Summary

Contemporary Approaches in Historical Epistemology

This collective monograph surveys and analyzes contemporary approaches in historical epistemology and the ways in which some traditional problems of philosophy, history and sociology of science can benefit from this particular research orientation.

Jan Maršálek's chapter aims to distinguish between the uses of history in the work of three representatives of the French tradition of the history of sciences – Canguilhem, Foucault and Hacking. The alleged proximity of the methods employed by these three authors makes it easier to evaluate the efficiency of the "uses of history" as a criterion for discrimination among different programs of the so-called "historical epistemology". The choice of the parts of their work dedicated to the study of psychology (psychiatry), helps to homogenize the field of comparison even further. First, every single author is treated separately and in his own right. Then, in the last section of the chapter, the differences with regards to the uses of history – and hence those related to the epistemological projects pursued by the selected authors – are explicitly revealed.

The aim of Daniel Špelda's chapter is to provide an outline of the genesis of the idea of scientific progress emanating from the methodological principles of historical epistemology. In the first part, historical epistemology is briefly introduced. Then follows a more detailed scrutiny of the approach characteristic for Lorraine Daston, who usually focuses on the history of epistemic concepts and categories, such as objectivity or fact. In the second part, the methodological principles of Daston's historical epistemology are applied to the history of the idea of scientific progress. The argument claims that there were four main prerequisites for introducing the idea of scientific progress in the scientific practice of the early modern period: a) anthropological change embracing the denial of the teleology of nature; b) epistemological change entailing the acceptance of time

as an objective condition of knowledge; c) historiographical change replacing the worship of Classical Antiquity with a belief in future achievements of science; d) empirical change, including the increase of empirical objects, science had to cope with as a result of the discovery of America and other discoveries (e. g. new stars in the sky). In the last part, a criticism of historical epistemology and doubts regarding its benefits are introduced and partially resolved.

Using the historical-epistemological approach towards scientific concepts, pioneered by Bachelard, Canguilhem and Foucault, Ondřej Švec seeks to outline a set of historical conditions of objectivity. In their panoramic volume on *Objectivity*, Daston and Galison trace some important transmutations of the very concept of objectivity, corresponding to different epistemological virtues, since the end of eighteenth century. While summarizing the main insights of Daston's and Galison's historical investigations that should be taken into account by philosophy of science, the author demonstrates that to *historicize* objectivity is far from asserting that objectivity is a deluded or false enterprise. On the contrary, scientific investigations can be held as a rational set of practices only if they give rise to epistemological breaks, thus producing discontinuities in our way of explaining natural phenomena. Finally, he addresses some critical remarks towards the approach adopted by Daston and Galison, insofar as they tend to reduce the issue of objectivity of scientific research to a history of representing the reality.

Michal Šimůnek's chapter "On conceptual changes of authenticity as epistemic category in anthropology" opens with Clifford Geertz's observation that credibility and persuasiveness of anthropology is not accomplished via theories or methods, but rather due to the capacity to persuade readers that what they are reading is an *authentic* account by someone personally acquainted with a way of life in a culture on the periphery of Western civilization. Geertz based his argumentation on the analysis of selected writings of Lévi-Strauss, Evans-Pritchard, Malinowski and Benedict and identified several literary and rhetorical strategies these authors had used to make their ethnographic descriptions authentic. Geertz's analysis is almost exclusively textually-oriented, he is primarily concerned with the ques-

tion "How anthropologists write?" But the concept of authenticity is much broadly and deeply embedded within the anthropological enterprise and, at the same time, its meaning is ambiguous and very unstable. That is why the author's aim is to show how several different concepts of authenticity pervade anthropology and how they have changed in the context of the so-called postmodern, dialogical and, quite recently, also digital turn in the social sciences. Following Taylor's, Ferrara's and Trilling's analyses of the conceptual changes of authenticity in the Western tradition of philosophy, he argues that we can distinguish two main concepts of authenticity in anthropology: the monological one and the dialogical one. Although both of these concepts play significant role in contemporary anthropology, especially the dialogical one is recalled with ever increasing enthusiasm. In this context, he turns to digital ethnography (ethnographic craft based on digital methods and digital authoring tools) where dialogical expectations are associated with the ability of the new media to lessen the distance between the researcher and the subject of research, thus blurring the boundaries between data, analysis and representation of knowledge. As a conclusion, he briefly describes several examples of recently released digital ethnography research projects and argues that if social scientists want to use digital media for the authentication of their ethnographic craft, they should pay more attention especially to the craft of digital storytelling.

Jan Balon provides an account of recent approaches developed in the historiography of the social sciences that draw on the agenda of historical epistemology. Primarily, it focuses on the reasons behind today's more and more intense historical research focus on "institutional" history of the social sciences. It is shown that previous research in the history of the social sciences has predominantly focused on the history of theoretical (intellectual) thinking, in which the institutional and material contexts were largely neglected. Building on the arguments elaborated in recent literature on the social science history, Jan Balon claims that institutional history shows a clear potential to interpret historical development of the social sciences not as a series of conflicting, competing and confused ideas, concepts or assumptions, as is the case in approaches focusing on intellectual his-

tory, but as a coordinated organizational effort forming professional identity of social scientific disciplines in the overall structures of the academic and scientific world. He also argues that the continuity of the social sciences is now provided almost exclusively by institutions requiring a considerable degree of prescriptiveness in styles of doing science. This chapter refers especially to the historical analysis of the practices involved in the production, evaluation and application of social knowledge, as elaborated in the the book *Social Knowledge in the Making* edited by Camic, Gross and Lamont. It also makes use of the empirical approach developed by Fleck in his recent *Transatlantic Exchange of Ideas*, especially with regards to his historical account of the institutional innovations introduced during the "Great Transformation" of the social sciences in the 1920s. The argument put forward in this chapter suggests that the dominant (and ritualized) focus of historical accounts on the intellectual history is rather exhausted under the current conditions within universities, academic and research institutions and does not affect the epistemological questions about the nature of knowledge produced by the social sciences. In the most general sense, the chapter concludes that the social sciences can operate within academic structures without distinct intellectual identity – heterogeneity, lack of clarity, disunity of underlying intellectual perspectives seem to make up the current state (and fate) shared by all social sciences to a greater or lesser extent. They can, however, hardly function without any criteria applicable to the questions of "production, evaluation and application of" social knowledge. The lack of clarity as to what form of knowledge these sciences produce, which is a question that can hardly be addressed outside the historical epistemology's agenda, seems to be far more threatening to the existence of social sciences in the overall structures of science than their actual intellectual incoherence

Jindřich Černý's contribution departs from the assumption that the concept of style, understood as a philosophical category, is a cornerstone of a non-positivist philosophy of science. According to such epistemology, the cognition is an active process resulting in facts. Facts are neither discovered nor created. Facts are becoming, they are style-laden, but they are not wholly dependent on styles. The cogni-

tion is an active interplay between the active (a style) and the passive (the nature). An epistemology that operates with the concept of style is an alternative to the Kuhnian philosophy of science. As Jindřich Černý shows, the concept of style is an instrument for providing a more accurate picture of the science because of its greater flexibility (in comparison with the concept of paradigm). His chapter is an attempt to explain the motivation for grasping the science in terms of style and the consequences that follow from it. Two examples are given: Fleck's theory of thought-styles and Hacking's historical epistemology. Fleck's use of the category is local; Hacking applies it universally. Both approaches are complementary.

Radim Hladík's chapter attempts to enlarge the scope of inquiry in historical epistemology by emphasizing the importance of spatial and geographical considerations in the production and movement of scientific knowledge and epistemological constructs. It begins with the question of objectivity and universality of scientific knowledge by acknowledging the work of historical epistemologists who demonstrated the historically constituted nature of those very concepts deemed to attest to the abstraction of science from any particularities. Radim Hladík goes on to argue that historical epistemology falls short of all implications of its task in consequence of neglecting the spatial and geographical dimension of the problem. Science is then presented through the lenses of anthropological and feminist approaches as a local and situated form of knowledge. In order to examine the local embeddedness of science, the chapter proceeds to review the impact of the so-called spatial turn on history and philosophy of science and follows the emergent field of the geography of science. The ties of science with the history of colonialism get addressed before the dependence of scientific epistemology on the mobility of knowledge is explored further. Since some authors identify the capacity of knowledge for movement across institutional and geopolitical spaces as the quintessential precondition for scientific knowledge claims, the author gives specific examples of the technologies (inscription devices) and techniques (discipline, standardization, centralization of calculations) that help to make knowledge moveable. The scale of mobility in knowledge, the chapter ar-

gues, can also be referred to the finer distinctions of epistemological force in various disciplines. Besides the issues of geopolitics and mobility, space can inform the production of scientific knowledge in more immediate, even architectural dimension, such as the association of building construction with the formation of disciplines or panoptical organization of observation sites. Finally, in more detail, the laboratory is suggested to be one of the principal examples in the scientific appropriations of space. Especially in the works of researchers focusing on ethnographic studies of scientists working in laboratories, many spatial aspects of scientific epistemology have been revealed. Mapping of the space of science can make the place and movement of knowledge visible where they had been concealed. The chapter concludes by recognizing the contribution that the geography of science and locally grounded epistemology can offer to the wider project of historical epistemology.

The final chapter focuses on the material culture of science. Tomáš Dvořák first delineates changing attitudes to the epistemic gain of material tools and practices in historiography in philosophy of science, which proceed from ignorance, neglect, marginalisation and the degradation of the roles and functions of instruments and materials in scientific research to their revaluation, appreciation, and even "fetishistic" celebration. He focuses mainly on the discussions of scientific experimentation and laboratory cultures since the 1980s, places them within a wider context of the turn towards materiality in the cultural and historical sciences, and shows how they have led to a more concentrated effort to theorize things, objects and artifacts and their epistemic effects. Second part of the chapter is devoted to the materiality of scientific communication, namely the historical transformations of the card index as a tool essential for organizing and producing knowledge. A more detailed attention is paid to Niklas Luhmann's *zettelkasten* and the problem of theoretical design – presenting social theory in the form of a book or an article. His example also helps to show how the traditional dichotomies of codex and card index or linear and multidimensional writing have transformed in our digital environments and become replaced by tensions between text and hypertext or narrative and database.