Do We Know When Our Impressions of Others Are Valid? Evidence for Realistic Accuracy Awareness in First Impressions of Personality

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Abstract

Do people have insight into the validity of their first impressions or *accuracy awareness*? Across two large interactive round-robins, those who reported having formed a more accurate impression of a specific target had (a) a more distinctive realistically accurate impression, accurately perceiving the target's unique personality characteristics as described by the target's self-, parent-, and peer-reports, and (b) a more normatively accurate impression, perceiving the target to be similar to what people generally tend to be like. Specifically, if a perceiver reported forming a more valid impression of a specific target, he or she had in fact formed a more realistically accurate impression of that target for all but the highest impression validity levels. In contrast, people who generally reported more valid impressions were not actually more accurate in general. In sum, people are aware of when and for whom their first impressions are more realistically accurate.

Keywords

personality, person perception, impression formation, social interaction, hierarchical linear modeling/multilevel modeling

Sometimes after meeting a person for the first time, there is a strong sense that you really understand him or her—you immediately feel as if you could predict his or her behavior in a variety of situations, and you feel that even your first impression would agree with those of others who know that person well. That is, your impression feels realistically accurate (Funder, 1995, 1999). Other times, you leave an interaction feeling somewhat unsure about how accurate your impression is—it is not clear how that individual would behave in different situations or what his or her close friends and family members would say about him or her. Are such intuitions about the realistic accuracy of one's impressions valid? That is, do people know when they know? The current studies address this question by examining the extent to which people have *accuracy awareness*—an understanding of whether their first impressions of others' personalities are realistically accurate.

First impressions of others' personalities are critical in that they serve to guide our thoughts and behaviors, influencing the course of further interactions and the development of relationships. Indeed, interpersonal impressions are argued to serve an adaptive function, enabling individuals to successfully engage with others in social interactions (McArthur & Baron, 1983), and affect the course of relationship development (Sunnafrank & Ramirez, 2004). In general, people are fairly accurate when forming impressions of others (Funder & West, 1993; Hall,

Andrzejewski, Murphy, Schmid Mast, & Feinstein, 2008), although there are a number of factors that may make impressions more or less accurate. For instance, some targets are easier to judge than others (e.g., Biesanz & West, 2000; Colvin, 1993), some perceivers are better judges than others (Ickes, 1997), and contextual factors such as perceiver motivation can influence the accuracy of personality impressions (Biesanz & Human, 2010). The accuracy of first impressions fluctuates, making impressions more or less valid behavioral guides depending on the degree of accuracy.

Because of fluctuating levels of accuracy, adequate accuracy awareness is crucial so that personality impressions may be appropriately utilized. Indeed, one's *sense* of accuracy is likely an important determinate of whether one's first impression influences behavior. Just as a consumer is more likely to act in line with his or her attitude toward a product if he or she is confident in that attitude (e.g., Bennett & Harrell, 1975;

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Fazio & Zanna, 1978), so too is a perceiver more likely to act in line with his or her personality impressions if he or she is confident in them. To be pragmatically useful (McArthur & Baron, 1983; Swann, 1984), this confidence, or subjective sense of accuracy, must be at least somewhat calibrated with how accurate the impression really is to enable one to know how much to rely on that impression.

In domains where judgments are either categorically correct or incorrect—such as test performance and eyewitness identification—there is evidence that confidence is related to accuracy (see, e.g., Bothwell, Deffenbacher, & Brigham, 1987; Lindsay, Read, & Sharma, 1998; Sporer, Penrod, Read, & Cutler, 1995; Stankov & Lee, 2008). In contrast, in interpersonal perceptual domains, where the accuracy of judgments often can never be absolute, confidence and accuracy appear to be disassociated. For example, greater confidence is not related to performance on interpersonal sensitivity tasks (Ames & Kammrath, 2004; Dunning, Griffin, Milojkovic, & Ross, 1990; Realo et al., 2003) or perceptions of long-term relationship partners (Swann & Gill, 1997). Thus, in line with more general arguments that people lack self-insight (Dunning, 2005; Wilson & Dunn, 2004), people seem to lack awareness of the accuracy of their judgments of others.

Nonetheless, people do appear to have accuracy awareness in some interpersonal perception tasks when assessed within persons rather than between. For instance, people show awareness of the accuracy of their individual judgments on standardized person perception tasks (Patterson, Foster, & Bellmer, 2001; Smith, Archer, & Costanzo, 1991) but do not have global accuracy awareness of their skill on the overall task (Smith et al., 1991). That is, people seem to be aware of when their accuracy fluctuates across different judgments even if they do not know how accurate they are in general. Thus, accuracy awareness in person perception tasks may emerge only in more concrete, fine-grained judgments rather than in more global, general assessments of ability.

Is there any evidence that people have accuracy awareness specifically for first impressions of personality? Interestingly, people do show accuracy awareness regarding the impressions that they make *on* others; that is, those who are more confident about how they think others view them are in fact more accurate about how others view them (Carlson, Furr, & Vazire, 2010). In contrast, in one of the few studies to date that has examined whether people have accuracy awareness regarding the personality impressions they make *of* others, those who were more confident in their personality impressions were not necessarily more accurate (Ames, Kammrath, Suppes, & Bolger, 2010). There was, however, a marginal association within persons, primarily driven by *in*accuracy awareness— people were aware when their impressions were wrong. Of note, however, the impressions formed in each of the Ames et al. (2010) studies were based on very minimal, all nonverbal, information, whereas everyday first impressions usually involve both verbal and nonverbal information and are often interactive, allowing perceivers to have some control over the course of the interaction and the information obtained. Furthermore, each of Ames et al.'s studies used the same set of 21 targets, making it difficult to draw strong conclusions about accuracy awareness in personality impressions more generally. As such, additional research that involves more naturalistic impression formation and a larger pool of targets is needed to determine the extent to which people have insight into the accuracy of their first impressions of personality.

Across two studies involving face-to-face interactions we examine whether perceivers have accuracy awareness in their first impressions of personality. Specifically, following the social accuracy model of interpersonal perception (Biesanz, 2007, 2009, 2010), we examine two components of accuracy, distinctive realistic accuracy and normative accuracy (Biesanz, 2010; Cronbach, 1955; Furr, 2008). Distinctive realistic accuracy refers to the extent to which a perceiver discerns an individual's unique, differentiating characteristics. In the current studies, distinctive realistic accuracy is assessed by the extent to which the perceiver's impression of the target maps onto a composite of the target's self-, peer-, and parent-reported characteristics that is differentiated from the average person. We use the term *realistic accuracy* here following Funder (1999) to denote the validity of the perceiver's impressions when compared to a broad composite of assessments and perspectives of the target's personality. To view someone with distinctive realistic accuracy is to understand how that person differs from what others generally tend to be like and from other specific targets (Biesanz & Human, 2010). Normative accuracy refers to the extent to which the perceiver views the target as similar to what people generally tend to be like. Specifically, normative accuracy is assessed by the extent to which the perceiver's impressions of specific targets map onto the average target's personality profile across self-, peer-, and parent-reports. Applying knowledge of what people generally tend to be like can be considered a valid route to accuracy in first impressions; because people are normative on average, normative impressions will be accurate on average.

Personality impressions have the potential to influence important decisions and behaviors toward others. As such, we hypothesize that people do have accuracy awareness, knowing how realistically accurate, and thus trustworthy, their first impressions are. To test this hypothesis, two studies of first impressions, involving a total of 242 targets and 1,658 unique impressions, examine whether reporting that one has formed a more realistically accurate impression is indeed associated with greater distinctive and normative accuracy. Furthermore, we examine whether accuracy awareness occurs within persons, reflecting calibration for a given judgment, or between persons, reflecting awareness of general levels of judgmental accuracy.

Method

Participants

University of British Columbia undergraduates (Sample 1: $N = 107$, 79 females and 28 males, age $M = 20.16$, $SD = 3.46$; Sample

2: $N = 135$, 104 females, 31 males, age $M = 19.56$, $SD = 1.73$) participated in groups of 3 to 15 (Sample 1: $Mdn = 9$; Sample 2: $Mdn = 7$) in exchange for extra course credit or \$20.

Procedures and Measures

Participants engaged in a round-robin "getting-acquainted" design within each group. After providing self-assessments of their own personalities, participants paired up and met with another group member for 3 minutes in an unstructured interaction before separating to provide their impressions of the other participant's personality. This process was repeated until all participants had met and provided impressions of every other participant in their group. Self-reports and ratings were assessed using a 21-item abbreviated version of the Big Five Inventory (BFI; see John & Srivastava, 1999) that covers a diverse range of core personality characteristics with the inclusion of three additional items to assess intelligence, "Is intelligent," "Is bright," and "Receives good grades." All items were assessed on a 1 (*disagree strongly*) to 7 (*agree strongly*) rating scale. The specific BFI items assessed are detailed in Human (2009) and Human and Biesanz (2010) and are available from the first author. Immediately after providing impressions for each target, perceivers reported their sense of the validity or realistic accuracy of their impressions by answering the following question on a 7-point scale: "How well do you think your impressions would agree with someone who knows this person very well?" At the end of the study, participants provided contact information for two informants—a peer and a parent. Informants provided ratings either via email or through mail on the same 24-item scale that participants used for self-reports and target ratings. There were 80 peer and 48 parent reports available for Sample 1 and 71 peer and 73 parent reports for Sample 2.

Sample 2 differed from Sample 1 in two respects: (a) Sample 2 included an experimental condition that had no impact on the presented results, and (b) perceivers in Sample 2, in addition to assessing the validity of their impressions, also provided an assessment of their confidence in their impressions by answering the following question on a 7-point rating scale: "I am confident in my impressions of this person." For both samples, dyads where participants indicated that they were previously acquainted ($\approx$1–2% of dyads) were removed from the analysis. This resulted in 862 and 796 dyadic impressions available for analysis in Samples 1 and 2, respectively.

Analytical Method

The analytical method follows the social accuracy model (SAM) of interpersonal perception (Biesanz, 2007, 2009, 2010). In brief, SAM is an integration of Kenny's (1994) social relations model with Cronbach's (1955) componential approach to examining accuracy in interpersonal perception. Additional empirical examples that utilize SAM include Biesanz and Human (2010), Lorenzo, Biesanz, and Human (2010), Human and Biesanz (in press), and Chan, Rogers, Parisotto, and Biesanz

(2010). Following SAM, modeling the realistic accuracy of impressions across these 24 personality items, accounting for perceiver, target, and dyadic random effects, entails a crossed random effects analysis that requires multilevel modeling. All models were estimated using R's multilevel model lme4 package (Bates & Sarkar, 2007; R Development Core Team, R Foundation for Statistical Computing, 2009).[1] The specific equations for this model are the following:

$$Y_{ijk} = \beta_{0ij} + \beta_{1ij}TValidity_{jk} + \beta_{2ij}Mean_k + \varepsilon_{ijk} \quad (1.1)$$

$$\beta_{0ij} = \beta_{00} + \beta_{01}AA_{ij} + u_{0i} + u_{0j} + u_{0(ij)}$$
$$\beta_{1ij} = \beta_{10} + \beta_{11}AA_{ij} + u_{1i} + u_{1j} + u_{1(ij)} \quad (1.2)$$
$$\beta_{2ij} = \beta_{20} + \beta_{21}AA_{ij} + u_{2i} + u_{2j} + u_{2(ij)}.$$

Here Y_{ijk} is perceiver i's rating of target j on item k. $TValidity_{jk}$ is the target validity composite—the average of target j's self-, peer-, and parent-reports on item k—after subtracting $Mean_k$. All targets provided self-reports, and the majority or targets had at least one informant report, and $TValidity_{jk}$ is the average of the available reports for target j and is grand-mean centered within item. $Mean_k$ is the average of the target validity composite on item k based on $N = 242$ participants from the present samples combined. For the perceiver i–target j dyad, the unstandardized regression coefficient β_{1ij}, estimated by b_{1ij}, represents the distinctive realistic accuracy for perceiver i with target j—the relationship between perceiver impressions and the target validity composite after holding constant $Mean_k$. In other words, b_{1ij} is the estimated level of realistic accuracy agreement holding constant and controlling for the average person's personality profile on the target validity composite. The unstandardized coefficient b_{2ij} is the estimated level of normative accuracy for perceiver i with target j—the correspondence between the perceiver's ratings and the average person's profile on the target validity composite. Random effects for perceiver (u_i), target (u_j), and dyad ($u_{(ij)}$) were estimated for all three regression coefficients. We report standardized effect sizes, d, calculated as the change in the respective slope for a 2 standard deviation change in the measure of accuracy awareness divided by the sum of the random effect standard deviations for that slope across targets and dyads (see Gelman, 2008; Tymms, 2004).

We examine the extent of perceiver accuracy awareness in the upper part (Level 2) of the model by estimating the intercept and the slopes for distinctive and normative accuracy as a function of perceiver i's validity and confidence ratings of their impression of target j, AA_{ij}. In all analyses AA_{ij} is grand-mean centered. Thus, perceiver validity ratings are introduced as a moderator of both distinctive and normative agreement, and their interaction can be considered accuracy awareness. The critical estimated parameters here are the change in self–other distinctive agreement (b_{11}) and the change in normative accuracy (b_{22}) as a function of validity or confidence ratings; a positive value for either of these coefficients, for example, would indicate that higher validity or confidence

assessments were associated with enhanced levels of distinctive and normative accuracy, that is, would indicate accuracy awareness.

Results

Distinctive Agreement

Perceiver distinctive realistic accuracy—the relationship between perceiver impressions and the target validity composite after controlling for the average personality profile, on average, across validity ratings—was significant for Sample 1, $b_{10} = .11$, $t(644) = 5.22$, $p < .00001$, as well as Sample 2, $b_{10} = .13$, $t(522) = 6.68$, $p < .00001$. On average, perceivers were able to discern the targets' unique and differentiating characteristics. Importantly, perceiver validity ratings significantly moderated distinctive realistic accuracy, $b_{11} = .03$, $t(644) = 3.02$, $p = .003$, $d = .17$, and $b_{11} = .02$, $t(522) = 2.12$, $p = .03$, $d = .13$, respectively, for Samples 1 and 2. Higher validity ratings were associated with greater levels of distinctive realistic accuracy, indicating that perceivers had awareness of how realistically accurate their impressions were.

Calibrated perceiver accuracy awareness ratings. It is possible that perceiver accuracy awareness ratings moderate distinctive realistic accuracy because some perceivers are simply more accurate in their impressions, and this is reflected in their accuracy awareness ratings. Consequently we calibrated perceiver accuracy awareness ratings by centering *AA* within perceiver.[2] Calibrating perceiver accuracy awareness ratings had no impact on the presented results; calibrated validity ratings significantly moderated distinctive realistic accuracy across both samples: $b_{11} = .03$, $t(644) = 2.48$, $p = .01$, $d = .14$, and $b_{11} = .05$, $t(522) = 3.43$, $p = .0007$, $d = .22$, respectively, for Samples 1 and 2.[3] That is, accuracy awareness is calibrated within specific judgments: Changes in the sense of the validity of impressions *within* a perceiver were associated with changes in the distinctive realistic accuracy of impressions (see Figure 1).[4]

Generalized perceiver accuracy awareness. A social relations model (Kenny, 1994) analysis across both samples indicated that individual differences among perceivers accounted for a substantial 54% of the variance in validity ratings. We consequently examined whether perceiver main effects of accuracy awareness—ratings averaged across targets and the part removed in the calibrated perceiver accuracy awareness analyses—were related to distinctive realistic accuracy. Average perceiver levels of validity ratings across targets were not significantly related to distinctive realistic accuracy, $b_{11} = .02$, $t(644) = 1.64$, $p = .10$, $d = .10$, and $b_{11} = -0.002$, $t(522) = -0.15$, $p = .88$, $d = -.01$, respectively, for Samples 1 and 2. Perceivers who reliably reported that they had formed more valid impressions were in fact not significantly more distinctively realistically accurate than perceivers who reported less valid impressions on average. Individual differences in generalized validity ratings, which account for more than half of the variance in validity ratings, are not reliably associated with distinctive realistic accuracy. Thus, perceivers do not have
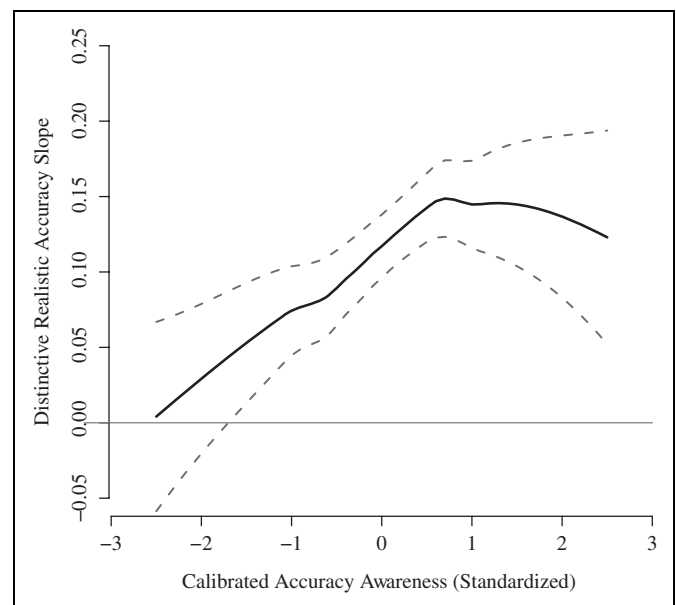

Figure 1. Distinctive realistic accuracy slope as a function of standardized calibrated accuracy awareness for Samples 1 and 2 combined. Plotted curve is the nonparametric loess relationship (smoothing parameter = .85, polynomial = 1) and its 95% confidence interval.

generalized accuracy awareness in their impressions of others in general but instead display more calibrated distinctive accuracy awareness for specific targets.

Perceiver confidence. Perceivers in Sample 2 provided an assessment of their confidence in their impressions, which was strongly associated with their validity rating, $b = .52$, $t(522) = 88.74$, $p < .00001$. Raw confidence ratings were marginally related to distinctive realistic accuracy, $b_{11} = .02$, $t(522) = 1.70$, $p = .09$, $d = .10$, as were calibrated confidence ratings, $b_{11} = .02$, $t(522) = 1.80$, $p = .07$, $d = .09$. Thus, using confidence ratings rather than validity ratings presents weaker evidence for calibrated distinctive realistic accuracy awareness and strengthens the import of directly assessing the sense of validity in one's impressions.

Normative Accuracy

Average perceiver normative self–other agreement—the relationship between perceiver impressions and the average target validity composite profile—was significant across both samples: $b_{20} = .79$, $t(644) = 23.54$, $p < .00001$, and $b_{20} = .84$, $t(522) = 28.04$, $p < .00001$, respectively, for Samples 1 and 2. Notably, across both samples, perceiver validity ratings significantly moderated normative accuracy, $b_{22} = .14$, $t(644) = 14.07$, $p < .00001$, $d = .75$, and $b_{22} = .09$, $t(522) = 7.26$, $p < .00001$, $d = .56$, as did calibrated perceiver validity ratings, $b_{22} = .15$, $t(644) = 11.11$, $p < .00001$, $d = .55$, and $b_{22} = .10$, $t(522) = 6.75$, $p < .00001$, $d = .41$, respectively, for Samples 1 and 2. Thus, the more a perceiver felt a given impression was realistically accurate, the more normatively accurate his or her impressions were (see Figure 2). This again indicates
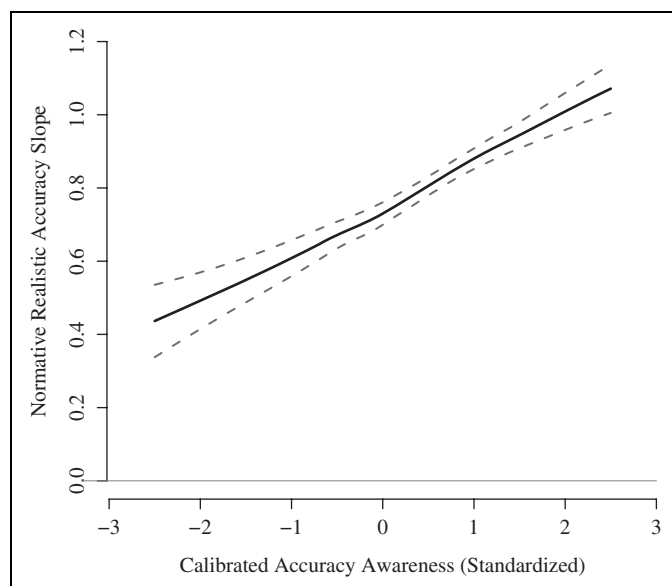
Figure 2. Normative accuracy slope as a function of standardized calibrated accuracy awareness for Samples 1 and 2 combined. Plotted curve is the nonparametric loess relationship (smoothing parameter = .85, polynomial = 1) and its 95% confidence interval.

accuracy awareness, as normative impressions will indeed be more realistically accurate on average.

Discussion

Across two large round-robin studies, perceivers were aware of the accuracy of their first impressions. That is, those who sensed that their impressions were more realistically accurate had indeed more accurately discerned the target's unique, differentiating characteristics. Although this effect size was generally small, it was reliable across the two samples. Of note, accuracy awareness was calibrated to the specific impression just formed, such that perceivers knew *when* their impressions were more or less accurate. Combining both samples together as illustrated in Figure 1 suggests that this effect exists for all but the highest levels of accuracy awareness—accuracy awareness levels greater than 1 standard deviation above perceivers' general levels do not appear to be diagnostic (e.g., the sense of knowing someone very well versus extremely well does not appear to be associated with an increase in realistic accuracy). Stable perceiver individual differences in generalized accuracy awareness were not diagnostic; rather, the validity of accuracy awareness was specific to the perceiver–target dyad. Dyadic interactions are unique and affected by multiple factors, such as perceiver–target rapport, mood, and concentration, which could all affect accuracy. In turn, perceivers seem to be aware *when* factors such as these have influenced the relative accuracy of their impressions, even if these factors are not consciously available to perceivers. Such calibrated accuracy awareness is encouraging, indicating that perceivers should know how heavily to rely on their specific impressions of others to guide behaviors toward others.

Furthermore, reporting greater realistic accuracy was also moderately to strongly associated with viewing the target more normatively. Higher levels of normative accuracy are associated with social desirability and more positive impressions (Borkenau & Zaltauskas, 2009; Edwards, 1957; Wood, Gosling, & Potter, 2007). However, this effect may reflect greater knowledge about the target. Kenny's (1994) weighted average model of interpersonal perception, when reframed in Cronbach's components of accuracy, predicts that *both* distinctive and normative accuracy initially increase as perceivers acquire more knowledge about the target (see Biesanz, West, & Millevoi, 2007). Recent experimental evidence supports this theoretical prediction (Human, Jackson, & Biesanz, 2008). The present results are consistent with increased accuracy awareness reflecting a greater sense of having acquired more diagnostic information about the target—knowing that you know someone. It is quite possible that the converse is true as well. That is, a sense of knowing someone better leads to more positive impressions (i.e., the familiarity principle).

This demonstration of accuracy awareness stands in contrast to a preponderance of research showing that people tend to lack insight into the accuracy of their interpersonal impressions (e.g., Ames et al., 2010; Dunning et al., 1990; Swann & Gill, 1997). Why did the current studies find evidence for accuracy awareness in interpersonal impressions whereas others have not? First, general individual differences in accuracy awareness—which account for a substantial proportion of the variance in such ratings—are not diagnostic of actual accuracy. Individuals who profess a high level of interpersonal sensitivity, in general, are not actually more discerning of the characteristics of others compared with more modest perceivers. Global confidence and accuracy awareness assessments, whether asked directly or averaged across multiple specific assessments, may be more susceptible to motivational concerns and one's sense of self-worth. Most individuals likely want to believe that they are accurate judges of others and want to express confidence in their impressions, perhaps leading most people to indicate high levels of confidence regardless of their actual accuracy levels.

Around these inaccurate mean confidence assessments, however, individual confidence assessments do fluctuate in line with actual accuracy. Examining accuracy awareness within persons, rather than globally or between persons, allows for the accuracy awareness effect to emerge. That is, individuals are aware of *when* their impressions are more accurate. Even studies that have concluded that perceivers do not have accuracy awareness have found some evidence for it within persons (e.g., Ames et al., 2010; Dunning et al., 1990; Rule, Ambady, Adams, & Macrae, 2008). It appears that accuracy awareness is a subtle phenomenon that requires more fine-grained analyses to be discerned. Such calibrated accuracy awareness is likely highly useful in interpersonal impressions, where knowledge of whether one's impression of a specific individual is accurate is more pragmatically useful than knowledge of one's general skill in impression formation.

A distinctive characteristic of the current studies that may have helped demonstrate the accuracy awareness effect may be in the wording of the accuracy assessment. The current studies avoided the typically used, value-laden terms *accurate* and *confident*, instead asking perceivers, "How well do you think your impressions would agree with someone who knows this person very well?" In framing the question in this way, accuracy is not defined as being right or wrong but is defined realistically, as agreement between the perceivers' impressions and the impressions others would form about this individual. As such, perceivers could maintain a subjective sense of accuracy and confidence in their impression even if they disagreed that their impression was realistically accurate—one could be entirely confident in the accuracy of the impression one just formed yet still be aware that one's impression may not generalize beyond that interaction (i.e., circumscribed accuracy; Swann, 1984). Although we found the same pattern utilizing a more traditional confidence question in Sample 2, this question directly followed the realistic accuracy question and still avoided the term *accuracy*, perhaps also lessening motivational concerns to express accuracy and confidence. Future research should carefully consider the framing of accuracy awareness assessment questions so as to minimize motivational concerns that might arise in the context of interpersonal perception.

Achieving accuracy awareness in first impressions has several important interpersonal implications. First, accuracy awareness should enable people to better utilize first impressions to guide the interaction and behavior. Many important decisions are made after very brief encounters—which job candidate to hire, which person to date, which graduate student to accept. Although our first impressions are generally accurate, they do fluctuate, making it critical for us to recognize when they may be lacking. If we are aware of when an impression is inaccurate, then we can lessen the weight that is placed on that impression or gather more information so that a better impression can be formed. If we are highly confident in our impressions, we can more firmly stand by our decisions to hire, date, or accept a candidate. Second, accuracy awareness may directly affect behavior by influencing liking of and sense of connection with the target. The subjective sense of knowing another person after just several minutes of interaction is likely to influence how positively one views the target, as familiarity and processing fluency promote liking (e.g., Langlois & Roggman, 1990; Reber, Schwarz, & Winkielman, 2004). For instance, suppose Jill and Jane are both applying for a job. Jane is technically a better fit, but the interviewer feels that Jill was easier to understand. This sense of knowing may lead the interviewer to like Jill more than Jane and, as a result, hire Jill even though Jane is technically a better fit for the job. Thus, accuracy awareness likely has important interpersonal consequences, potentially influencing how one utilizes one's personality impression and the positivity of one's evaluation of that person.

Overall, people are not as unaware as past research paints them to be but instead have insight into the difficult judgment of whether or not they accurately understand a person they have just met. Although the current research suggests that generalized individual differences in accuracy awareness are not diagnostic, when individuals felt that their impressions of a specific target were realistically accurate, they did indeed more accurately discern that target's unique characteristics. In sum, people do have accuracy awareness; intuitions about the relative realistic accuracy of one's first impressions are indeed valid.

Declaration of Conflicting Interests

Financial Disclosure/Funding

Notes

1. The program lme4 does not provide *df* for fixed effect test statistics. We report approximate *df* based on the approach outlined in Raudenbush and Bryk (2002, pp. 56-58; also see Kliegl, Risse, & Laubrock, 2007) after accounting for the cross-random effects. As well, all models were examined for influential cases by examining (a) the distributions of the random effects estimated through ordinary least squares (OLS) and empirical Bayes, (b) scatterplots of the random effects to visually check of anomalous cases, and (c) scatterplots of the predictor of interest (e.g., accuracy awareness in the present case) with the OLS estimate of the dependent variable (e.g., distinctive accuracy slope). The last plot provides an unbiased estimate of the relationship between the moderator variable and the accuracy slope of interest. As such, treating this as standard regression analysis allows one to use standard regression tools (DFFITS, Cook's distance, leverage, standardized deleted residuals, etc.) to gain a sense of whether there are anomalous cases that might be influencing the analysis.

2. Centering accuracy awareness within perceiver was done by subtracting the accuracy awareness rating main effect estimate for each perceiver. Specifically, calibrated perceiver accuracy awareness is estimated by subtracting the empirical Bayes estimate of the perceiver's average level of validity ratings across targets from raw validity ratings—that is, centering *AA* within perceiver.

3. Since a proportion of targets did not have peer or parental reports, it is possible that the present results were driven primarily by self–other agreement. Although self-reports are often a valid source of information in many contexts, and indeed better than informant reports in some cases (see, e.g., Vazire, 2010), the present results hold when self-reports are excluded. Defining the target validity composite to be the average of peer and parental reports, calibrated perceiver accuracy awareness was significantly associated with distinctive realistic accuracy across both samples combined, $b = .02$, $t(963) = 2.61$, $p < .01$.

4. Sample 1 evidenced curvature and, indeed, had a significant negative quadratic component, $b = -.02$, $t(521) = -2.29$, $p = .02$. However, this curvature was not present in Sample 2 and, although

Figure 1 illustrates some curvature, was not significant when both samples were combined, quadratic component $b = -.009$, $t(1142) = -1.33$, $p = .18$.

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