

ON THE POWER OF SCIENTIFIC KNOWLEDGE. INTERVIEW WITH NICO STEHR

Amanda Machin – PhD in Political Theory, postdoctoral researcher.
Zeppelin University. Am Seemooser Horn 20, 88045 Friedrichshafen, Germany;
e-mail: amanda.machin@zu.de

Аманда Мэчин – доктор политологии, докторант.
Университет Цепелина. Am Seemooser Horn 20, 88045, Фридрихсхафен, Германия;
e-mail: amanda.machin@zu.de



Нико Штер (19.03.1942) – выдающийся философ, социолог, гуманитарий широкого профиля, публичный интеллект, автор более 25 книг. Ряд работ Штера переведены на русский язык, в том числе «Погода. Климат. Человек» (2011), «Власть научного знания» (см. рецензию в нашем журнале [Тухватулина, 2015]). Редколлегия журнала поздравляет нашего коллегу и друга с семидесятилетним юбилеем!

Nico Stehr is Karl Mannheim Professor of Cultural Studies at the Zeppelin University, Friedrichshafen, Germany. He is a fellow of the Royal Society (Canada) and a fellow of the European Academy of Sciences and Arts. His research interests center on the transformation of modern societies into knowledge societies and developments associated with this transformation in different major social institutions of modern society (e.g. science, politics, governance, the economy, inequality and globalization); in addition, his research interests concern the societal consequences of climate change. He is one of the authors of the *Hartwell Paper* on climate policy. Among his recent book publications are: *Biotechnology: Between Commerce and Civil Society* (Transaction Books, 2004); *Knowledge* (with Reiner Grundmann, Routledge, 2005), *Moral Markets* (Paradigm Publishers, 2008), *Who owns Knowledge: Knowledge and the Law* (with Bernd Weiler, Transaction Books, 2008), *Knowledge and Democracy* (Transaction Publishers, 2008), *Society* (with Reiner Grundmann, Routledge, 2009) and *Climate and Society* (with Hans von Storch, World Scientific Publishers, 2010), *Experts: The Knowledge and Power of Expertise* (with Reiner Grundmann, Routledge 2011) and *The Power of Scientific Knowledge* (with Reiner Grundmann, Cambridge University Press, 2012), *Knowledge* (with Marian Adolf; Routledge, 2014) and *Information, Power and Democracy* (Cambridge University Press); e-mail: nico.stehr@zu.de



О ВЛАСТИ НАУЧНОГО ЗНАНИЯ. ИНТЕРВЬЮ С НИКО ШТЕРОМ

Q: How does the discussion of the power of scientific knowledge evolve over time?

A: Intense discussions of the social function of science in the scientific community and elsewhere in society can be traced to the origins of modern science. Interest in the practical virtues of scientific knowledge has arisen for obvious reasons. The legitimacy of science could not be taken for granted. Initial discussions of the role of knowledge in society served to warrant the scientific enterprise. Thus, from the beginning of the scientific revolution, scholars, philosophers, and laypersons alike have been vigorously engaged in discussions about the nature of the practical impact of knowledge on social, political, technical and economic matters. Likewise, the social role of the scientist became a topic for debate. After a period of growing resources for scientific endeavors, especially in publicly funded institutions such as universities, science today is faced with funding constraints. This leads to vigorous competition for scarce resources, and to attempts to find measures and rationales for public spending on science. In this context, claims about the practical efficacy and promise of scientific knowledge are not only turned into crucial symbolic capital – this can be a matter of survival for some fields of inquiry. Where concerns are expressed about the usefulness of science, this can become a serious liability in the competition for economic support, potential recruits to scientific work, and societal attention.

Q: Why and how does knowledge become powerful?

A: Dealing with the question of why knowledge sometimes becomes powerful, and sometimes remains unused or is regarded as useless, the traditional answer was to point to the very success of science and technology in transforming our living conditions. Longer, healthier and better lives due to scientific discoveries and applications are prime examples. Scientific progress in medicine and other applied fields is paraded as incontrovertible evidence of the usefulness and power of knowledge.

Q: How does your answer differ in general from the traditional account of the reasons for the power of knowledge?

A: In our analysis of the conditions that enable knowledge to become powerful, we are not content with the simple but tautological answer that it is the practical success of science and technology. Of course, this has been, and in many quarters still is, the dominant answer. Listen to the British chemist and Nobel Prize laureate Harold Kroto, who says that there are innumerable theories, but only a few that are true. True theories, in his view, are facts that work in practice: “There are countless theories but they can be clearly classified into two groups: Scientific Theories which are



considered ‘true’ or ‘facts’ because they have been found experimentally to work and we know why they work, and Un-scientific Theories which have been found wanting when similarly experimentally tested.”

Examples of such working and true theories are: Newton’s theory of gravity, Maxwell’s theory of electromagnetism, Einstein’s theory of relativity, Mendeleev’s periodic table, the theory of quantum mechanics, and Darwin’s theory of evolution. This statement could be taken as representative not only for the community of scientists, but also for the dominant view about the relation between science, truth, and practical effectiveness.

While we do not doubt the practical success of knowledge, this answer allows at best for an *ex post facto* response to the question of what exactly gives rise to the power of knowledge. In so doing, Kroto and others combine old theories with new technical applications. Newton did not aspire to devise a journey to the moon, and Darwin did not tell us how to treat modern diseases. In a similar vein, one could say – and many indeed do say – that Marx was the mental originator of the Soviet Union, or that Nietzsche was responsible for the Holocaust. Such superficial, anachronistic and functionalist allegations are ubiquitous. However, their frequent repetition does not make them more plausible. Our focus shift to “actionability” instead.

Q: Why is the „actionability“ or the ability to influence aspects of really existing social contexts rather than the „scientificity“ of scientific knowledge of importance in understanding the nature of „practical“ knowledge?

A: The actionability of features of social processes is as we suggest in our work on the power scientific knowledge a most significant element in the equation that gives rise to practical scientific knowledge. A related and supportive consideration refers to the local embeddedness of social action. For the great majority of social action is situated and takes place in local communities and networks – no matter how much they may be influenced by global, national or regional forces of communication, commerce, and the flow of people for example. Everyday life experience and decision-making centers on what is “locally at stake”. What matters most to most are mundane local details. Local details can be broad; its boundaries exceeding narrow social, political and economic contexts. Knowledge that attends from the beginning (in a research design) to ordinary and particular places and networks acquires utmost influence and relevance. The explicit link to really existing social contexts eliminates arbitrariness and fortuitousness.

Q: How do these considerations about the nature of practical knowledge as tied to local circumstances deal with the issue of knowledge and power?

A: We are convinced that a discussion of the contentious relations between power and knowledge requires not only an analysis of its contemporary formations but also an understanding of its historical



dimensions or a genealogy of the interface of knowledge and power, at least as how it has been conceived by some the major contributors to discourse about its manifold interrelations (for example, Max Weber, Robert Michels, Michel Foucault, and Pierre Bourdieu). It is perhaps obvious that such a historical account of the major forms of discourse about the relations between knowledge and power can be a major source of critical insight into the variable genealogy and contemporary nature of power and knowledge. Thus, we are presenting authoritative voices and interjections into this debate. Similarly, the case studies we employ subsequently in our work are designed to enlighten us about social practices and institutional arrangements surrounding knowledge and power and include cases from the (not too distant) past. A genealogy of the concepts of power and knowledge may for example assist in dissolving an outward appearance of an essential unity of power and knowledge. Such a conflation of power and knowledge is quite common in social science discourse but fails to see that knowledge is neither immediately performative nor does it automatically flow and can be captured only by the powerful in society.

Q: What are your conclusions?

A: In exploring our study both the nature of economic discourse, climate science and race science, and features of the practical context within which such bodies of knowledge aspire to gain influence, our study of knowledge production, and of the contribution of knowledge to major societal transformations and historical processes, represents an effort to specify some of the characteristics of knowledge that make knowledge powerful or that appear, for that matter, to substantially reduce the practical efficacy of science. We concentrate on the kinds of attributes that make knowledge powerful in practice, and therefore approach the process of policymaking in modern society from the angle of the role knowledge can play. Heretofore, the answer to the issue of the power of knowledge was found in the philosophy of science. We try to show that the answers that epistemology offers are not entirely helpful but that the sociology of knowledge makes a significant contribution.

Список литературы

Тухватулина Л.А. Власть под вывеской науки // *Epistemology & philosophy of science* / Эпистемология и философия науки. 2015. Т. 45. № 3. С. 246–255.

References

Tukhvatulina, L. A. “Vlast’ pod vyveskoi nauki” [Power under the guise of science], *Epistemology & philosophy of science*, 2015, vol. 45, no. 3, pp. 246–255. (In Russian)