The potentially conflicted evaluations of others based on their intelligence ☆

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ABSTRACT

Individual differences in intelligence are apparent and likely to come with important interpersonal consequences. We examined ($N = 476$) how (manipulated) individual differences in intelligence affect likability ratings of men and women. We found that (1) ratings were generally more favorable than unfavorable, (2) the difference between favorable and unfavorable ratings of the female target differed more than those same evaluations of the male target, (3) the favorable evaluation tendency was present across relative intelligence but weakest when the target was smarter than the participant, (4) the smarter target was rated more unfavorably, and (5) the equally smart target was rated more favorably than the less intelligent target. Results suggest that people are somewhat conflicted in their evaluations of those smarter than they are whereas similarly and less intelligent people presented less of an apparent conflict in evaluations.

1. Introduction

Day-to-day life is replete with opportunities to meet others who differ in terms of intelligence. While people rarely have information about other people's IQ, people still draw inferences about others' intelligence and make social comparisons. In informal settings and interpersonal contexts (Abramowitz & O'Grady, 1991; Prokosch et al., 2009), likeability might be more important to people than the functional benefits of intelligence that are likely more important in formal contexts (e.g., hiring). In this brief report, we consider individual differences in how people are evaluated based on their intelligence which may inform hiring, dating, and friendship decisions.

However, the matter of measuring likeability can be tricky. When people evaluate someone, it is composed of both favorable and unfavorable aspects (Jonason & Marks, 2009), and, yet, previous research tends to focus only on one, assuming symmetrical effects in both classes of evaluations. This assumption warrants testing because it is possible to like some aspects of a person and simultaneously dislike other aspects. For example, favorable and unfavorable evaluations may reveal a picture of conflicted feelings about people who differ in relative intelligence because individuals must weigh the ostensible pros and cons associated with differing levels of intelligence in others.

Issues of measurement aside, ratings of favorability and unfavorability may yield different predictions based on research suggesting people like others like them (McPherson et al., 2001) and social comparison research suggests that upwards comparisons result in more undesirable feelings than downwards social comparisons (Collins, 1996). In the case of favorable ratings, people should find others who are equally as intelligent as they are (i.e., lateral social comparisons) more favorable than those who are less and more intelligent because of homophily (H1). In the case of unfavorable evaluations, undesirable self-reflections in upward social comparisons may lead to more unfavorable evaluations for people who have more intelligence (H2). Importantly, we expect something approximating an asymptotic function for favorable evaluations (leveling off at equal intelligence) whereas we expect a linear acceleration for unfavorable evaluations (increasing at equal intelligence) because from various theoretical perspectives, similar intelligence is preferred in, for instance, romantic partners (Jonason et al., 2019).

Likeability ratings can be influenced by the sex of the person being evaluated. For example, women may be more favorably evaluated then men are in general (Eagly & Mladinic, 1994; Jonason & Antoon, 2019; Navarrete et al., 2010). However, this effect might be moderated by the relative intelligence of the targets. Feminist scholars claim that being an intelligent woman comes with costs (Eckes, 2002). Intelligent women are characterized by a sex-role-violating trait which leads to less

likability (Szymanowicz & Furnham, 2011). That is, women are typically expected to be warm and friendly, but not competent and smart (Cuddy et al., 2008). In contrast to women, men who are more competent are rated more favorably (Fiske et al., 2002); intelligence may be an indicator of competence from an evolutionary perspective. Women even prefer to date men with more intelligence and education (Jonason et al., 2019; Jonason & Antoon, 2019) and lower intelligence might be a liability for men because it violates a trait expectation (Abramowitz & O'Grady, 1991), suggesting serious interpersonal consequences for men and women as a function of intellect. Therefore, women should be more favorable and less unfavorably evaluated than men are (H3), women who are more intelligent should be evaluated more unfavorably and less favorably than similar/less intelligent women who are because they violate stereotypes (H4), and men who are similarly educated should be rated less unfavorably and more favorably than more/less intelligent men because they are less threatening (H5).

How does someone's intelligence influence their likeability? Do those ratings differ in relation to upward, lateral, or downward social comparisons? Do they further differ as a function of the sex of targets? In this experiment, we manipulated the relative intelligence of male and female targets and participants evaluated those targets via a series of adjectives to capture two aspects of evaluations (i.e., favorable and unfavorable) that may, at times, present conflicting information. This conflict may arise because people must balance-out desirable (e.g., interesting) and undesirable (e.g., arrogant) aspects of people as a function of their intelligence.

2. Method

2.1. Participants

The sample consisted of 476 Americans who were Master Workers on Amazon's Mechanical Turk (45% female) who were paid (US$0.50) to complete a larger online experiment (Jonason et al., 2019). On average, the participants were 36.33 years old (SD = 11.00, $Range$ = 18–75) and White/European (77%). Upon completion, participants were thanked and debriefed. This project was approved by the ethics committee at Western Sydney University (H14099).

2.2. Procedure

In ultra-short vignettes, we manipulated relative intelligence by creating sex-specific targets who differed relative to the participants in their level intelligence (i.e., less, equally, or more intelligent) and sex (named John [male target] and Jess [female target]). Each condition described the target as: "[target name] is [more/same/less] intelligent than you are." Participants were presented with only one target and made attributions about character based on vignette-content indicating how much (1 = *not at all*; 5 = *very much*) each adjective described the target. Ten adjectives were chosen in a focus-group style discussion among eight Australian undergraduate students in psychology discussing adjectives of people who differ in intelligence, which were then subjected to a principle components analysis with a varimax rotation. Initially, a three-factor solution was detected, accounting for 68.20% of the variance, with the third factor being uninformative (i.e., crud). Therefore, we took the top three items (loadings < 0.70) on the first two factors and re-ran the analysis (Kaiser-Meyer-Olkin test of sampling adequacy = 0.74; Bartlett's test of sphericity χ^2[15] = 802.93, p < .01) and found an "unfavorable" dimension (i.e., argumentative, arrogant, and intimidating; Cronbach's α = 0.82) accounting for 44.63% of the variance and a "favorable" dimension (i.e., enthusiastic, sexual, and charismatic; α = 0.78)[2] accounting for a further 24.03% of

the variance. These two dimensions were correlated (r = 0.30, p < .01).[3]

3. Results

We conducted a 2 (participant's sex) × 2 (target's sex) × 3 (target's relative intelligence) × 2 (favorable/unfavorable evaluations) mixed model ANOVA with a within-subjects factor for evaluations. Ratings were much more (F[1, 464] = 223.02, p < .001, η_p^2 = 0.33) favorable (M = 2.85, SD = 0.91) than unfavorable (M = 2.16, SD = 0.93). There was an interaction of evaluations and the sex of the target (F[1, 464] = 2.31, p < .04, η_p^2 = 0.01). There were no sex differences in evaluations, but the difference between unfavorable evaluations and favorable ones was larger by 0.29 points for the female (i.e., Jess) target (t = −11.57, p < .001) than the male (i.e., John) target (t = −8.92, p < .001), but in both cases ratings were more favorable than unfavorable, suggesting more conflict in the evaluations of men than women.

There was a main effect of target's intelligence on evaluations (F[2, 464] = 6.74, p < .001, η_p^2 = 0.03) suggesting collective ratings, in general, were lower in those with less (p = .001) and the same (p < .02) in intelligence than those with more (LSD post hoc). Which was clarified with an interaction of evaluations and the target's relative intelligence (F[2, 464] = 16.22, p < .001, η_p^2 = 0.07). Main effects were present (and stronger) in unfavorable (F[2, 475] = 15.86, p < .001) and favorable evaluations (F[2, 475] = 3.15, p < .05). The pattern (see Fig. 1) that evaluations individuals who were not as smart (t = −10.10, p < .001) or as smart as (t = −13.57, p < .001) participants were rated more favorably than unfavorably but evaluations converged for smarter targets (t = −3.86, p < .001). In addition (LSD *post hoc*), for unfavorable evaluations of the smarter target was rated more unfavorably than the other targets (ps < 0.001) whereas for favorable evaluations only being equally smart was rated more favorably than being less intelligent (p < .02).

4. Discussion

Never have the consequences of individual differences in intelligence been more noticeable. Smarter people are more likely to get hired, make better decisions in relation to dangers (e.g., COVID-19; Williams, 2020), and gain admission to top-tier universities. But these functional benefits stand aside interpersonal benefits. For men being more intelligent can lead to better success at attracting sexual and romantic partners (Jonason et al., 2019; Jonason & Antoon, 2019; Prokosch et al., 2009) and men with less intelligence are judged harshly as counselors (Abramowitz & O'Grady, 1991). In contrast, women who are intelligent may suffer from unfavorable evaluations because they are in violation of traditional sex roles and that such women may threaten people's traditional ideas of what it means to be a woman (Eckes, 2002). This "backlash" can be seen in how the female target who was smarter received less favorable reactions than equally or less intelligent targets. Indeed, being perceived as less intelligent might actually be an asset to women (Abramowitz & O'Grady, 1991). However, these evaluations rarely considered the possibility that favorable and unfavorable evaluations might co-occur and, therefore, present a new view of how people evaluate others who differ in intelligence.

The most striking pattern (see Fig. 1) was that the target with more

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[2] We do not think these two dimensional can be treated as "warmth" and "competence" as other research suggests (Fiske et al., 2002) given the item-

(*footnote continued*)
content.

[3] Methods and data for this study can be found at the OSF site: https://osf.io/gdf2p/. The reader interested in evaluation-specific analyses or item-analyses are directed to the OSF site. This method resembles that of Jonason and Marks (2009) but is psychometrically "cleaner" by only including the most central items.
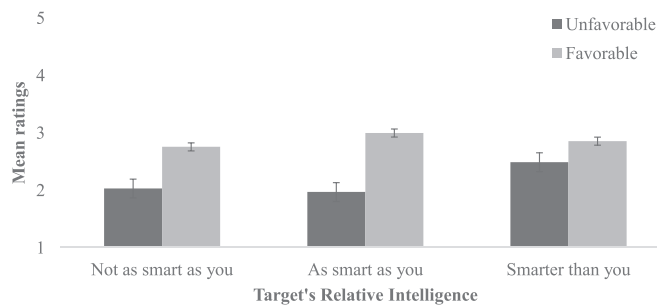
Fig. 1. Ratings of target's who differed in relative intelligence as a function of the direction of the evaluations.
Note. Error bars are standard errors.

intelligence had more conflicted evaluations than the target who was less or similarly intelligent. By that we mean the difference between favorably and unfavorable evaluations was weakest in the former than the latter two. Smart men and women (no sex differences or moderation of this effect were detected) may have features that people like (e.g., resourcefulness, income) but simultaneously may have features that people do not like (e.g., arrogance, argumentativeness). This creates a conflicted wholistic evaluation in others which may create an approach-avoidance conflict towards smarter people in interpersonal or professional contexts. Indeed, these are just the kinds of people that may need to compensate for these negative expectations with humility, charm, and generosity. Alternatively, those with similar and less intelligence may not pose the kinds of intellectual and ego threats that smart people create in others leading to conflicted sentiments and less approach-avoidance conflicts.

We have provided a unique glimpse into the role of individual differences in likeability as a function of relative intelligence in men and women. Despite this, our study was limited by its reliance on a W.E.I.R.D. sample of MTurk workers, using a context-free, ultra-brief manipulation of relative intelligence, and a failure to examine potential mechanisms for these effects like personality (Schmitt et al., 2008), sex roles (Bem, 1974), or sexism (Glick & Fiske, 1997). Despite these shortcomings, we have provided insights into how people judge others based on intelligence. We failed to find evidence consistent with stereotype content theory (Eckes, 2002), and, instead, found that greater insights into how people are evaluated may come from a simultaneous examination of favorable and unfavorable axes.

CRediT authorship contribution statement

Peter K. Jonason: Conceptualization, Methodology, Investigation, Writing - original draft, Writing - review & editing, Visualization, Resources, Project administration. **Jamie Hughes:** Writing - review & editing.

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