

SCIENCE AND IDEOLOGY-ADDENDUM

In this *addendum* I discuss some related literature that has appeared, or come to my attention, since the publication of my paper. Section 1 is about the role of the Rand Corporation. Section 2 concerns Steven Fuller's work on ideology and science.

1. RAND AND THE CONSEQUENCES

A major role is played in my paper by the Rand Corporation as the hatchery of neoliberal ideology. Significant new literature regarding the role of Rand has appeared. My source is an article by Chalmers Johnson (2008) that has just appeared at *Tomdispatch* and that I saw on *AlterNet*. Johnson is the preeminent writer on post-World War Two American imperialism, his most recent book on the subject being *Nemesis*. His article is a review of Abella's *Soldiers of Reason* which is a history of the Rand Corporation. Johnson generally accepts the factual history presented by Abella, but is more critical in his interpretation. I do not wish to review Johnson's review of 'Abella, urging instead the reader consult the article; however I will report a few items that I found particularly interesting.

During the Cold War era, Rand felt that the US had to battle on two fronts: military and ideological. On the military front, the US suffered major military setbacks, above all in Vietnam and more recently in Iraq. No such setbacks were encountered on the ideological front, particularly in penetrating the social sciences. This becomes clear from the list of leading social scientist who were Rand alumni:

"Among the notables who worked for the think tank were the economists and mathematicians Kenneth Arrow, a pioneer of game theory; John Forbes Nash, Jr., later the subject of the Hollywood film *A Beautiful Mind* (2001); Herbert Simon, an authority on bureaucratic organization; Paul Samuelson, author of *Foundations of Economic Analysis* (1947); and Edmund Phelps, a specialist on economic growth. Each one became a Nobel Laureate in economics." Add to this list the Rand alumnus William H. Ricker who became the most influential political theorist and together with Arrow pointed the direction in which political theory evolved. Consider also that American social science became the model for most of the rest of the world, the Nobel Prize committee inclusive, and English the associated *lingua franca*.

The ideological ballast carried by the Rand alumni was apparently no handicap in conquering academia; on the military front the ideology came in conflict with reality:

"Following the axioms of mathematical economics, RAND researchers tended to lump all human motives under what the Canadian political scientist C. B. Macpherson called "possessive individualism" and not to analyze them further. Therefore, they often misunderstood mass political movements, failing to appreciate the strength of organizations like the Vietcong and its resistance to the RAND-conceived Vietnam War strategy of "escalated" bombing of military and civilian targets."

Ideologists may be sincere, even fanatical believers in what they preach; alternatively the ideology may simply be a vehicle of convenience in order to achieve certain aims. Usually, both components are likely to be present in varying proportions. Commitment to truth was certainly not a high value at Rand:

"Daniel Ellsberg's release to the public of the secret record of lying by every president from Dwight D. Eisenhower to Lyndon Johnson about the U.S. involvement in Vietnam. However, RAND itself was and remains adamantly hostile to what Ellsberg did.

Abella reports that Charles Wolf, Jr., the chairman of RAND's Economics Department from 1967 to 1982 and the first dean of the RAND Graduate School from 1970 to 1997, "dripped venom when interviewed about the [Ellsberg] incident more than thirty years after the fact." Such behavior suggests that secrecy and toeing the line are far more important at

RAND than independent intellectual inquiry and that the products of its research should be viewed with great skepticism and care.”

2. STEVE FULLER ON IDEOLOGY AND THE PHILOSOPHY OF SCIENCE

A referee had drawn my attention to the work of the sociologist and philosopher of science Steve Fuller. Just reading the introduction to *Thomas Kuhn: A Philosophical History for our Time* proved valuable for my purposes in that I learned about yet another institution and associated actors that were influential in generating a Cold War ideology that impacted the social sciences and humanities. I am referring to Harvard University, its past president James Conant and his disciple Thomas Kuhn. Impressed by the need for a strong science, particularly for national defense, they aimed at both generating public support for science and fending off public criticism. Particularly the latter aim was served by Kuhn’s famous concept of a ‘paradigm’, that could be understood only by those trained within it and could not be validly criticized from without.

From my mention that I read the introduction, the astute reader will have gathered that I did not read the rest. This was not because I felt the rest to be of low value. It was because I found the going quite difficult and was not willing to invest the time that would have been required for a serious consideration of the many topics covered. Fuller is extremely well read in ancient and modern philosophy with the emphasis on the philosophy of science. He is also a trained sociologist, knowledgeable regarding many areas of social science and the humanities. His nimble mind moves easily between diverse fields and literatures finding surprising parallels and lines of influence. For a reader not already familiar with the literatures discussed, many passages are difficult to understand or evaluate. For a graduate student in philosophy, or a professional philosopher the book is a goldmine of ideas and topics that merit further investigation; for the general reader it is hard to digest.

The reason for turning my attention to this author again here is that he has written a subsequent book in which he makes a conscious effort to address the general reader and succeeds to a considerable extent. *Kuhn vs. Popper: the Struggle for the Soul of Science* is a much shorter book, without footnotes and a guide to the literature at the end. Moreover, contrasting Kuhn and Popper is more interesting than focusing on Kuhn alone. Popper and many other philosophers are discussed in the earlier book also, but in the later book the contrast is much better worked out.

Fuller argues that these two philosophers and others of their generation were profoundly influenced by the role of science in the Second World War, particularly of course through the creation of the atomic bomb. Kuhn reaction was one of denial. He defined science as “puzzle solving”, completely ignoring the social consequences. This would seem to justify the pursuit of whatever activities the currently accepted ‘paradigm’ of a discipline happens to suggest. Popper also believed in the internal control of science. He felt that science should achieve this through eternal questioning of its own results. The fact is that scientists generally do not do this, nor is there any convincing argument advanced by Popper why they should. Furthermore, even if they did, it would not solve the problem of the social consequences of science.

In his laudable effort to write clearly and understandably for the lay reader Fuller does not succeed entirely. I give one of a number of possible examples. He disc used the ‘underdetermination thesis’ according to which empirical evidence is generally insufficient to decide between alternative theories and writes:

“Pierre Duhem (1861-1916) is normally credited with the underdetermination thesis. He believed that the question uniquely arose in his own discipline, physics, because of the laboratory conditions in which experiments are normally conducted. In that case, how are the field's artificially generated results to be judged in relation to alternative accounts of the natural world? As a Catholic living in France's Third Republic, with its clear separation of church and state, Duhem turned to divine illumination for guidance - but only because of the epistemic limits of physical inquiry implied by the underdetermination thesis. Fifty years later, Harvard logician Willard Quine (19^o8-2000) universalized and secularized Duhem's original thesis. Quine replaced God with whatever theory had the best track record, a kind of evolutionary naturalism that upheld a conservative presumption in the conduct of inquiry.”

I cannot conceive how a physicist would test a theory against catholic dogma. Neither do I understand the position ascribed to Quine. What is the ‘track record’ if not agreement with observation? A further problem with this passage is that the preeminent non-empirical criterion used in the natural sciences and amply discussed in the philosophy of science, *simplicity* is not even mentioned by Fuller.

Such shortcomings notwithstanding, this is the best, and almost the only, broad coverage of the interrelations between ideology, philosophy and science. I strongly recommend it.

REFERENCES

- Abella, Alex (2008), *Soldiers of Reason: The Rand Corporation and the Rise of the American Empire*, Orlando FL, Harcourt.
- Fuller, Steve (2004), *Kuhn vs. Popper: the Struggle for the Soul of Science*, New York, Columbia University Press.
- Johnson, Chalmers A. (2006), *Nemesis: The Last Days of the American Republic*, New York, Henry Holt.
- (2008), *The RAND Corporation: America's University of Imperialism*, Tomdispatch.com. Downloadable at <http://www.alternet.org/audits/83910/>