

**2622 Recent Topics in Philosophy of Science  
Fall Semester 2000**

Instructor: Paul E. Griffiths

**Conceptual Analysis in the Philosophy of Science**

**Syllabus**

The view that philosophy has its own epistemological space in which to work and that philosophical questions are different in kind from scientific questions is once again in the ascendant. Adherents of this view hold that philosophers are concerned with conceptual questions, and that these can be settled independently of empirical questions. This view of philosophy is particularly problematic for philosophy of science, since it debates issues – such as the nature of species, of space and time, or of consciousness – that merge seamlessly into the relevant sciences. Furthermore, philosophers of science – and particularly philosophers of the sciences – of physics, psychology, biology and so forth – have tended for some decades now to suppose that their work requires a detailed and up-to-date knowledge of the relevant science.

The course begins with the origins of the split between what I shall call the ‘naturalistic’ and ‘analytic’ approaches to philosophy in W.V.O Quine’s famous attack on the existence of analytic truths and purely conceptual knowledge. It traces this split through to the present day and tries to take the debate further in three ways:

1. By looking at thought experiments in science, to see if they provide a model for purely conceptual knowledge in philosophy.
2. By looking at the current literature in cognitive psychology on concepts and conceptual change. Do concepts fulfill the presuppositions of philosophical accounts of conceptual knowledge?
3. By examining the claim that the conceptual changes documented in history of science show that there can be no purely conceptual knowledge.

In pursuing the last two of these investigations the course will address issues about the nature of scientific concepts and of conceptual change in science that are themselves key issues in the philosophy of science.

**Course Structure**

Each seminar will be broken into two parts, the topic and readings for which will be announced the week before. Each student will lead at least one discussion during the semester. Grades will be determined by the quality of this presentation and of a term paper, which may (but need not) be based on the presentation. The rate of progress through the topics and readings listed below will be decided week-by-week.

## **Topics and Readings**

### **Topic 1. Background**

Quine, W. V. O. Two dogmas of empiricism. (Quine, 1951)

Grice, H. P., & Strawson, P. F. In defence of a dogma. (Grice & Strawson, 1956)

Pigden, C. Two dogmatists. (Pigden, 1987)

Putnam, H. Is semantics possible? (Putnam, 1970)

### **Topic 2. Causal theories of meaning**

Putnam, H. The meaning of 'meaning'. (Putnam, 1975)

Devitt, M., & Sterelny, K. *Language and Reality: An Introduction to the Philosophy of Language* (2nd ed.). Chapter 5. (Devitt & Sterelny, 1999)

### **Topic 3. Strong Conceptual Analysis**

Bealer, G. The incoherence of empiricism I. (Bealer, 1992)

Bealer, G. A priori knowledge and the scope of philosophy. (Bealer, 1996)

Lycan, W. G. Bealer on the possibility of philosophical knowledge. (Lycan, 1996)

Hintikka, J. The emperors new intuitions. (Hintikka, 1999)

### **Topic 4. Weak Conceptual Analysis**

Jackson, F. C. *Armchair Metaphysics*. (Jackson, 1994)

Jackson, F. C. *From Metaphysics to Ethics: A Defense of Conceptual Analysis*. Chapter 2. (Jackson, 1998)

### **Topic 5. Thought Experiments in Philosophy and Science**

Horowitz, T & Massey, G. Introduction (Horowitz & Massey, 1991)

Massey, G. Backdoor analyticity. (Massey, 1991)

Sorensen, R. A. Thought experiments and the epistemology of laws. (Sorensen, 1992)

Norton, J. D. Are thought experiments just what you thought? (Norton, 1996)

Bishop, M. A. Why thought experiments are not arguments. (Bishop, 1999)

### **Topic 6. Theories of Concepts**

Laurence, S., & Margolis, E. Concepts and cognitive science. (Laurence & Margolis, 1999)

Rosch, E. Principles of Categorisation. (Rosch, 1978)

Rey, G. Concepts and stereotypes. (Rey, 1983)

Medin, D. L. Concepts and conceptual structure. (Medin, 1989)

Carey, S. Knowledge acquisition: Enrichment or conceptual change? (Carey, 1991)

Gelman, S., & Wellman, H. Insides and essences: early understandings of the non-obvious. (Gelman & Wellman, 1991)

Griffiths, P. E. Squaring the circle: natural kinds with historical essences. (Griffiths, 1999)

Lakoff, G., & Johnson, M. Conceptual metaphors in everyday language. (Lakoff & Johnson, 1980)

### **Topic 7. The Argument from the History of Science**

Hull, D. (1997). That just don't sound right: A plea for real examples. (Hull, 1997)

Unpublished papers by Griffiths, P.E and Mason, K (to be supplied at a later date)

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- Bealer, G. (1996). A priori knowledge and the scope of philosophy. *Philosophical Studies*, 81, 121-142.
- Bishop, M. A. (1999). Why thought experiments are not arguments. *Philosophy of Science*, 66(4), 534-541.
- Carey, S. (1991). Knowledge acquisition: Enrichment or conceptual change? In S. Carey & R. Gelman (Eds.), *The Epigenesis of Mind: Essays on Biology and Cognition*. Hillsdale, NJ: Lawrence Erlbaum Assoc. Reprinted in (Margolis & Laurence, 1999)
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- Hull, D. (1997). That Just Don't Sound Right: A Plea for Real Examples. In J. Earman & J. D. Norton (Eds.), *The Cosmos of Science: Essays in Exploration* (pp. 431-457). Pittsburgh: Pittsburgh University Press.
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- Jackson, F. C. (1998). *From Metaphysics to Ethics: A Defense of Conceptual Analysis*. Oxford: Oxford University Press.
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