

Tug of love

Dr. Ray Scott Percival

Kuhn vs Popper: The struggle for the soul of science.

by Steve Fuller, Icon. ISBN 1840464682

Reviewed by Ray Percival

COULD you think about science without considering the conflict between the views of the philosophers Thomas Kuhn and Karl Popper? It's hard to imagine a course in the philosophy of science without a section devoted to the debate between these intellectual giants. And the ramifications of this conflict run deep in modern society and politics in general.

Simply put, Kuhn championed what he called "normal science", which consists of scientists busily engaged in working out the puzzles presented within a set of assumptions – the "paradigm" – which remains unquestioned. Until, that is, the puzzles become overwhelming and the notorious paradigm shift occurs.

On the other hand, Popper championed the heroic conception of science. He associated this with deliberately revolutionary thinkers such as Newton and Einstein, and admonished scientists everywhere continually to question. His famous criterion that a theory is scientific if it can be falsified implies a continuous effort to overthrow theories – including accepted ones.

Steve Fuller, professor of sociology at the University of Warwick, argues that, unfortunately for science, Kuhn won this debate. In the wake of Kuhn, science has come to be justified more by its paradigmatic pedigree than by its progressive aspirations. In other words, science is judged by whatever has come to be the dominant scientific community.

For Popper, the ideal of science allowed you to say that the whole of science may be wrong; Kuhn cannot allow this, because he made no distinction between history and normative standards. Yet Kuhn is classed as a radical, and Popper as a grumpy autocrat. Fuller sets out to explain and correct these misleading images.

Fuller also explores cold war issues, the military industrial complex, and the history and ideology of the educational establishment. This is an eloquently written book, offering new and interesting perspectives on the moral and social ramifications of this debate.