

ACTIVITATS FORMATIVES 1° SEMESTRE / CURS 2015-2016

GRUPS DE LECTURA

3° HPS Barcelona Seminar Scientific Rationality and Scientific Accounts of Rationality

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Fridays, 11:30-1:30

"Man is a rational animal — so at least I have been told. Throughout a long life I have been looked diligently for evidence in favour of this statement, but so far I have not had the good fortune to come across it." (Bertrand Russell)

Abstract

This year's topic is rationality as a *feature* and an *object* of science. Rationality as a distinguishing mark *of* science has been a – if not the – central topic of philosophy of science. This includes issues such as the demarcation of science from pseudoscience, the rationality of theory choice, or the role of aims of science and their relation to changing methodological ideas. At the same time, rationality has been an important concept *within* the sciences, both as *explanans* and as *explanandum* - for disciplines such as logic, statistics, decision and game theory, cognitive psychology, or economics. This has opened up ways for naturalistic or scientific accounts of scientific rationality itself. However, accounts of rationality have become increasingly contested and fragmented in recent decades. So a comprehensive reassessment is needed. To do so, we aim to study the relations between rationality as a feature and as an object of science. How did philosophical claims about scientific rationality develop and become so disunified? What views were really held by Hume, Carnap, or Kuhn, as opposed to

sometimes popular wisdom about them? Again, how has scientific research on reasoning influenced philosophical debates about scientific rationality? What are the limits to scientific research on, or accounts of, rationality? Can there be a science of rationality at all? And what can be the uses of current attempts to understand the concept historically?

All welcome.

PART I: CLASSICAL DEBATES

1: Sept. 18, 2015: Popper on rationality and science

- Popper, K. 1963. *Conjectures and refutations: The growth of scientific knowledge* (Ch. 1: "Science: Conjectures and Refutations"). London: Routledge.
- Putnam, H. 1991. The 'corroboration' of theories (1974). In R. Boyd et al. (eds.), *The philosophy of science* (pp. 121-137). Cambridge/MA: MIT Press.

2: Oct. 9, 2015: Kuhn on scientific rationality

- Kuhn, T. 2000. Rationality and theory choice (1983). In J. Haugland & J. Conant (eds.), *The road since structure* (pp. 208-215). Chicago: Chicago UP.
- Tianji, J. 1985. Scientific rationality: Formal or informal? *Studies in History and Philosophy of Science*, 36, 409-423.
- Diez, J. 2007. Falsificationism and the structure of theories: the Popper–Kuhn controversy about the rationality of normal science. *Studies in History and Philosophy of Science*, 38, 543–554.

3: Nov. 6, 2015: Putnam against classical accounts and their opponents

- Putnam, H. *Reason, truth, and history* (ch. 5 & 8: "Two conceptions of rationality" & "The impact of science on modern conceptions of rationality"). Cambridge: Cambridge UP.
- Irzik, G. 2003. Changing concepts of rationality. From logical empiricism to postpositivism. In Paolo Parrini et al. (eds.), *Logical empiricism: Historical & Contemporary Perspectives* (pp. 325-346). Pittsburgh: University of Pittsburgh Press.

PART II: RESCUE EFFORTS FROM THE SCIENCES - AND THEIR LIMITS

4: Dec. 11, 2015: Naturalizing scientific rationality – For and against

Giere, R. 1985. Philosophy of science naturalized. Philosophy of Science, 52, 331-356.

- Siegel, H. 1989. Philosophy of science naturalized? Some problems with Giere's naturalism. *Studies in History and Philosophy of Science*, 20, 365-375.
- Giere, R. 1989. Scientific rationality as instrumental rationality. *Studies in History and Philosophy of Science*, 20, 377-384.
- Siegel, H. 1996. Instrumental rationality and naturalized philosophy of science. *Philosophy of Science*, 63, 124.

5: Jan. 15, 2016: Bayesian conceptions - For and against

Salmon, W. 1996. Rationality and objectivity in science or Tom Kuhn meets Tom

Bayes. In D. Papineau (ed.), *The philosophy of science* (pp. 256-289). Oxford: Oxford UP. Glymour, C. 1996. Why I am not a Bayesian. In D. Papineau (ed.), *The philosophy of science* (pp. 290-313). Oxford: Oxford UP.

Okasha, S. 2001. What did Hume really show about induction? *Philosophical Quarterly*, 51, 307-327.

6: Feb. 12, 2016: The psychology of (ir)rationality: Impact on scientific rationality?

Nisbett, R. & Ross, L. 1980. *Human inference: Strategies and shortcomings* (ch. 1-2: "An introduction to the intuitive scientist" & "Judgmental heuristics and knowledge structures"). Englewood Cliffs/NJ: Prentice-Hall.

Solomon, M. 1992. Scientific rationality and human reasoning. *Philosophy of Science*, 59, 439-455.

7: March 18, 2016: Bounded rationality: Impact on scientific rationality?

Simon, H. 1956. Rational choice and the structure of the environment. *Psychological Review*, 63, 129-138.

deLanghe, R. 2013. Satisficing as an account of Kuhnian rationality. *Philosophy Study*, 3, 398-411. Gigerenzer, G. & J. Marewski. 2014. Surrogate science: The idol of a universal method for scientific inference. *Journal of Management*, 41, 421-440.

8: April 15, 2016: Games, decisions, and scientific group rationality

Kitcher, P. 1990. The division of cognitive labor. Journal of Philosophy, 87,5-22.

- Kitcher, P. 1993. *The advancement of science* (ch. 6: "Dissolving rationality"). New York: Oxford UP.
- Okasha, S. 2011. Theory choice and social choice: Kuhn versus Arrow. *Mind* 120, 83-115.
- Zamora Bonilla, J. 2007. What games do scientists play? Rationality and objectivity in a game-theoretic approach to the social construction of scientific knowledge. *EPSA 2007 Proceedings*.

PART III: SKEPTICISM AND HISTORICISM ABOUT SCIENTIFIC ACCOUNTS OF RATIONALITY

9: May 13, 2016: Skepticism about a science of rationality

Davidson, D. 2004. Could there be a science of rationality? In D. Davidson, *Problems of rationality* (pp. 117-134). Oxford: Clarendon.

10: June 3, 2016: Historicizing the sciences of rationality

- Gigerenzer, G., Zwijtink, Z., Porter, T., Daston, L., Beatty, J. & Krüger, L. 1989. *The empire of chance* (ch. 1: "Classical probabilities, 1660-1830"). Cambridge: Cambridge UP.
- Erickson, P., Klein, J., Daston, L., Lemov, R., Sturm, T. & Gordin, M. 2013. How reason almost lost its mind: The strange career of Cold War rationality (Introduction & ch. 6: "The collapse of Cold War rationality"). Chicago: Chicago University Press.