survey was used to measure the participants’ level of social functioning. The SF-36 Health Survey (Lam, Lam, Lauder, & Gandek, 1999) is a generic measure of health-related quality of life. The survey assesses eight domains of physical and psychological health: (1) physical functioning (PF), (2) role limitations due to physical health problems (RP), (3) bodily pain (BP), (4) general health (GH), (5) vitality (i.e., level of energy/fatigue) (VT), (6) social functioning (SF), (7) role limitations due to emotional problems (RE), and (8) mental health (i.e., psychological distress and psychological well-being) (MH). Five subscales (PF, RP, BP, SF, and RE) define health as the absence of limitations or disability. Each scale ranges from 0 to 100, with higher scores indicating better health.

Evidence supporting the validity, reliability, acceptability, discriminatory power and sensitivity of SF-36 on a variety of patient groups can be found in Ware, Snow, Kosinski, and Gandek (1993). Reliability estimates consistently exceed acceptable standards. For example, the median of the reliability coefficients across studies equals or exceeds .76 (Ware et al., 1993). The Chinese version of the SF-36 was developed and tested in a study with 236 Hong Kong Chinese participants in 1996 (Lam et al., 1999) and showed satisfactory psychometric properties (Lam et al., 1999; Thumboo et al., 2000). In the present study, the internal reliability of the SF-36 full scale was .87, and the median reliability of the subscales was .76.

Other measures. To provide further tests of the relationship between age-based rejection sensitivity and psychological adjustment, the following measures were also given to the participants: (a) the UCLA Loneliness Scale-Version 3 (Russell, Peplau, & Cutrona, 1980) and (b) Satisfaction with Life Scale (SWLS, Diener, Emmons, Larsen, & Griffin, 1985). The UCLA Loneliness Scale is a 20-item measure that assesses the level of loneliness the respondents experience in their relationships with other people ($\alpha = .79$ in the present study). The Satisfaction with Life Scale is a 5-item measure assessing subjective global life satisfaction ($\alpha = .84$ in the present study).

7. Results

7.1. Descriptive statistics

Table 1 presents the means, standard deviations for the entire sample and by the major demographic variables. Levels of age-based rejection sensitivity did not vary by gender ($F = 1.42, ns$), education ($F = 1.10, ns$), marital status ($F = 0.69, ns$), and living condition ($F = 1.99, ns$). Within the restricted age range of the participants, no correlation was found between age-based rejection sensitivity and participant age ($r = .02, ns$). However, partic-
Participants recruited from the three different settings had different levels of age-based rejection sensitivity, $F(2, 77) = 11.17, p < .001, \text{MSE} = 18.30$. Those recruited from psychiatric hospitals were more rejection-sensitive than those recruited from other settings, $p < .05$. Participants with psychiatric diagnosis also had higher levels of age-based rejection sensitivity than those without psychiatric diagnosis, $F(2, 77) = 11.40, p < .001, \text{MSE} = 18.21$. We included all participants in the analyses reported below, but none of the results changed when the 8 clinical participants were excluded (see Table 2 and Footnote 1).

### Table 1
Descriptive statistics of the age-based rejection sensitivity score for the entire sample and by major demographic variables

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Age-based rejection sensitivity score</th>
<th>$M$</th>
<th>$SD$</th>
<th>Minimum</th>
<th>Maximum</th>
<th>$N$</th>
</tr>
</thead>
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<td>Total sample</td>
<td></td>
<td>7.1509</td>
<td>4.7967</td>
<td>1.11</td>
<td>21.89</td>
<td>80</td>
</tr>
<tr>
<td>By gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>5.9210</td>
<td>5.0507</td>
<td>1.11</td>
<td>20.33</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>7.5080</td>
<td>4.7024</td>
<td>1.56</td>
<td>21.89</td>
<td>62</td>
</tr>
<tr>
<td>By institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community centre</td>
<td></td>
<td>6.1869</td>
<td>3.5620</td>
<td>1.11</td>
<td>16.22</td>
<td>45</td>
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<tr>
<td>Nursing home</td>
<td></td>
<td>6.7623</td>
<td>4.4649</td>
<td>1.33</td>
<td>20.78</td>
<td>27</td>
</tr>
<tr>
<td>Psychiatric day-hospital</td>
<td></td>
<td>13.8854</td>
<td>6.8910</td>
<td>4.00</td>
<td>21.89</td>
<td>8</td>
</tr>
<tr>
<td>By education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nil</td>
<td></td>
<td>7.4826</td>
<td>5.0179</td>
<td>1.33</td>
<td>21.89</td>
<td>28</td>
</tr>
<tr>
<td>Grade school</td>
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<td>7.9999</td>
<td>4.4929</td>
<td>1.67</td>
<td>21.75</td>
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<td>5.5057</td>
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<td>4.5437</td>
<td>0.4879</td>
<td>4.11</td>
<td>5.22</td>
<td>4</td>
</tr>
<tr>
<td>By marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td>7.8889</td>
<td>6.5596</td>
<td>1.67</td>
<td>13.67</td>
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<td>Married</td>
<td></td>
<td>6.6419</td>
<td>4.3058</td>
<td>1.11</td>
<td>20.33</td>
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<tr>
<td>Widowed</td>
<td></td>
<td>7.9401</td>
<td>5.3364</td>
<td>1.56</td>
<td>21.89</td>
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<tr>
<td>Divorced/separated</td>
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<td>5.1905</td>
<td>3.4113</td>
<td>1.33</td>
<td>9.43</td>
<td>4</td>
</tr>
<tr>
<td>By living condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td></td>
<td>10.2500</td>
<td>9.0278</td>
<td>2.78</td>
<td>21.89</td>
<td>6</td>
</tr>
<tr>
<td>In institution</td>
<td></td>
<td>6.7623</td>
<td>4.4649</td>
<td>1.33</td>
<td>20.78</td>
<td>27</td>
</tr>
<tr>
<td>With spouse &amp; children</td>
<td></td>
<td>7.7114</td>
<td>4.7010</td>
<td>2.56</td>
<td>20.33</td>
<td>22</td>
</tr>
<tr>
<td>With spouse only</td>
<td></td>
<td>5.0144</td>
<td>2.7434</td>
<td>1.11</td>
<td>9.89</td>
<td>16</td>
</tr>
<tr>
<td>With children only</td>
<td></td>
<td>9.2083</td>
<td>4.3435</td>
<td>3.89</td>
<td>15.56</td>
<td>8</td>
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<tr>
<td>By psychiatric diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nil</td>
<td></td>
<td>6.4027</td>
<td>3.9040</td>
<td>1.11</td>
<td>20.78</td>
<td>72</td>
</tr>
<tr>
<td>Mood disorders</td>
<td></td>
<td>12.9333</td>
<td>7.7974</td>
<td>4.00</td>
<td>21.89</td>
<td>5</td>
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<tr>
<td>Anxiety disorders</td>
<td></td>
<td>15.4722</td>
<td>6.2095</td>
<td>9.33</td>
<td>21.75</td>
<td>3</td>
</tr>
</tbody>
</table>

7.2. Age-based rejection sensitivity and psychological health

First, we assessed the relationship between age-based rejection sensitivity and psychological health. As shown in Table 2, the total ABRSQ score had a significant posi-
tive correlation with depression, and a significant negative correlation with social functioning.

Additionally, age-based rejection sensitivity was positively correlated with loneliness and negatively associated with life satisfaction. Age-based rejection sensitivity was also negatively correlated with other indicators of health. These findings indicate that age-based rejection sensitivity is associated with important health indicators among older adults.

The ABRSQ has two components (concern about rejection and expectancy of rejection) and they had similar correlations with geriatric depression and social functioning. This is not surprising because they are highly correlated with each other.

7.3. The interaction of age-based rejection sensitivity and discriminative facility

A major hypothesis in the current research concerns the interaction effect of age-based rejection sensitivity and discriminative facility on older adults’ social-affective functioning. To test the hypothesis, an Age-Based Rejection Sensitivity (ABRS, mean-centered) × Discriminative Facility (DF, mean-centered) linear model was fitted to geriatric depression. The main effect of ABRS was significant, $B = .02, t(76) = 4.00, p < .001$, indicating a positive association between age-based rejection sensitivity and geriatric depression. The main effect of DF was not significant, $B = -.0018, t(76) = .60, ns$. The predicted interaction was significant, $B = -.0019, t(76) = -2.19, p < .05$. Next, simple slope analysis (Aiken & West, 1991) was performed to understand this interaction. The results show that when discriminative facility was low (1 SD below the mean), participants with higher age-based rejection sensitivity were more depressed ($B = -0.035, t = 6.40, p < .001$). However, when discriminative facility was high (1 SD above the mean), age-based rejection sensitivity was unrelated to level of depression ($B = .01, t = 1.08, ns$). Furthermore, there was a marginally significant negative association between discriminative facility and geriatric depression among high ABRSQ (1 SD above the mean) participants ($B = -.01, t = -1.79, p = .077$).

Table 2
Correlation between the ABRSQ and other measures

<table>
<thead>
<tr>
<th></th>
<th>Total ABRSQ</th>
<th>Concern</th>
<th>Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discriminative facility</td>
<td>-.19 (-.09)</td>
<td>-.16 (-.07)</td>
<td>-.12 (-.03)</td>
</tr>
<tr>
<td>Geriatric depression</td>
<td>.59*** (.39***</td>
<td>.59*** (.42***</td>
<td>.49*** (.31***)</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.35** (.26*)</td>
<td>.29** (.19)</td>
<td>.44*** (.38***</td>
</tr>
<tr>
<td>Satisfaction with life</td>
<td>-.44*** (-.20**)</td>
<td>-.40*** (-.18)</td>
<td>-.40*** (-.23**)</td>
</tr>
<tr>
<td>SF-36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social functioning</td>
<td>-.45*** (-.41***</td>
<td>-.36** (-.32**)</td>
<td>-.47** (-.41**)</td>
</tr>
<tr>
<td>Physical functioning</td>
<td>-.23* (-.18)</td>
<td>-.29* (-.26*)</td>
<td>-.12 (-.08)</td>
</tr>
<tr>
<td>Role limitations due to physical health problems</td>
<td>-.39** (-.35**)</td>
<td>-.41*** (-.39***)</td>
<td>-.34** (-.28*)</td>
</tr>
<tr>
<td>Bodily pain</td>
<td>-.38** (-.28*)</td>
<td>-.44*** (-.37***)</td>
<td>-.24* (-.13)</td>
</tr>
<tr>
<td>General health</td>
<td>-.44*** (-.32**)</td>
<td>-.45*** (-.32**)</td>
<td>-.35** (.41***</td>
</tr>
<tr>
<td>Vitality</td>
<td>-.54*** (-.41***</td>
<td>-.54*** (-.43***</td>
<td>-.48*** (-.37**)</td>
</tr>
<tr>
<td>Role limitations due to emotional problems</td>
<td>-.41*** (-.26*)</td>
<td>-.38*** (-.25*)</td>
<td>-.40*** (-.29*)</td>
</tr>
<tr>
<td>Mental health</td>
<td>-.49*** (-.32**)</td>
<td>-.44*** (-.26**)</td>
<td>-.47*** (-.38***)</td>
</tr>
</tbody>
</table>

Notes. The correlations computed from the non-clinical sample only are indicated in parentheses; +$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$. 

Among low ABRSQ (1 SD below the mean) participants, the association between discriminative facility and geriatric depression was not significant ($B = .01, t = -1.63, ns$). Similar results were found for social functioning. Again, an Age-Based Rejection Sensitivity (ABRS, mean-centered) × Discriminative Facility (DF, mean-centered) linear model was fitted to the social functioning subscale of the SF-36 Health Survey. The main effect of ABRS was significant, $B = -1.57, t(76) = 4.00, p < .001$, indicating a negative association between age-based rejection sensitivity and social functioning. The main effect of DF was not significant, $B = 0.20, t(76) = 0.47, ns$. The predicted interaction was significant at the .058 level, $B = 0.21, t(76) = 1.92$. Simple slope analysis results show that ABRSQ was negatively related to social functioning among participants with low (1 SD below the mean) discriminative facility ($B = -2.94, t = -4.45, p < .001$), but not among those with high (1 SD above the mean) discriminative facility ($B = -0.19, t = -0.16, ns$). Again, among high ABRSQ (1 SD above the mean) participants, there was a marginally significant positive association between discriminative facility and social functioning ($B = 1.21, t = 1.67, p = .099$). Among low ABRSQ (1 SD below the mean) participants, discriminative facility, and social functioning were not related ($B = -0.19, t = -0.16, ns$). These results provided clear support for our hypothesis.2,3

8. General discussion

This study addressed three goals. The first goal was to construct a measure of age-based rejection sensitivity for use among older adults. The second goal was to evaluate the predictive relationship between age-based rejection sensitivity and social-affective functioning. Lastly, we attempted to test the interaction effect of age-based rejection sensitivity and discriminative facility on older adults’ social-affective adjustment.

Following Downey and her colleagues’ (Downey & Feldman, 1996) conceptualization of rejection sensitivity as a cognitive-affective disposition to overreact to rejection cues in social situations, we identified from a focus group study nine rejection situations and developed a measure of anxious expectation of rejection in these situations. The reliability of this measure is comparable to those obtained for the rejection sensitivity measures

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1 When the clinical sample was excluded in the analysis, the predicted ABRSQ × Discriminative Facility interaction was significant, $F(1, 67) = 5.23, p < .05$. At low levels of discriminative facility (1 SD below the mean), ABRSQ was positively related to geriatric depression, $B = .04, t = 5.09, p < .001$. At high levels of discriminative facility (1 SD above the mean), ABRSQ was not related to geriatric depression, $B = 0.1, t = 0.92, ns$. For social functioning, the predicted ABRSQ × Discriminative Facility interaction was significant, $F(1, 67) = 8.41, p < .01$. At low levels of discriminative facility (1 SD above the mean), ABRSQ was negatively related to social functioning, $B = -5.28, t = -4.90, p < .001$. At high levels of discriminative facility (1 SD above the mean), ABRSQ and social functioning were not related, $B = 0.33, t = 0.26, ns$.

2 We also separated the two components of the ABRSQ and fitted a Concern (mean-centered) × Expectancy (mean-centered) × Discriminative Facility (mean-centered) linear model to geriatric depression. None of the parameters in the model were significant, the highest $F(2.02, p = .16)$ was obtained for the three-way interaction. A similar model fitted to social functioning revealed a significant main effect of concern ($F = 6.91, p = .01$). These results are difficult to interpret because Concern and Expectancy were highly correlated.

3 We also fitted an ABRSQ × Discriminative Facility linear model to the other measures. The main effect of ABRSQ was significant for the following measures: loneliness, role limitations due to physical health problems, bodily pain, general health, vitality, role limitations due to emotional problems, and mental health. The interaction was significant at the .07 level for satisfaction with life and role limitations due to physical health problems.
designed for children and adolescents. It also predicts depression, loneliness, poor health, and lower life satisfaction. These results support the hypothesis that age-based rejection sensitivity is linked older adults’ emotional and social functioning.

Rejection sensitivity researchers have extended rejection-sensitivity research from person-based sensitivity in close relationships and peer relations to rejection to group-based rejection sensitivity, such as race-based rejection sensitivity among ethnic minorities (Mendoza-Denton, Purdie, Downey, & Davis, 2002). The present research follows this research tradition and further extends group-based rejection sensitivity to age-based rejection sensitivity among older adults.

Finally, our results show that the link from age-based rejection sensitivity to depression and social functioning is weaker among older adults with high (vs. low) discriminative facility. Among participants with low discriminative facility, having higher rejection sensitivity is associated with depression and poor social functioning. However, for participants with higher discriminative facility, the associations of rejection sensitivity with depression and poor social functioning are attenuated. This result is consistent with the previous finding that the ability to delay gratification in childhood attenuates the potentially destructive effects of rejection sensitivity (Ayduk et al., 2000).

Thus, although age-based rejection sensitivity is linked to poor affective and social functioning, interventions targeted at lowering age-based rejection sensitivity and/or enhancing discriminative facility may improve older adults’ affective and social functioning. A core component of discriminative facility is the ability to discern subtle nuances in the psychological meaning of particular social situations (Chiu et al., 1995). Rejection-sensitive older adults can be trained to encode information in contextualized and conditional terms. The heightened situational sensitivity resulting from such training may facilitate development of the ability to generate adaptive behaviors that meet the requirements of particular situations. More concretely, because discriminative facility involves discriminative encoding of situations and flexible use of situation-appropriate coping strategies, rejection-sensitive individuals can also be taught to match the characteristics of the coping skills with the demands of various rejection situations. Thus, when a situation with similar psychological meaning is encountered, the client will be able to respond to the situation in a discriminative and appropriate manner. Alternatively, age-based rejection-sensitive older adults can be trained to counter their anxious expectations of rejection with cognitions about positive experiences with their families and friends.

8.1. Limitations and future directions

Four limitations of this research are noteworthy. First, all participants in the present research were Chinese older adults. Hence, the generalizability of the present findings to non-Chinese populations is uncertain. Second, the reliability of the discriminative facility measure was not high ($x = .70$) in the present study. Third, we did not address the incremental predictive value of discriminative validity over other anxiety-related measures (e.g., Neuroticism).

Finally, the ABRSQ developed in the present study focuses only on anxious expectations of rejection. It would seem equally likely that psychological transgressions such as a lack of obvious care from significant others or a criticism remarked by a young person may lead to different forms of rejection expectations of older adults, depending on one’s appraisal of the perceived threat (Beck, 1999). Rejecting experiences usually make older
adults feel diminished and hurt at first. If they justify a rejection or agree with the criticism, they are likely to resign themselves to being immobilized and feel sad. Individuals who have a tendency to blame themselves may be at higher risk for depressive symptoms and social withdrawal. However, if older adults construe the rejecting experience as an offense and unjustified, they are likely to see the offenders as being wrong for having hurt them. Individuals who have a tendency to blame others may be more prone to aggressive reactions. Therefore, the exploration of other affective and behavioral reactions such as irritable mood, angry outbursts, and even physical aggression, angry experiences in anticipation of potential rejection merits further research.

9. Conclusion

In summary, the present research contributes to the study of rejection sensitivity by developing a measure specifically designed for older adults. The results show that age-based rejection-sensitivity is associated with important health indicators among older adults. Furthermore, discriminative facility may foster adaptive responses to rejection situations and attenuate rejection sensitivity’s link with emotional distress and poor social functioning.

References


