

# Engels and the Scientific Status of Marxism<sup>1</sup>

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Is Marxism a science? The question is difficult for many reasons, not the least of which is the existence of many ‘Marxisms’. It is no surprise that, given the recent crisis of contemporary, speculative capitalism, not only has Marxism arisen (once again), but it has arisen principally as political economy, an area in which Marxism makes its most significant claims to being scientific. We plan to address, first, some questions about what is meant by ‘science’ as well as the materialist and dialectical foundations of Marxism. Then we explore Marxist political economy, the ‘laws of motion’ of capitalism, and historical (‘dialectical’) materialism.

Marx did not address systematically the scientific status of historical materialism. That task was undertaken by Friedrich Engels, a brief version of which appears in a pamphlet, *Socialism: Scientific and Utopian* (1878).<sup>2</sup> In the twentieth century, Engels was criticized for presenting Marxism as a scientific doctrine that established laws of historical change modeled after the ‘laws of nature’, which projected capitalism into a necessary, socialist future. Marx was a nineteenth-century theorist for whom a rational understanding of human history was possible and desirable, but he did not simply have a positivistic, nineteenth-century view of social science. There were certainly overtones of positivism in many of Marx’s writings, most famously in his 1859 preface to *A Critique of Political Economy*, and the post-Engels “revisionists” argued that socialism was unfolding peacefully according to a dialectical necessity. Stalin’s formalization of Marxism as ‘dialectical materialism’ claimed a scientific status, although Stalin’s Marxism was both dogmatic and capricious.

In *Socialism: Scientific and Utopian* (1878), Engels argues that all science is rooted in materialism, which asserts that objects exist independently of our perception of them and that ‘our knowledge’ of the world ‘is based upon the information imparted to us by our senses.’ What we conceive in our minds as ‘real’ is a representation of an object constructed by information from our senses, but we cannot be absolutely certain, Engels says, that these sense impressions ‘give us correct representations’. Engels admits that ‘this line of reasoning’ is ‘hard to beat by mere argumentation’.<sup>3</sup> In the absence of philosophical, absolute certainty, for Engels, the practical solution is to assume that the objective nature of reality is axiomatic. The philosophical point that knowledge cannot be absolute is secondary to the demand that any claim to (tentative) knowledge (or its refutation) must be demonstrated by evidence susceptible to judgment by sensory experience.

We test our perceptions and ideas in practice, Engels says (and as Marx argued in his *Theses on Feuerbach*). For Engels, when we ‘use objects, according to the qualities we perceive in them, we put to an infallible test the correctness or otherwise of our sense perceptions.’ In other words, scientific conclusions are falsifiable. If the object is used successfully, and accords with our ‘idea of it ... that is positive proof that our perceptions of it and its qualities, *so far*, agree with reality outside ourselves.’ Engels’s qualification, *so far*, accepts in principle that our

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<sup>2</sup> Originally an introduction to *Anti-Dühring* (1878).

<sup>3</sup> Frederick Engels, ‘Introduction’, *Socialism: Utopian and Scientific* [1878] (New York: International Publishers, 1972, 13-4.

knowledge of objective reality may still be incorrect, but it is in principle capable of being corrected, if not absolutely. In *Socialism: Scientific and Utopian*, however, Engels doesn't elaborate the link between practice and theories that guide this practice and can be assessed according to their results.

The essence of the practice of science is not simply the conformity of natural events to our perceptions of them, but the application of reason to understand these events and the connections among them. Surface appearance—simple empiricism—is insufficient for understanding underlying patterns and connections. Science presupposes abstraction and model building, resulting in theories that uncover law-like generalizations, not immediately perceivable by empirical observations, which predict the course of future occurrences in relatively known circumstances. At least since the time of Newton, these theories amounted to the 'discovery' of the 'laws' of the universe, allowing unprecedented predictability and control over physical phenomena. At first blush, the innovations of early twentieth-century science undermined the law-like status of scientific generalizations and to vindicate the skeptics of science and rationalism. Einstein's theory of relativity exposed the limits of Newtonian laws; quantum physics challenged the assumption of causality at the heart of modern science. In short, modern science is dynamic, relational, and probabilistic rather than static, linear, and determined.<sup>4</sup>

The practice of physical science (and of social sciences using nature as a model), however, had an inherent weakness. The standard, scientific method is built from the accumulation of details about discrete parts of nature that detaches objects from the whole and examines them separately, thereby losing the understanding of the 'whole'.<sup>5</sup> Yet, our first perception, Engels says, is not of singular, isolated objects but of the world as a whole. Consequently, we develop the 'intrinsically correct perception' that 'everything is and is not, for everything is fluid, is constantly changing, constantly coming into being and passing away.' This 'correct' conception, however, is not reflected in the way science is practiced. Because scientists tended to view objects and processes in isolation from the whole, they failed to incorporate dynamic considerations into their conception, such as origins, change, motion, and development.<sup>6</sup> When the static viewpoint is applied to society, Engels says, the history of humanity appears to be a series of disconnected, unnecessary events, the result of 'apparently accidental phenomena.'

In this sense, the Marxist claim to being scientific departs from the standard practice of science and is built, instead, on a conception of the whole. Historical materialism understands a social structure as a dynamic mode of production theorized in terms of a base/superstructure model, in which the economic base is the fundamental element of the social structure. This model will be discussed below. In general, though, Marxism is scientific because it has found consistent patterns and structures underlying and shaping (if not determining) historical outcomes in specific types of societies (modes of production). Historical materialism offers a number of fruitful hypotheses for understanding the development of any society but its main claim to science is the analysis of the capitalist mode of production. In pre-capitalist modes of production and, perhaps, in socialist societies, however, so-called superstructural aspects (politics, culture) play primary roles.

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<sup>4</sup> Phil Gasper, 'Bookwatch: Marxism and Science'. *International Socialism*, Issue 79.

<sup>5</sup> Paul Baran and Paul Sweezy, *Monopoly Capital* (New York: Monthly Review Press, 1966), 2.

<sup>6</sup> Engels, *Socialism: Utopian and Scientific*, 45-7.

In addition to being holistic, another important element that distinguishes Marxism from bourgeois social science is its ultimate aim: not to understand the world, but to change it, and to change it with a specific end in mind that, in principle, is anathema to bourgeois society and science alike. But the point of Engels's pamphlet is to take this argument further: socialism as an aim is not just a political choice or a potential outcome; not even just a probable outcome, but the necessary outcome of historical evolution. Socialism is embedded in the history of capitalist evolution like the eventual destruction of the sun is embedded in nature, a conclusion that he believes follows from the theory of dialectics.

To materialism, Marx added dialectical reason in the building of his theories. To grasp movement and the potential that something has to become something else, it is necessary to go beneath empirical observation and see objects in their movement and change—dialectically. For Hegel, dialectical thinking was ‘the highest form of reasoning.’<sup>7</sup> Dialectical thinking sees objects as simultaneously what they are and what they are becoming, says Engels. The poles of an antithesis are inseparable and ‘mutually interpenetrate,’ / Causes and effects ‘are eternally changing places’ in time and space. ‘Dialectics ... comprehends things ... in their essential connection, concatenation, motion, origin and ending.’<sup>8</sup> As developed by Hegel, however, dialectics was burdened by a fundamental contradiction, Engels argues. Dialectical reason seeks to uncover the forces that affect movement and change. Since everything is in motion and change is constant, however, there cannot be ‘any so-called absolute truth’. But Hegel claimed that his theory of origins, process, and an end *was* this essential truth. It is a contradiction to claim a ‘system of natural and historical knowledge embracing everything, and final for all time’.<sup>9</sup>

Engels does not consistently follow this line of reasoning in his pamphlet. He does not develop the argument about mutual interpenetration, concatenation, and eternal reversal of cause and effect. These dynamic aspects largely disappear; instead, he emphasizes ‘essential connections’, origins and ends. For Engels, dialectics is not simply a superior form of reason; it is the law of natural change.<sup>10</sup> He claims that the application of dialectics to society gives an ‘exact representation’ of historical process and change. Engels credits Darwin with revolutionizing biology by applying the principle of dialectics to species-level evolutionary change. But Darwin did not discover a ‘law’ of dialectical evolution, which would have entailed progressive evolution towards an end embedded in the process from the beginning. Natural selection gradually fits the individuals of a species to environmental conditions. But since environmental conditions are always changing and are subject to innumerable and complexly interacting natural and, increasingly, human forces, no single environmental end is realistically predictable.

If we see dialectical reason as a form of reason, a methodology of theorizing, then we can distinguish the process of dialectical reason itself, which informs Marxist political economy, from *theories* of determined development that culminate in the supposition of teleological, necessary ends that are embedded in the dialectical unfolding of a phenomenon. When Engels claims that historical materialism uncovers in the economics rather than the philosophy of a period ‘the final causes of all social changes and political revolutions’, he over-generalizes. Principally, however, Marx was interested in uncovering the laws of motion of capitalism. These

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<sup>7</sup> Engels, *Socialism: Utopian and Scientific*, 45-7.

<sup>8</sup> Engels, *Socialism: Utopian and Scientific*, 47-8.

<sup>9</sup> Engels, *Socialism: Utopian and Scientific*, 50.

<sup>10</sup> Engels, *Socialism: Utopian and Scientific*, 47-8.

laws are explicated in Marxist political economy, the application of historical materialism to the internal factors driving the development of the capitalist mode of production. Engels says that the laws of capitalist development are first unknown and work themselves out blindly, ‘independently of the producers, and in antagonism to them, as inexorable natural laws / of their particular form of production.’<sup>11</sup> Gradually, they are discovered ‘as the result of experience, initially by bourgeois political economists.’<sup>12</sup>

Marxism uncovers laws of political economy that bourgeois economists ideologically were incapable of grasping. Capitalists are forced to treat the forces of production as ‘social forces’. Enterprises merge in giant trusts to regulate production.<sup>13</sup> Trusts ‘determine the total amount to be produced, parcel it out among themselves, and thus enforce the selling price fixed beforehand’ as ‘freedom of competition changes into its very opposite—into monopoly’ and, ultimately, into state capitalism. State capitalism is capitalism brought to a head, from which it ‘topples over.’ For Engels, however, this progressive historical development reflects the dialectical law ‘of the invading socialist society.’<sup>14</sup> Because socialism is the ultimate resolution of the contradictions of capitalism, capitalism must be evolving in a socialist direction, despite the wishes of the individual capitalists whose decisions in their private spheres have this unintended but inevitable outcome at the level of the economy as a whole. Social and economic development is progressive, a movement that spirals and narrows, ‘and must come to an end, like the movement of the planets, by collision with the centre.’<sup>15</sup>

How exactly does this transformation come about? It is not exactly clear from Engels’s description why or how capitalism topples over once it comes to a head as state ownership. Up to this point, Engels has asserted that capitalism is driven by the ‘laws governing the production of commodities’,<sup>16</sup> particularly the contradiction between the increasingly socialised forces of production and the private nature of accumulation. The evolution of capitalism appears ‘like a law of nature working blindly, forcibly, destructively ... exactly like natural forces ... so long as we do not understand and reckon with them. But once we understand them, ... it depends only upon ourselves to subject them more and more to our own will, and by means of them to reach our own ends.’<sup>17</sup>

One of the major conundrums of Marxism is that social forces have to work themselves out through the actions of human beings because society is constructed rather than simply being natural. In short, the role of consciousness, of politics, must also be theorized. In this light, another argument by Engels becomes interesting. In his 1844 *Critique of Political Economy*, Engels asserts that the law of supply and demand—one of the fundamental laws of bourgeois political economy—is a law of perpetual unbalance that produces periodic crises because it is ‘just a natural law based on the unconsciousness of the participants. If the producers knew demand precisely, organized production and shared it out rationally, then the tendency to crisis would be impossible.’ Capitalism is just one in a succession of modes of production. It is rational at the micro level, where capitalists pursue individual profit ‘as dispersed atoms without

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<sup>11</sup> Engels, *Socialism: Utopian and Scientific*, 59-60.

<sup>12</sup> Engels, *Socialism: Utopian and Scientific*, 61.

<sup>13</sup> Engels, *Socialism: Utopian and Scientific*, 64-5.

<sup>14</sup> Engels, *Socialism: Utopian and Scientific*, 66.

<sup>15</sup> Engels, *Socialism: Utopian and Scientific*, 61.

<sup>16</sup> Engels, *Socialism: Utopian and Scientific*, 74.

<sup>17</sup> Engels, *Socialism: Utopian and Scientific*, 68.

consciousness of your species’, but overall it is irrational. As long as capitalists continue to produce in an ‘unconscious, thoughtless manner, at the mercy of chance’, for ‘just so long trade crises will remain’.<sup>18</sup>

In this early passage, Engels contrasts production in capitalism, which is directed by blind forces analogous to those of nature, with rational production and planning. Following Engels, the laws that determine production and crises in capitalism will no longer hold once society as a whole consciously grasps production; that is, when conscious planning (socialism) replaces the commodity market and the anarchy of capitalist production ‘is replaced by systematic definite organization.’<sup>19</sup>

The method of analysis that applies the principles of historical materialism and dialectical reason to understand current conditions and inherent potentialities is the foundation of Marxism’s claim to scientific status. It would appear, however, that the laws/tendencies/probabilities of capitalist production do not unfold in the absence of conscious intervention, however partial, unfocussed, or contradictory. Political economy understands crisis tendencies in capitalism; dialectical reason uncovers potential in these crises for social transcendence; but the upshot of the historical process has as much to do with the subjective conditions of struggle as with the objective ones. Keynesianism, fascism, and varieties of socialism are potential outcomes of capitalism and/or imperialism in crisis that have emerged historically, not just out of the contradictions of capitalism, but from the complex relationship among economic crises, class conflict, and class consciousness. Contemporary capitalism, which is a throw-back to pre-Keynesian, unregulated chaos, is now also subject to attempts at conscious manipulation and control by bankers and their political hand-maidens, although the agents of capital are severely limited by the recurrence of the fundamental internal contradictions of capitalism that Marx had theorized (accumulation, concentration, rate of profit, market shortfalls, crises, etc.) and which are particularly acute in competitive, unregulated conditions. The present world-wide opposition to global capitalism, in all its unfocused and contradictory forms, reflects both the crisis of capitalism, which Marxist political economy specifically addresses, and the knotty and complicated history of subjective class conflict.

It would also seem that the law of dialectical change applied to human society—if not the usefulness of dialectical reason—must come to an end in the ‘realm of freedom’ (socialism) in the sense that there is no longer (assuming there ever was) a single line of determined social evolution, for example, to the necessary withering away of the state and a classless society. They are potential outcomes but not historically necessary ones. As consciousness about social organization expands, even in late capitalism and prior to socialism, superstructural factors, particularly political and cultural ones, assume an increasingly important role. Marx wisely eschewed saying very much about a future socialist society. In the light of our experience with actually existing, twentieth-century socialism, the withering away of classes and the state is, at most, a potential that dialectical reason uncovers, but hardly the dialectical unfolding of a law of social change. Post-revolutionary societies in the present circumstances clearly have other potential ends that may be more probable than deepening socialism.

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<sup>18</sup> Engels, *A Critique of Political Economy* [1844] pp. 197-226 in *Karl Marx: The Economic and Philosophic Manuscripts of 1844*, edited by Dirk J. Struik, New York: International Publishers, 1964, 214-5.

<sup>19</sup> Engels, *Socialism: Utopian and Scientific*, 72.