

& Cacioppo 1984), when students read about a proposed policy that did not affect them personally, they were influenced by the mere number of arguments presented but not by the quality of the arguments. Reliance on a numerosity heuristic led to maladaptive evaluations when the arguments were weak – the more weak arguments there were, the more the students favored the proposal. However, when the same proposal was characterized as impacting the students directly (i.e., of high personal relevance), the process of evaluation changed. Now, increasing the number of arguments was effective only when the arguments were strong. When the arguments were weak, presenting more arguments led to less favorable evaluations – a more rational reaction. Numerous situational and individual difference variables have been shown to moderate the extent of information processing activity in this manner (Petty & Wegener 1998).

These multi-process models (e.g., ELM, HSM, MODE, etc.) were recently compiled in one volume by Chaiken and Trope (1999), but *none* of these more “balanced” approaches is mentioned by K&F. These models are of interest because they can account for seeming paradoxes in the literature. As one example, K&F note that some researchers have demonstrated that judgments can be flawed when people rely too much on individuating information at the expense of useful category information, whereas other researchers have shown that people can be overly reliant on category information. The multi-process models provide an integration of these perspectives by identifying conditions under which people rely on each type of information (e.g., see Fiske et al. 1999).

In sum, K&F have presented an accurate, but incomplete, snapshot of work in social psychology. To be sure, there are numerous studies that point to humans as fallible – especially within the heuristics and biases tradition. But there are other longstanding literatures in the field that present a more complex picture of human thought and action. Consideration of these areas will lead to a more balanced view of the current state of social psychology.

NOTE

1. It is important to note that just because a judgment is thoughtful, it does not mean that it is rational or accurate. Just as mental shortcuts can provide adaptive responses in some situations, so too can thoughtful decisions be tainted with bias.

Social psychological research isn't negative, and its message fosters compassion, not cynicism

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Abstract: Krueger & Funder (K&F) correctly identify work on conformity, obedience, bystander (non)intervention, and social cognition as among social psychology's most memorable contributions, but they incorrectly portray that work as stemming from a “negative research orientation.” Instead, the work they cite stimulates compassion for the human actor by revealing the enormous complexity involved in deciding what to think and do in difficult, uncertain situations.

We do not recognize current social psychology in Krueger & Funder's (K&F) indictment. For many years we have taught a “mainstream” introductory social psychology course, and we cover the topics to which K&F devote most of their energies. We begin the course with work on social facilitation, which asks the most basic of all “social” questions: What effect does the presence of others have on behavior? We then move on to social comparison, which addresses the impact of others' opinions, abilities, and emotions, on self-assessments. We also discuss persuasion, compliance, interpersonal attraction, altruism and prosocial behavior, prejudice and racism – the usual list. Although the content of a few of these

topics might be considered “negative” (particularly, prejudice), most are not.

We also teach the “big three” on K&F's list of “disproportionately negative” behavioral topics, but even these are “negative” only in the narrow sense that the behavior of some participants would be criticized by naïve observers. Some people conform in the Asch situation (Asch 1956), and obey orders in Milgram's paradigm (Milgram 1963). At first, this seems very surprising; we agree with K&F that part of the fame of these demonstrations stems from their counterintuitiveness. But what are we to make of these surprising results? No social psychologist of our acquaintance, and certainly neither Asch nor Milgram themselves, drew the “negative” conclusion that people behave badly, and left it at that. Instead, most analysts have tried hard to understand the predicament that the experimental participants experienced, and the conflicting forces operating on them.

Understanding the pressures in the Asch situation as deriving from “normative social influence” (Deutsch & Gerard 1955) in a situation fraught with ambiguity (Ross et al. 1976) makes sense of and humanizes behavior that initially seemed bizarre. Similarly, Milgram's extensive experimental variations (Milgram 1974) lead to a very Lewinian take, one that renders his participants' behavior understandable and not simply “maladaptive.” Personally, we favor an account that focuses less than Milgram's on the obedience manifested by participants and more on their difficulty in finding a way to disobey effectively. But the bottom line is the same: Participants were in a very difficult predicament with powerful situational and dispositional forces in play. We do not see here a “negative” view of human nature, but, instead, a nuanced, compassionate one that pays serious attention to both people and their situations.

The work on bystander nonintervention, research conducted with the express purpose of casting doubt on the negative portrayal of bystanders as “apathetic” (Latané & Darley 1970), is caricatured in the target article. Darley and Latané show that the probability that a research participant will intervene to help another is sensitively attuned to a variety of situational variables, all of which make sense. In particular, a person is relatively unlikely to intervene unless the situation is actually defined as an emergency (passive onlookers diminish this likelihood), and the person feels responsible for the outcome (less likely as the number of potential helpers increases). What is “negative” about any of this? Late in the target article, K&F claim that “no theoretical account of a range of behavior is complete without a cost-benefit analysis.” But as a direct result of the bystander intervention experiments, most analysts portray the potential helper as facing a sequence of decisions, very much including a calculation of the costs and benefits of intervening or not (Aronson et al. 2002; Brown 1986).

When we turn to K&F's characterization of social cognition work as showing “a focus on inferential shortcomings and errors” (sect. 2.3, para. 1), we can agree that this is descriptively correct. But what is the point of this work, and what conclusions are to be drawn from it? Kahneman (2000) puts it succinctly: “Contrary to a common perception, researchers working in the heuristics and biases mode are less interested in demonstrating irrationality than in understanding the psychology of human judgment and choice” (p. 682). Exactly by analogy with research on visual illusions (as advocated by K&F themselves) so-called errors and biases are regarded as phenomena that yield particularly rich insight into the basic processes of intuitive judgment. In our view, any analysis (Kahneman & Frederick 2002) that finds unity in such diverse phenomena as the conjunction fallacy, duration neglect, and what legal scholars regard as problematic punitive damage awards, is a truly positive contribution indeed.

K&F claim that Tversky and Kahneman “characterized human judgment as ‘ludicrous,’ ‘indefensible,’ ‘self-defeating’” (sect. 2.4, para. 2). This would be seriously “negative,” if true. But a look at the paper in which these “characterizations” appear shows a very different state of affairs (Tversky & Kahneman 1971). What is characterized as “ludicrous” is an “extension of the representation

hypothesis," which would be required to justify participants' erroneous expectation that patterns of experimental results would replicate almost in their entirety, regardless of sample size. What is termed "indefensible" (on logical grounds) is not "human judgment" as a whole, but a very particular (indeed, indefensible) response to a difficult question about how to interpret a partial replication of results. And what is "self-defeating" is the practice of choosing research designs with very low statistical power. These strong adjectives were used, in other words, not to tar the human inferential system in general, but to describe very specific responses to very difficult questions. The point, that people seem to believe in a "law of small numbers," remains true. But to accept this point does not require a broad characterization of the inferential system in negative terms. What it does require is an attempt to understand why such problems are so difficult, and what can be done to ameliorate matters.

K&F call for "a more balanced, full-range social psychology" that might result in "a more realistic and thus a more compassionate view of human nature" (sect. 5, para. 1). But we suggest that a realistic, compassionate view is just what emerges from an understanding of the complexities of situations in which people (sometimes) conform, obey unreasonable commands, fail to intervene in emergencies, and overuse judgmental heuristics. It is difficult to think straight and act right in complex situations; we now understand a great deal about why that is so, and what might be done about it.

Errors of judgment and the logic of conversation

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Abstract: Experimental procedures routinely violate the cooperative principle of conversational conduct by presenting irrelevant information in a way that implies its relevance to the task at hand. This contributes to an overestimation of the prevalence of judgment errors relative to natural contexts. When research participants are aware that the usual norms of conversational conduct do not apply, the emerging errors are attenuated or eliminated.

Krueger & Funder (K&F) highlight social psychologists' fascination with judgmental biases and note that the processes underlying inferential errors in the laboratory may often be adaptive in daily life. This commentary draws attention to one of the variables that contribute to this asymmetry, namely, experimenters' violation of conversational maxims (Grice 1975) that govern cooperative communication in daily life.

Tacit norms of cooperative conversational conduct imply that "communicated information comes with a guarantee of relevance" (Sperber & Wilson 1986, p. vi), entitling listeners to assume that the speaker tries to be informative, truthful, relevant, and clear. Listeners interpret speakers' utterances "on the assumption that they are trying to live up to these ideals" (Clark & Clark 1977, p. 122). Bringing these assumptions to the research situation, participants assume that every contribution of the researcher is relevant to the aims of the ongoing conversation. Yet, the researcher may deliberately present information that is neither relevant, nor truthful and informative – and may have carefully designed the situation to suggest otherwise. Missing this crucial point, participants treat presented "irrelevant" information as relevant to their task, resulting in judgmental errors relative to normative models that consider only the literal meaning of the utterance, but not the implications of the conversational context. These errors are attenuated or eliminated under circumstances that either conform to conversational norms or allow the insight that the usual conversa-

tional maxims do not apply (for extensive reviews, see Hilton 1995; Schwarz 1994; 1996).

For example, Kahneman and Tversky (1973) described a man, said to be randomly selected from a sample of engineers and lawyers, who "shows no interest in political and social issues and spends most of his free time on his many hobbies which include home carpentry, sailing, and mathematical puzzles." Participants predicted that this person is most likely an engineer, independent of whether the base-rate probability for any person in the sample being an engineer was .30 or .70. Clearly, they relied on individuating information of little diagnostic value at the expense of more diagnostic base-rate information, violating Bayesian norms. Does this imply that they did not notice that the description was uninformative? Or did they infer that the researcher wanted them to consider it – or else, why would it be presented to them in the first place? An extended replication of this study supports the latter possibility (Schwarz et al. 1991). When the personality description was provided as a narrative allegedly written by a psychologist, participants again concluded that the person is an engineer, independent of the base-rate. But when the same description was presented as a random sample of information about this person, allegedly selected by a computer from a larger file assembled by psychologists, participants relied on the more diagnostic base-rate information to make a prediction. Thus, participants considered normatively irrelevant information when it came with a conversational "guarantee of relevance," but not when this implied guarantee was called into question.

Similar analyses apply to other judgmental biases that involve reliance on normatively irrelevant information, ranging from the fundamental attribution error, the dilution effect, and the conjunction fallacy to misleading question effects in eyewitness testimony and numerous context effects in self-reports (for a review, see Schwarz 1996). When explicitly asked, participants usually seem aware that the normatively irrelevant information is of little informational value (e.g., Miller et al. 1984), but proceed to use it in making a judgment because the sheer fact that it has been presented renders it conversationally relevant in the given context. Once the "guarantee of relevance" is undermined, the impact of normatively irrelevant information is eliminated or attenuated (Schwarz 1996, Chs. 3–4). Increasing individuals' motivation to "get it right" rarely attenuates reliance on normatively irrelevant information, but merely increases participants' efforts to find meaning in the material presented to them (e.g., Tetlock & Boettger 1996).

Because of these conversational dynamics, the field's favorite procedures foster an overestimation of the size and the pervasiveness of judgmental biases. This analysis does *not* imply, however, that violations of conversational norms are the *sole* source of judgmental biases. Like most robust phenomena, judgmental biases are likely to be overdetermined. If we are to understand their operation in natural contexts, however, we need to ensure that their emergence in experiments is not driven by determinants that may not hold in daily life, where cooperative communication is likely and listeners are often aware of conditions that call the assumption of cooperativeness into question.