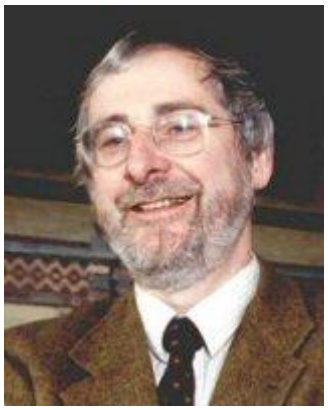
HEINRICH HEINE
UNIVERSITÄT DÜSSELDORF

Der Lehrstuhl für Theoretische Philosophie
lädt herzlich ein zum Vortrag von

Prof. Dr. Theo A.F. Kuipers

(University of Groningen)



Dienstag, 23.04.2013
18:30 s.t. – 20 Uhr

Gebäude 23.21 Raum 02.22

Tutorial I:
Empirical progress and nomic truth approximation revisited

Abstract
In *From Instrumentalism to Constructive Realism* (2000) I have shown how an instrumentalist account of empirical progress can be related to truth approximation. However, it was assumed that a strong notion of nomic theories was needed for that analysis. In this paper it is shown, in terms of truth and falsity content, that the analysis already applies when, in line with scientific common sense, nomic theories are merely assumed to exclude certain conceptual possibilities as nomic possibilities.

Explicating 'empirical progress' and 'truth approximation' in the nomic interpretation should do justice to some basic instrumentalist/empiricist and realist Conditions of Adequacy.
CA-instrumentalist: the explication of 'empirical progress' should not be laden by realist notions, notably, 'the truth' and 'closer to the truth'.
CA-realist: the explication of 'truth approximation' and 'empirical progress' should be such that 1) 'truth approximation' explains 'empirical progress' and 2) 'empirical progress' supports the 'truth approximation'-hypothesis.

It will be shown in some technical detail how these conditions can be met by merely imposing the 'exclusion claim'.

Speaker
Theo A.F. Kuipers (1947) studied mathematics and philosophy in Eindhoven and Amsterdam. He is emeritus full professor of philosophy of science at the University of Groningen. A synthesis of his work on confirmation, empirical progress, and truth approximation, entitled *From Instrumentalism to Constructive Realism* appeared in 2000 as Vol.287 in the Synthese Library of Kluwer AP. A twin synthesis of his work on the structure of theories, research programs, explanation, reduction, and computational discovery and evaluation, entitled *Structures in Science*, appeared in 2001 as Volume 301 in the Synthese Library.
In December 2005 there appeared two volumes of Essays in Debate with Theo Kuipers, with in total 34 essays related to the books of 2000 and 2001, respectively. Both volumes start with a synopsis of the corresponding book and each essay is followed by a reply of Kuipers.

Studierende und andere Interessierte sind herzlich willkommen

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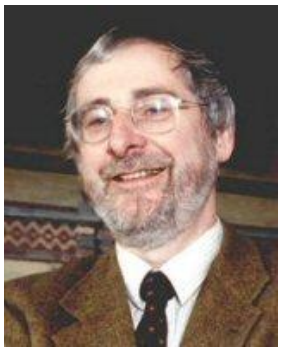

Mittwoch, 24.04.2013
18:15 – 19:45 Uhr

Gebäude 23.21 Raum 02.26

Comparative realism as the best explanation of empirical and aesthetic progress

Abstract
Arguments for and against scientific realism usually presuppose as the main epistemic claim about theories that we may have good reasons to conclude that they are true, or at least approximately true. The antirealist charges against this claim are not easy to counter. In this paper it is argued that the defense of realism is much easier if we relativize its epistemic claim in the light of (theories of) truth approximation. From this *comparative realist* perspective the main epistemic claim becomes that we may have good reasons to conclude that successor theories are closer to the truth than their predecessors. For example, although Einstein's theory of general relativity may still be false, and not even approximately true, we have good reasons to assume that it is closer to the truth than Newton's theory of gravitation. A similar relativization of claims that theoretical terms refer to things in the world is argued for in terms of 'being closer to the referential truth'. For both purposes it is also plausible to relativize 'being empirically successful' to the comparative notion of 'being (persistently) empirically more successful'. Similarly for 'being aesthetically successful'.

Comparative realism hence is realism guided by the comparative perspective on success and on truth approximation, that is, the notions of 'more successful' and 'closer to the (observational, referential, and theoretical) truth', and their mutual relations. In the full paper this approach is defended against the antirealist charges and compared with the main other realist responses. The main positive claim of comparative realism is that (theoretical) truth approximation provides the (stratified) default explanation and prediction of empirical progress between non-empirically equivalent theories and of 'aesthetic progress' between empirically equivalent theories. Here 'aesthetic progress' is understood in terms of the prevailing 'aesthetic canon' in the relevant field and period, that is, the prevailing non-empirical virtues of theories.

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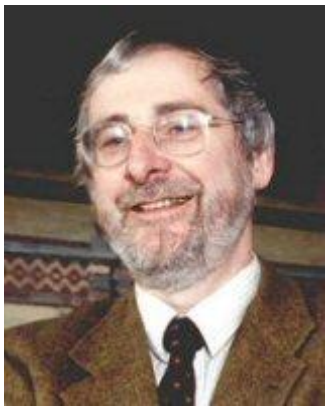

Freitag, 26.04.2013
14:15 – 16 Uhr

Gebäude 23.21 Raum 00.44b

Tutorial II:
Nomic truth approximation by belief base revision

Abstract
A previous attempt ("Basic and refined nomic truth approximation by evidence-guided belief revision in AGM-terms", *Erkenntnis*, 75.2, 223-236) to dovetail nomic truth approximation and belief revision, still assuming the strong claim of theories, was based on a refined form of belief revision, notably partial meet revision, using Adam Grove's spheres approach and Wlodek Rabinowizc's similarity foundation of it.
That dovetail attempt was said to be unsatisfactory because of an ad hoc feature, already in its basic form. Starting with the 'exclusion claim', it had in the end to add the 'inclusion claim'. In view of the simplification result (Tutorial I) this paper needs to be re-evaluated.
However, the present paper takes the perspective of belief *base* revision (Hansson) and shows first that the basic form is directly functional for nomic truth approaximation based on the exclusion claim. Then it is shown that a refined form, inspired by Grove's spheres approach and Rabinowizc's similarity foundation of it, is indirectly, via empirical progress, functional for the refined form of nomic truth approximation based on the exclusion claim.

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