

BEYOND THE MYTHS ABOUT THE NATURAL AND SOCIAL SCIENCES: A SOCIOLOGICAL VIEW

[Katarina Prpic (coord.), 2009, Zagreb, Institute for Social Research]

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This book is a recent study on the “socio-cognitive specificities” of academic publishing in the natural and social sciences. The text, edited by Katarina Prpic, is largely based on original empirical evidence, namely recent Croatian studies on patterns and factors in research productivity and citation thus providing an interesting and original backdrop for this work, being outside of the Anglophone centre of the academic publishing world. This analysis is accompanied by discussion of philosophical and sociological differences between processes of creation and the dissemination of knowledge in the natural and social sciences.

Along with her colleagues, Dr. Prpic provides an in-depth discussion of the actual processes behind the production of scientific knowledge. The book begins with an elaboration of the social and professional profiles of natural and social sciences by Branka Golub, utilising results from a recent web-based survey of PhD level Croatian scientists from which we learn, for instance, that the average age at which the natural scientists surveyed earned their doctorate was 35.3 years compared to 38.3 years for social scientists (p. 50). The following chapter, by the editor along with Marija Brajdic Vukovic, explores various differentials in self-reported productivity, revealing that natural scientists have higher levels of output in terms of published articles, although these statistics are likely to be bloated in their favour due to factors such as the greater propensity not only for shared author credits in the natural sciences but also writing more insubstantial, or at least shorter, articles than their social science peers.

In regard to the impact of these works, Maja Jokic and Adrijana Šuljok discuss trends in the ISI and Scopus citation databases, utilising data from 1996 to 2005. As a guide to helping us understand the complex and highly competitive processes through which academic work is processed and evaluated, this chapter alone warrants reading for anyone concerned about how evaluations are made of their own output, as well as highlighting outcomes in relation to the Croatian scientists surveyed. The application of a scatter principle seems to be the key in quantifying productivity, which has led over time to the establishment and maintenance of an Anglo-American core and a rest-of-the-world periphery in academic publishing.

The remainder of the book grapples with the issue of scientific quality and objectivity. Sven Hemlin discusses definitions, taking into account the views of the researcher, the research environment, what he terms “research effects,” financing and evaluation. What we learn is that aspects such as method, results and reasoning and the problem itself are rated highest by researchers, while in respect to their work it is its novelty, correctness, stringency and depth which matter. We can thus infer that, for instance, application of a stringent method, correct reasoning

and arriving at new results may lead to perceptions of scientific quality, with accompanying differences in adjective according to scientific field. This conclusion means that there is little or no consensus between and perhaps also within the natural and social sciences on this issue since scientists themselves perceive scientific quality differently, as Prpic and Šuljok confirm in their following chapter.

The chapter by Franc Mali is essential reading for those social scientists frustrated at their lack of respect from the public, and perhaps also from natural scientists. As he explains: "In the natural sciences, the rule of thumb is that science analyses its subject of study, not that it turns to the topic of the study for an opinion. The social sciences are completely the opposite. They are an area of research where the 'subject' of their study, people, entangles with researchers in the most varied forms of interaction" (p. 256). The fact that the subjects of social sciences are able to not only voice their own opinions but also decry the conclusions of social scientists thus creates the potential for a crisis of legitimating social science knowledge. As the author astutely notes, this problem never happens when studying infinitesimally small nucleoids or in observing distant galaxies.

In evaluating the scientific knowledge contained within this book itself, this work will certainly appeal to those who wish to have a more detailed insight into the complicated process that is the evaluation of science; certainly in the context of Croatia, but also at a broader level. The authors of this work no doubt hope that many of the issues raised in respect to their national context will have a wider resonance, particularly with other knowledge-peripheral countries where there are strong local publishing traditions in national journals but a weak international presence in the more revered internationally peer reviewed publications, and they are probably correct. Reading detailed analyses of citation systems and conflicting concepts of scientific objectivity may be less interesting for the casual reader but even he or she can read between the lines and identify a number of weaknesses in evaluation processes which the more cynical among us could exploit in order to expand the quantity of their output with minimum effort. For instance, a lack of control over self-citation is evident in evaluation systems, as is laxity in respect to shared author credits and the length of articles. It is obvious that being one author out of ten in a two page article only cited by the said author but included in a highly-ranked journal is not equivalent to a single authored substantial work in a less eminent publication, but many scientists are obviously able to live with this shame, that is if the findings of this research can be generalised to a broader population.

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