Book Review

The Fragmentation of Reason: Preface to a Pragmatic Theory of Cognitive Evaluation by Stephen Stich[1]

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Naturalistic epistemologists often draw on various traditional epistemological techniques and presuppositions. Usually, they make some use of analysis of ordinary concepts such as "knowledge" and "justification," and hold that the goal of inquiry in some way involves truth (as approximate truths or significant truths) or accurate representation (which is a close ally of correspondence truth).[2] *The Fragmentation of Reason* is one of the few attempts at a more radical break with these epistemological traditions.[3]

Much of the book is concerned with witnessing and abetting the dissolution of traditional views about reason. A pragmatic[4], pluralistic[5] and relativistic[6] view intended to replace the traditional frameworks is sketched out at the end. All of the discussion is focussed on, and fuelled by, the implications of experimental work on human reasoning (some early work is collected in Nisbett and Ross 1980 and Kahneman, Slovic and Tversky 1982) which show that humans frequently reason with heuristics that lead to conclusions other than those reached by doing formal logic, statistics or confirmation theory. Sa-lience and availability heuristics cause investigators to assign inappropriate weight to a subset of the relevant data; the representativeness heuristic results in neglect of base rate statistical information, as well as inappropriate analogical reasoning. This experimental work, in its current stage of development[7], challenges any easy assumption that human reasoning is generally veridical.

Stich argues that the usual philosophical ways of responding to these experimental results on human reasoning – minimal rationality arguments (e.g. Davidson 1973, Dennett 1977, and Quine 1960), arguments from evolutionary design (e.g. Dennett 1977), and reflective equilibrium arguments (e.g. Cohen 1981) – fail. In failing, they also show the poverty of traditional techniques of philosophical analysis and the implausibility of general views about the nature of human reasoning (including naturalized views, such as those from evolutionary perspectives). These considerations, which take up over half of the book, are developments of Stich 1985. They are a provocative and often convincing set of responses to the philosophical literature on human reasoning.

The Fragmentation of Reason also has two new proposals. First, that reason no longer be evaluated for its truth-conduciveness because truth is not a worthwhile goal. Second, that reason be evaluated with respect to other goals such as health, happi-

ness and the welfare of one's children, which are, in Stich's view, intrinsically valued and therefore genuine goals.

The first proposal sounds like sour grapes. Stich accepts that experiments on human reasoning show that truth is not a regularly obtainable goal; then he argues through philosophical reflection that it is not a worthy goal to have. The argument he gives in Chapter 5 has a structure similar to Putnam's use of the Skolem-Lowenheim theorem for internal realism and reminiscent of Quine's arguments for the inscrutability of reference; it concludes that truth is no more a goal than truth*, truth** or other verific properties which each mark off different sets of propositions. (Truth, truth*, truth**... have in common that each is based on a corresponding reference relation – reference, reference*, reference**... – that accomodates the casual/functional relations which map mental states to truth conditions.) Stich asserts that this destroys the appeal of truth, since there is no good reason to prefer true beliefs to true* beliefs or true**... beliefs. The underlying assumption is that anyone who starts out really caring about truth will not find it acceptable that there is no *unique* set of interpreted sentences that satisfies; then the rational response is to give up caring about truth altogether.

I am not the only one to find this argument implausible (see, for example, Goldman 1991, Harman 1991 and Lycan 1991). I add a criticism that is close to the one Lycan gives: even if Stich has proven that there is more than one acceptable concept of truth, it does not follow that we should give up caring about truth. We need only give up the view that a unique set of sentences is veridical. This does not mean giving up much of the usual understanding of truth.[8] Stich nowhere shows that quite arbitrary *sets* of sentences are veridical: in particular, he does not show that the complete *sets* of propositions marked off as true, true* or true**... can differ so greatly that they are wholly interchangeable with the complete *sets* of propositions marked off as false, false* or false**.... All Stich

shows is that occasional true (or true*, true**...) sentences could be regarded as false* (or false**, false...).

The second new proposal of *The Fragmentation of Reason* is, fortunately for Stich, more independent of the discussion of truth than his presentation suggests. He argues that cognitive evaluation be done with respect to goals other than truth. This is of interest, whether or not truth is a genuine goal. The goals he suggests emphasize human goals such as health, happiness, and the welfare of one's children, which he thinks we are "probably biologically predisposed to value" (p. 131). In addition, these human goals include other goals also intrinsically valued, about which people can differ. Stich's implied view is that it is likelier that humans attain these shared or variable goals than that they attain truth.

The subtitle of the book, *Preface to a Pragmatic Theory of Cognitive Evaluation*, tells the reader that an explicit theory of cognitive evaluation, as well as the normative judgments such a theory can produce, will be a later project. Indeed, Stich's remarks about this positive project are sketchy. However, he says enough that the difficulties such a project will face are revealed.

Experimental work on human reasoning does not, at this time, show that humans are any better at realizing goals other than truth. The heuristics (salience, availability, representativeness) that humans use are not obviously directed towards goals other than truth – even goals such as health, happiness and the well-being of one's children. There is, for example, some experimental work indicating that humans fall into error in estimating future utilities[9] and hence reason to think that humans are as handicapped in their pursuits of happiness as they are in their pursuits of truth.

Stich also does not engage in debate over appropriateness and relative importance of goals themselves; it may be that he thinks, with Hume, that reason cannot set human ends, and he goes no further than the remark that it is "no easy task" (p. 134) to compare

intrinsic goals. Yet there are certainly local debates over appropriateness of goals that epistemologists can and should address: for example, the debate over which goals are appropriate ends of scientific inquiry. Epistemologists are concerned about all the domains in which humans reason, and the occasional domestic domain guided by the trio "health, happiness and the well-being of one's children" (p. 131) has no special importance, whether or not this cluster of goals is biologically determined. Stich's passing remarks about assessment of scientific reasoning are inconsistent with the rest of the book: he allows scientists to have "discovering and coming to accept important truths of nature" (p.

138) as goals. If truth is not a genuine goal, yet scientific work a genuine enterprise, another account of scientific reasoning is needed.

The Fragmentation of Reason is important because it adds to the small number of epistemological views which claim that normative evaluation is still possible and appropriate in a naturalistic context that eschews truth as the goal of inquiry. Lending voice to such more radical and minority positions makes them more available for fair consideration by the philosophical community. When the theory of cognitive evaluation that Stich is prefacing is presented, more definitive discussion of it will be possible.

Notes

1 I am grateful to Jonathan Adler, Alan Richardson and Jerry Vision for discussion of this material.

2 Giere (1988), Goldman (1986, 1992), Harman (1986), Kitcher (1993), and Kornblith (1993) are examples of these views.

3 Paul Churchland (1989), Dennett (1977), and Hacking (1983) are some others who adopt more radical epistemological views.

4 I take it that the view is pragmatic in a sense that derives from James (rather than, for example, Peirce) — truth is eschewed as a goal, in favor of "human" goals.

5 The pluralism comes from the reflection that if reasoning strategies are assessed instrumentally, more than one strategy may turn out to be effective, and also from the reflection that different people have different goals of reasoning and instrumental assess-

ments of reasoning practices vary in tandem.

6 "Relativistic", as used by Stich in this book, means that good reasoning is relative to context because different reasoning strategies are effective in different contexts (see, for example, p. 139). Stich is *not* allying himself with those relativistic views which claim that rationality is relative to social context because rationally is socially constructed.

7 It is conceivable that further experimental work will help answer the epistemological questions raised. In fact, I take Stich to be making this point.

8 It is doubtful that there is a "usual understanding", uncorrupted by prior work in philosophy of language, anyway.

9 Talk, D. Kahneman, University of Pennsylvania, Spring 1992.

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