LUDWIK FLECK AND THE HERMENEUTIC
STUDIES OF SCIENCE

In his monograph *Genesis and Development of a Scientific Fact* Ludwik Fleck defines the concept of thought style in a scientific domain in terms of inhibiting, constraining, and bounding the possible diversity of basic theoretical ideas in a certain historical period of the domain’s development. A thought style is not amenable to a logical reconstruction. On a narrow (disciplinary) reading, a thought style constrains scientific cognition by determining (i) the rules of observation, instrumentation, and representation which express the domain’s cognitive distinctiveness, (ii) the rules which are pertinent to relating theoretical images to empirical models, (iii) the rules which demarcate the domain’s conceptual and empirical scope by distinguishing it from neighboring domains, and (iv) the rules by means of which relevant knowledge from other domains can be borrowed in the constitution of scientific facts. A style of thought can be identified with regard to these particular constraining rules. Yet Fleck insists on the holist and trans-subjective character of the concept of thought style. Accordingly, his (non-disciplinary, extended) reading of the concept assumes an identification of thought style beyond the particular constraints it imposes on cognition. Fleck figures out such identification in terms of historical epistemology and comparative cognitive sociology. In so doing, he addresses several hermeneutic phenomena. Among them one is to count the interpretative constitution (as distinguished from construction) of scientific facts; the effective history of the proto-ideas; the communication between thought collectives; the interpretative shift in scientific products’ meaning taking place in the “popularizing and legitimating transformations” during the social circulation of knowledge; the coexistence of “physical and figurative meaning” in a thought-style; and the historical resilience of the unity of a thought collective and a thought style.

The aim of the workshop is first and foremost to scrutinize these phenomena in a manner that would allow one to draw parallels between Fleck’s ideas and views of Martin Heidegger, Georges Canguilhem, Michael Polanyi, Peter Duesberg, and Karl Popper.

Speakers

Prof. Babette Babich (Professor of Philosophy, Fordham University, New York City)

Dr. Jeff Kochan (Research Fellow, Zukunftskolleg/Philosophy, University of Konstanz, University College Freiburg, University of Freiburg)

Prof. Dr. Hans-Jörg Rheinberger (Honorarprofessor für Wissenschaftsgeschichte, Director Max Planck Institute for the History of Science, Berlin)

Prof. Dr. Dimitri Ginev (Editor of the Journal “Studia Culturologica” and Professor for Hermeneutic Philosophy of Science and History of Hermeneutics at the University of Sofia, Visiting Scholar at Ludwik Fleck Center)

Moderators

PD Dr. Alexandra Kleihues (Associate Director/Head of Humanities at Collegium Helveticum)

Dr. Rainer Egloff (Affiliated Researcher at Ludwik Fleck Center)

Recapitulation

Dr. Erich Otto Graf (Scientific Researcher at Institut of Education, University of Zurich, Associate Professor at PH Karlsruhe, Affiliated Researcher at Ludwik Fleck Center)
**Program Friday**

Friday, November 29

Moderation: Alexandra Kleihues/Rainer Egloff

14.00–14.10 Opening

14.10–14.30 Dimitri Ginev
   Introductory Talk: Contexts of Reception, Contextualization, and Re-Contextualization of Ludwik Fleck’s Work

14.30–15.20 Babette Babich
   Fleck’s *The Genesis and Development of a Scientific Fact* and the Pseudo-Sciences – Or How to Talk about AIDS, Homeopathy, and Other Damned Things

15.20–15.50 Discussion

15.50–16.20 Coffee

16.20–17.00 Jeff Kochan
   Circles of Scientific Practice: *Regressus, Mathēsis, Denkstil*

17.00–17.30 Discussion

**Program Saturday**

Saturday, November 30

Moderation: Alexandra Kleihues/Rainer Egloff

10.00–10.40 Dimitri Ginev
   Ludwik Fleck’s Implicit Hermeneutics of Trans-Subjectivity

10.40–11.10 Discussion

11.10–11.30 Coffee

11.30–12.20 Hans-Jörg Rheinberger
   On the Possibility of a General Philosophy of Science Today

12.20–12.50 Discussion

12.50–13.20 Concluding Discussion

13.20–13.40 Erich Otto Graf
   Recapitulation
Abstracts

Fleck’s The Genesis and Development of a Scientific Fact and the Pseudo-Sciences – Or How to Talk about AIDS, Homeopathy, and Other Damned Things

Babette Babich

Another title for this contribution could have been “Pseudo-Science and the Argumentum ad baculum.” Certainly, the growing trend in philosophy of science is increasingly that of suppression by threat: toe this line—we won’t publish you, hire you, tenure you, above all we won’t read you and we certainly won’t cite you unless you conform and say what we want you to say. Nor, are these empty threats and almost every department featuring philosophy of science in the US, the UK, and in Europe exemplifies its force and its truth. In pointing this out, I follow Fleck ad I re-visiting the received view in the history and philosophy of science regarding the ‘genesis and development’ of the very fact, the thatness of mainstream science itself. Along the way, I pay attention to mainstream or ‘analytic’ philosophy of science.

In my article, “Towards a Critical Philosophy of Science,” which I initially wrote in order to challenge the prime paradigm science of science, namely physics, I used case studies of non-P sciences, i.e., nothing flaky, nothing pseudo, but just chemistry and geology and biology and even Gödel’s approach to physics. As a result I got to know a good many fellow travelers working in the fields they considered under-respected, like philosophy of chemistry. (Of course these scholars had never heard of continental philosophy of science and thus had no idea how lucky they really, already, were but that’s another paper.)

In particular, I undertook to examine the resilience of the very same Whig tendencies most of my colleagues in the history and philosophy of science have been pronouncing dead for decades. I found that the durability of Whig (or presentist) sensibilities corresponds to the difficulty of putting ourselves and our prejudices in question. And thus it seems that we have an acquired, as it were, hermeneutic deficiency. We don’t inquire so much as suppose or presuppose that we have the answers. And this fits with the scientistic conviction that science at least and if anything does, has the answers. Thus mainstream philosophy of science only tries to go with the flow. Whatever science says, they try to repeat. If science changes what it says, they have a problem. And because scientific progress is all about such change, philosophy of science tends to have trouble.

I had originally meant to call this talk “Towards an Anthropology of Lab Science” but one cannot limit one’s field work, as it were to the lab, itself. In fact one has one to read both written science, scientists publish, and philosophy of science. But for the above mentioned reasons, if one takes a critical perspective, one is quickly excluded. Hence alternative approaches such as continental philosophies of science have been silenced and, if one may be permitted to use the 1919 language of the utterly non-analytic and obsessively and anecdotally empirically inclined Bronx archivalist of science, Charles Hoy Fort (1874–1932), such approaches, like unpoplar sciences like homeopathy and naturopathy (that’d be herbs) are ‘damned’ in this fashion. Here, for me the most interesting parallel is that, like the exclusion of continental approaches to philosophy of science, lines of research and indeed entire styles of medicine as such have been effectively suppressed – in Fort’s terms, damned as ‘pseudo-sciences.’

The point of ‘damnation’ ensures that reference to certain observations as observations are excluded in advance as is reference to certain ‘facts’ as facts, thus such observations and facts (along with any mention of them) are banished from scientific discourse, ‘damned’ by nothing more arduous or challenging that the simple expedient of just mentioning such facts and in the philosophy of science by simply ignoring those who say other things, any other things at all.

In addition to homeopathy, which remains by far and away the favorite pseudo of the pseudo-baiters, we can also think of Pons and Fleischmann’s precipitous (by which I mean not that they had not discovered something “in fact” but just and only that the establishment was not ready for it yet) announcement of their work on cold fusion. Now that the dust has settled other researchers are doing it ‘right’ and other scientists, with no mention of Pons or Fleischmann, may be expected to win Nobel prizes for bits of work on cold fusion in years to come.

But what interests me most is Peter Duesberg’s important and persuasive research on the viral etiology of AIDS — Duesberg’s arguments have the clarity of pointing out that the emperor is naked, using epidemiological arguments, just the science Fleck himself has recourse to. Thus Duesberg asks why no viral epidemic in Europe and he raises challenging questions about the presentation of the disease as such (same disease?) in Africa? And, he asks why, throughout the history of the AIDS crisis in the United States where its presentation is most classic and well best, and just given the well-known closeted habits of gay men in the early years of the aids crisis there was never and there is no heterosexual AIDS epidemic.
Circles of Scientific Practice: *Regressus, Mathēsis, Denkstil*

Jeff Kochan

Hermeneutic studies of science locate a circle at the heart of scientific practice: scientists only gain knowledge of what they, in some sense, already know. This may seem to threaten the rational validity of science, but one can argue that this circle is a virtuous rather than a vicious one. A virtuous circle is one in which research conclusions are already present in the premisses, but only in an indeterminate and underdeveloped way. In order to defend the validity of science, the hermeneuticist must describe the method by which a vague and confused initial knowledge of nature gets transformed into a clear and determinate knowledge of nature. In this talk, I will consider three accounts of such a method. The first is *regressus demonstrativa*, favoured by the medics of Padua during the fifteenth and sixteenth centuries. The second is *mathēsis*, introduced by Martin Heidegger in his discussion of seventeenth-century science. The third is *Denkstil*, a key concept in Ludwik Fleck’s history of syphilology. Each of these accounts concerns a circle of scientific practice. Yet each also differs in striking ways from the others. Attention to these differences highlights the methodological pluralism of hermeneutic analyses of science.

On the Possibility of a General Philosophy of Science Today

Hans-Jörg Rheinberger

This talk will approach the topic of what a general philosophy of science could mean today from the perspective of historical epistemology. Consequently, in a first step, the paper looks at the notion of generality in the sciences, and how it evolved over time, on the example of the life sciences. In the second part of the talk, the urgency of a general philosophy of science is located in the history of philosophy of science. Two attempts at the beginning of the twentieth century are particularly highlighted: that of Karl Popper and that of Martin Heidegger. Both of them concentrate, albeit in widely different form, on the phenomenon of research as an open-ended process. This trend is even more pronounced in Gaston Bachelard’s and Ludwik Fleck’s versions of an historical epistemology, respectively. The talk will conclude with a plea to look, with Georges Canguilhem, at the history of the sciences as a laboratory for epistemology.
Ludwik Fleck’s Implicit Hermeneutics of Trans-Subjectivity

Dimitri Ginev

This talk is based on an elaborated contrast between the sociological concept of inter-subjectivity and the hermeneutic concept of trans-subjectivity. The aim is to reveal the peculiarity of Fleck’s transcendental position. In his Foreword to *Genesis and Development of a Scientific Fact*, Thomas Kuhn observes that for Fleck the thought collective supplies its members with a sort of Kantian categories, prerequisite to any thought that can be constrained by rules. Thus, Kuhn admits that Fleck’s conception implies a transcendental subject hidden in each thought collective. Though this conception is not to be recast in terms of Kantian epistemology, it is essentially characterized by a transcendental dimension. This dimension is brought into play in the first place by the kind of sociality of the thought collectives. It is a sociality that is not constituted through routine interactions and inter-subjective cooperation. Its formation is due to a collectively shared horizon of possibilities for seeing, observing, experimenting, formalizing, conceptualizing, and theorizing. This horizon constrains the cognition by defining the range of possibilities that can be chosen and appropriated, thereby hiding some possibilities from the thought collective. Yet the horizon always remains open, and accordingly, always transcends the present situation of doing research. The talk will examine the ways in which this transcendence gets approached in Fleck’s socio-historical epistemology.