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A. Griese / H. J. Sandkühler (Hrsg.): Karl Marx – zwischen Philosophie und Naturwissenschaften,

Peter Lang, Frankfurt a. M., 1997. Review

One goes on recognising the
landmarks of the predecessors.
J. Conrad

Nowadays if one wants to restate a Marxist analysis of our society, it has become undoubtely very important to know the scientific background of Marx's thought. With regard to this question, we are not facing of course a mere chapter in the history of ideas. On the contrary, we are dealing with a theory of the existing social system. At stake, therefore, is the future of the Marxism as a critical tool through which to interpret capitalism, its dynamics and its tendencies.[1]

In fact, as Marx himself often clearly stated, a rational interpretation of the capitalist mode of production is impossible without a clear understanding of its double and stratified nature. The comprehension of this complex object required, in fact, a subtle distinction between the „inner core" and the „surface" of its real world, and a parallel distinction between the "inner laws" of capital and their „appearances" in the sphere of economy.[2]

Actually, in Marx's words, „alle Wissenschaft wäre überflüssig, wenn die Erscheinungsform und das Wesen der Dinge unmittelbar zusammenfielen"[3]. This idea is so fundamental that Marx went so far to assert that in general "von der Oberfläche in die Tiefe fortzugehen ist nicht erlaubt"[4]. Even if we put aside, for a moment, the conceptual problem represented by the specific connection between the two levels of reality, a serious problem that I will

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1 Cp. for instance L. Gill, *Fondements et limites du capitalisme*, Boréal, Québec, Canada, 1996.

2 Cp. for instance Marx–Engels, *Werke* (MEW) 23, Dietz Verlag, Berlin, 1962, p. 335; ibid., 26.3, pp. 474–477, pp. 503–504; K. Marx, *Grundrisse der Kritik der Politischen Ökonomie*, Dietz Verlag, Berlin, 1974, pp. 637–638.

3 MEW 25, p. 825.

4 MEW 26.3, p. 137.

consider later on, it is evident that Marx borrows his conception of knowledge from the science of his epoch. Clarifying his interpretation of the nineteenth scientific rationality thus represents a requirement for a better and deeper comprehension of his social analysis, and in the last instance of the modernity of his theory.

The essays collected in the volume edited by Griese and Sandkühler try exactly to pursue this aim, intending to show to the reader the formation of Marx's thought. Nevertheless, next to the interesting descriptions of the numerous and various scientific sources of Marx's system of categories – from geology to physiology, via organic chemistry, just to mention only a few[5] –, there are various misunderstandings and limits that hinder an adequate comprehension of certain scientifc problems and marxian concepts.

Some essays indeed clarify the complex meaning of some of Marx's basic ideas, as that of „*Stoffwechselbegriff*"[6], or stress in a correct way Marx's theoretical procedure in the analysis of reality, highlighting its relationship with the conceptual constructivism of science at the time.[7] Nevertheless, those specifications proceed at the same pace with an interpretation of Marx's thought in terms of a linear process of development from his early readings to his mature studies (from Daniels' *Mikrokosmos* to Carl Schorlemmer's *Lehrbuch* of 1879).[8] A similar consideration forgets, first of all, that between the two phases Marx changed his interpretation of capitalist society, forming a new theory of this object only during the end of the forties. But having changed his interpretation of the social system, Marx must also have changed that of the scientific thought of his time.

Secondly, this evolution of Marx's view with regard to the scientific rationality is confirmed as well by a contradiction in the main discourse of this book. If we interpret the marxian method in a constructivist way, as the authors do, then it becomes impossible to interpret the emergence of the new scientific

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5 Cp. for instance Seungwan Han, *Die Metapher der Zelle. Zur Rekonstruktion Marxscher epistemischer Kontexte*, pp.105–127; Gerd Pawelzig, *Zur Stellung des Stoffwechselbegriffs im Denken von Karl Marx*, pp.129–150; Peter Krüger, *Innovationen in der Geologie um 1860 und die späten Geologie-Exzerpte von Karl Marx*, pp.151–158; Peter Jäckel, *Arbeiten zur Physiologie als Quellen der Marxschen Exzerpte zur unorganischen und organischen Chemie*, pp.189–203.

6 Cp. G. Pawelzig, *Zur Stellung*, cit., pp.135–143.

7 Cp. S. Han, *Die Metapher der Zelle*, cit., pp.116–122.

8 According to Peter Krüger, for instance, who repeats Griese's main thesis, already in the 1840s Marx had „sein künftiges Programm naturwissenschaftlicher Studien formuliert" (*Innovationen in der Geologie*, cit., pp.152–153). Cp. also S. Han, *Die Metapher der Zelle*, cit., p.106.

thought in terms of inductivism, as if the new logic based itself on an empiricist ground.

In contrast to what Griese and Sandkühler assert, the „*positive Wissenschaften*“[9] of the nineteenth century were not founded on the acceptance of a physical world – a kind of tangible soil – *independent* of and *prior* to the observer, whose material the mind would elaborate conceptually. This is a simplified, and in the last instance false, representation of the historical genesis of scientific rationality.

On the contrary, as I have pointed out in a previous article[10] the making of the new scientific thought put forward a transformation of the traditional way of thinking in which the knowledge of reality now implied the primacy of the subjective intellect.

In other words, with the birth of modern science[11] the empirical world is both considered *internal* to the mind and *necessarily co-existent* with the subject's thought. In this complex relationship between mind and reality the mental activity of the observer is the sole entity able to produce a rational knowledge of the perceptible matter, which finally serves to the mind as a touchstone of its correctness and reliability. Even if such a metamorphosis is a shock for every traditional version of materialism[12], it is undoubtely a fact that cannot be ignored if we want to understand the inherent (and not always evident) development of science during the last century. A good proof of the incomprehension of that epistemological transition is given by the absolutely inconsistent position of William Whewell within the group of inductivists John Stuart Mill and Adolph Trendelenburg.[13] While Whewell is an eminent representative of the new constructivist logic, he is surreptitiously transformed by Sandkühler in a supporter of the rival point of view, with a complete reversal of the real state of things. In addition, a similar misleading interpretation is given of another very important epistemological category. In fact, even the "theory-laden principle" is presented as if its meaning were that: „es gibt keine Tatsachen ohne Interpretation“[14]. Its real logical content is instead completely different, since that principle implies the embodiment of mind and

[9] H. J. Sandkühler, *Zwischen Philosophien und Wissenschaften, in Karl Marx*, cit., p. 45; A. Griese, *Die naturwissenschaftlichen Studien von Karl Marx*, ibid., pp. 17–24.

[10] Cp. F. Soldani, *Marx and the Scientific Thought of his Time*, in „Beiträge zur Marx–Engels–Forschung. Neue Folge 1997“, Hamburg 1997.

[11] I am borrowing the definition from A. Koyré, *Etudes galiléennes*, Hermann, Paris, 1966.

[12] Cp. for instance Sandkühler's interpretation „der marxsche Materialismus“ in his *Zwischen Philosophien und Wissenschaften*, p. 56, p. 64, pp. 66–69, p. 72, pp. 75–76, p. 82.

[13] Cp. ibid., p. 9, p. 52, p. 71, pp. 77–78.

[14] Ibid., pp. 72–74.