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How We See Ourselves and How We See Others

Emily Pronin

People see themselves differently from how they see others. They are immersed in their own sensations, emotions, and cognitions at the same time that their experience of others is dominated by what can be observed externally. This basic asymmetry has broad consequences. It leads people to judge themselves and their own behavior differently from how they judge others and those others' behavior. Often, those differences produce disagreement and conflict. Understanding the psychological basis of those differences may help mitigate some of their negative effects.

Have you ever attended a long and technical lecture and seen yourself as easily distracted while thinking that everyone else seemed thoroughly engaged? Or, maybe you disagreed with the message of the lecture and saw the speaker's interpretation as one-sided but your own interpretation as objective. These differences in how you perceived yourself versus others may have reflected something about the specific circumstances or people involved—such as your unique distraction during the lecture, or the particularly biased perspective of the speaker. Often, though, such differences in how people see themselves versus others are systematic and predictable, and rooted in basic processes of human perception.

In 1972, the social psychologists Edward Jones and Richard Nisbett theorized about the basic mechanics involved in perceiving oneself versus others (1, 2). Their analysis sprung from the finding that people often view their own actions as caused by situational constraints, while viewing others' actions as caused by those others' internal and stable dispositions. An example would be a person arriving late for a job interview and ascribing that lateness to bad traffic while his interviewer attributed it to personal irresponsibility. Although this difference in attributions may appear self-serving, Jones and Nisbett pointed out that the difference does not always promote self-flattery and suggested that it in part reflects basic (and nonmotivational) qualities of perception.

They supported their argument with two key facts. First, people possess different information when perceiving themselves versus others. They have far more information about the feelings and intentions that precede, accompany, and follow from their own actions. As a result, they know when those actions fail to match their inner thoughts and desires due to situational constraints (as when they want the job, but miss the interview due to bad traffic). Second, people's

attention focuses on different things when perceiving self versus others. Because of the structure of the human visual system, people can devote far less visual attention to themselves and their actions (which they cannot easily see without a mirror) than to others and others' actions.

Recent research has built upon Jones and Nisbett's theorizing. That research begins with the fact that we generally have access to internal inputs when perceiving ourselves and our own behavior (inputs that others lack access to), and access to external inputs from the senses, especially vision, when perceiving others and their behavior (inputs that we lack access or attention to in perceiving ourselves). As a result, we tend to perceive ourselves via "introspection" (looking inwards to thoughts, feelings, and intentions) and others via "extrospection" (looking outwards to observable behavior). In short, we judge others based on what we see, but ourselves based on what we think and feel.

My Thoughts, Your Behavior

This distinction in the information that people possess when perceiving themselves versus others affects how people evaluate their own and others' behavior. This review begins by describing some dramatic examples. After next exploring the depth and underpinnings of differences in how people see themselves versus others, the review closes with the hope that greater insight into these differences may help people to better understand themselves and each other and thereby may alleviate some aspects of social misunderstanding and conflict.

Positive illusions. People tend to have inflated views of themselves and their futures (3). For example, they think that they are more likely to become wealthy, and less likely to contract contagious diseases, than those around them (4). This unrealistic optimism partially stems from people's attentional focus on their own (but not others') internal desires and intentions (5, 6). In one series of studies, people predicted how quickly they (or others) would complete various work projects and whether they would meet their deadlines. They were overoptimistic about them-

selves (but not others) because they focused on their industrious motives and intentions rather than their past behavior or the behavior of others in similar situations (6).

People's unrealistic positivity also extends to judging their traits (3). People's impressions of themselves typically correlate with how others perceive them (7, 8), but people also tend to rate themselves more positively than do others (3, 7). For example, people who see themselves as considerate are seen as more considerate than those who see themselves as selfish, but they also see themselves as more considerate than others do. People's overly positive views of their traits (such as considerateness) in part reflect their acute awareness of their internal desires and intentions when judging themselves combined with their acute awareness of outward behavior when judging others (9).

Interpersonal knowledge. People overestimate how much they can learn about others from brief encounters such as job interviews (10). At the same time, they think others can get only a glimpse of them from such encounters. As a result, people generally feel they know others better than others know them (11). During social interactions, people are aware most of their own internal thoughts and feelings and others' observable behavior (12). Consistent with this asymmetry, people infer that others' expressions and actions tell the essential story of who they are, even while they believe that in their own case it is their inner feelings, beliefs, and goals that tell that story (11, 13).

Pluralistic ignorance. People often misconstrue the thoughts and motives of others. In cases of "pluralistic ignorance," those misconstruals occur even though others share one's own motives and beliefs and act in the same way as oneself (14). An example, suggested at the outset of this article, occurs when an audience of people all succeed in concealing their distraction and boredom during a long lecture and they then assume that they are the only ones not interested and engaged. In another example, college students often forgo trying to make friends with students of other races (even though they would like to be friends) because they interpret those others' lack of trying as indicating lack of interest (15). Both these examples involve people judging others based on overt behavior (e.g., failing to make social overtures) but themselves based on internal states (e.g., wanting friendship but fearing rejection) (14, 15).

Miscommunications. People often fail miserably in their efforts to communicate. These communication breakdowns (whether they involve negotiating peace agreements, giving driving directions, or navigating romantic relationships) often reflect the fact that people know what they intend or mean to communicate, while others focus on what they actually say (16). For example, negotiators can fail to outwardly express their interest in cooperating, because their

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internal awareness of that interest (gained through introspection) blinds them to the fact that the other side sees only their behavior, which often lacks clear signs of that motive (17, 18).

Conformity. People are influenced by those around them (and by the mass media) in everything from fashion tastes to political views; but, they generally deny that and see themselves as alone in a crowd of sheep (19, 20). In one study, Californians mimicked the positions of their political party in deciding how to vote on a series of alleged ballot initiatives. They were blind to that influence, while observers saw it (19). This divergence arose from the voters' focusing on their thoughts, which revealed no signs of conformity, while the observers focused on the voters' behavior. Voters' thoughts obscured their conformity since it occurred indirectly, such as by altering their interpretations of the initiatives themselves (e.g., knowing that Democrats supported a labor-related initiative made it seem worker-friendly rather than corporate-friendly). More generally, a problem with looking inwards for signs of conformity is that it often occurs non-consciously. For example, people in conversation conform their gestures to one another without realizing it (21), and shoppers conform to the appeals of advertising campaigns—even when they are unaware of having seen those campaigns (22).

The foregoing discussion illustrates some consequences of the fact that people's impressions of themselves versus others are based on very different information. For self-assessments, that information is largely introspective (based on looking to internal thoughts and feelings). For others, it is largely extrospective (based on looking to external behavior).

Although these two sources of information differ, they share something in common for the person relying on them: Each involves seemingly immediate and direct data. Information about one's own internal states or about others' external appearances can generally be gleaned more directly than information about others' mental states or one's own external appearances. One way to gather this less direct information is by asking others to report their perceptions, but, as discussed next, we may have less faith in others' perceptions than our own.

I'm Objective, You're Biased

People tend to assume that information that comes to them through their perceptions directly reflects what is true in "reality" (2, 23, 24). Of course, this assumption is inaccurate. Perceptions only indirectly reflect reality; they are colored and shaped by influences ranging from the imperfections of vision to the distorting pressures of hopes and desires. For example, people assume that their perceptions of events ranging from military conflicts to basketball games objectively reflect who the victors and the villains are in those events. However, studies have shown that people's affiliations with particular political agen-

das or sports teams dramatically influence those perceptions (25, 26). Because people do not consciously experience the operation of such distorting influences (27, 28), they assume their absence (even while outside observers, focused on the people's actions, readily impute those influences).

People's lack of awareness of the processes that shape and distort their perceptions leads them to view those perceptions as objective. In one study, participants considered a male and a female candidate for a police-chief job and then assessed whether being "streetwise" or "formally educated" was more important for the job. The result was that participants favored whichever background they were told the male candidate possessed (e.g., if told he was "streetwise," they viewed that as more important). Participants were completely blind to this gender bias; indeed, the more objective they believed they had been, the more bias they actually showed (29).

Because people often do not recognize when personal biases and idiosyncratic interpretations have shaped their judgments and preferences, they often take for granted that others will share those judgments and preferences (23). When others do not, people's faith in their own objectivity often prompts them to view those others as biased. Indeed, people show a broad and pervasive tendency to see (and even exaggerate) the impact of bias on others' judgments while denying its influence on their own (23). For example, people think that others' policy opinions are biased by self-interest (30), that others' social judgments are biased by an inclination to rely on dispositional (rather than situational) explanations for behavior (31), and that others' perceptions of interpersonal conflicts are biased by their personal allegiances (32). At the same time, people are blind to each of these biases in their own judgments (30–32). Such divergent perceptions of bias are bolstered by the fact that people evaluate their own bias by introspecting about thoughts and motives but evaluate others' bias by considering external behavior (e.g., "My motive was to be fair; his actions only helped himself."). People place less emphasis on others' introspections even when those others proffer them (19, 33)—a finding that is perhaps unsurprising in light of people's skepticism about the accuracy of others' perceptions.

In the face of disagreement, beliefs in one's own objectivity and the other side's bias can produce and exacerbate conflict (23). For example, American students favor bombing terrorists after being led to view them as biased and irrational, whereas they favor negotiating with terrorists after being led to view them as objective and rational (34). People also behave more conflictually toward those whom they suspect will be biased by self-interest. Participants in one study were instructed to consider the perspective of their adversaries in a conflict over limited resources (35). That instruction had the ironic effect of leading them to expect that their adversaries would

be biased by self-interest, which, in turn, led the participants themselves to act more competitively and selfishly. Acts of competitiveness and aggression are likely to engender a vicious cycle, as the recipients of those acts are likely to view them as unwarranted by the objective situation and, therefore, as signaling their perpetrators' bias.

Origins of the Difference

People's attention to their conscious introspections has clear benefits. It allows people to simulate and therefore predict others' actions (36). It also allows people to learn from and sometimes override the action patterns that humans have evolved to display automatically (37). Even when introspections lead us astray, as when they promote inflated self-views, relying on them may be adaptive, as suggested by the finding that positive illusions are predictive of physical and mental health (3, 38).

It also may be adaptive to place less emphasis on others' introspections than on our own. We can be certain of our own introspective contents but not of others', so it is wise to treat theirs with greater skepticism. This does not mean that we do not care about others' thoughts, feelings, motives, and intentions—indeed, we likely have evolved to wonder what others' want and intend for us (39, 40). It just means that it may be safer to attend to others' actions rather than their reported mental states when the two conflict. Indeed, people seem to automatically look to others' actions as a way of inferring their "true" attitudes and dispositions (41, 42).

The self-other difference in attention to introspections versus actions also has roots in human development. Young infants overvalue their own introspections in the sense that they fail to appreciate that their hopes and wishes do not directly translate into external outcomes (43). They show a different error when it comes to others. Because they fail to appreciate that others possess desires, beliefs, and other mental states that differ from their own, they underappreciate the role of others' real internal states in guiding those others' actions (44). This appreciation develops through interaction and maturation; its failure to develop is a characteristic of autism (45). However, even adults do not fully overcome these errors, indicating that their persistence may in part be a holdover from infancy.

Self and Other in the Brain

Experiments in neuroscience have directly examined regions of human brain activity and patterns of neuronal firing that are recruited when people (and other nonhuman primates) perceive or judge themselves versus others. The results suggest a possible neuroscientific basis for the processes described here.

Most notable are experiments that have identified neural activity specifically involved when individuals perceive both themselves and others. Areas of the medial prefrontal cortex (mPFC) have been shown to activate when

people make judgments about both their own internal states (feelings and intentions) and those of others (46). Monkeys have been shown to possess mirror neurons that fire both when they perform an action and when they perceive another perform the same action (47), and it is possible (but not definitively established) that humans also possess mirror neurons (47, 48).

These data point to common brain processes uniquely involved in the perception of self and others. They suggest (albeit tentatively on the basis of current evidence) that when observing others, people automatically simulate the mental processes behind those others' actions. At a very basic level, people may satisfy their interest in knowing others' thoughts and feelings by thinking about how they themselves would think or feel were they that other person, rather than by relying on that other's introspections. This idea is consistent with behavioral experiments indicating that people infer others' mental states by first recruiting their own and then adjusting from there (49) and that, in the absence of contrary information, people project their own traits and attitudes onto others (50).

If people look to their own minds in order to simulate those of others, then why do they see themselves as objective but others as biased? One possible answer is that people show similar mPFC activation for judgments of self and others only insofar as they view those others as similar to themselves (51). This suggests a potential neural substrate for the observation that people are especially likely to perceive others as biased when those others disagree with them. People may be less inclined to project their own mental states (for example, their objectivity) onto those whose views are dissimilar. In such cases, people may instead judge others according to stereotypes or lay theories about humans "in general" (e.g., "Given the opportunity, people will be self-serving.") (52, 53).

The Self in Time

Philosophers have long debated questions of personal identity regarding whether a given person is the same person across time. Derek Parfit famously argued that people are nothing more than successions of different overlapping selves (54, 55). Regardless of whether this is the case, people often treat their past and future selves as though they are other people (56–58).



Fig. 1. In *Las Meninas*, the painter Velázquez sees himself in the image he is painting. When people recall past events involving themselves (or imagine future ones), they similarly often see themselves in the images they form. Such observer-like images are associated with having more difficulty recalling or accessing one's internal thoughts and feelings during the event.

This occurs, for example, when people spend money on present selves rather than save for future ones, or when people consign future selves to unpleasant experiences (e.g., painful surgeries) rather than undergo them in the present.

This article has described key differences in the underlying processes involved in people's perceptions of themselves versus others. In light of those differences, it makes sense that people sometimes treat past and future selves like other people. When it comes to temporally distant selves, whether at a week's distance or a decade's, people cannot introspectively access those selves' thoughts and feelings [a fact that in itself produces important errors in judgment (59)]. Indeed, studies have linked people's tendency to perceive past and future selves as others to their inattention

to the internal states of those selves (57, 58). This inattention also affects people's decision-making. In one study, people were faced with the prospect of drinking a murky mix of soy sauce, ketchup, and water for the benefit of science (the more they drank the better, the experimenter explained, because she was studying "disgust"). When deciding how much to drink right then, participants chose about two tablespoons; when deciding how much to drink at a future session, they chose about half a cup—the same amount they chose for a peer (58).

Recent neuroscientific evidence suggests that different regions of the brain are activated when people think about outcomes affecting themselves in the present versus the future (60), such that the limbic system is uniquely involved when

contemplating present rewards. This unique activation of a brain system strongly linked to emotional experience supports the notion that people are more attuned to internal feelings and concerns in the case of present than future selves (60).

People's perceptions of past and future selves resemble their perceptions of others not only in terms of their decreased attention to internal states but also in terms of their increased focus on outward behavior. For example, when people visualize their past and future experiences (as opposed to present ones), the images they form often take the perspective of an external observer (Fig. 1), such that they see their behavior in the image (57). Those images are especially common when people feel that they have changed since the past and used to be a "different person" (61). They also are especially common in the case of memories characterized by low recall of internal states such as emotions, thoughts, and physical sensations (57, 61–63).

The presence of differences in how people perceive present versus future selves shows that people do not perceive all of their own "selves" the same. This raises a related question: Do people perceive all "others" the same—or, do they use different information when thinking about friends, relatives, strangers, and enemies? Although this question is not fully settled, studies have revealed some differences, generally suggesting that close others are perceived in more "self-like" ways than more distant others (53, 56, 64). The foregoing review suggests that this generalization is likely to be particularly true to the extent that people have greater access to and appreciation for close others' internal thoughts, feelings, and intentions, and to the extent that people who are close to each other see the world in similar ways.

Conclusions

It is almost axiomatic that as long as people are in a position to perceive themselves and to perceive others, differences in those perceptions will exist and will engender disagreement, misunderstanding, and conflict. When people judge themselves based on their good intentions but others based on their less-good behavior (or based on cynical assumptions about human nature), they are likely to feel resentful and disappointed over others' failure to meet them halfway. When people view their own perceptions and beliefs as objective reflections of reality but others' as distorted by bias, they are likely to feel frustrated and angry over others' unwillingness to be fair and reasonable. And, such feelings are likely to breed aggression and conflict.

This picture may sound dismal, but there is hope. Misunderstandings can be averted by those aware of the psychological processes involved in

self and social perception. Those individuals can be mindful that it is not only their own behavior that is sensitive to the constraints of the situation, but others' as well. Perhaps this could prompt them to show more charity when others fail to meet expectations. Those individuals also can recognize that others' mistakes and errors may not be the result of conscious malice but rather of unintended influences that those others would themselves decry. And, those individuals might remind themselves that there often is a wide gulf between intention and action, but that it is only reasonable and fair to apply the same standard of judgment to others as to oneself. Following these guidelines would not just be socially charitable—it would also be scientifically informed.

References and Notes

1. The term "perceive" is used throughout to connote processing and interpreting information via the senses or mind.
2. E. E. Jones, R. E. Nisbett, in *Attribution: Perceiving the Causes of Behavior*, E. E. Jones et al., Eds. (General Learning, Morristown, NJ, 1972), pp. 79–94.
3. S. E. Taylor, J. D. Brown, *Psychol. Bull.* **103**, 193 (1988).
4. N. D. Weinstein, *J. Pers. Soc. Psychol.* **39**, 806 (1980).
5. N. Epley, D. Dunning, *J. Pers. Soc. Psychol.* **79**, 861 (2000).
6. R. Buehler, D. Griffin, M. Ross, *J. Pers. Soc. Psychol.* **67**, 366 (1994).
7. D. A. Kenny, L. Albright, *Psychol. Bull.* **102**, 390 (1987).
8. T. E. Malloy, L. Albright, S. Scarpati, *Int. J. Behav. Dev.* **31**, 603 (2007).
9. J. Kruger, T. Gilovich, *Pers. Soc. Psychol. Bull.* **30**, 328 (2004).
10. L. Ross, R. E. Nisbett, *The Person and the Situation* (McGraw-Hill, New York, 1991).
11. E. Pronin, J. Kruger, K. Savitsky, L. Ross, *J. Pers. Soc. Psychol.* **81**, 639 (2001).
12. B. F. Malle, in *The New Unconscious*, R. R. Hassin, J. S. Uleman, J. A. Bargh, Eds. (Oxford Univ. Press, New York, 2005), pp. 225–255.
13. S. M. Andersen, L. Ross, *J. Pers. Soc. Psychol.* **46**, 280 (1984).
14. D. A. Prentice, D. T. Miller, *Adv. Exp. Soc. Psychol.* **28**, 161 (1996).
15. J. N. Shelton, J. A. Richeson, *J. Pers. Soc. Psychol.* **88**, 91 (2005).
16. B. Keysar, A. S. Henly, *Psychol. Sci.* **13**, 207 (2002).
17. J. D. Vorauer, S. D. Claude, *Pers. Soc. Psychol. Bull.* **24**, 371 (1998).
18. L. Van Boven, T. Gilovich, V. H. Medvec, *Negot. J.* **19**, 117 (2003).
19. E. Pronin, J. Berger, S. Molouki, *J. Pers. Soc. Psychol.* **92**, 585 (2007).
20. K. M. Douglas, R. M. Sutton, *Br. J. Soc. Psychol.* **43**, 585 (2004).
21. T. L. Chartrand, J. A. Bargh, *J. Pers. Soc. Psychol.* **76**, 893 (1999).
22. X. Fang, S. Singh, R. Ahluwalia, *J. Consum. Res.* **34**, 97 (2007).
23. E. Pronin, T. Gilovich, L. Ross, *Psychol. Rev.* **111**, 781 (2004).
24. G. Ichheiser, *Am. J. Sociol.* **55**, Suppl. (1949).
25. R. P. Vallone, L. Ross, M. R. Lepper, *J. Pers. Soc. Psychol.* **49**, 577 (1985).
26. A. H. Hastorf, H. Cantril, *J. Abnorm. Soc. Psychol.* **49**, 129 (1954).
27. T. D. Wilson, D. B. Centerbar, N. Brekke, in *Heuristics and Biases: The Psychology of Intuitive Judgment*, T. Gilovich, D. Griffin, D. Kahneman, Eds. (Cambridge Univ. Press, New York, 2002), pp. 185–200.
28. J. A. Bargh, E. L. Williams, *Curr. Dir. Psychol. Sci.* **15**, 1 (2006).
29. E. Uhlmann, G. L. Cohen, *Psychol. Sci.* **16**, 474 (2005).
30. D. T. Miller, R. K. Ratner, *J. Pers. Soc. Psychol.* **74**, 53 (1998).
31. L. Van Boven, K. White, A. Kamada, T. Gilovich, *J. Pers. Soc. Psychol.* **85**, 249 (2003).
32. C. M. Frantz, *Basic Appl. Soc. Psych.* **28**, 157 (2006).
33. E. Pronin, M. B. Kugler, *J. Exp. Soc. Psychol.* **43**, 565 (2007).
34. E. Pronin, K. Kennedy, S. Butsch, *Basic Appl. Soc. Psych.* **28**, 385 (2006).
35. N. Epley, E. Caruso, M. H. Bazerman, *J. Pers. Soc. Psychol.* **91**, 872 (2006).
36. R. Leakey, R. Lewin, *Origins Reconsidered: In Search of What Makes Us Human* (Doubleday, New York, 1992).
37. J. A. Bargh, E. Morsella, *Perspect. Psychol. Sci.* **3**, 73 (2008).
38. S. E. Taylor et al., *J. Pers. Soc. Psychol.* **85**, 605 (2003).
39. R. Dawkins, *The Selfish Gene* (Oxford Univ. Press, New York, 1976).
40. S. Pinker, *How the Mind Works* (Norton, New York, 1997).
41. D. T. Gilbert, P. S. Malone, *Psychol. Bull.* **117**, 21 (1995).
42. A. Dodorov, J. S. Uleman, *J. Pers. Soc. Psychol.* **87**, 482 (2004).
43. J. P. Piaget, *The Child's Conception of the World* (Routledge and Kegan Paul, London, 1929).
44. H. Wellman, in *Blackwell Handbooks of Developmental Psychology*, U. Goswami, Ed. (Blackwell, Malden, MA, 2002), pp. 167–187.
45. S. Baron-Cohen, A. M. Leslie, U. Frith, *Cognition* **21**, 37 (1985).
46. K. N. Ochsner et al., *J. Cogn. Neurosci.* **16**, 1746 (2004).
47. G. Rizzolatti, L. Craighero, *Annu. Rev. Neurosci.* **27**, 169 (2004).
48. I. Dinstein, C. Thomas, M. Behrmann, D. J. Heeger, *Curr. Biol.* **18**, R13 (2008).
49. N. Epley, B. Keysar, L. Van Boven, T. Gilovich, *J. Pers. Soc. Psychol.* **87**, 327 (2004).
50. J. M. Robbins, J. I. Krueger, *Pers. Soc. Psychol. Rev.* **9**, 32 (2005).
51. J. P. Mitchell, M. R. Banaji, C. N. Macrae, *J. Cogn. Neurosci.* **17**, 1306 (2005).
52. R. Saxe, *Trends Cogn. Sci.* **9**, 174 (2005).
53. D. R. Ames, *J. Pers. Soc. Psychol.* **87**, 340 (2004).
54. D. Parfit, *Philos. Rev.* **80**, 3 (1971).
55. S. Frederick, in *Time and Decision*, G. Loewenstein, D. Reed, R. Baumeister, Eds. (Russell Sage, New York, 2003), pp. 89–113.
56. N. Liberman, Y. Trope, E. Stephan, in *Social Psychology: Handbook of Basic Principles*, A. W. Kruglanski, E. T. Higgins, Eds. (Guilford, New York, 2007), pp. 353–384.
57. E. Pronin, L. Ross, *J. Pers. Soc. Psychol.* **90**, 197 (2006).
58. E. Pronin, C. Y. Olivola, K. A. Kennedy, *Pers. Soc. Psychol. Bull.* **34**, 224 (2008).
59. D. T. Gilbert, T. D. Wilson, *Science* **317**, 1351 (2007).
60. S. M. McClure, D. I. Laibson, G. Loewenstein, J. D. Cohen, *Science* **306**, 503 (2004).
61. L. K. Libby, R. P. Eibach, *J. Pers. Soc. Psychol.* **82**, 167 (2002).
62. G. Nigro, U. Neisser, *Cognit. Psychol.* **15**, 467 (1983).
63. H. K. McIsaac, E. Eich, *Psychol. Sci.* **15**, 248 (2004).
64. D. A. Prentice, *J. Pers. Soc. Psychol.* **59**, 369 (1990).
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