

Weak Knowledge: Forms, Functions, and Dynamics

Frankfurt am Main, 2-4 July 2017

Conference Program

Version of 26 June 2017

The conference takes place in the building “Normative Orders” on Campus Westend of Goethe University, Max-Horkheimer-Str. 2, 60323 Frankfurt/Main.

Saturday, 1 July 2017

19:00 Reception of conference participants (top floor)

Sunday, 2 July 2017

9:15 Welcome (conference hall, ground floor)

Session 1: Knowledge Regimes and Situated Knowledge

9:30 Moritz Epple: *Weak Knowledge: An Introduction*

10:00 Anne Marcovich and Terry Shinn (Paris): *Science Research Regimes: Processes of Blurring and Weakness*

10:45 *Coffee break*

11:00 Katharine Anderson (Toronto): *From Tower to Ocean: Eiffel and Meteorology*

11:45 Andy Pickering (Exeter): *Finding Out: Unknowability/Situated Knowledge*

12:30 General discussion

13:00 *Lunch*

Session 2: Epistemologies of Weak Knowledge

- 14:00 Daryn Lehoux (Kingston, Ontario): *Knowledge and Foreknowledge in Ancient Astrology*
- 14:45 Orna Harari (Tel Aviv): *The Skeptical Challenge and the Principles of Demonstrative Sciences*
- 15:30 *Coffee break*
- 16:00 Rivka Feldhay (Tel Aviv): *On Literary (weak) and Scientific (strong) Knowledge: The Figurative, the Conceptual and the Performative*
- 16:45 Monika Wulz (Zürich): *Economical Fictions and Fictional Economics (1870s/1920s)*
- 17:30 Comment by Hans-Jörg Rheinberger and general discussion
- 18:30 End of discussion
- 20:00 *Dinner*

Monday, 3 July 2017

- 9:15 Presentation of Sonderforschungsbereich 1095 by Iwo Amelung (Frankfurt)

Session 3: The Medical Field

- 9:30 José Brunner (Tel Aviv): *Speedy Trains, Strong Laws, Weak Experts: On the Juridification of Medical Discourse on Nervous Shock in Late 19th Century England*
- 10:15 John H. Warner (Yale): *Personal Equations: Modernist Dissonances in American Medicine at the Turn of the Twentieth Century*
- 11:00 *Coffee break*
- 11:30 Cornelius Borck (Lübeck): *Negotiating Epistemic Hierarchies in Biomedicine*
- 12:15 Comment by Mitchell Ash and general discussion
- 13:00 *Lunch*

Session 4: Weak Actors?

- 14:00 Eleanor Robson (London): *Warehouse as Schoolhouse: Informal Cuneiform Literacies in Rural Babylonia, c.1500 BC*
- 14:45 Laurence Totelin (Cardiff): *A Little Old Lady Told Me: Appropriation of Weak Actors' Knowledge in Graeco-Roman Botany and Pharmacology*
- 15:30 *Coffee break*

- 16:00 Sven Dupré (Amsterdam): *Failure and the Imperfections of Artisanal Knowledge in the Early Modern Period*
- 16:45 Suman Seth (Ithaca): *Pathologies of Blackness: Race, Medicine, and Abolitionism in the British Empire*
- 17:30 Comment by Annette Imhausen and general discussion
- 18:30 End of discussion
- 20:00 *Dinner*

Tuesday, 4 July 2017

Session 5: Environment and Climate

- 9:30 Dominique Pestre (Paris): *Games of Thrones: Knowledge about Environmental Destruction – Which is Weak and Which is Strong?*
- 10:15 Matthias Heymann (Århus): *Knowledge Production with Climate Models: On the Power of a “Weak” Type of Knowledge*
- 11:00 *Coffee break*
- 11:15 Richard Staley (Cambridge): *Partisan Knowledge: On Hayek and Heretics in Climate Science and Discourse*
- 12:00 Comment by Falk Müller and general discussion
- 12:45 Closing remarks and discussion
- 13:30 End of conference

Abstracts

Katharine Anderson

From Tower to Ocean: Eiffel and Meteorology

Gustave Eiffel (1832-1923), who we know best as an engineer, was deeply interested in meteorology and built an early wind research lab in Paris. This talk looks at his Atlas Météorologique published from 1906 to 1913, which presented his arguments about how to best represent data (and why the French scientists of the day were doing it badly). Eiffel's aeronautical interests kept him oriented towards the future, but his Atlas and its concerns with visualization of scientific data display an interesting mixture of old and new.

Cornelius Borck (Lübeck)

Negotiating Epistemic Hierarchies in Biomedicine

With the introduction of the systematic clinical examination and the experimentalization of the life sciences in the 19th century, medicine disconnected from earlier, more situated concepts of health and illness. Claude Bernard's *Introduction to the Study of Experimental Medicine* from 1865 is often cited as canonical text establishing medicine as an experimental science. Medicine's alliance with the laboratory revolution resulted in an unprecedented course of technological development, with modern biomedicine now dominating medical practice on a global scale. The development of ever more refined and more costly interventions, however, called the system of scientific expertise into question towards the end of the 20th century, especially in countries with a national health service. The movement for evidence-based medicine (EBM), a self-proclaimed "new paradigm" for clinical practice, questioned scientific explanations as sufficient for legitimizing a therapeutic intervention and called for a systematic evaluation of their clinical efficacy. This resulted in a new "pyramid" of evidence with scientific explanations no longer ruling at the top but serving an explanatory role at the bottom, whereas meta-analyses of randomized clinical trials ranged at the top. Going far beyond epistemological discussions in philosophy of medicine, the implementation of EBM re-negotiated knowledge and power relations in the health sector. The strong claims of EBM have been challenged in many ways; for the context of our conference the initiatives for individualized medicine provide a particularly fascinating case: Here the laboratory sciences of genetics and molecular biology team up with information science and systems biology for developing new forms of situated biomedical knowledge adapted to the specificities of a particular case. In medicine, weak and strong forms of knowledge cannot be differentiated abstractly but the strength of a particular form of knowledge depends on the epistemological framework of clinical practice.

José Brunner (Tel Aviv)

Speedy Trains, Strong Laws, Weak Experts: On the Juridification of Medical Discourse on Nervous Shock in Late 19th Century England

The industrialization of Britain in the second half of the 19th century was marked by the swift expansion of the railway system. This led to legislation aiming to control some of the harmful consequences of the rapid growth of railways by imposing strict liability on railway companies, which meant that medical expert testimony became decisive in the assessment of the damages to be compensated and thus played a pivotal role in legal proceedings. In the course of the 1860s tort law dealing with railway accidents created not only a space for medical testimony but also gave rise to a series of medical publications on nervous shock in the wake of railway accidents.

The editors of the two leading British medical journals – the BMJ and The Lancet – as well as doctors who frequently appeared in British courts as experts on nervous shock, did not regard the opening of the legal realm to medical testimony as an opportunity to expand the social authority of medicine and to bolster the status of its knowledge. Rather, they perceived it as a process that weakened the social status of doctors in a variety of ways: a) by generating public displays of disagreement among medical experts, b) by forcing them to articulate medical knowledge in lay terms understandable to jurors, and c) by impacting detrimentally on the status of doctors vis-a-vis accident victims whom they had to examine for nervous shock, but who entered consulting rooms as no longer as patients only, but always also as potential or actual claimants. Thus, in the last third of the 19th century British doctors were critical of developments that made medical procedures serve legal proceedings, thereby subjecting them to legal needs, purposes and form.

First, this paper tells the story of the juridification of medical discourse on nervous shock in late 19th century England, focusing on the hierarchical relations between law and medicine. In addition, it presents the critical views of leading medical practitioners of the period on these dynamics. Third, it enquires into the complexities inherent in the interplay of law and medicine, drawing attention to the way in which the juridification of medicine also weakened the status of legal reasoning itself, since the introduction of medical experts into tort proceedings turned medical decisions on causality into a corner stone of legal decisions. Finally, this paper shows that medical knowledge involved in tort proceedings on nervous shock was not only weak socially, but also epistemologically. It could not really supply what it was pretended to provide: a scientific account of the causality involved the origins of nervous shock.

Sven Dupré (Amsterdam)

Failure and the Imperfections of Artisanal Knowledge in the Early Modern Period

In the early modern period it was a topos that the apprentice could only learn a craft by making mistakes. “Even if I used a thousand reams of paper to write down all the accidents that have happened to me in learning this art,” the French potter Bernard Palissy famously wrote, “you must be assured that, however good a brain you may have, you will still make a thousand mistakes, which cannot be learned from writings, and even if you had them in writing you wouldn’t believe them until practice has given you a thousand afflictions.” This paper explores artisanal textual practices as strategies to deal with the uncertainty of artisanal processes and the whims of materials. Confronted with the precarious nature of artisanal knowledge, variation had always been the most important strategy of error management. However, following the dissatisfaction with ways of writing down knowledge hiding the imperfection of the process of knowledge production expressed in the work of Francis Bacon and Johannes Kepler, the codification of error emerged as a new strategy. This new conception of the epistemic value of failure and error is reflected in artisanal texts.

Rivka Feldhay (Tel Aviv)

On Literary (weak) and Scientific (strong) Knowledge: The Figurative, the Conceptual and the Performative

My main argument in this paper purports to show that any complete dichotomization between knowledge produced in a literary discourse (hereafter “weak” knowledge) and knowledge produced in the sciences (“strong” knowledge) is not simply an abstraction, but actually it is an illusion. To clarify what I mean, I shall use two examples: the first relates to Galileo Galilei’s discourse in his *Dialogue Concerning the Two Chief World Systems*, and especially to his discussion of inertial motion. The second example will offer an analysis of a few episodes from Feodor Dostoevsky’s novel *Devils* (or, in another translation: *The Possessed*). Both examples, I shall argue, consist of figurative, conceptual and

performative elements. Both offer a very meaningful piece of knowledge about the world. Both represent knowledge that is weak and strong at the same time. The last part of the paper will point out the differences – but not dichotomous differences – between these two kinds of humanistic and scientific knowledge.

Orna Harari (Tel Aviv)

The Skeptical Challenge and the Principles of Demonstrative Sciences

Proclus' *Elements of Theology* differs in its structure from other ancient philosophical texts. As the word 'elements' in its title suggests, in this work Proclus applies the deductive method used in geometry to theology or metaphysics, and presents a chain of demonstrations that prove in a descending order of logical priority the principal doctrines of Neoplatonic ontology. Although this ambitious endeavor is unprecedented, it takes its cue from a long philosophical tradition that views metaphysics as a demonstrative science. In this talk I try to find the origins of this view, thereby offering one possible explanation for why philosophers in later-antiquity found the idea that metaphysics is a demonstrative science appealing. In so doing, I examine the earliest extant formulations of this view and argue that that idea that metaphysics is a demonstrative science originates, perhaps paradoxically, in mathematicians' criticism of philosophy, which was based on skeptical criticism of dogmatic philosophy. I then discuss the philosophers' different responses to this criticism, showing how they ultimately led to Proclus' understanding of metaphysics that, unlike his predecessors' understandings, succeeds to establish the methodological *and* epistemological superiority of metaphysics to mathematics and the other sciences.

Matthias Heymann (Århus)

Knowledge Production with Climate Models: On the Power of a "Weak" Type of Knowledge

Climate modeling and simulation has become a hegemonic knowledge resource in the late 20th century. It gained scientific and political importance and visibility, whereas traditional and alternative resources of climate knowledge received increasingly less attention. On the other hand, climate models include significant simplifications. Climate modelers agree that they do not represent all features of the atmosphere realistically. In addition, knowledge derived from climate simulation suffers from significant uncertainties, which limited its acceptance in parts of the scientific community. In my contribution I will show that the emergence and increasing predominance of knowledge based on climate simulation went along with shifts of epistemic and cultural standards in science. Climate scientists responded to changing cultural contexts and created a culture of climate prediction. My contribution will focus on the early history of climate modeling in the USA and in the UK from about 1960 to 1980.

Daryn Lehoux (Kingston, Ontario)

Knowledge and Foreknowledge in Ancient Astrology

In his monumental synthesis of ancient astrology, the *Anthology*, Vettius Valens introduces a number of case studies as empirical evidence for the astrological theories, forces, and relationships at play in the universe. He also lambastes rival practitioners who, he says, are bringing the discipline of astrology into disrepute by providing incorrect predictions. This paper aims to unpack the epistemology that underlies Valens' sophisticated text, in order to understand how Valens saw and characterized the foundations of his own knowledge, a disciplinary knowledge of the cosmos that in itself permitted an accurate (he thought) *foreknowledge* about the fate that awaited individual human beings.

Anne Marcovich and Terry Shinn (Paris)

Science Research Regimes: Processes of Blurring and Weakness

The topic of science research regimes operating across the centuries offers a privileged perspective for examination of structures and dynamics of weakness. Here, one finds cumulative information on regimes related to rise and fall over some four hundred years. We propose to develop a perspective that permits us to evaluate the question of weakness in science knowledge and institutions from the angle of the processes which affect their internal organization and the dynamics of their transformation. Ground on this, one may glean some insights into what constitutes “weakness”, and what configurations give rise to it inside research regimes. Identifiable markers of weakening and weakness in science research regimes (perhaps indeed in all intellectual, organizational and economic environments) are assuredly associated with change in resources, intensity, efficiency, scale and impact. Consequences of weakness are destruction, loss of dominant position, necessity to compete with others, transmutation and extinction. This is as much true for science regimes as for many or all other expressions of science – and often beyond.

In our comparative historical sociology project focusing on science research regimes, “regime” is composed of four dimensions – boundary, authority, community and circulation. It is the specific geometry of the relations (instead of linkage) between the four in terms of hierarchy and linkage, and the empirical content of trans-dimension interlacing that determines the physiognomy of a specific research regime. By comparing the ups and downs of different regimes with reference to dynamics of each of the four above listed dimensions, we can identify precisely which dimension or cluster of dimensions accompany dislocations and weakness within a regime.

We draw attention to the primacy of two key dimensions in the operation of weakening and weakness within science research regimes – “boundary” and “authority”. Serious alteration in boundary rules and characteristics of intra-boundary spaces strongly impact patterns of authority; and this boundary-authority tandem in turn can destabilize and even undermines the strength of regime – a process of weakening. Stated differently, alterations of boundary density, porosity and the features of the spaces lying within boundaries (confined versus extensive) are of key relevance to the structure and dynamics of weakening. Authority patterns in terms of cognitive and organizational reach and impact shift in response to the limitations and possibilities made available by boundary conditions. Matters of authority include issues of reputation and resources in a framework of scale of community, degree of impact and matters of resources. Boundary also establishes the legitimate intellectual, communication-community setting, and it establishes constraints of legitimate circulation. Stated succinctly, boundary frames authority, and authority affects the mold of community and circulation. Modifications in composition of community and pathways of intellectual and institutional circulation follow – a cascade effect!

In our paper, structures and dynamics of science regime weakening as framed by changing relations between boundary and authority will be discussed with reference to three regimes – the Polycentric, Disciplinary and Interdisciplinarity regimes.

Dominique Pestre (Paris)

Games of Thrones: Knowledge about Environmental Destruction – Which is Weak and Which is Strong?

This paper considers the variety, hierarchy and battles of knowledge about the truth of environmental destruction since the late 1960s, and about what would make appropriate solutions. That implies central institutions – states, business, the World Bank and IMF, OECD, UNEP and WTO – but also NGOs and *Think Tanks*, all forms of experts, notably economists, and populations. The paper considers knowledge about facts, causal relationships and remedies, and implies experimental and clinical sciences as well as epidemiology, modelisation and social sciences.

I will be pragmatic and say that knowledge claims are weak when they are refused, ignored or fiercely combated by large segments of populations; symmetrically a good symptom of a strong knowledge is that collective action is decided, and protective moves are taken. So IPCC knowledge about climate change is weak knowledge among Republican voters in the US since the mid-1990s, and stronger in continental Europe.

Exchanges between strong and weak positions, as far as knowledge is concerned, are quite common and rapid around the environment. Basically it depends on the (social or institutional) space in which debates take place. Disagreement is the norm and no claim can be strong everywhere. And around environmental destruction and remediation, social, political and economic capital is the more potent parameter to make its own knowledge a strong one – under Trump, for example, there is no (real) climate change to worry about.

Several remarks are in order to understand the specificity of knowledge claims around environmental destruction and protection:

(1) there is no one environment, one problem, one preoccupation; ‘environment’ is a large set of concerns ranging from panda protection to control of pesticides, protection of tropical forest (but not ours) and sustainability in economic growth;

(2) there is no one type of solution and they vary from norms, taxes and ‘economic instruments’ to financial compensation to victims, business engagements, Total Quality Environmental Management or the creation of ‘new markets’ (for CO₂ for example) ;

(3) the key point is that environmental destruction is the reverse side of production, consumption and modes of life – so arguments for environmental protection tend to be weak compared to those for economic growth or employment, notably in times of crisis;

(4) said otherwise, beliefs in environmental knowledge claims are heavily sensitive to social situations – and they tend to weigh only on the margins of decisions;

(5) that might explain the constitutive paradox of environmental protection: production of knowledge and initiatives for action in the environmental field since the 1970s have been fantastically numerous, varied and ambitious – but results remain extraordinarily weak.

What I intend to do in the talk is just to evoke and contrast two moments and situations :

(1) around 1968-72, when pollutions are the problem, when contestation is high, when states play key roles, when norms and economic instruments are said to be the solutions – and when cost/benefit analysis is the central tool to weaken demands by environmentalists;

(2) around 1988-92, when international business changed position, claimed they care about, and know how to save, the environment without killing growth, and suggested governance, management and voluntary engagements as the solutions.

Environmental pollution was now less the target than sustainable development, climate change tended to monopolize the environmental question, and action was torn between global arrangements prepared by powerful actors for the future – and the local need to adapt *now*. However, part of business in the US refused that solution, claimed there was no big crisis, denied urgency and profoundly displaced forces at play. From that moment the European and American trajectories started to diverge.

Andy Pickering (Exeter)

Finding Out: Unknowability/Situated Knowledge

My work in STS has spanned a spectrum of kinds of knowledge and associated ontologies. At one end are the hidden truths of nature assumed and explored in particle physics, which we could think of as exemplary of 'strong knowledge.' At the other extreme would be the unknowable world of cybernetics and the various sorts of superficial, provisional, revisable, situated and thus 'weak' knowledge that go with that ontology. This paper is concerned with the weak end of the spectrum, and I am especially interested in exploring relations between situated knowledges and practices: what is the use of

knowledge that is not timeless truth? I will try to think through some issues in relation to interesting examples that might include biological computing, adaptive ecological management and permaculture.

Eleanor Robson (London)

Warehouse as Schoolhouse: Informal Cuneiform Literacies in Rural Babylonia, c.1500 BC

Over the past five years, excavations at the archaeological site of Tell Khaiber near Nasiriyah in southern Iraq have fundamentally challenged our understanding of the extent of cuneiform literacy in ancient Babylonia. The Ur Regional Archaeology Project has uncovered the remains of a large administrative and storage building, containing some 150 cuneiform tablets dating to the mid-second millennium BC. As I shall explain further in this talk, they reveal a surprising range of users and uses of writing, with a surprising range of knowledge and expertise. This exciting new data, from a supposed “dark age” of Babylonian history, invites us to rethink the accessibility of this supposedly impossibly complex ancient script. I shall consider the extent to which the model of ‘weak knowledge’ can inform our interpretations of these findings.

Suman Seth (Ithaca)

Pathologies of Blackness: Race, Medicine, and Abolitionism in the British Empire

This paper explores the relationships between race, medicine, abolitionism, and slavery within the British Empire in the second half of the eighteenth century. While the literature on abolitionist debates is large, comparatively little attention has been paid to the role played – on either side – by medical men. As we will see, however, relationships between medicine, climate, and disease were critical for a debate that turned on who was to blame for the inhuman and near-unimaginable losses of human life due to the ‘seasoning’ or whether black bodies were essential for the cultivation of sugar under a blazing New World sun. Medical men and medical logics were marshaled in arguments over African inferiority and the very question of their humanity. And doctors, surgeons, midwives and others all participated in ongoing discussions over the question of the single or multiple origins of different ‘races.’ As abolitionist critiques provoked changes – more or less cosmetic – doctors became even more thoroughly imbricated within the slave system. From the 1760s one begins to find medical texts written on ways to handle the initial seasoning and later care of slaves. From the 1780s, the writings of men who claimed to administer to the medical needs of thousands of slaves per year were cited, critiqued, and debated in parliamentary sessions devoted to the question of the continuation of the trade within the British Empire. Abolitionists, I show, excoriated planters for the death and suffering – from disease, neglect, and harsh treatment – of the slaves they owned, while some West-Indian doctors used their experiences to offer *apologia* and negations of precisely these charges.

Richard Staley (Cambridge)

Partisan Knowledge: On Hayek and Heretics in Climate Science and Discourse

This paper examines the legacy of Friedrich Hayek and the positions developed by climate change sceptics, who currently cast themselves as heretics arguing against the corrupted and politicized science of the IPCC, in order to characterize the features of what I will describe as “partisan knowledge.” Oreskes and Conway have analysed how such sceptics worked to produce doubt on a series of issues, and Joshua Howe has argued that most critique of climate change science has been reactive, shaped in response to the research and advocacy of scientists who had already made carbon and climate a policy concern. I aim to complement these studies of sceptical strategies with an analysis of the forms of

knowledge that avowed partisans assert – both of the subject at issue, and of their opponents – when arguing from a position of weakness. Given the centrality of Hayek’s 1944 *The Road to Serfdom* to the political and economic stances advocated by many climate sceptics, I will link a study of Hayek’s work to an analysis of two recent sceptical accounts of the climate consensus, Singer and Avery’s *Unstoppable Global Warming* (2007) and Idso, Carter and Singer’s, *Why Scientists Disagree About Global Warming* (2015). Historians and sociologists of science have often studied the development of knowledge through scientific controversies. I hope that articulating the characteristics of “partisanal knowledge” will help us better understand controversies across scientific, political and economic stances.

Laurence Totelin (Cardiff)

A Little Old Lady Told Me: Appropriation of Weak Actors’ Knowledge in Graeco-Roman Botany and Pharmacology

Ancient pharmacological and botanical texts in Greek and Latin incorporate material from all strata of society: from peasants, peddlers, herbalists, learned physicians, and rulers. This paper will investigate some of the material attributed to the weakest social actors: slaves, people of the lower classes, and women. I will examine the methods through which learned authors collected this material by examining some of the anecdotes they give us of their encounters with weak agents. We will see that these anecdotes are often included for entertainment purpose, and may therefore further diminish the authority of already weak agents. Second, I will look at the ways in which learned authors distanced themselves from these socially weak agents, and in particular at the erasing of these agents’ personal names. Indeed, these agents are rarely identified by their name, but rather by some general reference to their ethnicity, status, and/or profession. I will conclude with some reflection on literacy and orality in classical antiquity. Many weak actors – but not all – would have transmitted their knowledge orally rather than in writing. Thus, while learned authors shamelessly appropriated for themselves weak actors’ pharmacological and botanical knowledge, they paradoxically lent these actors a voice by preserving some of this knowledge in writing.

John Harley Warner (Yale University)

Personal Equations: Modernist Dissonances in American Medicine at the Turn of the Twentieth Century

Judged by the appraisal of physicians at the time and the assessment of later historians, the new version of reductionist, laboratory-based scientific medicine that emerged in the final third of the nineteenth century represented a program that was “strong” epistemologically, socially, and culturally. This was a program characterized by aspirations to exactness, precision, mechanical objectivity, reductionism, standardization, self-abnegation, automaticity, and the drive to eliminate the personal equation. My focus in this talk is a program that co-emerged in the 1890s to retrieve and advocate for epistemologically “weaker” forms of knowledge and their social and moral correlates that efforts to promote the new scientific medicine had disparaged, dismissed as lesser, and rendered disreputable. While celebrating the gains brought by the new medical order, American clinicians concerned that its epistemological house cleaning might have been too aggressively thorough began to speak up for many of the clinical virtues that had been marginalized, lost, or placed at risk of being lost, such as personal judgment, individual experience, the educated senses, attention to the idiosyncrasies of individual patients, and a cultivated medical artistry. They were making the case for something in addition to, not instead, in the grounding of modern medicine, sounding a note of dissonance more than of dissent. Tellingly, for example, while physicians continued to point to “the personal equation” as an impediment to precision to be eliminated, some simultaneously began to use the term in a new positive sense to refer to the clinician’s personal judgment and personal knowledge of the individuated patient. This was the

moment when “clinical acumen” prominently came to the fore as one way of capturing what distinguished the physician-artist from the mere technician, and when the “art” of medicine – while retaining its earlier connotations – more and more came to stand for what was fragile, missing, or undervalued. What we might call the discourse of deficiency that emerged in the 1890s was a lament and jeremiad, but also a program to retrieve ways of knowing and acting that had been diminished and discounted as the new version of scientific medicine gained in power.

Monika Wulz (Zürich)

Economical Fictions and Fictional Economics (1870s/1920s)

In 1911 Hans Vaihinger published his book *Philosophie des Als Ob* (Philosophy of ‘As if’) in which he sketched a theory of reasoning based on a fictional epistemology. He argued for the role of fictions in knowledge production on grounds of an economy of thought based on a combination of Neo-Kantian and pragmatist thought. In the 1920s Vaihinger’s Philosophy of ‘As if’ was transferred to economic studies. Economists such as Hellmuth Wolff in Halle referred to Vaihinger in order to argue for the epistemic value of non-empirical knowledge in the discipline of economics. In his study on the fictional character of the concept of ‘homo oeconomicus’ Wolff, for example, tried to establish this fiction as an essential and useful methodological tool for economic reasoning that understands trade as the basic form of economic activity – an understanding that emerged with the foundation of classical economics at the beginning of the 19th century and is still prevailing today in neoclassical mainstream economics. The paper will examine the role of fictions in epistemology in the first decades of the 20th century and the conflict between empirical and non-empirical knowledge in economics when the methodological foundations of modern economics were debated.