

RATIONALITY RESTORED: AN INTRODUCTION TO THE SPECIAL ISSUE

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I admit that I feel inclined to protest against certain exaggerations [. . .] of the irrationality of man.

—Karl Popper (1963, p. 480)

Psychological science has been passing judgment on the rationality of ordinary people. Zajonc (1999) reviewed the ebb and flow of these judgments over the twentieth century. Of 33 influential social psychologists, he classified 23 as irrationalists and seven as rationalists, while remaining undecided on three. The lack of consensus on an issue as central as rationality suggests “a schism in our conceptions about the basic nature of the individual [and a difference in] a major premise about rationality of behavior” (pp. 201-202). Rationalists believe that human behavior involves “voluntary and willful reason,” whereas irrational behavior is guided by “forces of nature and biological dispositions, often unconscious and uncontrollable” (p. 202).

During the early stage of the cognitive revolution, ordinary people were cast as naïve but basically competent social scientists. When making inferences, they were thought to form hypotheses and gather relevant data before making predictions, drawing conclusions, and revising beliefs. As anomalies with respect to this model began to crop up, the assumption of irrationality returned, and research turned to the detection of ever more errors, illusions, and fallacies. Drawing on Tversky and Kahneman’s (1974) work on heuristics and biases, Nisbett and Ross (1980) summarized the evidence of the time, suggesting that the multitude of effects could be attributed to the operation of a few nonrational habits of mind. The promise of the irrationalist paradigm was that the study of errors and biases would ultimately shed light on how the mind solves many of the problems before it. This promise has not been fulfilled. Instead, the list of irrationalities grew longer. Krueger and Funder (2004) compiled a nonexhaustive list of 42 biases (from “asymmetric insight illusion” to “vulnerability bias”), and a recent check of Wikipedia’s (2009) List of Cognitive Biases yielded 38 decision-making and behavioral biases, 32 biases in probability and belief, 23 social biases, and seven memory errors. For those hungry for more, the site provides 14 see-also links (e.g., list of fallacies, self-deception). Trade books raising the specter of irrationality sell well. Brafman and Brafman’s (2008) *Sway: The Irresistible Pull of Irrational Behavior* was listed with

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an Amazon.com sales rank of 3,091 on April 7, 2009. Likewise, there is a market for books that bemoan the pandemic of irrationality while also offering remedies to overcome it (e.g., Thaler and Sunstein's (2008) *Nudge: Improving Decisions about Health, Wealth, and Happiness*; Amazon sales rank of 5,242 on April 7, 2009). With this inflationary growth of documented human insufficiency, social-cognitive psychology is at risk of becoming a psychopathology of everyday life.

During this second stage of the social-cognitive era, the case for rationality was never entirely dead. Some questioned the assumptions and implications the heuristics-and-biases paradigm, while others continued their work on more rationalist models. Over time, there was a revival of interest in rationality. The purpose of this special issue of *Social Cognition* is to contribute to this dialog by presenting original position papers that stake out novel approaches to the study of (ir)rationality. The common theme of these papers is that tests of (ir)rationality critically depend on the normative *criteria* used to evaluate judgments, the *contexts*, in which judgments are elicited, and opportunities for the judgments to reveal their *correspondence* with the things being judged.

With new models of rationality emerging, and innovative empirical research programs taking shape, the next decade of scientific work holds the promise of yielding a more subtle and textured picture of what people can do well, under what kinds of conditions they succeed, and how and when they will fail. The overarching goal is to restore rationality to its proper status as a *hypothesis* by dismantling its traditional status as a premise that is to be either accepted or denied.

To help motivate this enterprise, consider two examples of how the case for irrationality has been overstated in the past. The first example refers to the idea that a documented judgmental incoherence is sufficient proof of irrationality. When choosing between gambles, people tend to be risk-averse when outcomes are described as gains and risk-seeking when they are described as losses (Kahneman & Tversky, 1979; see also Kenrick et al., this issue). As any gain can be framed as a loss by a simple change in the reference point and *vice versa*, a change in preference violates the invariance criterion of rationality. Usually, framing effects are demonstrated in between-participants design, and Kahneman and Tversky insisted that they should be. Within-person reversals are only implied. What is a rational person to do? Someone who only encounters a gain frame has no reason to recast the choice problem in a loss frame in her own mind and then make a public choice in the gain frame while assuring herself that she would make a consistent choice in the loss frame *if anyone asked*. If the person were presented with both frames, she might become aware of her inconsistency and remove it. The problem is that the gambles selected for study typically involve two options with similar expected values (if the expected values were drastically different, framing effects would disappear). The implication for the within-person design is that as the choice incoherence is removed people might become indifferent, and rational choice devolves into random choice.

The charge of incoherence is a dangerous one. It amounts to the claim that if two people make different decisions, at least one of them must be mistaken. Because this inference is correct, it also applies to scientists themselves. In any debate, the claims of at least one camp must be wrong.¹ Following Popper (1963) and other

1. Sure enough, many scientists are not shy about calling their colleagues in the other camp irrational.

philosophers of science, scientists expect that over time, today's findings will be closer to the truth than yesterday's findings, and tomorrow's findings will be closer still. It is perhaps a sign of wisdom rather than rationality, to tell students—as Paul Meehl reputedly did—that half of what we tell them is false; we just don't know which half.

The second example refers to the idea that judgment by heuristic amounts to a weighting bias (Kahneman, 2003). The way a generally useful heuristic works can be represented in Brunswik's (1955) lens model. Consider the Recognition Heuristic (Gigerenzer & Goldstein, 1996; see also Hertwig and Herzog, this issue). Items to be compared (e.g., cities) vary on some criterion dimension (e.g., size) and some cue dimension (e.g., presence in the media). The association between the distal criterion and the proximal cue is the "ecological correlation." When the criterion is not directly observable, judges may infer it from the cue. The association between their judgments and the cue values is the "surrogate correlation." The measure of success is the "accuracy correlation," that is, the correlation between judgments and criterion values. The heuristic works if both, the ecological and the surrogate correlation, are positive, but the judges can only affect the latter. If they assume the cues are valid, and if no other information is at hand, their best strategy is to act as if the cues were perfectly valid. In that case, the accuracy correlation will be equal to the ecological correlation. As cue utilization (i.e., the surrogate correlation) becomes weaker, the accuracy correlation will attenuate because its expected value is the ecological times the surrogate correlation. This means that a pure case of heuristic judgment, involving a single cue of some validity, probably entails an underweighting bias instead of an overweighting bias. Accuracy (correspondence) would increase if people reasoned more heuristically.²

In this issue, Kruglanski and Orehek offer a review of Western concepts of rationality. They show that means-ends rationality and coherence rationality are not as cleanly separable as we often believe them to be. Judgments of rationality are highly contextual. Rather than asking whether people are basically rational, we should be asking in what way people are (ir)rational.

Fiedler and Wänke take a cognitive-ecological perspective. They present research examples to develop the idea that blanket judgments of (ir)rationality are under-specified if they fail to take into account the type of information that is available to people in their social environment. If blame is to be assigned, some of it must go to the skewed, biased, or incomplete informational environment in which we live.

Hertwig and Herzog also stress context-specificity, although they question the popular distinction between "social" and "natural" inference problems. In their view, fast-and-frugal heuristics often do an excellent job yielding high correspondence between judgment and criterion. Disbelief in the efficiency of these heuristics betrays a logical error on the part of the skeptics who believe that complex problems can only be solved by complex cognitions.

Haselton, Bryant et al. distinguish heuristic reasoning from sophisticated error management, and from artificial errors produced by research design. Given plausible evolutionary assumptions about what organisms ultimately seek to accomplish, error-management theory highlights the need to understand rationality as a balancing act instead of a quest to eliminate errors altogether.

2. This logic extends to multiple-cue tasks, where the summed unit weights attached to each valid cue outperform optimal regression weights in cross-validation (Dawes, 1979).

Kenrick, Griskevicius et al., develop the idea that rationality must ultimately speak to the issue of adaptation. Whereas traditional economists (and psychologists) don't really care where human preferences come from, the logic of evolution makes no sense without an inquiry into the origins of basic goals. As the "deep rationality" of human inference and behavior is revealed, social psychology and its sister disciplines (especially economics) stand to benefit.

Krueger and Massey use the tools of dynamic behavioral models and game theory to revisit the classic effects of conformity with a wrong-headed majority, obedience to destructive authority, and loafing among bystanders in an emergency. The hope that social problems will become more tractable simply by finding ordinary people to be irrational is likely mistaken. Some issues must be confronted directly on a moral plane.

Together, these six articles show how the concept of rationality can inform and guide inquiries into human judgment and decision-making. Although one common concern of this work is to question the idea that human cognition is fatally flawed, a careful reading will also show that two other ideas are not tenable: that humans are always rational and that rationality does not matter at all.

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