What is beautiful is good and more accurately understood: Physical attractiveness and accuracy in first impressions of personality

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Abstract

Beautiful people are seen more positively, but are they also seen more accurately? In a round-robin design where previously unacquainted individuals met for three minutes, consistent with the "beautiful-is-good" stereotype, physically attractive individuals were viewed with greater normative accuracy, that is, more in line with the highly desirable normative profile. Importantly, physically attractive targets were also viewed more in line with their unique self-reported personality traits, that is, with greater distinctive accuracy. Further analyses revealed that both positivity and accuracy were both to some extent in the eye of the beholder: Perceivers' idiosyncratic and unique impressions of the target's attractiveness also led to more positive and accurate impressions. Overall, we do judge a book by its cover, but when it is beautiful, this also prompts us to read it more closely, leading physically attractive people to be seen both more positively and more accurately.

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It is often assumed that "what is beautiful is good", as physically attractive individuals tend to be perceived and treated more positively in daily social interactions (Dion, Berscheid, & Walster, 1972). Termed the physical attractiveness stereotype or the attractiveness halo effect, attractive individuals are expected to be more sociable, friendly, warm, competent, and intelligent than less attractive individuals (for reviews see Feingold, 1992; Langlois et al., 2000). Given the strength and ubiquity of this stereotype, is it still possible for physically attractive individuals to be viewed accurately? The current research goes beyond examining the positivity of impressions of beautiful people to examine the accuracy of such impressions.

Is it appropriate to judge a book by its cover? Evolutionary, socialization, and social expectancy perspectives suggest that physically attractive individuals either inherently possess or come to develop more positive personality traits (see Langlois et al., 2000, for review). Several meta-analyses, however, have shown that although physically attractive individuals are more socially competent, there is less consistent evidence that they are better adjusted or intellectually competent, and little or no association with other personality traits, such as integrity or locus of control (Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992; Langlois, et al., 2000). Physical attractiveness is therefore limited in its ability to predict an attractive individual's personality. Instead, attractive individuals are likely to differ meaningfully from others and the stereotype, possessing distinctive personality profiles. Are perceivers able to accurately discern these characteristics? Or is the stereotype so strong that perceivers do not even attempt to glean more accurate insight into the personalities of attractive individuals, delving further to actually read the book beneath the beautiful cover?

The presence of bias in perceiving attractive individuals does not preclude impressions from being accurate (Funder & Colvin, 1997). For instance, one may view an attractive individual overly positively across a series of traits while still understanding the relative ordering of traits within that individual. For example, take Jane, a highly attractive woman who is more organized and less generous than most people. According to the physical attractiveness stereotype, regardless of her standing on each trait, Jane is likely to be perceived quite positively on each of these desirable characteristics. Such positive impressions correspond very well with the normative profile, as most people do tend to possess more positive than negative traits (Biesanz & Human, 2010; Borkenau & Zaltauskas, 2009; Edwards, 1957; Wood, Gosling, & Potter, 2007). Thus, normative accuracy, or the tendency to be viewed as similar to the average person, will be used as an index of the physical attractiveness stereotype in the following study.

Regardless of how positively Jane is viewed, she may still be viewed with distinctive accuracy, which refers to having others accurately understand one's unique ordering of traits as well as how one is different from others on specific traits. Such distinctive accuracy is independent of positive bias as one can view a target very positively across a series of traits while still understanding the relative ordering of traits within that individual. That is, a perceiver may see Jane as more organized and generous than she truly is, but still understand that she is more organized than generous. Distinctive accuracy entails an ability to distinguish Jane from others and from the normative profile; that is, determining whether Jane is more or less organized than another individual or the average person. In the presence of positive bias, this only holds when comparing individuals of similar levels of attractiveness.

Given that the physical attractiveness stereotype does not preclude accuracy, how might attractiveness impact accuracy? Funder's (1995) Realistic Accuracy Model (RAM) outlines the four stages that must be achieved for an accurate impression to be made. Specifically, *relevant*

cues regarding the personality traits of interest must be made *available* by the target, and then be *detected* and appropriately *utilized* by the perceiver. Physically attractive individuals may facilitate accuracy by making more *relevant* cues *available* to others. Physically attractive individuals' better social skills and others' positive expectations should allow attractive individuals to feel comfortable in social interactions, thereby allowing greater emission of relevant cues. Indeed, the qualities associated with having a judgable personality, such as greater social skills and adjustment (Colvin, 1993), are also linked with physical attractiveness (e.g., Langlois et al., 2000) suggesting that attractive individuals likely provide others with the necessary cues to be accurately understood.

Even if attractive individuals provide more relevant cues, would perceivers be able to *detect* and appropriately *utilize* them in the latter stages of RAM? Importantly, perceivers attend more to physically attractive individuals (Langlois et al., 2000; Maner et al., 2003) and are therefore likely to detect more cues. Additionally, the motivation to connect with and form relationships with attractive individuals (Lemay, Clark, & Greenberg, 2010) may translate into a motivation to better understand and come to know them (De La Ronde & Swann, 1998). Such an accuracy motivation also enhances distinctive accuracy (Biesanz & Human, 2010). Overall, the emission of more relevant cues along with greater perceiver attention and motivation will likely lead attractive individuals to be more accurately perceived.

Overall, we predicted that, relative to less attractive individuals, more attractive individuals would be perceived with greater normative accuracy, a positive bias akin to the physical attractiveness stereotype and greater distinctive accuracy, reflecting an understanding of these individuals' unique self-reported personality traits. That is, a beautiful cover may actually make the book more easy or desirable to read, resulting in both more positive and more accurate personality impressions.

STUDY

Method

A total of 73 UBC undergraduate students (56 female, 17 male; mean age = 19.38 years, SD = 1.60) participated in 10 groups, ranging in size from 5 – 11 (Median = 7) in exchange for course credit. Participants first completed a 21-item version of the Big Five Inventory that assesses a diverse range of core personality traits (BFI; John & Srivastava, 1999), plus three additional items to assess intelligence: "*Is intelligent*," "*Is bright*," and "*Receives good grades*", on a 1 (*disagree strongly*) to 7 (*agree strongly*) scale. Participants then met individually with every other participant in their group for three minutes. After each meeting, participants separated and rated each other using the same modified BFI inventory used for self-reports, and assessed "*How physically attractive is this person?"* on a 1 (*not at all*) to 7 (*a great deal*) scale. There were a total of 504 perceiver-target impressions in the present study based on 252 dyadic interactions; impressions from previously acquainted dyads were excluded from analysis (4.9% of total impressions).

Analytic approach. We examined the Social Accuracy Model (SAM; Biesanz, 2010; Biesanz & Human, 2010) utilizing *R*'s lme4 multilevel modeling package (Bates & Sarkar, 2007). Specifically, using SAM, in the within-perceiver part of the model (Level 1), we predicted perceivers' ratings of each target on each item on the personality measure simultaneously from (1) target self-reports on that item after subtracting the mean self-report for that item and (2) the mean target self-report on that item. Items were not reverse coded prior to analysis. The relationship between the mean target self report for each item and perceiver ratings for those items reflects normative accuracy – the extent to which perceiver ratings correspond to the average self-report on these personality dimensions and thus generalize to the average person. By partialling out the mean self-report for each item, the relationship between target

self-reports and perceiver ratings reflects distinctive accuracy – unique self-other agreement. Distinctive accuracy in this analysis has two interpretations: (1) the ability to differentiate targets' self-reported profiles of traits from the normative (i.e., mean) self-report or, *equivalently*, (2) the general ability to differentiate a given target's self-reported level on a trait from other targets' self-reported trait levels (see Kenny & Winquist, 2001, pp. 275-278; Biesanz, 2010).

We examined the effect of physical attractiveness in the between-perceiver (Level 2) part of the model by estimating the intercept and the slopes for distinctive and normative accuracy as a function of target attractiveness. Target attractiveness was indexed in two ways: (a) Consensual Attractiveness, the target's mean attractiveness score averaged across all perceivers and (b) Perceiver Attractiveness Ratings, a given perceiver's ratings of a target's attractiveness after controlling for the target's Consensual Attractiveness score.[2] The former represents the target main effects of attractiveness and the latter the unique perceiver impression of the attractiveness of a particular target. Both measures of attractiveness were grand mean centered prior to analysis and included simultaneously within the analysis. The critical parameters here are the change in self-other distinctive agreement and the change in normative agreement as a function of target attractiveness.

Results

After just three minutes of interaction, perceivers viewed others on average with considerable normative, $b = .80$, $z = 22.21$, $p < .0001$, and distinctive accuracy, $b = .18$, $z = 8.82$, $p < .0001$. Targets that were viewed by the group as attractive were viewed with significantly greater normative accuracy, or positivity, $b = .18$, $z = 4.33$, $p < .0001$. Of primary interest, more attractive individuals were also viewed with *enhanced* distinctive accuracy, $b = .09$, $z = 2.73$, $p = .006$.

Unique perceiver attractiveness ratings, controlling for consensual attractiveness, were associated with greater normative accuracy, $b = .09$, $z = 5.39$, $p < .0001$. Further, unique perceiver impressions were also significantly associated with greater distinctive accuracy, but only for targets at or above the mean level of attractiveness, three-way interaction, $b = .04$, $z = 2.36$, $p = .021$; Unique perceiver impressions were not significantly related to distinctive accuracy for targets 1 SD below the average level of attractiveness, $b = -.01$, $z = -.48$, $p = .63$, but were for targets 1 SD above the average level of attractiveness, $b = .08$, $z = 2.69$, $p = .007$.

Figures 1 and 2 present the results for distinctive and normative accuracy, respectively, with a smoothed lowess curve. Figure 1 shows the increase in distinctive accuracy as a function of the target's Consensual Attractiveness rating, showing a dramatic rise above the mean attractiveness level. Further, graphing the relationship for those above and below 1 SD on Consensual Attractiveness, Figure 1 also demonstrates the increase in distinctive accuracy as a function of Perceiver Unique Attractiveness Ratings. Figure 2 demonstrates the significantly enhanced normative accuracy associated with both Consensual Attractiveness and idiosyncratic Perceiver Attractiveness Ratings. Of note, in both figures, distinctive and normative accuracy leveled off around the mean attractiveness ratings, suggesting that less attractive individuals are not necessarily viewed negatively or inaccurately.

Discussion

Overall, physically attractive individuals were viewed both more positively and more accurately in first impressions. Specifically, in line with the physical attractiveness stereotype, attractive individuals were viewed with greater normative accuracy, indicative of being considered to possess more positive characteristics. Meanwhile, attractive individuals were viewed with greater distinctive accuracy, as perceivers more accurately understood attractive individuals' unique characteristics. In contrast to previous findings that unattractive individuals

are viewed negatively (e.g., Griffin & Langlois, 2006), unattractiveness was not associated with significant decreases in either normative or distinctive accuracy, which both leveled off around the mean attractiveness rating. Whereas attractive individuals likely benefit from both more positive and accurate impressions, less attractive individuals may not necessarily suffer from being viewed inaccurately or negatively, at least in first impressions.

How do simultaneously positive and accurate impressions occur for a given target? In the case of attractive Jane, she is likely to be viewed as more organized and generous than she truly is. However, perceivers will also more accurately discern Jane's relative ordering of traits, understanding that she is more organized than generous. Further, when comparing Jane to a similarly attractive individual, perceivers will better understand who is more organized. If Jane was less attractive, such comparisons would be more difficult to make. Further, comparisons between Jane and a much less attractive individual would be very difficult given that Jane would generally be viewed more positively across all traits. Although physically attractive individuals are viewed more accurately, the physical attractiveness stereotype will still bias perceptions and decisions when comparing people of differing attractiveness levels.

Interestingly, both the physical attractiveness stereotype and accuracy were also to some extent in the eye of the beholder. That is, viewing a given target as particularly attractive, controlling for the group's perception, led to more positive perceptions of that target. Thus, even individuals who are not generally viewed as attractive can still reap the benefits of the physical attractiveness stereotype when a given perceiver finds them particularly attractive. Furthermore, viewing a particular target as more attractive was also associated with greater distinctive accuracy, but only for those targets who were generally perceived to be of at least average attractiveness. This suggests that physical attractiveness may enhance distinctive accuracy both because consensually attractive targets provide better information and because perceivers both

pay more attention to attractive individuals and are more motivated to better understand them. That is, if a perceiver views Jane as particularly attractive, this individual is likely to be more motivated and attentive to her during an interaction, which enhances cue detection. Indeed, that perceivers' unique attractiveness perceptions resulted in greater accuracy only for relatively attractive individuals suggests that enhanced attention and motivation only emerges for attractive individuals.

Of note, the current study examined only one potential index of accuracy, distinctive self-other agreement. Although this is a common and meaningful measure of accuracy (Funder & Colvin, 1997), future research should examine whether these effects extend to other indicators of accuracy, for instance by using additional accuracy validation measures, such as knowledgeable informant reports.

Overall, in first impressions, physically attractive people are perceived both more positively and more accurately than less attractive individuals. In turn, attractive individuals are likely to benefit from this enhanced positivity (Langlois et al., 2000) and accuracy (Swann, Pelham, & Krull, 1989). Indeed, recent research suggests that to be viewed both accurately and positively is an ideal scenario in close relationships (Lackenbauer, Campbell, Rubin, Fletcher, & Troister, *in press*; Luo & Snider, 2009). Meanwhile, perceivers' idiosyncratic views of a target's attractiveness are also associated with more positive and accurate personality impressions, indicating that both the physical attractiveness stereotype and accuracy are partially in the eye of the beholder. In sum, we do judge a book by its cover, but when it is beautiful, this prompts us to read it more closely, leading physically attractive individuals to be viewed both more positively and accurately.

Footnotes

[1] The study included an unrelated experimental component that was not significantly related to perceiver impressions of attractiveness, $t(250) = 0.84$, *ns*.

[2] A social relations model analysis (Kenny & LaVoie, 1984) on attractiveness ratings revealed substantial consensus ($R^2 = .33$) on targets' level of attractiveness. The mean attractiveness rating was just above the midpoint of the 1 – 7 scale (M = 4.57, SD = 1.19).

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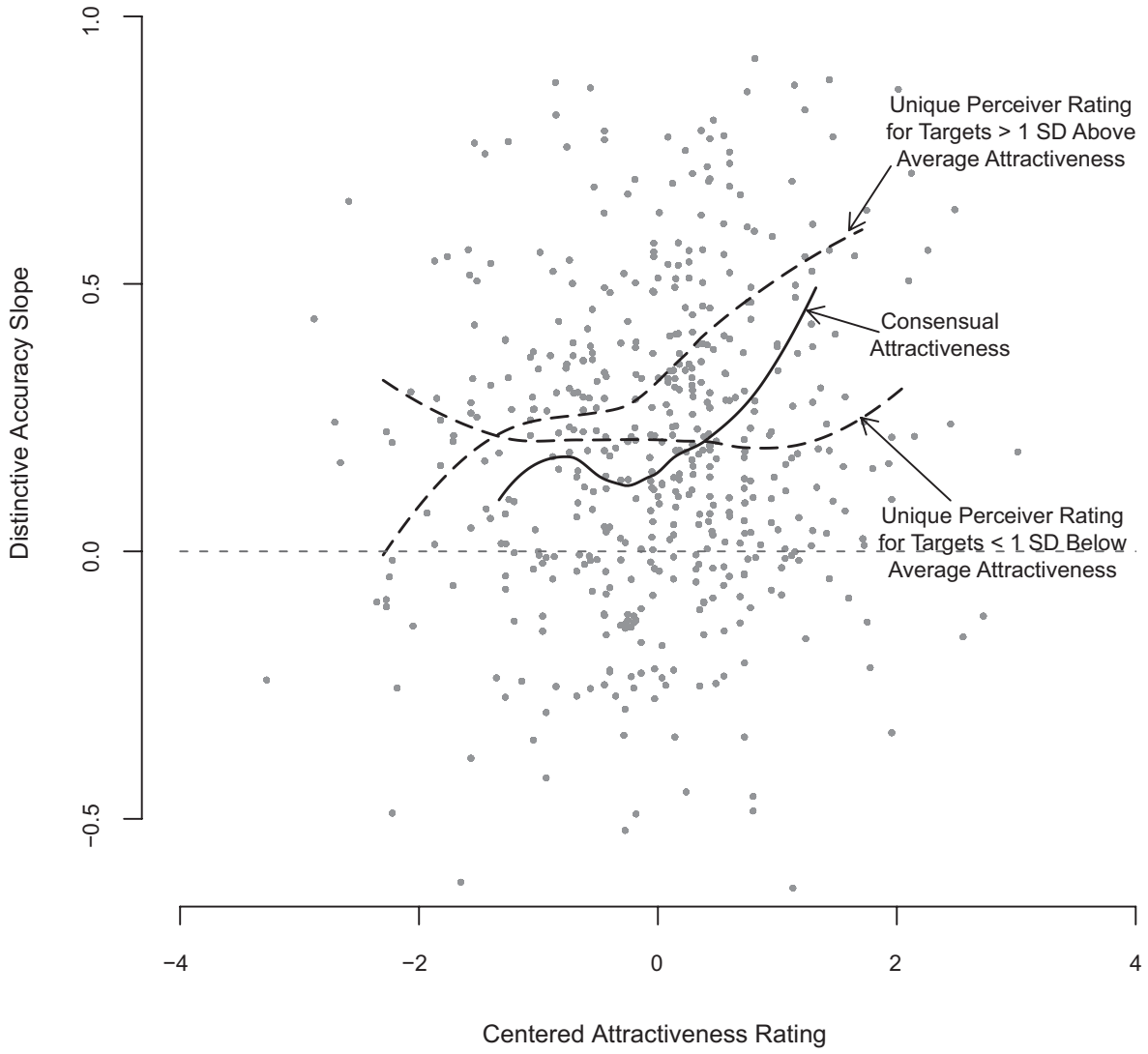

Figure 1. Scatter plot of distinctive-accuracy slopes (distinctive self-other agreement) as a function of perceiver's unique attractiveness rating (adjusted for consensual attractiveness). Nonparametric lowess curves (Cleveland, 1979) are plotted to illustrate the relationship both for targets more than 1 standard deviation above the average level of consensual attractiveness and for targets more than 1 standard deviation below the average level of consensual attractiveness. The figure also shows a nonparametric lowess curve illustrating the relationship between distinctive-accuracy slopes and consensual attractiveness. All ratings are grand-mean-centered.

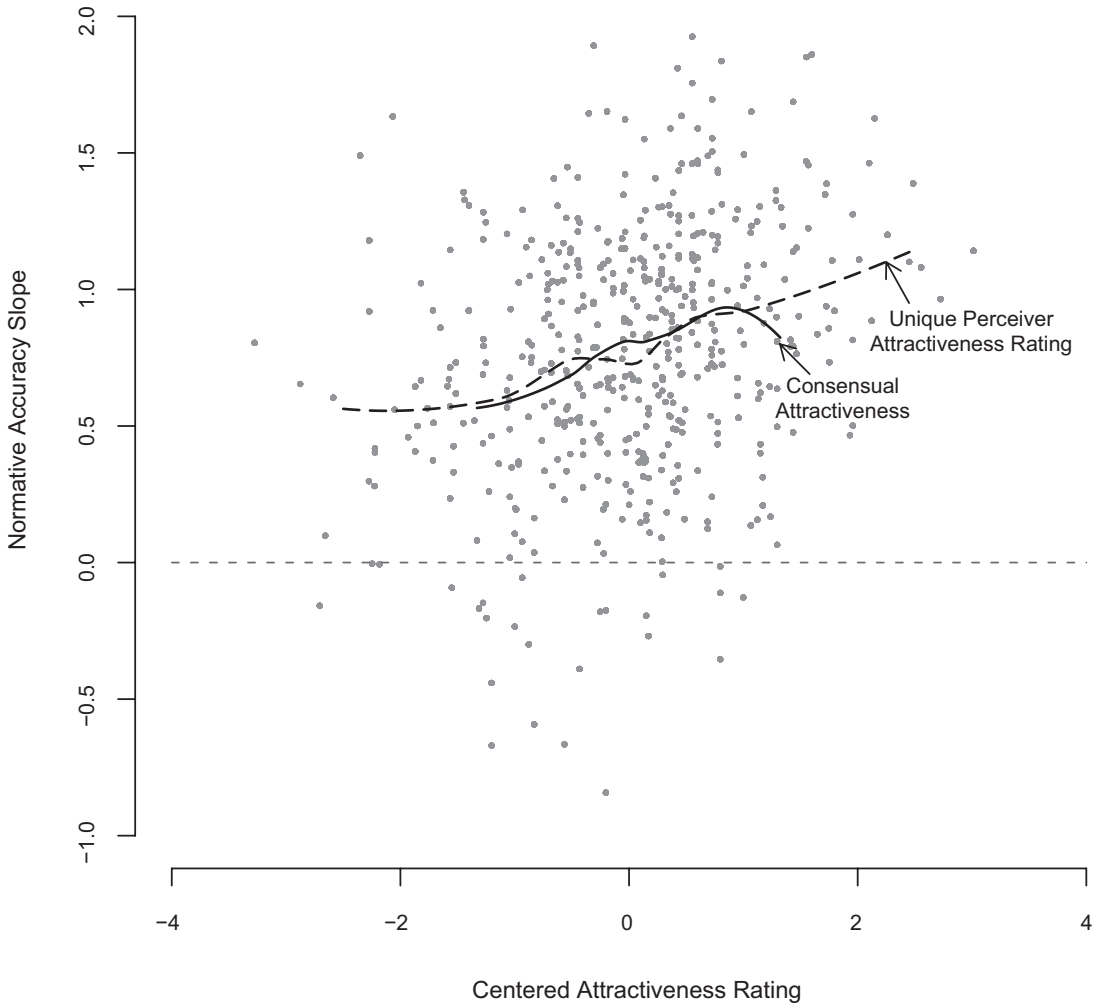

Figure 2. Scatter plot of normative-accuracy slopes (normative self-other agreement) as a function of perceiver's unique attractiveness rating (adjusted for consensual attractiveness). Nonparametric lowess curves (Cleveland, 1979) are plotted to illustrate the relationship between normative accuracy and both perceiver's unique attractiveness rating and target's consensual attractiveness rating. All ratings are grand-mean-centered.