

Let us waste no more time quarrelling over the diagnosis. Krueger & Funder (K&F) are right. Social psychology and related fields have oversold violations of behavioural and cognitive norms. This state of affairs was foreseeable, and not only with the benefit of hindsight. For instance, back in 1982, Kahneman and Tversky explicitly acknowledged that “although errors of judgment are but a method by which some cognitive processes are studied, the method has become a significant part of the message” (1982, p. 124). Since then, the method has become the most significant part of the message.

It is thus high time the message that human reasoning is “ludicrous,” “indefensible,” and “self-defeating” be counterbalanced. But balance is not the only reason to rethink social psychology’s research agenda. Even more important, as K&F point out, is the fact that the hunt for behavioural and cognitive flaws has led us to a cul-de-sac. Discovering another bias, error, violation, or illusion is a much less original, let alone theoretically fruitful, contribution today than it was 20 or 30 years ago. K&F list a number of promising routes out of the dead end – we add some related ones.

Let us at last pay more than lip service to a key premise of the heuristics and biases program that Tversky and Kahneman (1973) articulated in their original framing of the availability heuristic:

Availability is an *ecologically valid* clue for the judgment of frequency because, in general, frequent events are easier to recall or imagine than infrequent ones. (p. 209, our emphasis)

Assuming availability is ecologically rational (rather than irrational), how the heuristic reflects the structure of the environment should have been explored, but it was not. Instead, since the heuristic was proposed 30 years ago, countless papers have implicated it in countless biases – illusory correlations, unwarranted optimism, eyewitness identification errors, discriminatory biases, and hindsight bias, to name just a few. To the best of our knowledge, however, not a single paper has fleshed out how the availability heuristic may exploit ecological texture to estimate event frequencies, although this kind of analysis is precisely what is needed to predict the conditions under which it succeeds – and fails. The research program on fast and frugal heuristics demonstrates how the mapping between heuristics and environmental texture can be analysed (Gigerenzer et al. 1999). There is no reason why the heuristics to which many biases have been attributed cannot be subjected to such analysis, even if it requires more clarity about the underlying processes.

There is another, related route to change. This is to examine the long list of cognitive biases by asking the following three questions about each one.

**Is the bias really a bias?** There are several reasons why a cognitive phenomenon might have to be taken off the list of biases. Take the conjunction fallacy as an example. Virtually no one doubts that Tversky and Kahneman’s (1983) Stanford undergraduates violated the conjunction rule when they judged Linda to be more likely a feminist *and* bank teller than only a bank teller. But does that mean that their students committed the conjunction fallacy? No. Semantic and pragmatic ambiguity led many of them not to reason according to the conjunction rule. In particular, the students had to infer what the experimenters meant by semantically and pragmatically ambiguous words such as *probability* and *and*. In doing so, they may have arrived at legitimate meanings that differ from mathematical probability (Hertwig & Gigerenzer 1999) and logical AND (for different views on this issue, see Mellers et al. 2001). It is ironic that while many psychologists continue to interpret the outcome of semantic and pragmatic inferences as evidence of biased reasoning, others struggle to design artificial agents capable of inferring, for instance, which of multiple meanings of a polysemous word is appropriate in a given context. To them, designing systems that can “process language as skillfully as we do will signal the arrival of truly intelligent machines” (Jurafsky & Martin 2000, p. 6).

**Is the “bias” a design flaw or a built-in adaptation?** Several researchers have recently argued that biases in (social) judgments

may be design features rather than design flaws of the human mind (e.g., Haselton & Buss 2003; Nettle 2004). Take, for example, Bjorklund’s (1997) argument regarding children’s overconfidence in their competence. Children appear to misjudge their abilities on a broad range of cognitive tasks. How might such systematic miscalibration be adaptive? Bjorklund proposed that overrating one’s ability has motivational benefits at a point in development at which one’s behavioural and cognitive repertoires are extremely limited, and each novel task could be daunting. If children in this situation “rationally” assessed the difficulty of a task and their task-related skills, trying their hand only if they appeared to have the requisite skills, then they would never explore many novel tasks and territories. In fact, by avoiding tasks likely to overtax their skills, children would miss out on important opportunities to learn new things.

**Is the “bias” a cheap price to pay for an adaptive mechanism?**

Even if a bias is not an adaptive feature, it may be a by-product of an adaptive mechanism. Take the hindsight bias as an example: Many researchers have stressed its detrimental consequences (e.g., Fischhoff 1982). In a recent model of the processes underlying the hindsight bias, Hoffrage et al. (2000) suggested that the hindsight bias is a by-product of a memory system that updates information constantly and automatically. Specifically, the model assumes that new information regarding the outcome of an event leads to an updating of the knowledge (cues) on which people’s original evaluation of the event was based. When people attempt to reconstruct their original judgment, they access the updated knowledge base, opening the door to hindsight bias.

Knowledge updating is adaptive in that it prevents us from using information that, because of changes in the environment, may be outdated. It has a by-product – the hindsight bias. The bias, however, may be a relatively low price to pay for keeping the knowledge in our limited memory up-to-date. Consistent with this view, Hertwig et al. (2003) found that although updating can result in erroneous memories of past judgments (i.e., the hindsight bias), it increases the accuracy of future inferences.

Admittedly, claims about the adaptive nature of either biases or the processes that result in biases need to be carefully scrutinized. But they serve to emphasize that the design features of the human mind, like those of the human body, reflect trade-offs between benefits and costs. It is high time that we accept this simple truth about human cognition, and at last try to understand these trade-offs, rather than dubbing them biases and calling it a day.

## Asch and the balance of values

Bert H. Hodges

Department of Psychology, Gordon College, Wenham, MA 01984.  
hodges@gordon.edu

**Abstract:** Values will be central to developing a more balanced social psychology. A nonconformist account of Asch’s (1956) experiments is used to illustrate the role of multiple values and to support and extend Krueger & Funder’s (K&F’s) claims. A balance of values, one that goes beyond accuracy and truth, and that avoids absolutism and relativism, is needed.

Krueger & Funder’s (K&F’s) call for a more balanced social psychology is a challenge to be welcomed. My comments, intended to support and sharpen their claims, will focus on values, which they suggest will require renewed attention if balance is to be achieved (sect. 5). First, a “nonconformist” account of Asch’s (1956) studies will be offered to illustrate K&F’s criticisms and recommendations. Second, some difficulties for addressing values will be briefly noted.

Contra K&F (sect. 2.2.2), Asch designed his experiment precisely to counter the view that people are “sheep” (Cialdini & Trost 1998). He thought that if there was unambiguous physical information available, people should and would say what they saw with-

out respect to what others said. Ceraso et al. (1990) have reported that social psychologists of the time were shocked by “early returns” from Asch’s studies showing that people “stick to their guns” (p. 8). Even Asch’s (1956) final results provide more compelling evidence for truth-telling than for conformity. If Milgram’s (1974) basic study had been described like Asch’s has been, the focus would be entirely on the 35% of participants who refused to continue. Why do we emphasize the minority responses in Asch and the majority responses in Milgram? K&F’s complaint of pervasive negativity is an excellent candidate.

A crucial reason for the story having unfolded the way it has is that Asch adopted a zero-tolerance norm (sect. 2.2.1). Asch (1952) thought he had created a simple moral dilemma between *truth* and *consensus*, in which truth was good and consensus was not. To agree with the unanimous majority on even a single trial was to have erred. But perhaps Asch’s imputation of error was rash (sect. 3.1). Campbell (1990) argued that consensus is a good (he calls it *trust*), and that it should be integrated with other values (e.g., truth) to guide behavior in the Asch situation. He proposed that it would be most rational to believe that the majority is correct, but that the most moral action would be to offer one’s dissenting view.

Hodges and Geyer (submitted) have suggested that Asch’s analysis is simplistic and Campbell’s is unrealistic. Interpreting the Asch situation in terms of values and conversational pragmatics, they ask: How does one speak the truth in a complex, tense, and frustrating situation? How does one answer the experimenter’s questions in a way that simultaneously honors one’s peers, the experimenter, one’s own perception, and the situation in which all are embedded? Although any one trial prevents a resolution, over 12 critical trials, the actors in the Asch situation can try to balance as best they can their differing obligations. This means that they might occasionally give an incorrect answer, not because they are gullible, cowardly, or incompetent, but as an implicit signal that they have “heard” the majority and that they are open to further conversation despite the sharpness of the disagreement. By engaging in a local error, actors may be communicating a larger truth about the tension of their multiple obligations and their frustration in realizing all of them.

If this analysis is correct, then there is an irony in Asch’s work, which, like the paradox of the fundamental attribution error (FAE; sect. 3.1.3.1), deserves to be “savored like a fine Merlot.” It is this: Asch could see that his own deception – the design of the experiment – was part of a larger quest for truth, yet he would not accord his participants the same latitude.

Whatever the merits of the foregoing hypothesis, it illustrates K&F’s call for more positive, balanced approaches (sect. 4) to social cognition and action, and for considering whether the norms by which behavior are judged are “incomplete, wrong, or misapplied” (sect. 3.1.2). Furthermore, it attempts to attend to the whole range of behavior (sect. 4). Most explanations of Asch’s experiments are so fixated on explaining “conformity” that they overlook Asch’s two main results: the preponderance of dissenting responses and the enormous range of responses. Hodges and Geyer (submitted) hypothesized that there might be three different strategies for integrating truth, consensus, and other values, suggesting that together these differing strategies would provide for group survival better than any one strategy alone. Their hypothesis illustrates K&F’s suggestion that “multiple norms may need to be considered” (sect. 3.1.2). As Funder puts it elsewhere: Situations are complex, generating multiple motivations, such that “life is a continuous struggle to balance them all and find some kind of workable compromise” (Funder 2001b, p. 23).

Moving toward a more balanced social psychology that understands behavior as guided by multiple values will be difficult. Asch (1990) noted that a “central” theme of his research had been “that there is an inescapable moral dimension to human existence. . . . Yet psychologists have been among the most determined opponents of this claim” (p. 53). Thus, the open discussion of values K&F call for (sect. 5) will not come easily.

K&F briefly acknowledge the difficulty in their reference to the

debates that have emerged about decision-making norms (sect. 3.1.2). Finding the balance they call for (sect. 4.3.2) will require negotiating some middle way between the enlightenment rationalism that tempted Asch (Leyens & Corneille 1999), and the subjective relativism that tempts them (i.e., participants’ own goals define what is right; sect. 3.1.2). If values are simple and obvious, no discussion is needed; if they are merely what individual psychologists “consider desirable” (sect. 5), no discussion is possible. Discussions, as Asch realized, require real constraints and real obligations. In fact, his purpose in doing the experiments was to demonstrate that clear physical constraints and real moral obligations make rational behavior possible.

What obligations – which K&F refer to in Lewinian terms as “force fields” (sect. 4.3.2) – frame social relations and provide the basis for judging our actions and decisions (Hodges & Baron 1992; Sampson 2003)? Asch thought truth was our primary obligation. K&F emphasize accuracy. Truth and accuracy are crucial to human survival, but there is more that needs to be included if we are to flourish. For a start, there is compassion (sect. 5).

## The goodness of judgment index

Lee Jussim

Department of Psychology, Rutgers University, Piscataway, NJ 08544.  
jussim@rci.rutgers.edu <http://www.rci.rutgers.edu/~jussim/>

**Abstract:** Evidence is presented indicating that mainstream social psychology material leads undergraduates to conclude that people are irrational. To help address the problems identified by Krueger & Funder (K&F), a new statistic, the Goodness of Judgment Index (GJI), is presented. A concrete example based on a recent study is used to show how the GJI can be used to bring some balance back to research emphasizing error and bias.

Krueger & Funder (K&F) are right in almost every one of their particulars. People raise decent families, create wonderful works of art, invent computers and cell phones, hold warm and enjoyable gatherings among friends, figure out how to regularly travel at over 600 miles per hour, teach their children how to walk, talk, and ride bikes, create vast universities for educating young adults, and so forth. How could all this possibly occur if people did little more than engage in one immoral behavior after another, and when not subordinating, torturing, or murdering one another, went about making the dumbest decisions imaginable?

I realize that no social psychologist has ever written anything quite as starkly damning as the prior sentence, but much of the body of work of social psychology leads to an impression consistent with that stark, dark, prior sentence. I recently taught an honors introductory social psychology class – these are among the most intelligent and thoughtful students in psychology. Their readings prior to the midterm included: Myers’s (1996) introductory social psychology text’s chapter on the self, Aronson’s (1999b) *Social Animal* chapter on self-justification, Merton’s (1948) classic article on self-fulfilling prophecies, La Pierre’s (1934) “attitudes do not predict behavior” study, and two chapters each from Cialdini’s (1993) book on social influence, and Ross and Nisbett’s (1991) book on the person and the situation. These are well-respected and mainstream social psychological writings.

One midterm essay question was, “According to social psychological research, are people mostly rational or mostly irrational?” Three quarters of my students concluded that social psychology demonstrated that people were mostly irrational. See the following examples.

First student, introductory sentence: “Through taking this class, I have come to the conclusion that people are, and have always been, primarily irrational.”

Second student, introductory sentence: “People are not rational beings; rather they are rationalizing beings.”