

focus too much on what people do wrong, rather than on what they do right. Although one could point out, that in making their charge, K&F *themselves* focus too much on what is wrong with the field rather than what is right with it – a paradox one could presumably “savor . . . like a fine Merlot” (sect. 3.1.3.1, para. 4) – the fact remains that the authors are onto something. However, their accusations are overstated, and their conclusions, incorrect.

A biased critique of bias research. The field is far less “problem-seeking” than the authors suggest. A quick glance at any contemporary social psychology textbook or journal will reveal that there is a substantial amount of research with a decidedly positive (or, at the very least, neutral) spin. True, literature searches for the terms “error” and “bias” yield more hits than the terms “strength” and “virtue” (target article, Note 7), but the term “accuracy” yields more hits than any of those words.¹

Even work within the heuristics-and-biases tradition is considerably less negative in its conclusions than the authors claim. Rather than succumbing to the habit, common among pre-1896 vision researchers, of interpreting illusions as products of “flawed psychological processes that need to be fixed” (sect. 1, para. 5), researchers in this tradition have instead argued that judgmental shortcomings stem from generally valid and adaptive tools (Nisbett & Ross 1980; Tversky & Kahneman 1974). In fact, the very optical illusion metaphor advocated by the authors has been proposed before – by precisely the researchers the authors accuse of failing to grasp it: “Just as we are subject to perceptual illusions in spite of, and largely because of, our extraordinary perceptual capacities, so too are many of our cognitive shortcomings closely related to, or even an unavoidable cost of, our greatest strengths” (Gilovich 1991, p. 2; see also Nisbett & Ross 1980, p. 14).

Real versus imagined consequences. Even if the field were every bit as problem-focused as the authors suggest, note that social psychology is not only a descriptive, theoretical discipline, but an applied one, as well. As such, the goal is not merely to advance understanding of people, but to help them. And it is what people get wrong, not what they get right, that has the greatest potential practical use for society. In short, K&F are correct to draw an analogy between social psychology and biomedical research (sect. 1, para. 6), because in both fields it is the understanding of when and why problems occur – and thus, how to avoid them – that is of paramount importance.

Why, then, do the authors object to problem-focused research? First, they object on the grounds that it “yields a cynical outlook on human nature” (sect. 1, para. 3). Whether true or not, we wish to point out that whether a finding is flattering or unflattering is hardly a criterion of science.

Second, the authors argue that by focusing on human shortcomings, social psychologists stunt the development of theory. We are curious about the data on which the authors base their claim. Surely, it is not the actual amount of research and theory development engendered by problem-focused research, which is considerable. True, if it were the case that “the typical article shows that people can be induced to do something objectionable or think in a way they should not” and “stops there, short of asking *why* such a behavioral or cognitive tendency exists, or what general purpose it might serve” (sect. 1, para. 4), then we might share the authors’ concern. But this is hardly the case. Indeed, the theoretical paper cited in the pages of the *Journal of Personality and Social Psychology (JPSP)*, more than any other (according to a recent meta-analysis by Vidal et al. 2003), asks precisely this question (Taylor & Brown 1988), a fact of which the authors are presumably aware, given that one of them is a well-known critic of this work (Colvin et al. 1995). It is paradoxical, given the authors’ thesis, that, whereas Taylor and Brown emphasized the positive implications of judgmental errors, Funder and colleagues emphasized the negative implications.

Finally, the authors criticize problem-focused research for touting “contradictory biases,” as if doing so is a logical fallacy (such as Kruger & Dunning’s [1999] argument that the unskilled overestimate themselves, whereas the highly skilled underestimate them-

selves). This is perhaps the most suspect charge of all. Most coins, after all, have two sides. Some people work too much, others too little. Some people are optimists, whereas others are pessimists. And, yes, some people overestimate themselves, whereas others underestimate themselves. The existence of one tendency does not, as the authors suggest, imply the lack of existence of the other. What is particularly curious about the charge is the fact that so-called contradictory biases typically lead to the investigation of moderating variable(s) and underlying processes that explain them (e.g., Blanton et al. 2001; Epley et al. 2002; Klar & Giladi 1997; Kruger 1999) – precisely the sort of theory development the authors claim is lacking.

Final thoughts. Although we have been critical of the target article, we wish to emphasize that we agree with the authors on several points. There probably is a negative research emphasis in social psychology, and we agree that merely cataloging errors with little consideration of how they fit within a broader context would be problematic. That said, we cannot help but wonder what the field would look like if social psychologists actually took the authors’ advice. No longer would the field focus on norm violations or counterintuitive findings. No longer would we fear “bubba psychology” and “golden fleece” awards - instead, we would embrace them. We are reminded of the frequent charge that the news media focuses too much on what’s wrong with the world instead of what’s right with it, which begs the question, would you really want to read a report titled “*This just in . . . everything’s super!*”? We invite readers to ask the same question of social psychology.

NOTE

1. According to a PsycINFO abstract field search, July 3, 2003.

Accuracy and error: Constraints on process models in social psychology

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Abstract: In light of an historical obsession with human error, Krueger & Funder (K&F) suggest that social psychologists should emphasize the strengths of social perception. In our view, however, absolute levels of accuracy (or error) in any given experiment are less important than underlying processes. We discuss the use of the process-dissociation procedure for gaining insight into the mechanisms underlying accuracy and error.

In February of 1999, four New York police officers ordered West African immigrant Amidou Diallo to freeze in a darkened alcove. Shortly thereafter, the police officers shot and killed Diallo, believing that he had waved a gun at them. They were mistaken. The object that Diallo held up was not a gun at all, but rather, his wallet. Most people, including Krueger & Funder (K&F), would certainly agree that human beings are capable of making egregious errors – such as those that occurred in the Diallo case – and that it is important for psychologists to study them when they occur. Nevertheless, K&F believe that social psychologists have overemphasized the degree to which people are inaccurate. Should we support their plea to develop research paradigms that are better able to permit the investigation of accuracy?

On the importance of studying accuracy and error. We do not believe that one should be forced to choose between investigating errors or investigating accurate judgments. Rather, we are interested in the processes underlying the two types of judgment, which requires that one should study errors in combination with correct responses. Consider an example that is much more mundane than the Diallo case. Two students take a multiple-choice test with instructions to not respond to a question unless they are sure that they know the correct answer. One student produces more

correct responses, but also produces more erroneous responses than the other student does, simply by virtue of responding to more items. Which student knows most about the studied material? To answer that question, one cannot look only at errors, or only at accurate responses. Rather, accurate responses and errors must be *jointly* considered to separate the contribution of knowledge from that of bias, willingness to guess, and, perhaps, a preference for some particular alternative (e.g., alternative “C” on a multiple choice) when guessing. Similarly, we have combined correct responses and errors to estimate the contributions of accurate perception and bias. One “bias” that has been of interest to us is a bias toward racial stereotypes.

In one representative paradigm (Payne 2001; see also Lambert et al. 2003), an image either of a gun or of a small hand-tool is presented, and participants are asked to correctly identify the object by pressing the corresponding key (marked GUN or TOOL). In this paradigm – and unlike many social perception experiments – there is an objective criterion for accuracy. Just before the target object appears on the screen, participants are randomly “primed” with a picture of either a Black or a White face. We find that participants are biased to make stereotype-consistent errors. For example, they are more likely to mistake a wrench for a gun when primed with a Black face, as opposed to a White face.

An important element of this paradigm is that it allows use of Jacoby’s (1991) process-dissociation procedure to estimate the relative roles of cognitive control and automaticity in driving behavior. Cognitive control in this paradigm corresponds to participants’ ability to respond to the veridical properties of the target, ignoring information from the nonpredictive racial cues. The other parameter, accessibility bias, is relevant to how participants respond in the *absence* of cognitive control. It is here that automatic reactions come into play, determining whether the *gun* response is likely to be chosen differentially, dependent upon racial cues, when participants are unable to fully control their responses (Payne et al., in press).

In this, as well as other, paradigms it is virtually meaningless to ask whether people are accurate or not. Indeed, we have found that overall accuracy rates can be varied greatly by simply changing the parameters of the task (e.g., giving participants less time to respond). Of greater importance, analyzing the *pattern* of accuracy and errors permits us to address process-level questions. For example, Lambert et al. (2003) used process dissociation in order to shed light on a decades-long debate as to why people show greater reliance on well-learned responses in public settings, otherwise known as a social facilitation effect (Zajonc 1965). Rather than being the result of strengthening of bias (Hull 1943), such effects were caused by a loss of cognitive control.

Whereas the absolute levels of accuracy may change from person to person or from context to context, the basic processes are likely to remain the same, varying only in magnitude. K&F advocate a Bayesian approach as a way of accounting for both accuracy and bias. However, this is a rather descriptive approach, much like the null hypothesis testing it is meant to replace. Process dissociation is one kind of model aimed at quantifying the mental processes at work behind observable outcomes. Other process models, such as signal detection theory, multinomial models, and connectionist models, have recently made entries into the social psychological literature as well. The advantage of process models is that once the basic processes are understood, one can predict and interpret both accuracy and bias naturally from the same underlying framework.

Conclusion. K&F’s article is important and timely, and we are largely, although not entirely, in agreement with their main points. K&F charge that social psychologists have devised clever paradigms that paint people as inappropriately foolish. Should social psychologists endeavor to “balance the score” by devising clever paradigms to show higher levels of absolute accuracy? We are not sure that this represents a productive line of inquiry. Social psychologists should not have to choose between emphasizing accuracy *or* errors. The important question is not whether humans

should be portrayed as noble or foolish. Instead, we might do better to focus on models of the processes driving human judgment, and let the portraits emerge as they will.

People actually are about as bad as social psychologists say, or worse

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Abstract: Experimental studies are not representative of how badly people function. We study people under relatively innocuous conditions, where their self-interests are very low. In the real world, where people’s self-interests are much higher, people are much worse a good deal of the time (some illustrations are cited). This is often “adaptive” for the perpetrators, but that doesn’t make it “good” behavior. That people function so badly in our experiments, where self-interest is relatively minimal, is what is really terrifying.

The overall thrust of Krueger & Funder’s (K&F’s) article is really “are people as bad, morally and cognitively, as social psychologists say or imply?” They want to say no, the present literature is unbalanced. I agree with many of K&F’s analyses of the extant social psychological data; their calls for greater balance and completeness seem well justified. But in some major ways, they are wrong. First, the experiments are unrepresentative, in a way not considered by K&F: In these experiments, very little self-interest is actually at stake for the subjects; in the real world, much more is typically at stake. Consider the subjects in the famous Asch or Milgram experiments (cf. Asch 1956; Milgram 1963; 1974). They won’t have to continue to live with the other people in the experiment afterwards. They won’t receive promotions, demotions, or firings from them; they won’t be accused of heresy or treason or witchcraft by them; they aren’t friends they could lose; they won’t be cast out to starve. What is so shocking about the Asch and Milgram experiments is that there was so much conformity and cruelty, *given how little the subjects had at stake*.

In real life, people have real self-interest and real passions at stake. The results are quite often horrible. I will only cite a few historical and current examples of the multitude available. None of these concern terrible behavior in wars or massacres, or the Holocaust, which might be (wrongly) written off as “exceptions.”

My first example is polygamy: As soon as there were surplus agricultural resources, men in most societies took up hoarding women for themselves, perhaps two or three or four, or more (e.g., harems) if they could. This women-hoarding is “adaptive” for the favored men, but is hard on other men, who then lack mates; it often has made more miserable lives for the women. It is ordinary unkindness.

Also ordinary is the horrible behavior that has been used to control women. Take, for example, the practice of footbinding in China which consisted of crushing, for years, the feet of young girls to keep them small, and unable to sustain walking. X-rays of the feet are horrifying. The practice started with Chinese emperors who wanted to control their harems, but soon spread to prosperous men with multiple wives; it continued to spread throughout society as a requirement for upwardly mobile marriage. By the early twentieth century, in some large areas, *half* the girls were footbound. Everyone accepted the results as “attractive,” and mothers argued it was also *healthy* for the girls (it isn’t). Another example is the practice of clitorrectomy. In modern Africa, millions of girls are clitorrectomized to control them sexually; their mothers claim that it is healthy (it isn’t). And, of course, killing unfaithful wives has been commonly accepted everywhere.

Slavery lasted for centuries in ancient Greece, with very few moral objections from those who benefited; the Church did not declare slavery immoral. Conditions were often horrible; in the