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7 Accuracy of judging group attitudes

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Abstract

How accurate are people's stereotypes about groups? And how accurate are people in knowing what others think of the groups they belong to? The goal of this chapter is to provide an overview of conceptual and methodological approaches to studying accuracy in people's attitudes about in-groups and out-groups, and to provide a brief review of empirical findings that address such accuracy. I focus on two central questions that scholars have addressed: One, are people accurate in their judgments about groups? And two, are people accurate in reading what others think about groups to which they belong (i.e., meta-perceptions of attitudes about groups)? I first discuss methodological and conceptual approaches to studying group-based attitudes, including a discussion of the process through which a valid truth criterion is selected, the different ways in which the relationship between the truth and the judgment can be operationalized, and the level at which accuracy is measured. I then review findings from research on accuracy of group-based attitudes using a motivation-based framework to understand why perceivers might be accurate or inaccurate in their judgments. Finally, I propose several avenues for future research, with an emphasis on research designed to provide evidence of the process through which perceivers become accurate and biased in their own attitudes about groups and their perceptions of others' attitudes about groups.

Imagine that Jen has started a new job at an engineering firm, and she has been assigned to work with her new colleague Darnell on a project. In this interaction context, Jen's and Darnell's abilities to accurately detect each other's thoughts, feelings, and intentions can directly affect their ability to communicate effectively with each other. If Jen is one of a handful of women in her firm, gender will likely be a salient social category that serves as a lens through which Jen and Darnell evaluate each other. Does Darnell believe that women are not as competent as men at engineering tasks, in general?

If so, are Darnell's attitudes grounded in reality? Do Darnell's attitudes about women in general bias his perceptions of Jen's competence? Is Jen accurate in detecting Darnell's attitudes about women's competence, and importantly, about whether he thinks she is particularly competent?

In this opening example, I have touched upon a few questions that scholars can address in the study of how accurate people are in their attitudes about groups (e.g., their attitudes about female engineers in general), and about individuals as representative members of those groups (e.g., particular female engineers like Jen). The goal of this chapter is to provide an overview of conceptual and methodological approaches to studying people's accuracy of attitudes about groups. In my review of the literature, I focus on two central questions in the study of accuracy throughout: One, are people's attitudes about groups accurate? Here, I will draw from prior research on *stereotype accuracy*, using the working definition of a stereotype as "a set of beliefs about the personal attributes of a social group" (Ashmore & Del Boca, 1981, p. 21; see also Jussim, Cain, Crawford, Harber, & Cohen, 2009). For example, are people accurate in their judgments of how talkative women are? Two, are people accurate in their judgments of other people's attitudes about groups? For example, are women accurate in their judgments of how talkative men *think* women are? And are they accurate in their judgments of how talkative women *think* women are? Here, I will focus on the accuracy of meta-perceptions, or our beliefs about other people's group-based attitudes. I provide a brief review of the research to date that has examined these questions.

For both types of questions, I will review different conceptual and methodological approaches to studying accuracy of beliefs that people hold about groups, including the process through which a valid truth criterion is selected, the different ways in which the relationship between the truth and the judgment is operationalized, and the level at which accuracy is measured (i.e., is accuracy measured for individual perceivers who judge individual targets such as in dyadic interactions, for multiple perceivers who judge multiple targets as in group interactions, or for individual perceivers who rate groups as a whole). I will then discuss the role of motivation in achieving accuracy of attitudes about groups. Finally, I propose several avenues for future research, with an emphasis on new lines of research designed to provide evidence of the process through which perceivers become accurate and biased in their own group-based attitudes and their perceptions of other's group-based attitudes. Generally speaking, an attitude can be any psychological tendency that one can have toward an attitude object (Eagly & Chaiken, 1998), and many chapters in this book focus on accuracy for other types of attitudes that individuals hold that are not about groups in particular. As such, I review research that exclusively addresses accuracy about attitudes that are about groups in particular.

Conceptual and methodological approaches to studying accuracy of group-based attitudes

In studying the accuracy of attitudes about groups, there are important methodological decisions that one must make when designing a study. In this section, I briefly discuss three issues: the selection of a valid truth criterion, the way in which the relationship between the judgment and the truth is conceptualized and measured, and the level at which accuracy is measured.

Selecting a truth criterion

The selection of the truth criterion is a critical methodological step for any researcher who plans to study accuracy (see Jussim, 2012; Stern, West, & Schoenthaler, 2013; West & Kenny, 2011). When researchers examine whether people's attitudes about groups are accurate, they need to select a valid truth criterion that reflects where groups actually stand on the trait(s) they are examining, and one important step is selecting criteria groups that are *representative* of the groups that perceivers provide attitudes about (Jussim et al., 2009). Failing to do so can lead to a disconnect between who is being judged and who is providing the truth for that group.

For example, imagine a study that examines the question: Are people's attitudes about the relative athletic abilities of Blacks compared to Whites accurate? People provide ratings of the extent to which they think Black athletes, in general, are more skilled than White athletes. Because perceivers are judging Black and White athletes *in general*, the truth criteria data need to be drawn from a representative sample of Black and White athletes that is sufficiently large and includes athletes who play many different sports (e.g., a large sample of football players, tennis players, basketball players, and baseball players). If the criteria groups of Blacks and Whites are not representative samples (e.g., data from only pro-basketball players are used), or the groups from whom criteria data are drawn are limited (data are from one team only), then the researchers would be limited in the conclusions they can draw about accuracy of

beliefs about Whites' and Blacks' athletic abilities. It would also be problematic if participants are told to make judgments about one group (e.g., athletes in general), but their judgments are compared to a truth criterion drawn from another group (e.g., the Lakers). In this case the researchers might be "stacking the deck" against accuracy by not making clear to perceivers whom they are supposed to be responding about (for a more developed argument on giving accuracy a "fighting chance," see Funder, 1995). These issues could be easily resolved by making clear to perceivers who is providing the data for the criterion groups.

How might researchers go about selecting a representative sample for criterion groups? One option is to capture actual group differences using meta-analytic data. For example, Swim (1994) and Hall and Carter (1999) examined accuracy of perceivers' beliefs about differences between men and women. Are men and women's verbal abilities, leadership abilities, and happiness (among other traits) as different as people think they are? Swim (1994) compared participants' estimates of mean differences and variability between men and women's attitudes with results of actual differences in means and variability on these dimensions, using Hyde and Linn's (1986) meta-analysis of actual gender differences, where the truth criteria included objective measures, such as verbal tests and nonverbal behaviors. Swim (1994) also assessed accuracy using items for which she had behavioral truth criteria data (e.g., SAT scores) and that perceivers (male and female college students) had familiarity with. As such, Swim (1994) was able to avoid asking participants to make judgments about groups on dimensions that they had no prior knowledge about. Her results indicated some evidence of accuracy in that perceptions of mean and variability differences mapped onto actual differences (Study 1), and some evidence of inaccuracy, in that perceivers underestimated actual gender differences (Study 2).

In some cases, meta-analytic data are not available, but researchers can utilize prior research to obtain truth criteria. As an example of this approach, Chan et al. (2012) had participants from 26 countries rate the personality of typical adolescents, adults, and older people. Participants made ratings of each group using the National Character Survey (Terracciano et al., 2005), which consisted of 30 bipolar items. The truth criterion for each of the groups was drawn from published research that provided self- or observer reports for each of the age groups from the countries in which the judgment ratings were collected. Raters across nations tended to share similar beliefs about different age groups (e.g., adolescents were seen as impulsive, rebellious, undisciplined). These consensual age group stereotypes correlated strongly with published age differences on the same dimensions. One potential issue with this study, however, is that some of the truth criteria data were assessed using self-report, which might be biased by stereotypes as well. People may see themselves as consistent with stereotypes about their group (i.e., self-stereotype). For this reason, a behavioral accuracy criterion might be ideal for examining accuracy here.

In addition to using published empirical findings, another option for obtaining a truth criterion is to use data from large-scale survey data. For example, Saguy, Tausch, Dovidio, and Pratto (2009) examined accuracy in Israelis' meta-perceptions of Palestinians' attitudes about them using poll data (studies described in more detail below), and McCauley and Stitt (1978) used census data to examine the accuracy of attitudes about Whites and African Americans. Ashton and Esses (1999) examined accuracy of attitudes about the relative achievements of nine Canadian ethnic groups; their truth criterion was grades of the nine ethnic groups published by the Toronto Board of Education (more details described later).

In summary, there are many important considerations for selecting a proper truth criterion for studies that assess accuracy in people's attitudes about groups. Potential criterion data include data from meta-analyses, prior research findings, and survey data.

Measuring the relationship between the truth and the judgment

A second important consideration when studying accuracy of attitudes people hold about groups is how to best conceptualize the relationship between the truth criterion and the judgment – a decision that should be guided by the theoretical question of interest. There are many statistical approaches to date, which I will briefly review.

Two of the most common methods of operationalizing accuracy, especially in the study of accuracy of attitudes about groups, are (a) to compute discrepancy scores between the judgment and the truth, and (b) to compute correlations between the judgment and the truth for each kind of judgment, or across judgments within the perceiver. The first method allows one to examine whether perceivers over- or underestimate where the target group stands on a trait, over- or underestimate what others think their attitudes are, or whether they over- or underestimate the differences between groups. In some cases, researchers are not interested in the direction of inaccuracy, and they compute absolute difference scores (e.g., Saguy et al., 2009). The second method captures the strength of the relationship between the truth and the judgment, and allows one to assess whether some perceivers show a stronger overlap between the truth and the judgment (when estimated across judgments

within perceivers) than others, and for what types of judgments there is a stronger overlap between the truth and judgment (when estimated across perceivers separately for each judgment). Some conceptual models estimate both forms of accuracy simultaneously. For example, in the Truth and Bias model (West & Kenny, 2011), *directional bias* captures the mean discrepancy between the truth and the judgment – stronger positive values indicate greater overestimation of the truth (e.g., people see others as more extraverted than they actually are), and stronger negative values indicate greater underestimation of the truth (e.g., people see others as less extraverted than they actually are). The *truth force* represents the strength of the effect of the truth on the judgment. The model can be estimated by treating the judgment as the outcome variable, and the truth criterion as the predictor variable, using a regression-based approach. By subtracting the mean of the truth off the judgment (assuming both are measured using the same scale), the intercept in this model represents directional bias and the main effect of the truth represents the truth force (estimated as a B weight).

Another method of assessing accuracy using the correlational approach is to compare a perceiver's rank ordering of attitudes to how these items actually rank among a group (akin to a profile correlation in personality research). The rank-ordering approach allows researchers to assess accuracy in attitudes about the relative frequency of certain traits – are perceivers accurate in knowing how common certain traits are relative to others? (Jussim, 2012). For example, are women more communal than they are agentic? There are two potential challenges with the rank-ordering approach: one, determining the actual frequency of traits for a group (i.e., establishing a valid truth criterion) and two, choosing traits for which it makes conceptual sense to compare their relative frequency. For example, it might be difficult to establish what it means for communality to occur more frequently than agency. Do perceivers have an accurate working model of what a lot and little agency look like, and what a lot and a little communality look like? Are the thresholds for a lot and a little of these two traits the same? Although challenging, addressing these issues is likely worth the effort, as this approach could be used to answer previously unexplored questions such as whether perceivers understand the intricate complexities of groups, and also, whether they understand how traits uniquely fit together to inform a "big picture" understanding of groups.

Accuracy of attitudes about the level of heterogeneity of groups

In addition to examining whether attitudes about particular traits are accurate, researchers can also ask the question: Do people accurately

perceive how much heterogeneity there is within groups and between groups, and do they perceive differential amounts of heterogeneity depending on if they are judging their own group, or an out-group? For example, do people know the extent to which students at inner city schools in New York score similarly on standardized tests? Do they think students' test scores are more similar to each other than they actually are, or more different than they actually are? According to Park and Judd (1990) (see also Judd, Ryan, & Park, 1991), two forms of accuracy of heterogeneity can be empirically assessed that capture accuracy of knowing how diverse groups are. One, *perceived group dispersion* tests whether the perceived dispersion of individuals around their central tendency matches how these individuals actually disperse around their central tendency. A group that is perceived to be less variable is one that is perceived to be tightly bunched around the central tendency. A group that is perceived to be more variable is more dispersed around the central tendency. For example, imagine that students at the inner city school have an actual range of test scores that vary from 0 to 100, with a mean of 50 but a standard deviation of 10. If the group is perceived to be less variable, people might estimate that students on average have a score of 50 but that the standard deviation is quite small, 2. In other words, they assume that students' scores are "tightly bunched" around the mean. However, if they believe that the mean is 50 but the standard deviation is 20, then they believe that students' scores are loosely dispersed around the mean. The other, *perceived group stereotypicality*, tests whether people's beliefs about the prevalence of individuals who are stereotypical matches the prevalence of individuals who are actually stereotypical. A group that is perceived as less variable by this definition is one in which a relatively large percentage of the group is perceived as possessing the stereotype and a small percentage is counterstereotypical. For example, imagine that in the school study, people reported on the percentage of students who failed the high-school entrance exam. They may underestimate the percentage of students who do so, or overestimate it. These two forms of variability are conceptually related, but they are often empirically distinct and only moderately correlated.

How are accuracy of perceived group dispersion and perceived group assessed? Judd et al. (1991) describe three tasks that can be used to assess them. One, the group distribution dot task (Park & Judd, 1990), in which perceivers are asked to think about the group as a whole (e.g., Asians) and indicate the relative number of group members who would fall at each point along a dimension; two, the percentage estimation task, in which perceivers are asked to provide the percentage of group members who would have a trait (e.g., are good at math) or who would endorse an

attitude; and three, the mean and range estimation task, in which perceivers rate where on average the group falls on a scale, and where on the scale the most extreme members fall (e.g., the Asian who is the worst at math, and the Asian who is best at math). The scores from these three tasks are then compared to the actual mean and standard deviation of a truth criterion that includes that actual mean and standard deviation for the group, and the percentage of group members who fall into each level of the trait (e.g., the percentage of Asians with math scores of 70, and with math scores of 90). To measure accuracy, correlations are computed between the truth and the judgment. For example, the perceived standard deviation from the dot task is correlated with the actual standard deviations from the truth criteria data (for more details see Judd et al., 1991). Judd et al. (1991) used this strategy to demonstrate that people overestimated stereotypicality for out-group members – that is, they show that stereotypes are overgeneralizations and that people are actually less stereotypical than people think they are.

Comparing accuracy of attitudes about in-group to out-group members

Finally, scholars may be interested in making comparisons between in- and out-group accuracy: Are individuals more accurate when judging the in-group versus out-group? Does accuracy of in-group versus out-group judgments differ as a function of the valence of the attitude, and of the stereotypicality of the attitude? Judd and Park's (1993) approach is designed to answer these questions. Targets and perceivers are separated into two groups (e.g., in- vs. out-groups, such as men and women), and judgments are made by and of in-group and out-group members on dimensions that are and not stereotypical for that group. For example, in a study looking at accuracy of attitudes about men and women's competence and warmth (men being more stereotypically competent and women being stereotypically warm), one could have men rate men and women, and women rate men and women, on competence and warmth. Actual levels of competence and warmth would also be needed.

Judd and Park's (1993) model is a three-way analysis of variance with the following factors: perceiver (male vs. female), target (male vs. female), and attribute (stereotypical for the in- or out-group, such as competence for men and warmth for women). The model yields the following parameters of interest: *Elevation accuracy*, which is the extent to which perceivers over- or underestimate attributes, averaged over all perceivers, targets, and attributes; the *perceiver group effect*, which is an overall tendency of one group to over- or underestimate all attributes of other groups (above and beyond elevation accuracy); *the target group effect*, which is an overall tendency for one group of targets to have all their attributes (added together) over- or underestimated (beyond the elevation effect). For example, are women seen as more of (all traits) than men? The *attribute effect* is the tendency to over- or underestimate a type of attribute (e.g., those about physical appearance). For example, if men are judging how agentic women are and how much leadership they show in the workplace (using a set of attributes to tap into each), then this effect refers to the tendency to see the group as more or less "stereotypical" than they actually are (assuming a shared understanding of the stereotype).

The effect that is the most of interest for studies of accuracy of in-group versus out-group attitudes is the three-way interaction between the perceiver group, target group, and attribute effects. This interaction tests whether under- or overestimation of stereotype is most likely to occur when people are judging in-group versus out-group members, and if so, whether this is the case for both groups (i.e., men judging women, women judging men). For example, are women seen as more stereotypical than men, but only when they are judged by other men? I provide a further example of this model in the next section on the motivational determinants of accuracy.

In sum, there are many ways of conceptualizing accuracy for attitudes about groups, all of which can provide unique insight into when people are accurate (e.g., in judging in-groups and out-groups), and for what types of accuracy (e.g., in gauging mean levels of a target group, in comparing groups to each other, or in estimating the level of heterogeneity within a group). Next, I briefly review the research that examines the accuracy of group-based attitudes, cutting across a diverse set of attitudes, types of groups, and methodologies. Throughout this review, I will highlight one mechanism that plays a central role in how scholars have theorized about the process through which accuracy of group-based attitudes is achieved: motivation.

Motivational determinants of accuracy of group-based attitudes

How might perceivers become accurate in their attitudes about groups? Many studies of accuracy of attitudes about groups have emphasized the role of motivational factors in determining how accurate people are. Motivation has been theorized to affect accuracy directly – that is, people should be motivated to be accurate and this motivation might influence how accurate they are – and indirectly by affecting another psychological process that affects accuracy, such as a drive to perceive similarity. I

review research that illustrates the indirect and direct effects of motivation on accuracy of people's attitudes about groups.

Motivation indirectly affects accuracy

In this section, I will discuss the research that tests the idea that motivation, broadly construed, will affect one or more psychological processes (e.g., assuming similarity, stereotype utilization; what West & Kenny, 2011, refer to as bias), which in turn affect accuracy. Thus, motivation *indirectly* affects accuracy via its effects on another psychological process.

Ashton and Esses (1999) theorized that the motivation to not use stereotypes when evaluating groups might lead perceivers to be less accurate, to the extent that these stereotypes are grounded in reality. In other words, motivation might indirectly affect accuracy via its effect on stereotype usage. As detailed in the section on selecting a truth criterion, the authors examined accuracy of rank ordering of the achievement of nine Canadian ethnic groups, and used data from the Toronto Board of Education to obtain actual achievement data for each group. They found that people were quite accurate in their rank ordering of group means, and they also had accurate notions of between-group variability in academic achievement.

Moreover, they found that people who underestimated between-group variability (i.e., assumed the ethnic groups were more similar than they were in terms of achievement) were lower in Right Wing Authoritarianism (RWA) than were accurate estimators and overestimators. The authors propose that people who are low on RWA are committed to equality, and this commitment can serve as a motivation to reject the notion that ethnic groups truly differ on a socially important variable such as academic performance. In his review of their work, Jussim (2012) couches this finding in terms of liberal versus conservative politics (suggesting that RWA is really a proxy for ideology in this study). He proposes that liberals might be motivated to deny the existence of stereotype accuracy, and insofar as stereotypes are accurate, the failure to utilize stereotypes when comparing groups will lead to inaccuracy. Thus, stereotype utilization might be one indirect path through which perceivers become accurate, and the motivation to be egalitarian affects stereotype utilization and therefore affects accuracy indirectly.

In a similar vein, Stern, West, Jost, and Rule (2013) tested the hypothesis that liberals are motivated to not utilize stereotypes when categorizing perceptual ambiguous group members – that is, group members for whom appearance alone is not a valid indicator of group membership – into distinct categories. The authors examined whether liberals and

conservatives categorize men into the gay and straight based only on their facial appearance. They also tested whether people utilize stereotypes about the association between facial appearance and sexual orientation (specifically, that gay men have more feminine features than straight men, and straight men have more masculine features than gay men), when doing so. The authors found that liberals, but not conservatives, corrected away from stereotype utilization when categorizing men as gay or straight; their categorization judgments did not correlate with the actual femininity and masculinity of the targets. To the extent that gay men are actually more feminine than straight men (and straight men are more masculine than gay men), the failure to utilize stereotypes about appearance would lead liberals to be less accurate because perceivers are failing to take stereotype accuracy into account when categorizing targets. In further support of a motivated correction process, the authors showed that when liberals were under cognitive load, which inhibits the correction process, they utilized stereotypes to the same degree as conservatives. These findings suggest that liberals are motivated to not utilize group-based stereotypes when making judgments, and to the extent to which these stereotypes are grounded in reality (which is an open question) they would be less accurate.

Ryan and Bogart (2001) examined a different motivational factor that might indirectly affect accuracy. The authors examined how accuracy of in-group and out-group members changes over time when people join a new group, utilizing Judd et al.'s (1991) approach. Accuracy of *perceived dispersion* was measured (i.e., variation of group members around the mean of the group on stereotypic attributions). The authors hypothesized that when people first join a new group, the motivation to reduce uncertainty and anxiety that characterize the socialization phase (Ryan & Bogart, 1997) leads new members to focus on the similarities of group members, resulting in less accuracy in dispersion. As the socialization process proceeds, new members shift their focus from how everyone is similar to the ways in which they differ. This process is more likely to occur for in-group than out-group judgments for functional reasons – individuals need to accurately read how different in-group members are from each other in order to function more effectively within day-to-day social interactions (see also Swann, 1984, for a similar argument regarding "pragmatic accuracy," or accuracy needed to navigate one's social world). Participants were sorority members who reported their attitudes about their own sorority (in-group) and other sororities (out-groups) during the first year of membership. They made evaluations that were stereotypic of that particular sorority, or counterstereotypic, and also positively (e.g., competitive, sophisticated) or negatively valenced

(conceited, loud). Self-ratings were used as the truth criterion. They found that participants initially underestimated in-group more than out-group dispersion (i.e., they assumed in-group members were more similar to each other than they were, and more so than they assumed that out-group members were more similar to each other than they were). But over time, in-group dispersion judgments became more accurate whereas out-group dispersion judgments became less accurate. This study is an example of how the motivation to want to see similarity can indirectly lead perceivers to be less accurate, to the extent that group members are more different from each other than they are perceived to be.

Swim (1994) also examined accuracy of in-group as compared to out-group attitudes in the context of gender to test the following questions: One, do perceivers accurately know men and women's attitudes, and more specifically, how similar and different they are, and two, does in-group favoritism moderate accuracy in estimating differences between men and women's attitudes? To the extent that perceivers demonstrate in-group favoritism, they might be more motivated to see their own group more positively than they actually are, which could decrease accuracy. In this study, accuracy was operationalized in two ways. One, as the correspondence between individual's perceptions of the size of gender differences and meta-analytic findings about gender differences in social behaviors (i.e., the truth criterion); two, as sensitivity correlations between judgment and the truth (Judd & Park, 1991) which allow one to assess whether people are sensitive to relative differences among attributes. She found that for most traits, perceivers were accurate or underestimated differences; they only overestimated men's tendency to be aggressive and women's verbal abilities. Women perceived greater gender differences in the ability to decode nonverbal behaviors than did men, and men's failure to recognize these differences – that is, thinking that men were just as good as women at reading nonverbal behaviors when they were actually worse – led them to be less accurate. Women engaged in greater in-group favoritism for ratings of helping when alone and leadership; that is, they perceived women to be more positive on these traits. This bias to see women more positively explains in part why women were less accurate than men for these traits.

Hall and Carter (1999) made important headway in understanding why some people are more accurate in their knowledge of sex differences than others. The authors calculated stereotype accuracy judgment scores for each participant and then provided them with a standardized test to assess accuracy at decoding nonverbal behaviors (Profile of Nonverbal Sensitivity (PONS) test), as well as self-reported measures that assessed the extent to which they were likely to use stereotypes. They found that people who were more accurate at reading nonverbal behaviors had greater accuracy in knowing actual gender differences, whereas those who were more likely to endorse stereotypes were less accurate. These findings suggest that accuracy in knowing actual differences between men and women was obtained through actual observation, rather than simply endorsing stereotypes. In other words, stereotype usage biased perceivers' judgments, leading to less accuracy.

As a final example, Li and Hong (2001) examined accuracy in the ability of Mainland Chinese and Hong Kong students to read in-group and out-group members' values (i.e., items related to collectivism, such as striving for common good, altruism, cooperation, and individualism). The study was conducted in Hong Kong, which provides a unique context to study accuracy of intergroup attitudes between majority and minority group members. Interactions between local Hong Kongers (the majority group) and people from Mainland China (the minority group) have become more frequent following the return of sovereignty in 1997, but historically the groups have been separated. The authors proposed that because of relatively few interactions with the minority group, members of the majority group would assume that minority groups would differ from themselves, and to the extent that majority groups perceived themselves to be higher status, they would be motivated to achieve distinctiveness and differentiation from the out-group (see also Mummendey, Otten, Berger, & Kessler, 2000; Schwartz, Struch, & Bilsky, 1990; Wilder, 1986). To the extent that groups underestimate similarity, they will be less accurate when they use these similarity judgments to guide their estimates (i.e., an indirect effect of bias on accuracy in West & Kenny, 2011). Both the mainland Chinese and Hong Kongers were more accurate at estimating in-group than out-group values (consistent with Judd et al., 1991). The mainland group was also more accurate than the Hong Kong (minority) group, and they projected more onto the out-group than did the Hong Kong group – that is, they assumed more similarity. Both groups engaged in greater in-group than out-group projection (consistent with Krueger & Zeiger, 1993). These findings support the notion that the higher status majority group (Hong Kongers) perceived greater out-group distinctiveness – i.e., assumed less similarity – than the minority group. To the extent that these groups were not actually distinct, then this bias would lead to less accuracy.

Motivation directly affects accuracy

In addition to the indirect effect that motivation can have on accuracy, scholars have also theorized that certain types of perceivers should be

more motivated to be accurate than others, because it helps them navigate their social environments. That is, there should be a direct effect of motivation on accuracy. For example, Hehman, Leitner, Deegan, and Gaertner (2013) examined how the differential motivation of Whites and Blacks to accurately read Whites targets' levels of prejudice leads minorities to achieve greater accuracy in these judgments because in order to navigate their social worlds, they need to have an accurate understanding of who might be prejudiced against them. The authors examined the ability of people to read prejudiced attitudes using the facial width-to-height ratio (fWHR) of male targets. They found that White men's fWHR correlated with explicit racial attitudes (the fWHR ratio is a visible manifestation of testosterone exposure, and testosterone is associated with social dominance motives). The authors theorized that men with higher fWHR are more likely to report prejudicial beliefs because they are less inhibited than men with lower fWHR. In support of this argument, they found that fWHR correlated with explicit prejudice (measured using the Attitudes toward Blacks scale, and the Internal Motivation to Respond Without Prejudice scale; Brigham, 1993, and Plant & Devine, 1998), suggesting that fWHR is a valid cue through which prejudice can be perceived. Perceivers then rated how racist they thought each participant was, on a 1–6 scale.

The authors found that perceivers were able to accurately detect the target's self-reported explicit prejudice, via the utilization of fWHR as a cue. They further showed that for Blacks, the motivation to be accurate (which was higher than it was for Whites), contributed in part to them making accurate judgments.

Similarly, Richeson and Shelton (2005) found that Black perceivers, relative to White perceivers, were able to detect racism at above-chance levels in White people engaging in interracial interactions by observing nonverbal interactions (20-s clips). The authors argued that Blacks should be particularly motivated to accurately detect Whites' racial attitudes, given the pragmatic utility of accuracy for navigating social interactions, even when given very little information about Whites, and none in which racial attitudes are directly expressed.

As another example, Saguy and Kteily (2011) examined in- and out-group members' accuracy in knowing each other's attitudes about conflict in the context of Israeli–Palestinian relations. They argued that the ability to accurately know the out-group during times of war has implications for the strategies groups' use, such as facilitating constructive initiatives or antagonistic ones, and this should especially be the case for low-power groups. In two studies, they used a mean difference approach to examine the extent to which people under- or overestimated in- and out-group members' goals pertaining to a conflict (i.e., they rated the extent to which each of eight goals guided an Israeli operation called the flotilla incident, such as "undermine Hamas," and "strengthen the image of the Israeli defense forces"). The authors used absolute difference scores because they were not interested in the direction of inaccuracy. In Study 1, they found that Israelis, who perceived political loss to their group (following the flotilla incident), were more accurate in predicting out-group (Palestinian) views, than were Palestinians, who perceived out-group political gains.

The authors also tested the idea that the more people perceive in-group losses within a conflict, the more motivated they would be to seek relevant information about the conflict from the out-group and to understand the out-group's perspective on the incident. In Study 2, they examined how accurate Israelis were in their perceptions of Palestinian views about them, specifically testing the hypothesis that for Israelis, accuracy in reading Palestinian views was predicted by perceived political losses. In other words, perceived in-group losses should motivate accuracy in knowing the out-group's thoughts. They examined accuracy in knowing whether Palestinians supported or opposed hurting Israeli civilians inside the green line (Israelis' borders prior to the 1967 War), measured using poll data. The authors found that the more Israelis perceived in-group losses, the more accurate they were in knowing Palestinians' attitudes about hurting civilians inside the 1967 borders. Taken together, these studies show that perceived losses to one's in-group predict accuracy in reading the out-group member's beliefs about the in-group. Across three situations in which Palestinians were viewed as gaining politically from the incident, Israelis were more accurate in reading Palestinians' views than vice versa. For Israelis who were strongly identified with their group, those who felt that their group was losing politically were even more accurate. These findings provide strong support for a motivational explanation for accuracy.

In summary, I have provided a brief review of studies that have addressed how perceivers become accurate in perceptions of attitudes about groups, with an emphasis on the role of motivation, and the different ways in which motivation has been conceptualized. In the next section, I outline several different avenues of future research that aim to extend and complement preexisting research on this question.

Future research

One question that is relatively underexplored in the study of accuracy of attitudes about groups is: How does accuracy for one operationalization

of attitude – such as one's explicit attitude – relate to their accuracy for another operationalization of their attitude – such as their implicit attitude? For example, are people equally accurate at detecting implicit forms of racial attitudes – such as those that tap into nonconsciously held beliefs that often predict more subtle, nonverbal behaviors (Dovidio, Kawakami, & Gaertner, 2002) – as they are at detecting explicit forms of racial attitudes that predict more deliberative behaviors? Moreover, under what circumstances might they be especially likely to accurately perceive an out-group member's racial attitudes at the implicit and explicit levels?

As an example, Heyman et al. (2013) theorized that explicit but not implicit attitudes would be readable via the fWHR because this ratio is associated with psychological constructs related to dominance, which is related to explicit but not implicit prejudice. These findings suggest that utilizing fWHR to perceive implicit bias would not lead to accurate judgment because it is not a valid cue of targets' actual implicit prejudice levels. If this is the case, we can ask the question, how do perceivers know what cues are valid indicators of implicit prejudice, and what cues are valid indicators of explicit prejudice? In many social interaction contexts, individuals do not provide clear, valid indicators of their attitudes (e.g., telling people they are prejudiced); hence it would be interesting to examine whether some perceivers have developed the ability to simultaneously perceive an interaction partner's implicit and explicit prejudice, and if they are able to do so because they have an accurate working model of how these cues fit together to form a "prejudice profile" for the target.

In one of the first studies to examine how accurate people are in detecting different forms of sexism, Rudman and Fetterolf (2014) examined men and women's accuracy in detecting hostile and benevolent sexism – two forms of sexism that although fall under the umbrella of sexism are conceptually and empirically distinct. Male and female participants completed the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) to measure their own endorsement and perceptions of a typical out-group member's endorsement of hostile sexism and benevolent sexism (i.e., men rated women and women rated men). Here, the authors operationalized accuracy as the mean level difference between perceived and actual levels of sexism. They found that women overestimated men's hostile sexism, but they underestimated men's benevolent sexism. Men, in contrast, overestimated women's benevolent sexism but underestimated women's hostile sexism. The authors discuss how their findings provide support for the idea of an "illusion of antagonism" between hostile and benevolent sexism; individuals falsely assume that these two constructs are negatively related, but they are actually positively related and represent two underlying constructs of sexism that together reinforce the gender hierarchy (Rudman & Glick, 2008). Interestingly, benevolent sexists are often not labeled as sexist, and women, who often score just as high as men on the benevolent sexism scale, are unaware of its negative consequences. Unlike hostile sexism, which may be easier to identify, benevolent sexism can be more difficult to identify in others, leading to a mismatch in the levels of accuracy that perceivers achieve for these two forms of sexism. Rudman and Fetterolf's (2014) work is a nice example of how certain types of attitudes – such as those that masquerade as positive attitudes about certain groups – can be difficult to read because perceivers do not have an accurate working model of the attitude construct in question. As a consequence, perceivers do not know what cues they should be attending to in order to detect these attitudes in others.

In an interesting extension of this work, Goh, Rad, and Hall (2015) tested whether Rudman and Fetterolf's (2014) findings hold in a dyadic context, in which men and women judged each other's hostile and benevolent sexism during an interpersonal interaction. In Studies 1 and 2, participants provided ratings of their own and their perceived partner's hostile and benevolent sexism after a brief social interaction. The authors largely replicated Rudman and Fetterolf (2014). On the one hand, women overestimated men's hostile sexism, but estimation of men's benevolent sexism was not significant. Men, on the other hand, underestimated their female partners' hostile sexism and overestimated benevolent sexism. In their Study 3, they found that looking at 30-second silent clips produced above-chance levels for both kinds of sexism.

The work of Rudman and Fetterolf (2014) and Goh et al. (2015) are the first to test how accurate perceivers are for two forms of sexism – hostile and benevolent – at the generalized and dyadic levels. Future work could further explore the mechanisms through which perceivers become accurate in reading these two forms of sexism, and how the lack of understanding that benevolent sexism is an attitude construct might directly hinder their ability to perceive it in others.

Another area for future research is to further explore how accurate people's meta-perceptions are of how out-groups see their in-groups. To date, much research has explored the accuracy of attitudes about out-groups, but far less research has explored how accurate people are in knowing how others see their groups. For example, one could extend Ashton and Esses (1999) to test the question: Do Blacks know how Whites rank their levels of achievement relative to other groups? That is, do they know where, on the totem pole of achievement, Whites place Blacks? Further, is it better to be accurate or positively biased in knowing how an out-group sees an in-group (e.g., to assume that out-group members place your group higher on the totem pole than they actually

do)? On the one hand, a positivity bias might help Blacks perform well in achievement settings that are threatening and anxiety provoking, such as being in a predominantly White school. To the extent that Blacks believe that out-group members have a more positive attitude about them than they actually do, they might experience a number of benefits, including greater self-efficacy, less anxiety and threat, and greater comfort working directly with Whites. However, there might be a dark side to positivity biases in perceptions of outgroups' attitudes as well, such as creating false expectations that one will be treated as an equal when in reality they are discriminated against (Saguy et al., 2009). Future research could test these competing hypotheses within numerous "high-stakes" contexts in which accuracy and positivity bias could be both beneficial and costly for perceivers.

As an extension of this idea, one could also examine the process through which people become accurate in their meta-perceptions of how the out-group perceives the in-group. One possibility is to test how having a strong identification with the in-group indirectly leads to greater accuracy. For example, it is possible that people who strongly identify with the in-group are more likely to see themselves in stereotypical terms (i.e., they self-stereotype), and upon making judgments of how out-group members see them, they project their stereotype-based self-perceptions onto those judgments. That is, they are accurate because they see themselves as stereotypical, and so they assume that others do too. To the extent that others utilize the same stereotypes when evaluating them, they will be accurate.

Indeed, there is a strong history of research demonstrating that meta-perceptions are strongly tied to perceivers' self-perceptions (see Kenny & DePaulo, 1993, and also Chapter 8), and this research would be extending this work to the domain of attitudes about one's group. There are some groups for whom this might be likely to occur. For example, Stern, West, and Schmitt (2014) found that conservatives are more likely to assume that they are similar to other conservatives, whereas liberals see themselves as distinct from other liberals. Conservatives therefore might be more likely to self-stereotype – readily identify with stereotypes about their group – and see themselves in a stereotype-consistent manner. In evaluating how the out-groups (liberals) see them, they might project their self-perceptions – not as individual but as a member of the group "conservatives" – onto how they think liberals see them. Insofar as liberals see conservatives in a stereotype-consistent manner, conservatives will achieve meta-accuracy. These findings would suggest that conservatives' accurate knowledge of how liberals see them would be achieved through a bias of self-stereotyping. The different paths through which people achieve meta-accuracy in how groups view them likely have important implications for intergroup relations, such as how conservatives and liberals work together.

In this section, I have highlighted a few avenues of future research that scholars might take in studying accuracy of group-based attitudes. These are certainly not exclusive, and there are a number of other potential directions that I have not touched upon, and contexts in which accuracy should be studied. Scholars should continue to dive further into the process through which accuracy of group-based attitudes is achieved, including utilizing new methods to examine these processes beyond the individual, dyad, and small group. For example, recent theoretical models of how person perception processes operate within broad social networks (e.g., Smith & Collins, 2009; see also Denrell, 2005) could be utilized to study accuracy of group-based attitudes in new and exciting ways.

Conclusion

The goal of this chapter is to provide an overview of research that addresses how accurate people are in their attitudes about groups, and how accurate they are in reading others' attitudes about the groups they belong to. I have touched upon a number of conceptual and methodological considerations when studying these questions, with the goal to not only highlight the complexity involved in studying accuracy of attitudes about groups, but also provide readers with an overview of the many possible ways they can conceptualize accuracy to go about asking new and important questions. Although a full review of all empirical findings is beyond the scope of this chapter, I have outlined the role of motivation in shaping how people might become more or less accurate, and how motivation might be theorized to directly influence accuracy, or indirectly, but affecting a psychological process that influences accuracy. I also touched upon new research that taps into different components of attitudes that might underlie a common attitude construct, and offered some suggestions for future research. In so doing, I emphasized the importance of studying the "when" and "how" of accuracy rather than the "either/or," as doing so will provide much needed insight into the mechanisms of accuracy of group-based attitudes.

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8 Metaperceptions

Do people know how others perceive them?

Erika N. Carlson and Maxwell Barranti

Abstract

Metaperceptions, or beliefs about how other people perceive the self, are the implicit maps people use to navigate complex social environments. Are metaperceptions accurate? The answer to this question is complex and depends on several factors, such as how insight is measured, the attribute in question, and the social context. We first review several ways in which the accuracy of metaperceptions is typically conceptualized and measured. We then summarize for which attributes (e.g., intelligent, likeable) and in which contexts (e.g., among friends or coworkers) metaperceptions are accurate as well as for whom (e.g., personality traits, status) and in which situations. Next, we consider the process of metaperception and which sources of information lead people to form accurate beliefs about how others perceive them. Finally, we discuss future directions that may shed more light on when people know how others experience them and how to potentially improve this type of insight.

Did I make a good first impression? Does my boss think I am competent? Implicitly or explicitly, people often think about the impressions they make on others, and these beliefs are called *metaperceptions*. Ultimately, metaperceptions are the implicit maps people use to navigate their social worlds, and metaperceptions powerfully shape people's behavior, the quality of their relationships, and their identity (Felson & Reed, 1986; Lemay & Dudley, 2009). Given the pivotal role metaperceptions play in everyday life, the natural question is are they accurate? The main goal of this chapter is to summarize for which types of attributes, in which social contexts, and for whom metaperceptions are accurate. Our discussion also outlines mechanisms that might facilitate or hinder people's ability to infer how others see them and provides several future directions about how people can improve the accuracy of their metaperceptions.