Karl Marx as a Sociologist of Science

Introduction

By ‘sociology of science’ we usually understand a derivation from, rather than a part of, the sociology of knowledge, whose primary aim is the sociological study of communities of scientists, even if, as a result of several influences (among which we may include, together with the obvious influence of T.S. Kuhn’s work, the period of the Marxist renaissance in the 1960s, and even the speculations of Marxist structuralism), research in this field has gone beyond the framework of the subject matter with which it was established. The academic discipline that we know today as the sociology of science can be regarded as having been established toward the middle of the twentieth century, and mainly within the area of functionalist sociology.1 But the roots or beginning of the sociology of science in the sociology of knowledge naturally leads one to think of Marx, who is one of the earliest authors in whose work we find an overall view of and general theses about the relationship between knowledge and social reality. Indeed, Marx’s work, above all the part written between 1857 (Outlines of the Critique of Political Economy, the Grundrisse) and 1863 (Theories of Surplus Value), offers a systematic conception of that relation, organised around two large questions: the ideological connection between science (mainly social science) and reality; and the efficacy of science (mainly natural science) in the production, reproduction, and transformation of the foundations of society.

These two questions may seem too ambitious from the point of view of the research programmes most common today in the sociology of science, which are frequently limited to the micrological study of the relationships between scientists and groups of scientists through their citations, their interaction at

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1 Merton’s Science, Technology and Society in Seventeenth Century England (Merton 2002) dates from the year 1938, and his Social Theory and Social Structure (Merton 1968), Part Four of which is also a fundamental contribution to the sociology of science, is from 1949. At first, Merton, still close to the sociology of knowledge of German origin, understood his research more broadly than, for example, in his The Sociology of Science (Merton 1973). A detailed review of the origins and present state of the sociology of science can be found in Medina 1982.
congresses and symposia, and so on. If we add to this the fact that Marxian considerations on the sociology of science also often have a philosophical dimension, and almost always a historical dimension, the result is the well-known picture of excess, so to speak, characterising the Marxian approach to any social question. (Excessive from the point of view of the specialised research that is common in the organisation of contemporary academic institutions, yet very plausible as far as the aspiration to knowledge is concerned, as is generally admitted by everyone in their frequent rhetorical laments regarding specialisation). It is possible that, if we follow Merton's systematics literally, we shall have to call many of Marx's contributions to the subject that concerns us ‘sociological theory of science’, and not ‘sociology of science’. But not all of them; far from it. For Merton's idea holds that the sociological theory of science is a special type of epistemology, and this is not the case with Marx's main analyses, which it would be more appropriate to call 'macrosociology of science'.

Moreover, despite the natural absence in Marx's work of microsociological analyses (such as those to which I have alluded) and, to an even more extreme degree, of quantitative studies, and despite the fact that in many cases we could say that Marxian considerations on the sociology of science only offer an initial and speculative or highly abstract consideration of the problem, Marx's basic ideas in this area are nonetheless not so far removed from those guiding contemporary research, and his ‘macrosociological’ approach cannot be reasonably contrasted with one that is ‘microsociological’. Rather, we would have to hope that the development of the latter would concretely substantiate, or correct, or refute, the former. The cultural continuity between Marx's texts that are of interest for the sociology of science and that which is practiced under this name today indicates that both cases share the same elementary assumptions, which do not entirely accord with those of other periods in the history of the knowledge of the educated. Marx would no doubt accept the four values that define the activity of Merton's scientist: universalism, communism, organised scepticism, and disinterestedness. Leaving aside the first two, which are in principle obviously acceptable (although the militarisation of science, with its natural consequence of secrecy, is reducing the second criterion to mere hypocrisy), it will be recalled that organised scepticism – in the radical form of Bacon's exhortation, *De omnibus dubitandum* – was Marx's favourite motto, and that ‘disinterested interest’ was, in his opinion, the defining value of science, adherence to which led him to write:

\[2\] In response to a questionnaire given to him by his daughters, Marx chose Bacon's motto *De omnibus dubitandum*, ‘Doubt everything’ (Marx 1987c, p. 568).