

The SGSLPS and the Philosophy of Science Program at the University of Bern

# Reflective Equilibrium in Logic and Philosophy of Science

November 16, 2017

UniS

Schanzeneckstrasse 1

3012 Bern

Room B-102

10:15–10:25      **Welcome**

10:25–11:25      **Claus Beisbart**

*What is Reflective Equilibrium? A Fresh Look Based upon a Formal Model*

Reflective equilibrium (RE) is often taken to be a fruitful method in the foundations of logic (N. Goodman) and in the philosophy of science (J. Ladyman). Some authors have even gone as far as to recommend it for philosophy (D. Lewis) or understanding more generally (C. Elgin). But what exactly is reflective equilibrium? Despite its apparent popularity, the method is only vaguely characterized, poorly developed and almost never applied to real-world problems in an open-minded spirit.

The aim of this lecture is to make progress in our conception of RE. The starting point is an informal characterization of what I take to be the key idea of RE, viz. an elaboration of one's commitments due to pressure from a systematic theory. This key idea is spelled out using a formal model. It has been developed in the framework of the Theory of Dialectical Structures proposed by G. Betz. In the model, the commitments of an epistemic agent as well as theories are described as positions in a dialectical structure, respectively; desiderata for the commitments, the theories and their relationship are formulated, and a dynamics for the mutual adjustment of commitments and principles is defined. Simple examples, in which the model is applied, display a number of features that are well-known from the literature about RE. But they raise interesting systematic questions too. The lecture concludes by discussing how the model advances our understanding of RE. – The lecture is based upon work done jointly with G. Betz and G. Brun.

11:25–11:55	<b>Discussion</b>
11:55–13:30	<b>Lunch Break</b>
13:30–14:15	<p><b>Vladimír Svoboda</b>  <i>Deontic Logic in Search of Reflective Equilibrium – A Case Study</i></p> <p>Deontic logic has a reputation of being a problem child in the family of logical theories. While in other similarly old areas of non-classical logic we can usually identify theories which are widely accepted as standard, deontic logicians still have serious disagreement on fundamental issues. In my presentation, I will use examples to outline some challenges associated with the task of building a system of deontic logic which would withstand the reflective equilibrium test. Drawing on the case of deontic logic, I will also illustrate how crucial it is within reflective equilibrium considerations to clearly identify the task of the particular logical theory.</p>
14:15–14:45	<b>Discussion</b>
14:45–15:00	<b>Coffee Break</b>
15:00–15:45	<p><b>Jaroslav Peregrin</b>  <i>Reflective Equilibrium and the Conventionality of Reasoning</i></p> <p>In his book <i>Errors of reasoning: Naturalizing the logic of inference</i> John Woods argues that seeing logic as a result of the process of seeking or a reflective equilibrium is misconceived: “Reasoning would be subject to the nonnative clout of reflective equilibria if reasoning were a conventional practice. But this is the last thing that reasoning is.” Instead of this Woods puts forward a thesis he calls “convergence of the normal and the normative”: “As a first pass, and when there aren’t particular reasons to the contrary, how we do reason from premisses to conclusions is typically how we should reason. In other words, in matters of consequence drawing there is a trending convergence between the normative and the normal, between what is usually done and what is rightly done.”</p> <p>In my talk I am going to challenge Woods’s view. Though I think there is something to Woods’s considerations, I am convinced that his main assumption is wrong – that reasoning is conventional. In particular, reasoning, in the fully-fledged sense of the word, inevitably rides the vehicle of a language, and every language is conventional.</p>

I agree with Woods that in some simple cases of reasoning, how it is correct to reason is usually – though perhaps not inevitably – how it is in fact reasoned. Hence, in this sense the normative indeed usually converges with the normal. However, ironically, I think that this is precisely because reasoning is conventional – that how it is in fact reasoned determines what the words (especially logical words) mean, and what they mean determines how it is correct to use them, to reason. (The normative usually converges with the normal in cases of arguments the acceptance of which is taken to testify the understanding of the logical (or other) vocabulary. It need not, and often does not, converge with it in more complicated cases.)

Moreover, the fact that reasoning is conventional brings about the fact that there can be a lot of languages that could be used to play the “game of giving and asking for reason”. (By far not any kind of language we can – “conventionally” – adopt is a useful vehicle of reasoning, but there is no single language that would be forced on us by reason, by nature or by evolution – if only because of the “arbitrariness of the linguistic sign”). Thus our zooming in on the rules of logic proceeds in a faltering way – tentative explicit rules are adjusted to the pre-existing reasoning practices, whereas the practices are adjusted to fit the rules. And this is the process that leads us to the reflective equilibrium.

15:45–16:15

**Discussion**

16:15–16:30

**Coffee Break**

16:30–17:15

**Stewart Shapiro**

*Science and Logic: Logic and Science*

There is an extensive discussion of the extent to which the methodology of logic is the same as the methodology of science. The label “anti-exceptionalism” has been coined for the view that logic is not different from the sciences. We examine the perspectives of several leading logicians and philosophers, to see the extent to which this label makes sense.

17:15–17:45

**Discussion**