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Brief Report

Visible versus non-visible rejection: Consequences of appearance-based rejection sensitivity

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ABSTRACT

Individuals with high Appearance-based Rejection Sensitivity (Appearance-RS) anxiously expect, readily perceive, and overreact to rejection based on their physical appearance. In the present research, we hypothesized that high Appearance-RS individuals would show heightened emotional, cognitive, and motivational responses to an ambiguous experience of rejection, but only when their appearance was visible to others. Consistent with predictions, high Appearance-RS participants reported more negative affect and interpreted ambiguous appearance commentary (but not general commentary) more negatively following ambiguous rejection in a visible versus non-visible situation. Findings remained even after controlling for sex, self-esteem, and general rejection sensitivity. Appearance-RS did not differentially predict desire for future social interaction as a function of visible versus non-visible rejection. Implications for motivation and well-being are discussed.

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1. Introduction

Despite the common saying, "It's what's on the inside that counts," physical appearance plays an important role in people's everyday lives. Whereas physically attractive individuals are perceived as likeable, well-adjusted, successful, and are treated favorably by others (Dion, Berscheid, & Walster, 1972; Snyder, Tanke, & Berscheid, 1977), unattractive individuals are often teased, bullied, or discriminated against based on their looks (Crandall, 1994; Puhl & Brownell, 2001).

The strong societal emphasis on attractiveness may lead some individuals to experience heightened sensitivity to rejection based on their appearance, or Appearance-based Rejection Sensitivity (Appearance-RS). Appearance-RS consists of anxious concerns (i.e., affective component) and expectations of rejection (i.e., cognitive component) based on one's appearance. These components are theorized to interact with one another in a multiplicative fashion, such that anxieties about rejection amplify cognitions, or expectations, of appearance rejection (Park, 2007). Although experiences of rejection can lead to loss of self-esteem, hurt feelings, and negative affect (Leary, Koch, & Hechenbleikner, 2001), individuals differ in the degree to which they care about others' approval and in their responses to rejecting interpersonal feedback (Park & Crocker, 2008). For example, individuals with high general rejection sensitivity readily perceive rejection in others' behavior and react with anger and hostility once rejection has occurred (Ayduk, Downey, Testa, Yen, & Shoda, 1999; Downey & Feldman, 1996).

To date, most studies examining rejection sensitivity in interpersonal situations used a visible interaction, in which participants could be seen. For example, participants in one study interacted with another participant face-to-face, and then received negative appearance or intelligence feedback, ostensibly from the other participant. High Appearance-RS participants responded to negative appearance (but not intelligence) feedback with increased desire to avoid social interaction (Park & Pinkus, 2009).

In the present research, we examined the degree to which Appearance-RS shaped affective, cognitive, and motivational responses to an ambiguous experience of appearance rejection in an interpersonal setting. Rather than providing explicit, negative appearance feedback to participants, we used a more ecologically valid approach – creating an ambiguous experience for all participants that could potentially be construed as rejecting based on appearance. Importantly, we manipulated the visibility of participants' appearance during the interaction. If Appearance-RS is fundamentally tied to concerns about rejection based on one's looks, then high Appearance-RS participants should show exacerbated responses to ambiguous rejection in a visible situation (i.e., where they can be seen), but not in a non-visible situation (i.e., where they cannot be seen). Furthermore, if Appearance-RS has unique predictive validity, it should shape responses to rejection even after accounting for variables such as low self-esteem and general rejection sensitivity.

Specifically, if participants anxiously expect rejection based on their appearance, they may experience greater negative affect in

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a potential rejection situation in which they can be seen versus not seen by others. Furthermore, high Appearance-RS participants may interpret subsequent ambiguous appearance commentary more negatively following visible versus non-visible rejection, presumably because appearance is more salient in a visible situation and may therefore serve as a schema through which individuals with high Appearance-RS process subsequent appearance-relevant information. Along these lines, people with body image disturbances typically show cognitive biases that influence their judgment, memory, and attention (Williamson, Muller, Reas, & Thaw, 1999); for example, people with eating disorders demonstrate biases in dichotic listening tasks and Stroop procedures for words related to body shape and weight (Rieger et al., 1998).

Finally, consistent with research showing that high Appearance-RS participants report decreased desire for social contact after receiving negative appearance feedback (Park & Pinkus, 2009), we hypothesized that high Appearance-RS participants would express decreased desire for future social interaction after experiencing ambiguous rejection in a visible versus non-visible situation. The present study extends past findings, however, by examining whether the visibility of one's appearance is necessary to predict affective, cognitive, and motivational outcomes following an ambiguous experience of rejection.

2. Method

2.1. Participants and procedure

From an initial sample of 97 participants, 18 were excluded from analyses due to suspicion of the research procedures.[1] The final sample consisted of 79 (39 females, 40 males) participants from the Introductory Psychology Subject Pool at the University at Buffalo. The mean age of the sample was 19.39 years (SD = 1.30), with 52% Caucasians, 38% Asian Americans, and 10% of other races.

Participants first completed questionnaires online assessing Appearance-RS, Personal-RS, self-esteem, and demographic information. Several weeks later, participants came to the lab for a study on dating. Each lab session consisted of one participant and one opposite-sex confederate, with multiple male and female confederates involved across study sessions. Participants were informed that they would be participating in two brief sessions where they would interact with another student (i.e., a confederate) and get to know him/her. Participants were randomly assigned to either a non-visible rejection condition, in which a screen was put up to prevent participants and confederates from seeing each other during the interaction, or to a visible rejection condition, in which there was no dividing screen and participants engaged in a face-to-face interaction with the confederate.

The confederate always led the discussion during the first interaction. Specifically, he/she asked the participant a series of questions designed to induce relationship closeness (Sedikides, Campbell, Reeder, & Elliot, 1998), such as "Where are you from?" to "If you could travel anywhere, where would you go and why?" After this interaction, participants and confederates completed an impression rating form regarding their perceptions of the other person's attractiveness and impressions of the interaction. Next, the experimenter told the participant "I'm sorry, but the other participant does not want to continue with the second part of the experiment." All participants, regardless of condition, were told this information. Participants were then asked to complete some additional questionnaires assessing negative affect, interpretation of ambiguous appearance versus general commentary, and desire for social interaction. After being fully debriefed, participants were thanked, given credit, and dismissed.

2.1.1. Appearance-RS

Appearance-RS was measured with the 15-item (M = 9.62, SD = 3.78; α = .90). Appearance-RS scale, which assesses anxious expectations of rejection based on appearance (Park, 2007). An example item is: "You are leaving your house to go on a first date when you notice a blemish on your face" and are asked to report how anxious they feel about being rejected on the basis of their appearance (1 = very unconcerned; 5 = very concerned) and their expectation of rejection based on appearance (1 = very unlikely; 5 = very likely). Appearance-RS is calculated by multiplying the degree of anxious concern with the degree of rejection expectation in each situation, then averaging across these scores across situations for each participant.

2.1.2. Rosenberg self-esteem scale

The 10-item (M = 5.53, SD = 1.03; α = .90) Rosenberg Self-Esteem Scale (1965) was used to measure trait self-esteem. Participants responded to items such as, "On the whole, I am satisfied with myself" using a scale from 1 (strongly disagree) to 7 (strongly agree).

2.1.3. Personal-RS

Personal-RS was measured with the 18-item (M = 9.07, SD = 3.28; α = .93) Rejection Sensitivity Questionnaire (Downey & Feldman, 1996). Similar to the Appearance-RS scale, participants rated their anxious concern (1 = very unconcerned; 5 = very concerned) about the other person's response and their expectations of rejection in each situation (1 = very unlikely; 5 = very likely). An example item is: "You approach a close friend to talk after doing or saying something that seriously upset him/her." Personal-RS is calculated in the same way that Appearance-RS is calculated.

2.1.4. Impression rating form

After the initial interaction, participants rated their impressions of the physical attractiveness of their partner and were led to believe that the other person was completing the same information about them (see Park & Maner, 2009, Study 3, for details). Participants were informed that the other person would never see their ratings, and vice versa. Participants were also asked two questions assessing their impressions of the interaction: "Overall, how well do you think the first interaction period went?" on a scale from 1 (very negative) to 7 (very positive), and "How much are you looking forward to interacting with the other person again?" on a scale from 1 (not at all) to 7 (very much). These manipulation check items were included to ensure that participants in both conditions thought that the first interaction had gone well and were looking forward to the second interaction.

2.1.5. Negative affect

After being told that the other participant did not want to continue with the experiment, participants reported (1 = not at all; 7 = very much) their current negative affect (e.g., upset, ashamed, blue; six items, M = 2.14, SD = 1.05; α = .85).

2.1.6. Physical appearance ambiguous feedback scale

Next, participants completed the Physical Appearance Ambiguous Feedback Scale (Altabe, Wood, Herbozo, & Thompson, 2004), which assesses cognitive biases for appearance and general ambiguous comments. Participants indicated how hearing each state-

[1] Ten participants expressed suspicion (i.e., thought the other participant was part of the study) in the non-visible rejection condition and eight participants expressed suspicion in the visible rejection condition. Suspicious participants in the visible versus non-visible rejection condition did not differ significantly on any of the measured variables. Results were the same when including or excluding suspicious participants from analyses.

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ment would make them feel (1 = very negative; 7 = very positive). Examples of ambiguous appearance commentary (six items, $M = 3.89$, $SD = .84$; $\alpha = .59$) were: "I didn't even recognize you!" and "Did you get enough sleep last night?".[2] Examples of general ambiguous commentary (eight items, $M = 3.97$, $SD = .75$; $\alpha = .63$) were: "You're acting like a different person today" and "You're so talkative."

2.1.7. Desire for social interaction

Finally, participants responded to the question: "Right now, how interested are you in talking to someone new?" on a scale from 1 (not at all) to 7 (very much) ($M = 5.33$, $SD = 1.34$).

3. Results

3.1. Manipulation check

Overall, participants thought the first interaction had gone well ($M = 5.19$, $SD = 1.05$) and were generally looking forward to the second interaction ($M = 4.68$, $SD = 1.06$). Responses to these two items did not vary systematically as a function of experimental condition (coded as 1 = visible rejection, −1 = non-visible rejection), Appearance-RS, or their interaction using regression analyses (all $ps < .26$, Cohen's $ds < .09$).

3.2. Data analytic strategy

For our primary analyses, we conducted multiple regression analyses in which standardized scores of Appearance-RS, experimental condition (coded as above), and their interaction were entered simultaneously into the model. We further tested whether the Appearance-RS × Condition interaction remained significant even after controlling for standardized covariates of self-esteem, general rejection sensitivity, sex (coded as 1 = female, −1 = male), and their interactions with condition. We controlled for sex, because women sometimes score higher in Appearance-RS than men (Park, DiRaddo, & Calogero, 2009); self-esteem, because Appearance-RS is associated with low self-esteem (Park, 2007); and general rejection sensitivity, because Appearance-RS is associated with high Personal-RS (Park & Pinkus, 2009). We then analyzed simple effects and plotted predicted values at 1 SD above and 1 SD below the mean of Appearance-RS in each condition. For all analyses, neither participants' sex, nor their feelings about the current or upcoming interaction, moderated the Appearance × Condition interaction; also, the Personal-RS × Condition interaction was not significant in predicting any outcome variables. All βs represent standardized beta coefficients.

3.3. Negative affect

There was a significant main effect of Appearance-RS ($\beta = .24$, $p < .05$) and a non-significant effect of experimental condition ($\beta = .15$, $p = .16$), qualified by a significant Appearance-RS × Condition interaction ($\beta = .25$, $p < .05$) in predicting negative affect (see Fig. 1). The Appearance-RS × Condition interaction remained significant ($\beta = .32$, $p < .05$) even after controlling for covariates. Simple slopes tests revealed that among participants in the visible rejection condition, those with higher Appearance-RS experienced greater negative affect than those with lower Appearance-RS ($\beta = .48$, $p < .01$), whereas this relationship was not found in the non-visible rejection condition ($\beta = -.01$, $p = .95$). Indeed, high Appearance-RS (+1 SD) participants reported significantly greater negative affect in the visible versus non-visible rejection condition ($\beta = .40$, $p < .05$), whereas this effect was not found among low Appearance-RS (−1 SD) participants ($\beta = -.09$, $p = .56$).

3.4. Ambiguous appearance commentary

Although there were no significant main effects of Appearance-RS ($\beta = -.16$, $p = .14$) or condition ($\beta = -.13$, $p = .23$), there was, as expected, a significant Appearance-RS × Condition interaction ($\beta = -.28$, $p < .05$) in predicting responses to ambiguous appearance commentary (see Fig. 1). The Appearance-RS × Condition interaction remained significant ($\beta = -.32$, $p < .01$) even after controlling for covariates. Specifically, among participants in the visible rejection condition, those with higher Appearance-RS rated the ambiguous appearance commentary more negatively than those with lower Appearance-RS ($\beta = -.44$, $p < .01$), whereas this relationship was not found in the non-visible rejection condition ($\beta = .12$, $p = .46$). Indeed, high Appearance-RS (+1 SD) participants rated the ambiguous appearance commentary more negatively in the visible versus non-visible rejection condition ($\beta = -.42$, $p < .01$), whereas this effect was not found among low Appearance-RS (−1 SD) participants ($\beta = .16$, $p = .32$).

3.5. General ambiguous commentary

There were no significant effects of Appearance-RS ($\beta = -.05$, $p = .68$), condition ($\beta = .12$, $p = .29$), or their interaction ($\beta = -.10$, $p = .41$) in predicting responses to ambiguous general commentary.

3.6. Desire for social interaction

There were no significant effects of Appearance-RS ($\beta = .00$, $p = .97$), condition ($\beta = -.16$, $p = .16$), or their interaction ($\beta = -.04$, $p = .72$) in predicting desire for social interaction.

4. Discussion

Results of the present study suggest that individuals with high Appearance-RS filter their social world through the lens of appearance and are vigilant to the possibility of rejection based on appearance. These responses are heightened in situations where one's appearance is visible to others, but are diminished when one's appearance is not visible to others. Thus, de-emphasizing the importance of appearance in interpersonal situations may serve to buffer high Appearance-RS participants from potential rejection.

Previous research examining Appearance-RS used methods that threatened people's attractiveness directly via self-generated methods (e.g., listing disliked aspects of one's appearance) or providing explicit, negative appearance-based feedback following a face-to-face interpersonal interaction (Park, 2007; Park & Pinkus, 2009). In contrast, participants in the present research experienced an ambiguous rejection situation. The use of a subtler, more ambiguous situation is perhaps closer to what actually occurs in real life. Even in an ambiguous situation, participants with higher Appearance-RS – but only those whose appearance was visible to others – showed responses that were generally consistent with past findings using more direct methods of appearance threat.

Specifically, high Appearance-RS participants expressed greater negative affect in the visible versus non-visible rejection condition, and rated ambiguous appearance commentary (but not ambiguous general commentary) more negatively in the visible versus non-visible rejection condition. This interpretive bias may serve to reinforce anxious expectations of appearance rejection that likely

[2] The original PAAFS contains eight appearance-related items. However, we dropped the following two items from the present study because of potential gender differences: "Are you wearing makeup?" and "You're very muscular."

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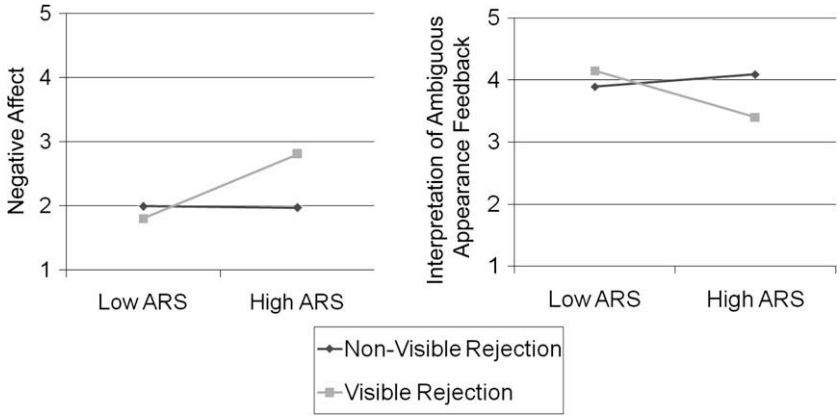

Fig. 1. Predicted values of negative affect and interpretation of ambiguous appearance feedback following visible versus non-visible rejection. Means are plotted at 1 SD above and 1 SD below the mean of Appearance-RS in each condition. Higher scores indicate more negative affect and more positive interpretation of ambiguous appearance feedback, respectively.

Table 1
Zero-order correlations among study variables ($N = 79$).

	(1) Appearance-RS	(2) Self-esteem	(3) Personal-RS	(4) Sex	(5) Negative affect	(6) Ambiguous appearance feedback	(7) Ambiguous general feedback
1							
2	−.46**						
3	.13	−.08					
4	.04	−.04	.00				
5	.30**	−.36**	.24*	−.23*			
6	−.23*	.09	−.11	−.38**	.04		
7	−.07	.07	−.16	−.12	.09	.58**	

Note: Appearance-RS = Appearance-based Rejection Sensitivity; Personal-RS = Personal (General) rejection sensitivity. Sex was coded as 1 = female, −1 = male. For ambiguous appearance feedback, higher scores indicate more positive interpretations of ambiguous appearance feedback. For ambiguous general feedback, higher scores indicate more positive interpretations of ambiguous general feedback.

* $p < .05$.

** $p < .01$.

contribute to maladaptive outcomes. For example, Appearance-RS has been linked to symptoms of eating disorders, which are characterized by biased perceptions of one's weight or appearance (Park, 2007), and body dysmorphic disorder symptoms (Calogero, Park, Rahemtulla, & Williams, in press; Park, Calogero, Young, & DiRaddo, in press), which are characterized by exaggerated perceptions of the unattractiveness of specific aspects of one's appearance.

Contrary to predictions, high Appearance-RS participants did not express decreased interest in future social interaction following visible versus non-visible rejection. It could be that direct experiences of appearance-based rejection (e.g., Park & Pinkus, 2009) have stronger effects on outcomes such as social avoidance motivation than ambiguous experiences of appearance rejection. Another possibility is that the 1-item measure of desire for social avoidance did not sufficiently capture variability in participants' desire to avoid other people; future research could use more extensive measures of social avoidance or other measures of this behavior.

Indeed, a limitation of the present research was its reliance on self-report measures. Future studies could collect experimenters' ratings of participants' responses to rejection or examine behavioral outcomes that correspond to heightened negative affect or negative cognitive biases. Another limitation is that we did not experimentally manipulate the ambiguity of the rejection situation. Previous research, however, already demonstrated that receiving unambiguous rejecting appearance feedback led to greater social distancing, for example, among high Appearance-RS participants (Park & Pinkus, 2009). A third limitation was our exclusive focus on a college student population. Future studies would benefit from examining Appearance-RS among samples of varying ages, ethnicities, and sexual orientations (see Table 1).

Finally, it is noteworthy that Appearance-RS, but not general rejection sensitivity, predicted responses to ambiguous appearance rejection as a function of the visibility of participants' appearance. This finding supports a key assumption of the Appearance-RS model – that one's physical, observable appearance is a distinct source of perceived rejection. That the effects of Appearance-RS were found even after controlling for relevant variables attests to the unique predictive validity of this construct in shaping responses to ambiguous experiences of appearance-based rejection in interpersonal settings.

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