Editorial Introduction to Vittorio Morfino

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Abstract

Reading \textit{‘Capital’}’s promotion of the Spinozist sources of Marxism has stimulated a series of important studies in several major zones of Marxist theoretical work. A more general reassessment of Spinoza’s thought in the project of a ‘radical Enlightenment’ provides the opportunity to consider critically the contribution of these studies to the elaboration of Marxist political theory. Vittorio Morfino, well known Italian scholar of Spinoza and Althusser, proposes to study Engels’s reading of Spinoza in the context of the inheritance of classical German idealism in the Marxist theory of history. He argues that Spinoza provides resources for rethinking Marxist notions of temporality and structure. The result is a theory of conjunctural analysis, in distinction from ‘normative’ and ‘prescriptive’ perspectives.

Keywords

Spinoza, Althusser, Negri, ‘Radical Enlightenment’, conjunctural analysis, Marxist political theory

Spinoza’s philosophy introduced an unprecedented theoretical revolution in the history of philosophy, without doubt the greatest philosophical revolution of all time, insofar as we can regard Spinoza as Marx’s only direct ancestor, from the philosophical standpoint.\textsuperscript{1}

Reading \textit{‘Capital’}’s provocative promotion of the Spinozist sources of Marxism suffered a mixed reception from the outset. On the one hand, a not insignificant number of Marxist scholars – primarily but not limited to France and Italy – set themselves the task of exploring further the ‘lessons in heresy’ that Spinoza might still hold for the development of the Marxist \textit{Weltanschauung}. Major

studies by figures such as Macherey, Balibar and Tosel, to name only a few, confirmed that a new reading of Spinoza could help us to reconceive, among other elements, the relation between Marx and Hegel, the relation between philosophy and politics and the status of a non-metaphysical materialism. These studies occurred in the context of a wider renaissance of Spinoza studies that, over the last forty years, has progressively transformed the received image of Spinoza. Above all, it was Antonio Negri’s *The Savage Anomaly*, written while an inmate of an Italian prison at the end of the 1970s, that influentially re-affirmed Spinoza’s centrality in the origins of a ‘radical modernity’ or, as Jonathan Israel has more recently termed it, a ‘radical Enlightenment’. Many traces of Negri’s challenge of Spinoza’s ‘philosophy of the future’, of course, are to be found in *Empire* and *Multitude* and the debates that they have provoked in recent years in the alternative globalisation movement and beyond.

On the other hand, Althusser’s and his collaborators’ declaration was initially greeted with scepticism, when not aggression, by influential Marxists in the anglophone world. Partially overdetermined by the relative absence of Spinoza in the wider anglophone intellectual and philosophical culture in particular at the time, partially overdetermined by an inaccurate assessment of Spinoza’s importance for previous Marxists, such critics claimed that recourse to a decidedly pre-critical philosopher constituted a distraction from more properly ‘political’ tasks. More recently, fortunately, Marxist scholars from a variety of traditions in the English-speaking countries have challenged this consensus, resulting in the emergence of a distinctive ‘Marxist’ current in what has also become a more widespread revival of Spinoza’s fortunes in the linguistic zone that once greeted Coleridge’s and Wordsworth’s youthful enthusiasms with suspicion of treachery. The prominence accorded to Spinoza in Israel’s previous cited influential work is only one indicator of a pervasive, if often still underdeveloped, reference to Spinoza in contemporary theoretical debates. *Historical Materialism* believes that the further development of critical-Marxist engagements with Spinoza can play an important role in clarifying the strengths and weaknesses of many of these discussions, particularly in political philosophy and theory.

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2. Montag and Stolze (eds.) 1997, makes some of the most significant of these interventions available to an anglophone audience.
4. The initial objection was voice by Perry Anderson (1976); he found willing allies in such diverse figures as E.P. Thompson, Ellen Wood and Terry Eagleton. Cf. Thomas 2002.
5. Warren Montag’s unfortunately insufficiently discussed *Bodies, Mases, Power: Spinoza and His Contemporaries* (1999) still constitutes the most significant contribution to date.
In this issue, we offer our readership an example of work currently being done in this field with an article by Vittorio Morfino. Morfino belongs to an emerging younger generation of Italian scholars who have taken up both Althusser’s provocation and Negri’s challenge in a critical spirit. Currently *Ricercatore* in the History of Philosophy at the University of Milano-Bicocca, he is the author of numerous studies on the history of Spinozism, including most recently *Il tempo della moltitudine. Materialismo e politica prima e dopo Spinoza* (2005). An editor of *Quaderni materialisti* (an innovative and influential theoretical journal in contemporary Italy), he is also a well-known commentator, translator and editor of Althusser’s ‘late writings’ and active in the Associazione Louis Althusser, which sponsored a major international conference in Venice in 2006 dedicated to the legacy of Althusser’s thought.

Following Negri and Althusser, Morfino’s work has attempted to reject the Hegelian, one-sided interpretation of modernity as a totalising ground of immanence that leaves no remainder outside itself, seeking to bring to light instead the ambivalences, crevices and contingencies implicit in it. There is no one single project of modernity. Drawing on Spinoza, Negri identifies a *blessed* and a *damned* metaphysical current of modernity. The blessed current – which runs from Hobbes through Rousseau and Kant to Hegel – revolves around the concept of the autonomy of the bourgeois individual and is suitable to the development of the bourgeoisie, the ideology of free market and the capitalist mode of production. On the other hand, the damned alternative – traced back to Machiavelli, Spinoza and Marx – represents the dystopia of human liberation. Machiavelli, Spinoza and Marx are, in Negri’s view, the philosophers of ‘constituent power’, a rebellious force that is refractory to total integration and closure. The subject of constituent power is no longer the bourgeois individual, but the multitude with its immanent demand for absolute democracy, revolution and communism. Althusser, too, identifies in the Western philosophical tradition a subterranean current – tracing it back to Epicurus and Lucretius – which he names a materialism of the rain, deviation and encounter, or an ‘aleatory materialism’. The origin of the world, Althusser argues, is not Reason or Cause, but the deviation of the atoms from their

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trajectory. However, in order for a deviation to generate an encounter and therefore a world, the encounter must be durable, thus becoming the basis of necessity, meaning and reason. If the encounter is brief and does not last, there is no world. Indeed, without deviation and encounter the atoms themselves do not exist, they are merely abstract elements. Given that the accomplished facts of the world are the result of the contingent and aleatory encounter of the atoms, philosophy in this conception ceases to investigate into the reason and origin of things, in order to limit itself to the task of recording the becoming necessary of contingent encounters.8

Morfino sets out to continue the work of Negri and Althusser to bring to the surface an alternative modernity of immanence. However, he still detects in Negri’s damned and Althusser’s subterranean currents a historicist residue. In his view, they both seem to presuppose a linear conception of history in which an identical subject deepens its demands and radicalises its positions in the succession of revolutions of the modern age. To avoid this kind of historicist fallacy, Morfino draws on the method of ‘historical-philosophical incursions’. Against the linear reconstruction of the transmission of ideas, he prefers to highlight discontinuities, misunderstandings and conceptual inventions. If some alternatives of immanence are to become visible, they will have to emerge from the reconstruction of fragments and singular plots that fluster the web of comprehensive and totalising narratives. The method of historical-philosophical incursions points to a form of plural temporality which makes it possible to think of contingency without recourse to grand teleological models. Politics here ceases to be the necessary outcome of a philosophy of history, or the irruption of messianic eternity into finite and chronological time. Rather, it becomes a strategic intervention into an always particular conjuncture.

Along with many other contributions to the contemporary Spinoza renaissance, Morfino recognises that Spinoza proposed a new conception of causality, beyond the temporal succession of Aristotelian or Cartesian models. Spinoza’s idea of immanent causality bans us from thinking of causality as a series of causes and effects. All singular things cannot be explained in terms of their essence or internal properties, but by virtue of the constellation of their external relations with other things. The more complex are the relations, the more powerful is the individual thing. The knowledge of the essence of an individual is therefore provided – to use Spinoza’s textile metaphor – by the knowledge of the weaving of its relations. This means that the essence of an individual lies in the fact of its relations and circumstances that have generated

its existence. The essence does not exist prior to the existence of the individual, but as a result of the fact of its existence. If we translate this model of causality into politics, we should then conclude that the foundation of a state, for instance, is not the effect of a first cause – which would set in motion the linear sequence of historical time – but the result of a complex and aleatory encounter between contending social forces.

In the current article, Morfino seeks to assess Engels’s reading of Spinoza, in the perspective of its significance for a Marxist theory of history and the influence of Engels’s interpretation upon – or its ‘family resemblance’ with – the later Marxist tradition’s understanding of the constitution of ‘the political’. Setting out from Nobel prize winner Jacques Monod’s critique of dialectical materialism, Morfino argues that Engels’s thought is characterised by a confusion between Spinoza’s concept of *causa sui* and the concept of *Wechselwirkung* [interaction], as elaborated in German idealism and in the absolute idealism of Hegel in particular. Furthermore, this confusion had determinant effects upon Engels’s (and by implication, previous Marxism’s) ability to think history in non-teleological terms. Despite Engels’s famous declaration that ‘Spinoza was completely right’, Morfino argues that Engels in fact unwittingly participates in the terms of Hegel’s ‘subjectivist’ critique of the theorist of the one substance. According to Morfino, the theoretical construction of the (non) author of the (posthumous) ‘work’ *Dialectics of Nature* presupposes a notion of closed totality within which time is understood as a linear sequence of Cartesian points filled in by events that can be read as stages of development directed towards an endpoint. Freedom emerges as the *Aufhebung* of necessity, as its always already destined goal. Spinoza’s theory of substance as *causa sui*, on the other hand, implies an idea of totality without closure, that is, an open totality with no Reason, no Meaning and no End. It is a totality of multiple temporalities, none of which are subordinate to the other in a sequence of necessary stages inscribed in a pre-ordained *structure* of history. Rather, they exist in the simultaneity of the *conjuncture* as differential intensities of organisation and relationality.

While this article proceeds at a philosophically and philologically daunting level, at least one of its more immediate, possible political consequences can be roughly sketched here. What is at stake in such a debate is the question of whether the revolutionary Marxist project possesses any guarantees, in the ‘first’ just as much as in the ‘last’ instance, whether it coincides with the intensity of organisation of a given situation or with the necessity of a teleological model. In the former perspective outlined by Morfino, a political theory of a Marxism founded upon a Spinozan conception of materialism would be neither ‘normative’ nor ‘prescriptive’, in distinction from two
well-known options in contemporary debates. Rather, it would itself be an intervention into a conjuncture dominated by plural temporalities, the effects of a ‘freedom’ generated within necessity. ‘The political’ would then be neither the ‘expression’ of the economic nor the becoming substance of a (class) subject. Instead, it would figure as the conjunctural possibility of the intensification of the ‘absolute democracy’ that Marx, following Spinoza, signalled as the immanent ‘essence of all political constitutions’? If the assurances offered by such a model of politics are fewer than those available in other theoretical constructions, it nevertheless has the merit of redirecting our attention to the ‘concrete analysis of the concrete situation’, the only terrain of political struggle, as the *sine qua non* of Marxist political theory.

References

Anderson, Perry 1976, *Considerations on Western Marxism*, London: NLB.

Causa sui or Wechselwirkung: Engels between Spinoza and Hegel

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Abstract
The essay takes its point of departure from Monod’s reading of dialectical materialism in Chance and Necessity. A passage of Engels’s Dialectics of Nature, which identifies Spinoza’s concept of causa sui with the Hegelian concept of interaction [Wechselwirkung], provides the opportunity to examine the consequences of Monod’s claims more closely. Using Spinoza’s philosophy as a litmus test, the essay attempts to demonstrate the debt of Engels’s materialism to Hegel’s Science of Logic by tracing the development of the concept of Wechselwirkung in classical German philosophy. A profound difference between the Spinozan and Hegelian concepts becomes apparent: while the concept of Wechselwirkung implies a totality present to itself as simultaneity, permitting the flow of a linear, homogenous and empty time upon which stages of development can be inscribed, the concept of causa sui implies a totality without closure, a totality whose eternity is identified with the necessary and infinite network of modal durations. The essay concludes by suggesting that Spinoza’s concept of causa sui allows us to rethink the relation between freedom and necessity in the Marxist tradition in conjunctural and aleatory terms.

Keywords
interaction [Wechselwirkung], causa sui, dialectical materialism, teleology, time, history

I
Jacques Monod dedicates the second chapter of Chance and Necessity to the analysis of vitalist and animist theories, among which he also discusses the dialectical materialism of Engels. Introducing the theme, Monod affirms that the only hypothesis that modern science can accept regarding the relation between invariance and teleonomy is ‘that invariance necessarily precedes teleonomy’.¹ All the other conceptions, according to Monod, presuppose the opposite hypothesis,

that is, that invariance [is] protected, ontogenesis guided, evolution oriented by a teleonomic initial principle of which all these phenomena (living beings) would be manifestations.²

Implicit in this inversion is the renunciation of the principle of objectivity.³ Among the conceptions that invert the relation between invariance and teleonomy, Monod distinguishes two groups: vitalism, which admits an intervention of the teleonomic principle into the environment of the biosphere, and animism, which

appeals to a universal teleonomic principle, responsible both for cosmic evolution and for the evolution of the biosphere, within which it is expressed only in a most precise and intense way.⁴

The animist conceptions stabilise a profound alliance between man and nature: they project onto animals, plants, minerals, meteorological phenomena and celestial bodies 'man's awareness of the intensely teleonomic functioning of his own central nervous system'²⁵ ('the project gives the reason of being and being has sense only in virtue of the project').⁶

These conceptions, Monod warns, far from being the distant memory of an age now definitively superseded, 'still send down deep and strong [vivaces] roots into the soul of modern man'.⁷ This is attested by the efforts made in modern culture from the seventeenth century onwards to reconstruct the ancient alliance: 'It is enough to think, for example, of the great attempts of Leibniz or of the enormous and powerful [pesant] monument raised by Hegel.'⁸

Arriving at the heart of the matter with an analysis of some of the theories of the nineteenth century, Monod maintains that such a conception can be found in Teilhard de Chardin, in the evolutionism of Spencer and even in Marx and Engels. It was 'the central idea of the ideology of scientific progress

³. The cornerstone or scientific method is the postulate of the objectivity of nature, that is, 'the systematic denial that “true” knowledge can be got at by interpreting phenomena in terms of final causes – that is to say, of “purpose”' (Monod 1997, p. 21).
⁴. Monod 1997, p. 27. Monod concludes: 'Such theories see in living beings the most elaborated, perfected products of an evolution oriented in the entire universe and leading, because it must, to man and to humanity. These conceptions, which I will call animist, are in many respects more interesting than the vitalist ones, to which I will dedicate only a brief mention' (Monod 1997, p. 27–8.; trans. modified).
⁶. Ibid.
When considering dialectical materialism, Monod explicitly refers almost exclusively to two classic texts of Engels on the philosophy of nature, that is, *Anti-Dühring* and the fragments published posthumously under the title of *Dialectics of Nature*. After having summarised dialectical materialism in a few schematic points, Monod emphasises that making ‘dialectical contradiction the “fundamental law” of every movement, of every evolution’ had as an effect the systematisation ‘of a subjective interpretation of nature, in which an ascendant, constructive, creative project can be discovered’. This therefore led to the weakening of the principle of objectivity. The anthropocentric illusion is here presented in new clothes: the theory of evolution makes man no longer the immovable centre of creation but, rather, ‘the natural, long-awaited inheritor of the entire universe’. As

10. Monod enumerates the following points: ‘1) the mode of existence of matter is movement. 2) The universe, defined as the totality of matter, the only existing totality, is in a state of perpetual [perpétuelle] evolution. 3) Any true knowledge of the universe is such in so far as it contributes to the intelligence of this evolution. 4) But such knowledge is not attained other than in interaction, itself evolutionary and the cause of evolution, between man and matter (or more exactly, the “remainder” of matter). Any true knowledge is therefore “practical”. 5) Consciousness is related [se rapporte] to this cognitive interaction. Conscious thought reflects, consequently, the movement of the universe itself. 6) As, therefore, thought is a part and reflex of universal movement, and as its movement is dialectical, the evolutionary laws of the universe also must be dialectical. That explains and justifies the use of terms like contradiction, affirmation and negation in relation to natural phenomena. 7) Dialectics is constructive (above all [notamment], thanks to the third “law”): consequently, the evolution of the universe is also ascending and constructive. Its highest expression is human society, consciousness, thought, necessary products of this evolution. 8) Due to the accent placed on the evolutionary essence of the structure of the universe, dialectical materialism superannuates radically the materialism of the eighteenth century which, founded on classic logic, was able to recognise only mechanical interactions between objects supposed to be classical; it was therefore not able to think evolution’ (Monod 1997, p. 34; trans. modified).
12. Monod 1997, p. 40. Balibar notes that if it is true that in Engels there is ‘the tendency to conceive the proletariat not only as “the inheritor of classical German philosophy”… [but as] the inheritor of evolution in its entirety, in short, the Son of Man (certainly, not theological man, but “natural”, Darwinian man)’, there is also present in Engels the counter-tendency: ‘It is paradoxical to discover it in the same manner in which he “refinds” Hegel and turns to his dialectic, a dialectic which is certainly “evolutionary”, but irreducible to the model of biological evolutionism…. The idea of history, conceived as a law of evolution, though full of consequences, furnishes Engels only provisionally with the matrix of his “materialist dialectic” by means of the relation to a determinate conception or image of the world, the ‘fixism’ [doctrine of fixity] or the mechanist ideology of natural science, of political philosophy and metaphysics of the seventeenth and eighteenth centuries. But the criticism reverses immediately its arms: after having combated fixism with the arms of evolutionism, it passes to combating, by means of Hegelian references (and also, on occasions, Fourierist, following an old predilection of Engels), the transformation, in turn, of evolutionism into a metaphysics, into a system. The idea of a law of evolution never proceeds alone: it is always accompanied by the antithetical element, which defines dialectics by
confirmation of this statement, Monod cites a passage from *Dialectics of Nature* that promises ‘if not to the human species, at least to the thinking brain, an eternal return’.13

But however often, and however relentlessly, this cycle [*Kreislauf*] is completed in time and space [Engels is referring to the eternal cycle of matter–V.M.], however many millions of suns and earths may arise and pass away, however long it may last before the conditions for organic life develop, however innumerable the organic beings that have to arise and to pass away before animals with a brain capable of thought are developed from their midst, and for a short span of time find conditions suitable for life, only to be exterminated later without mercy, we have the certainty [*Gewißheit*] that matter remains eternally the same in all its transformations [*Wandlungen*], that none of its attributes [*Attribute*] can ever be lost, and therefore, also, that with the same iron necessity that it will exterminate on the earth its highest creation, the thinking mind [*denkender Geist*], it must somewhere else and at another time again produce it.14

It is precisely this passage, used by Monod to illustrate Engels’s animist projection, which leads us into the heart of our present argument: for a conception of matter remaining eternally equal to itself in the infinite change of its modes and unable to lose any of its attributes refers us to the theoretical horizon of Spinoza.

However, it is not so much this reference that is surprising, since it is also confirmed by a story of Plekhanov according to which Engels was supposed to have responded to a precise question about the Spinozist conception of nature in the following terms: ‘He was entirely correct, the old Spinoza’. Nor does such a reference constitute an exception within German materialism of the second half of the nineteenth century. It is enough to think of Häckel and means of contradiction (precisely that which evolutionism ignores completely – including Darwin and, at any rate, Häckel). The importance of the thought of Hegel derives from the fact that, according to Engels, though completely incapable of discovering determinant laws, it posits the entire world (natural and social) as a process and identifies immediately this process with the immanent event, with the entire concatenation of a totality of contradictions. . . . In short, we see Engels here putting in play one teleology against another’ (Balibar 1984, pp. 245–46).


14. Marx and Engels 1975–2005, Vol. 25, p. 335. The passage is cited in Monod 1997, p. 30 et sq. Cf. the following passage: ‘The old teleology has gone to the devil, but the certainty [*Gewißheit*] is now firmly established that matter in its eternal cycle moves according to laws which at a definite stage – now here, now there – necessarily give rise to the thinking mind in organic beings’ (Marx & Engels 1975–2005, Vol. 25, pp. 475–6); or the following: ‘it is the nature of matter to advance to the evolution of thinking beings, hence this always necessarily occurs wherever the conditions for it . . . are present’ (Marx & Engels 1975–2005, Vol. 25, p. 490).
Dietzgen.\textsuperscript{15} What is surprising, is that this reference should lead to Engels being accused of anthropocentrism and, therefore, of animism. The philosophy of Spinoza, ‘Copernican thought \textit{par excellence},’\textsuperscript{16} seems to be constructed in such a way as to prohibit any form of anthropomorphism and teleology. In order to explicate the theoretical reasons for which Engels, despite his reference to Spinoza’s philosophy, can be accused of animism (a judgment which, we should say from the start, we share), it will be necessary to make a detour via the texts of Engels, of Spinoza and, finally, of Hegel.

II

Firstly, however, let us dwell for a moment on Engels’s reference to Spinoza’s theory. This reference is explicitly confirmed by Engels himself, though in general terms, in a passage in the ‘Introduction’ to \textit{Dialectics of Nature}. After having underlined how modern science was still profoundly immersed in theology, he writes:

\begin{quote}
It is to the highest credit of the philosophy of the time that it did not let itself be led astray by the restricted state of contemporary natural knowledge, and that – from Spinoza right to the great French materialists – it insisted on explaining the world from the world itself and left the justification in detail to the natural science of the future.\textsuperscript{17}
\end{quote}

Spinoza, that is, has the merit of explaining the world in terms of itself and not through recourse to a transcendent being, as in the case of Descartes and Newton who point to a first impulse external to matter. Movement constitutes for Spinoza, just as for Engels, the very mode of being of matter.\textsuperscript{18} Matter without movement, therefore, is unthinkable. Engels writes:

\textsuperscript{15} Cf. Dietzgen 1984; Häckel 1883; cf. also Plekhanov 1969. Engels’s knowledge of Spinoza seems to be decisively mediated by Hegel, as appears from the few passages in which Spinoza is cited. For example, in \textit{Anti-Dühring} (Marx & Engels 1975–2005, Vol. 25, p. 18); in the same work he recalls the appendix of Book I of the \textit{Ethics} with the motto, dear to Marx, ‘\textit{Ignorantia non est argumentum}’ (Marx & Engels 1975–2005, Vol. 25, p. 102). And further, evidently relying upon Hegel’s \textit{Logic}, the proposition ‘\textit{Omnis determinatio est negatio}’ (Marx & Engels 1975–2005, Vol. 25, p. 131).

\textsuperscript{16} Sini 1991, p. 91. Sini continues: ‘Now, following these considerations and upsetting a commonplace of philosophical historiography, it would be necessary to say that Kant didn’t in any way realise the Copernican revolution (Kant’s revolution was very timid): the true Copernican revolution was accomplished by Spinoza; he is the Copernicus of Philosophy, not Kant’ (ibid.).

\textsuperscript{17} Marx & Engels 1975–2005, Vol. 25, p. 320; trans. modified.

\textsuperscript{18} This is Engels’s definition: ‘Motion in the most general sense, conceived as the mode of existence \textit{[Daseinsweise]}, the inherent attribute of matter, comprehends all changes and processes
The whole of nature accessible to us forms a system, an interconnected totality [Gesamtzusammenhang] of bodies, and by bodies we understand here all material existence extending from stars to atoms, indeed right to ether particles, in so far as one grants the existence of the last named. In the fact that these bodies are interconnected [in einem Zusammenhang] is already included that they react on one another [aufeinander einwirken], and it is precisely this mutual reaction [gegenseitige Einwirkung] that constitutes motion. It already becomes evident here that matter is unthinkable without motion. And if, in addition, matter confronts us as something given, equally uncreatable as indestructible, it follows that motion also is as uncreatable as indestructible. It became impossible to reject this conclusion [Folgerungen] as soon as it was recognised that the universe is a system, an interconnection [Zusammenhang] of bodies.19

Engels, therefore, like Spinoza, holds that nature is a universal interconnected totality, the parts of which cannot be separated from the whole other than by abstraction:

In nature nothing takes place in isolation. Everything affects and is affected by every other thing; and it is mostly because this manifold motion and interaction [dieser allseitigen Bewegung und Wechselwirkung] is forgotten that our natural scientists are prevented from gaining a clear insight into the simplest things.20

Knowledge of reality is possible on the condition of thinking this same reality as an infinite interrelation of events.21 These can be explained in their individuality only by the connections that each of them establishes with the

21. Interesting in this regard are the reflections developed by Whitehead regarding the concept of the event in his attempt to think the philosophical results of Einstein's theory of relativity.
totality – connections which constitute the very nature of their individual becoming \([\text{evenire}]\). Therefore, in nature there are no isolated facts, except in the imaginary laboratory of the natural and social scientists (the example of the billiard table in mechanics and the Robinsonades in political economy). It is precisely for this reason that Engels maintains that science has need of dialectics, stripped of its mystical shell, in order to impede the sclerosis of the findings of scientific research in the rigid oppositions \([\text{fixen Gegensätze}]\) of principle and consequence \([\text{Grund und Folge}]\), cause and effect, identity and difference, appearance and essence \([\text{Schein und Wesen}]\).\(^{23}\)

Chemistry – atomistics. The abstract divisibility in physics – bad \([\text{schlechte}]\) infinity. Physiology – the cell (the organic process of development, both of the individual and of species, by differentiation, the most striking test of rational dialectics), and finally the identity of the forces of nature and their mutual convertibility \([\text{gegenseitige Verwandlung}]\), which put an end to all fixity of categories. Nevertheless, the bulk of natural scientists are still held fast in the old metaphysical categories and helpless when these modern facts \([\text{Tatsachen}]\), which so to say prove the dialectics in nature, have to be rationally explained and brought into relation \([\text{Zusammenhang}]\) with one another. And here thinking is necessary \([\text{Und hier mußte gedacht werden}]\): atoms and molecules, etc., cannot be observed under the microscope, but only by the process of thought. Compare the chemists (except for Schorlemmer, who is acquainted with Hegel) and Virchow’s \(\text{Cellularpathologie}\), where in the end the helplessness has to be concealed by general phrases. Dialectics divested of mysticism becomes an absolute necessity for natural science, which has forsaken the field where rigid categories sufficed, which represent as it were the lower mathematics of logic, its everyday weapons.\(^{24}\)

Dialectics as conceived by Engels is thus ‘to be developed as the science of interconnections, in contrast to metaphysics.’\(^{25}\) This explains the reference to Spinozist theory, the first and perhaps the most pure attempt in the history of Western thought to think the primacy of the relation over the individual as opposed to traditional metaphysics, which thinks the relation in the form of subject-predicate.\(^{26}\) Dialectics thinks reality, therefore, not as ‘a complex of

\(^{22}\) Cf. the following passage: ‘When we consider and reflect upon nature at large or the history of mankind or our own intellectual activity, at first we see the picture of an endless entanglement of relations \([\text{von Zusammenhängen}]\) and interactions \([\text{Wechselwirkungen}]\), in which nothing remains what, where and as it was, but everything moves, changes, comes into being and passes away’ (Marx & Engels 1975–2005, Vol. 25, p. 19; trans. modified).


\(^{26}\) The theory of Leibniz constitutes perhaps a paradigmatic model of the difficulty encountered by a logic of the proposition that is founded on the form of subject-predicate
things’, but as ‘a complex of processes’. It is the stage reached by scientific knowledge, in particular with Darwin, that demands such an effort.\(^{27}\) Whereas metaphysics thinks a hierarchy of ordered and separate substances by means of concepts of genus and species, dialectics thinks a complex of interrelated process in which individuals are constituted in their infinite variety.

For a stage in the outlook on nature where all differences become merged in intermediate steps, and all opposites pass into one another through intermediate links, the old metaphysical method of thought no longer suffices. Dialectics, which likewise knows no \textit{hard and fast lines}, no unconditional, universally valid ‘either-or’ and which bridges the fixed metaphysical differences, and besides ‘either-or’ recognises also in the right place ‘both this and that’ and reconciles the opposites, is the sole method of thought appropriate in the highest degree to this stage. Of course, for everyday use, for the small change of science, the metaphysical categories retain their validity.\(^{28}\)

In the same fragment, Engels shows, on the basis of Hegelian logic and indirectly on Spinozist arguments, how the old metaphysical categories become obsolete when thinking the results of modern science. For example, in the animal world the concept of an individual is not definable in a strict way:

\begin{quote}
Not only as to whether a particular animal is an individual or a colony, but also where in development one individual ceases and the other begins (nurses).\(^{29}\)
\end{quote}

Thus, in the organic world, the rigid opposition of categories like the whole and parts becomes insufficient.\(^{30}\) In the same way, the opposition of categories regarding the problem of the relations. In this respect, see Russell’s interpretation of Leibniz’s philosophy regarding the problem of the relations (Russell 1900, p. 139) and the lucid criticism in Mugnai 1976, pp. 159–82.

\(^{27}\) Engels writes: ‘Natural scientists… are still under the domination of philosophy. It is only a question whether they want to be dominated by a bad, fashionable philosophy or by a form of theoretical thought which rests on acquaintance with the history of thought and its achievements’ (Marx & Engels 1975–2005, Vol. 25, p. 491).


\(^{29}\) Marx & Engels 1975–2005, Vol. 25, p. 493. In another fragment, Engels writes: ‘\textit{The individual}. This concept also has been dissolved into something purely relative. Cormus, colony, tapeworm – on the other hand, cell and metamere as individuals in a certain sense (\textit{Anthropogenie} and \textit{Morphologie})’ (Marx & Engels 1975–2005, Vol. 25, p. 581).

\(^{30}\) Engels adds later on as an example: ‘The ejection of seeds – the embryo – and the newborn animal are not to be conceived as a “part” that is separated from the “whole”; that would give a distorted treatment. It becomes a part only in a dead body. \textit{Encyclopädie}, I, p. 268’ (Marx & Engels 1975–2005, Vol. 25, p. 494).
like simple and compound 'already becomes inadequate in organic nature.'

Furthermore, for knowledge of the organic world just as for that of the inorganic world, the rigid opposition of identity and difference turns out to be of no service:

The old abstract formal identity standpoint, that an organic being is to be treated as something simply identical with itself, as something constant, becomes out of date. Nevertheless, the mode of thought based thereon, together with its categories, persists. But even in inorganic nature identity as such is in reality nonexistent. Every body is continually exposed to mechanical, physical, and chemical influences, which are always changing it and modifying its identity. Abstract identity, with its opposition to difference, is in place only in mathematics – an abstract science which is concerned with creations of thought, even though they are reflections of reality – and even there it is continually being sublated.

Furthermore, the rigid metaphysical opposition between contingency and necessity has become unusable regarding knowledge of natural processes. This sense, in fact, includes conceptions that, on the one hand, imagine that nature contains contingent processes next to necessary processes and that indicate exclusively the knowledge of the latter as the objective of science; and, on the other, the determinism which, transferred to science from French materialism, simply negates the existence of the contingent. In both cases, they remain imprisoned in a theological conception of nature.

In contrast to both conceptions, Hegel came forward with the hitherto quite unheard-of propositions that the accidental has a cause \([\text{Grund}]\) because it is accidental, and just as much also has no cause \([\text{Grund}]\) because it is accidental;

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32. Marx & Engels 1975–2005, Vol. 25, p. 495. Further on, Engels writes: ‘The law of identity in the old metaphysical sense is the fundamental law of the old outlook: \(A=A\), each thing is equal to itself. Everything was permanent, the solar system, stars, organisms. This law has been refuted by natural science bit by bit in each separate case, but theoretically it still prevails and is still put forward by the supporters of the old in opposition to the new: a thing cannot simultaneously be itself and something else. And yet the fact that true, concrete identity includes difference, change, has recently been shown in detail by natural science’ (Marx & Engels 1975–2005, Vol. 25, p. 496). Cf. the following passage from \textit{Anti-Dühring} ‘Every organic being is every moment the same and not the same; every moment it assimilates matter supplied from without, and gets rid of other matter; every moment some cells of its body die and others build themselves anew; in a longer or shorter time the matter of its body is completely renewed, and is replaced by other atoms of matter, so that every organic being is always itself, and yet something other than itself’ (Marx & Engels 1975–2005, Vol. 25, p. 23).
that the accidental is necessary, that necessity determines itself as chance, and, on
the other hand, this chance is rather absolute necessity (Logik, II, Book III, 2: Die
Wirklichkeit). Natural Science has simply ignored these propositions as paradoxical
trifling, as self-contradictory nonsense, and, as regards theory, has persisted on
the one hand in the barren thought of Wolffian metaphysics, according to which
a thing is either accidental or necessary, but not both at once; or, on the other
hand, in the hardly less thoughtless mechanical determinism which in words
denies chance in general only to recognise it in practice in each particular case.33

Finally, Engels emphasises that the rigidity of the metaphysical opposition
of cause and effect needs to be replaced by the category of interaction
[Wechselwirkung]:

Reciprocal action is the first thing that we encounter when we consider matter in
motion as a whole from the standpoint of modern natural science. We see a series
of forms of motion, mechanical motion, heat, light, electricity, magnetism,
chemical compound and decomposition, transitions of states of aggregation,
organic life, all of which, if at present we still make an exception of organic life,
pass into one another, mutually determine one another, are in one place cause
and in another effect, the sum-total of the motion in all its changing forms
remaining the same…. [W]e cannot go back further than to knowledge of this
reciprocal action, for the very reason that there is nothing behind to know. If we
know the forms of motion of matter (for which it is true there is still very much
lacking, in view of the short time that natural science has existed), then we know
matter itself, and therewith our knowledge is complete…. [O]nly from this
universal reciprocal action do we arrive at the real causal relation. In order to
understand the separate phenomena, we have to tear them out of the general
inter-connection and consider them in isolation, and then the changing motions
appear, one as cause and the other as effect.34

Thus, just as the concept of interaction demonstrates the uselessness of the
rigid opposition of cause and effect, in the same way it shows the uselessness
of the opposition of efficient cause and final cause:

precision how Hegel is thinking here of the Spinozist modes (Fleischmann 1968, pp. 176–206).
Cf. also Fleischmann 1964, pp. 3–29.
34. Marx & Engels 1975–2005, Vol. 25, pp. 511–12. Cf. the following passage from Anti-
Dühring: ‘Cause and effect are conceptions which only hold good in their application to each
individual case [einzelen Fall]; but as soon as we consider the individual cases in their general
connection with the universe as a whole [allgemeinen Zusammenhang mit dem Weltganzen], they
run into each other, and they become confounded in the contemplation [Anschauung] of that
universal interaction [Wechselwirkung] in which causes and effects are eternally changing places,
so that what is effect here and now will be cause there and then, and vice versa’ (Marx & Engels
for the modern standpoint the whole hopeless rubbish about this antithesis is put to an end because we know from experience and from theory that both matter and its mode of existence, motion, are uncreateable and are, therefore, their own final cause; while to give the name effective causes to the individual causes which momentarily and locally become isolated in the mutual interaction of the motion of the universe, or which are isolated by our reflecting mind, adds absolutely no new determination but only a confusing element. A cause that is not effective is no cause.35

Engels shows, therefore, how the developments of scientific knowledge render the formulation of new philosophical categories necessary: this new order of philosophical discourse appears to be commanded by the category of Wechselwirkung, thought not as the reciprocal action of two substance but as the efficacy of the totality on its elements in as much as it is the interrelation between the action of these elements. The position itself of such a category confines the classical metaphysical oppositions – between individual and totality, whole and parts, identity and difference, simple and compound, quantity and quality,36 contingent and necessary, cause and effect, final cause and efficient cause – to the terrain of ‘common sense’ [senso comune].

III

The first theorist who had the unprecedented audacity to think this category in all of its anti-metaphysical implications was, according to Engels, Spinoza: ‘Spinoza: substance is causa sui strikingly expresses the reciprocal action [Wechselwirkung].’37

The circle closes. Spinoza was, according to Engels, the first theorist of the modern age to think nature in itself. Although he did not have the opportunity to know more than a minimal part of the findings of natural science, he was the first to formulate the only philosophical category that is able to accord with these same findings: the category of Wechselwirkung.

Let us now briefly examine the Spinozist concept of causa sui, as it is formulated in the Ethics. By means of the theory of substance as causa sui, Spinoza thinks the self-production of the infinite substance as a production of the totality of modes,38 in order thereby to understand the immanent (infinite)

38. ‘God must be called the cause of all things in the same sense in which he is called the cause of himself’ (Spinoza 1985, Ethics I, pr. XXV, schol).
causality of proposition XVIII\textsuperscript{39} and the transitive (finite) causality of proposition XXVIII\textsuperscript{40} not as two distinct activities, but as a single and contemporaneous process.\textsuperscript{41} In this way the concept of immanent causality, in its negation of any originary givenness of sense and of movement (the first impulse of Descartes) to the being of the world, reabsorbs in the absoluteness of the surface the imaginary double level of being.

The negation of a first cause understood as transient causality necessitates the rethinking of the model of transitive, finite causality, because that which is \textit{causa sui} is also necessarily \textit{effectus sui}. Thus every single existence is not the effect of a given cause, but of the infinite necessary relations that such existence maintains with all of the others. The concepts of cause and effect thus lose the anthropomorphic simplicity of the relation of juridical imputation, becoming instead a structural, processual multiplicity: every reality, every power, exists as infinite and definite, and is traversed by the multiple relations which constitute it as such.

Such a conception of causality carries with it a redefinition of the concept of the individual. Every individual is in fact whole and parts, simple and compound, because the individual is not understood as a \textit{subjectum} always identical with itself, but as a constant relation between elements that can vary without transforming the form of the individual, if the proportion of the relation of movement and rest between the elements does not change.

Finally, the concept of \textit{causa sui} led Spinoza to rethink the classical antithesis between necessary and contingent. Substance, in as much as it is \textit{effectus sui}, has a cause and therefore its existence is dependent on another, that is, it is contingent. However, in as much as it is \textit{causa sui}, it does not have a cause and therefore its existence is necessary. In other words, the mode which, if isolated from the totality, is contingent,\textsuperscript{42} does not exist if not in its reference to

\textsuperscript{39} God is the immanent, not the transitive, cause of all things’ (Spinoza 1985, \textit{Ethics} I, pr. XVIII).

\textsuperscript{40} ‘Every singular thing, or any thing which is finite and has a determinate existence, can neither exist nor be determined to produce an effect unless it is determined to exist and produce an effect by another cause, which is also finite and has a determinate existence; and again, this cause also can neither exist nor be determined to produce an effect unless it is determined to exist and produce an effect by another, which is also finite and has a determinate existence, and so on, to infinity’ (Spinoza 1985, \textit{Ethics} I, pr. XXVIII).

\textsuperscript{41} Macherey writes: ‘Immanent causality and transitive causality therefore do not define two independent levels of causality, at the intersection of which finite things would themselves be produced. Rather, they constitute a single order which, synthetically considered in its entirety, acts absolutely in itself, and considered analytically, \textit{partes extra partes}, distributes its operations according to determinate relations which have no autonomy because they do not possess their reason in themselves’ (Macherey 1992, p. 101).

\textsuperscript{42} Spinoza writes: ‘By mode I understand the affections of a substance, or that which is in another through which it is also conceived’ (Spinoza 1985, \textit{Ethics} I, def. III). In this sense the
another, to the absolutely necessary, that is, to substance. However, this same substance does not exist other than as the necessity of the modal contingency, or as the infinity of necessary relations which maintain between them the contingent existences. The reason why Spinoza considers the concepts of genus and species to be useless is now clear: such concepts are useful within a hierarchical ontology like that of Aristotle in which each substance-individual occupies a definite space in the universal order on the basis of co-ordinates furnished by genus and species, but become useless within a horizon like that of Spinoza which dissolves every fixity and every hierarchy in the radical processuality of being. Spinoza writes in Letter XXXII to Oldenburg:

all bodies are surrounded by others, and are mutually determined to exist and operate in a fixed and definite manner [ratione], observed together by all constantly in every circumstance; hence it follows that each body, in so far as it exists as modified in a particular manner, must be considered as a part of the whole universe, as agreeing with the whole, and associated with the remaining parts. As the nature of the universe is not limited […], but is absolutely infinite, its parts are by this nature of infinite power infinitely modified, and compelled to undergo infinite variations.

IV

Let us return now to Engels’s statement that the concept of *causa sui* effectively expresses the concept of *Wechselwirkung*. The translation is not neutral (admitting that neutral translation is impossible). The term *Wechselwirkung* in fact relates to a theoretical history completely foreign to both Spinozian philosophy and to the tradition of interpretation of Spinoza in Germany. It is with Kant that the term *Wechselwirkung* acquires importance for the purposes of our study. He poses *Wechselwirkung* as the third category of relation,.

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43. ‘In nature there is nothing contingent, but all things have been determined from the necessity of the divine nature to exist and produce an effect in a certain way’ (Spinoza 1985, *Eth I*, pr. XXIX).

44. Spinoza writes in the *Short Treatise*: ‘For if we can only know a thing perfectly through a definition consisting of genus and difference, then we can never know perfectly the highest genus, which has no genus above it’ (Spinoza 1985, p. 89).

45. Spinoza 1985, Letter XXXII.

46. The position of *Wechselwirkung* as the third category is not unimportant, because, as Kant notes, ‘the third category in each class always arises from the combination of the second category with the first’ (Kant 1929, *CPR B*, p. 110); thus ‘community [Gemeinschaft] is the causality of substances reciprocally [wechselseitig] determining one another’ (Kant 1929, *CPR B*, p. 111).
deducing it from disjunctive judgments. The application of such a category to appearances \([\text{Erscheinungen}]\) is rendered possible, according to Kant, by the transcendental schema which ‘by means of the transcendental determination of time… mediates the subsumption of the appearances under the category’.\(^{48}\) The schema of \(\text{Wechselwirkung}\), or of the reciprocal causality of substances in respect of their accidents is, therefore, ‘the co-existence, according to a universal rule, of the determinations of the one substance with those of the other’.\(^{49}\) On the basis of this schema, Kant formulates the third of the analogies of experience (the rule of all temporal relations which precede experience and render it possible for the first time):\(^{50}\) ‘All substances, in so far as they can be perceived to coexist in space, are in thorough-going reciprocity \([\text{Wechselwirkung}]\)’.\(^{51}\)

The idealistic re-conceptualisation of Kantian critique had as its epicentre precisely the redefinition of the transcendental schematism or of the

\(^{47}\) Kant 1929, \(\text{CPR} \ B\), pp. 95–6. Regarding precisely such a deduction, Kant adds an observation: ‘in the case of one category, namely, that of \textit{community}, which is found in the third group, its accordance with the form of a disjunctive judgment – the form which corresponds to it in the table of logical functions – is not as evident as in the case of the others. To gain assurance that they do actually accord, we must observe that in all disjunctive judgments the sphere… is represented as a whole divided into parts… and that since no one of them can be contained under any other, they are thought as co-ordinated with, not subordinated to, each other, and so as determining each other, not in one direction only, as in a series, but reciprocally, as in an aggregate – if one member of the division is posited, all the rest are excluded, and conversely. Now in a whole which is made up of things, a similar combination is being thought; for one thing is not subordinated, as effect, to another, as cause of its existence, but, simultaneously and reciprocally, is co-ordinated with it, as cause of the determination of the other… This is a quite different kind of connection from that which is found in the mere relation of cause to effect (of ground to consequence), for in the latter relation the consequence does not in its turn reciprocally determine the ground, and therefore does not constitute with it a whole – thus the world, for instance, does not with its Creator serve to constitute a whole’ (Kant 1929, \(\text{CPR} \ B\), p. 112).

\(^{48}\) Kant 1929, \(\text{CPR} \ B\), p. 178.

\(^{49}\) Kant 1929, \(\text{CPR} \ B\), p. 184.

\(^{50}\) Kant 1929, \(\text{CPR} \ B\), p. 218.

\(^{51}\) Kant 1929, \(\text{CPR} \ B\), p. 256. Kant specifies his discourse in the following passage thus: ‘The word community is in the German language ambiguous. It may mean either \textit{communio} or \textit{commercium}. We here employ it in the latter sense, as signifying a dynamical community, without which even local community \((\text{communio spatiis})\) could never be empirically known’ (Kant 1929, \(\text{CPR} \ B\), p. 260). Such an analogy is explained, according to Cassirer, by placing it in relation to the law of universal gravitation: ‘Thus we attain to a causal system in which two members are understood in such a way to be able to pass from one to the other, and vice versa. Such a system in presented, for example, in the totality of physico-mathematical equations which are deduced from the Newtonian law of gravitation. On the basis of such equations every member of the cosmos is explained, in its spatial position and in its motion, as a function of all the other members, and these others, once again, are explained as functions of it: and only in such universal reciprocal action proceeding from one body to another, all of the objectivity of the same physical space and the ordering and the disposition of its single parts is constructed for us’ (Cassirer 1977, p. 225).
imagination, the site of the encounter of appearance and the category. German idealism, against Kant, thought this imagination as productive, as the site of the original constitution of reality itself. In the *System of Transcendental Idealism*, Schelling affirms that

the first category underlying all the others, the only one whereby the object is already determined in production, is, as we know, that of relation, which, since it is the sole category of intuition, will be alone in presenting inner and outer sense as still united.\(^{52}\)

The category of *Wechselwirkung* (the above mentioned third category of relation), is posited by Schelling as the synthesis of the categories of substance and cause, from which he deduces it in the following way:

Hence the first category as such is intuitable only through the second, as has been shown at the proper juncture; the ground of this, which appears here, is that only through the second do we add the transcendental schema of time. Substance is intuitable as such only by being intuited as persisting in time, but it cannot be intuited as persistent unless time, which has so far designated only the absolute boundary, flows (extends itself in one dimension), which in fact comes about only through the succession of the casual sequence [*Causalzusammenhang*]. But conversely, too, that any succession occurs in time is intuitable only in contrast to something that persists therein, or, since time arrested in its flow=space, that persists in space, and this is in fact substance. Hence there two categories are possible only mutually through one another [*Wechselseitigdurcheinander*], that is, they are possible only in a third, which is reciprocity [*Wechselwirkung*].\(^{53}\)

Nevertheless, without wishing to play down the importance of Kant’s and Schelling’s thought, it is not difficult to recognise in Engels’s equation ‘*causa sui* = *Wechselwirkung*’ the direct effect of his reading of the concluding pages of Hegel’s ‘Doctrine of Essence’.\(^{54}\) (Engels himself alluded to this on numerous occasions).\(^{55}\) Engels repeatedly uses the argumentation found in these pages,

\(^{52}\) Schelling 1978, p. 145.

\(^{53}\) Schelling 1978, p. 146.

\(^{54}\) Hegel, criticising Jacobi’s interpretation of Spinoza’s concept of *causa sui*, exclaims: ‘*causa sui* (*effectus sui* is the same), which is the absolute truth of the cause’ (Hegel 1975, p. 216).

\(^{55}\) In formulating the second law of dialectics, ‘the law of the interpenetration of opposites’, Engels affirms that Hegel’s treatment of it in the ‘Doctrine of Essence’ is ‘by far the most important part’ of the system (‘Dialectics’ in *Dialectics of Nature* (Marx & Engels 1975–2005, Vol. 25, p. 357). Cf. also the following letter of Engels to Marx: ‘I am deeply immersed in the doctrine of essence. Back from Jersey, I found Tyndall’s and Huxley’s speeches in Belfast waiting for me, which once again reveal the plight of these people, and the way they are stuck fast in the thing-in-itself and their cry of anguish for a philosophy to rescue them. This brought me back again, after all manner of interruptions during the first week, to the theme of dialectics. In view of the
as we have also seen above, in his polemics against the categorical couples of traditional metaphysics. *Wechselwirkung* occupies a fundamental strategic position in the Hegelian system. It constitutes the supreme development of objective logic, or of substance; at the same time, it is also the bridge throw up by substance or objective logic toward subjective logic, the concept. In other words, it is objectivity that, having become transparent to itself, allows the pure rays of subjectivity (of the idea) to shine within itself. ⁵⁶

Hegel treats *Wechselwirkung* in the third chapter of the third section of the ‘Doctrine of Essence’ in the *Science of Logic*. ⁵⁷ This third section, whose title is ‘Reality’ ([Wirklichkeit]), is posited as a unity of existence and essence. ⁵⁸ Nevertheless, the unity of reality cannot be the immediate unity of being, but must be a unity mindful of the duality that has tormented it, a mediated unity. As Béatrice Longuenesse writes, ‘there is no hidden world to oppose to the thought world, to the world transformed in thought’. ⁵⁹ In the first chapter, the third section of the ‘Doctrine of Essence’ develops a speculative exposition of the Spinozian categories of the absolute, attribute and mode; ⁶⁰ in the second, a speculative exposition of the Kantian modal categories; ⁶¹ and in the third, an

⁵⁶. Although Hegel modified the architectonic of his system throughout the years, it should be noted that the category of *Wechselwirkung* always had a key role as a moment of passage from the objective to the subjective, from being to thought. In the *Logic of Jena*, *Wechselwirkung* constitutes the moment of passage from the relation of being to the relation of thought (Cf. *Jenaer Systemenwürfe II*, in Hegel 1968 7, pp. 65–75). In the course of Logic from 1810/11 for the middle school just as in the course of the philosophical encyclopedia from 1808 for the superior class, *Wechselwirkung* constitutes the moment of passage from essence to the concept (*Philosophische Propädeutik*, in Hegel 1927, pp. 129–38, p. 180).


⁵⁸. ‘Reality’ ([Wirklichkeit]) is the unity of essence and existence’ (Hegel 2004, p. 529).


exposition of the dialectic of the Kantian categories of relation. The general lines of dialectical movement of such a speculative exposition are exhibited in the beginning of this third chapter entitled ‘the absolute relation’:

This relation [Verhältniss] in its immediate concept is the relation of substance and accidents, the immediate disappearance [Verschwinden] and becoming of absolute appearance in itself. By determining itself as a being for itself against another, or the absolute relation as real, it is the relation of causality. Finally, by passing over to interaction [Wechselwirkung] as relating to itself [als sich auf sich Beziehendes], the absolute relation according to the determinations which it contains is also posited; this, its posited unity in its determinations, which are posited precisely as the whole and with that also as determinations, is thus the concept [Begriff].

Interaction is therefore posited by Hegel as a synthesis of substantiality and causality. In interaction, the duality still present in the relations of substance-accident and cause-effect is dispensed with; reflection as infinite substance absorbs every immediacy within itself in such a way that in Wechselwirkung the alterity and the multiplicity of the presupposed given are all reabsorbed in the immanence of reflexive unity (determinate reflection).

Through the moments of formal causality [die formelle Causalität], determined causality [das bestimmte Causalitätsverhältniss], and of action and reaction [Wirkung und Gegenwirkung], one finally attains with Wechselwirkung to thinking the truth of the concept of cause and substance understood as an infinite totality:

Interaction is therefore only causality itself; the cause not only does not have an effect, but, in the effect, it is in relation with itself as cause. Causality is this posited passing from originary being, that is, of cause, into appearance or into mere posited being, and vice versa of posited being into originality; but the identity itself of being and appearance is still inner necessity. This interiority or this being in itself sublates the movement of causality; with that, the substantiality of the sides [Seite] that are in relation is lost, and necessity is revealed. Necessity does not become freedom by disappearing, but rather, only through the manifestation

64. Hegel writes in the conclusion to the paragraph on determinate reflection: ‘determination of reflection, on the contrary, has taken back into itself its being other. It is posited being, negation, which however bends back into itself its relation to the other, and is negation which is equal to itself, the unity of itself and its other and only insofar is it essentiality [Wesenheit]. It is therefore posited being, negation; but as reflection into itself it is also at the same time [zugleich] the sublated being [Aufgehobenseyn] of this posited being, it is the infinite relation to itself’ (Hegel 2004, p. 408; trans. modified).
of its still inner identity; a manifestation that is the identical movement of the distinct in itself, the reflection into itself of appearance as appearance. – On the other hand, contingency [Zufälligkeit] thus becomes at the same time freedom, in so far as the sides of necessity which have the form of realities for themselves, which do not appear [scheinen] in each other, are now posited as identity, so that these totalities of reflection into self, in their difference, now appear [scheinen] also as identical, or are posited only as one and the same reflection.\(^{65}\)

In the Encyclopaedia, the ‘hard craggy melody’ becomes more accessible:

In interaction..., the progress of cause and effect to infinity is really sublated [aufgehoben] as progress, as the linear proceeding from cause to effect and from effect to cause is folded back and turned back into itself [in sich um- und zurückgebogen ist]. This folding back of infinite progress into a relation closed in itself [my italics] is, as everywhere, simple reflection that is one and the same in any thoughtless repetition, that is, one cause and another cause and their relationship to each other. The development of this relationship, interaction [das Wechselwirken], is however itself the alternation of the differentiating, not of causes, however, but of moments in each of which the other moment is posited also as for itself, according to the identity that cause in effect is cause and vice versa, that is, according to the inseparability of both.\(^{66}\)

A few lines later, Hegel adds:

The course [Verlauf] of substance through causality and interaction is therefore only in positing that independence [Selbständigkeit] is the infinite negative relation to itself – actually negative, in which differentiation and mediation becomes an originality of opposed, independent real elements, – infinite relation to itself, as the independence of them is precisely only their identity.\(^{67}\)

By means of the category of Wechselwirkung Hegel thinks the identity of thought as thinking and thought as that which is thought, of form and matter, the sensible given and intellectual category. We are now ready, following the programme of the Phenomenology of Spirit, to think the true not only as substance, but also as subject:

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\(^{65}\) Hegel 2004, pp. 570–1; trans. modified.

\(^{66}\) Hegel 1975, pp. 217–18. A. Doz comments: ‘We noted above that reciprocal action, to the extent that at first it is nothing but the indefinite continuation of the couple action-reaction, does not cancel out the existence of linkages in rectilinear series. We may now note that there are also linkages in closed, circular series; but these linkages in turn are subordinate to a new relation, and with respect to them freedom appears as an infinite spontaneity which they themselves presuppose and which surpasses them by integrating them’ (Doz 1987, p. 174).

\(^{67}\) Hegel 1975, pp. 219–20; trans. modified.
In the concept \(\text{Begriff}\), therefore, the kingdom \(\text{Reich}\) of freedom is opened. The concept is the free, because identity in and for itself, which constitutes the necessity of substance, is at the same time \(\text{zugleich}\) sublated \(\text{aufgehoben}\) or is posited being, and this posited being, as relating itself to itself, is precisely that identity. The obscurity of the substances which are in a causal relation to each other is lost, for the originality of their existence for self \(\text{Selbstbestehen}\) is overcome in posited being, and has thus become clarity transparent to itself. The original thing is this, in so far as it is only the cause of itself, and this is substance liberated into the concept. . . . the concept, insofar as it has attained to such an existence, which is precisely free, is nothing other than the ‘I’ or the pure self-consciousness.68

The concept of \(\text{causa sui}\) and the concept of \(\text{Wechselwirkung}\) are not, therefore, the same concept. The second is marked, as an indelible inheritance of Kantianism, by a reference to a principle of interiority – although this interiority in Hegel ‘has made itself a world’69 – and an implicit teleology in the process of substance’s becoming subject (or in its becoming that which it always already is). The concept of \(\text{Wechselwirkung}\) in fact implies temporality as the simultaneity of the totality with respect to itself,70 a temporality that is the synchronic foundation (the interpenetration of opposites, that is, contradiction) of the diachronic development of the totality itself (the negation of the negation). It is thus the conservation of all of the suppressed contradictions in the highest phase of the diachronic development (\(\text{Erinnerung}\) as the simultaneous consciousness of succession).71 In the simultaneity of each phase of the history of the totality, therefore, every preceding phase is conserved, as sublated, until attaining to the consciousness of itself which is the transparency of the totality with respect to itself. This consciousness, however, was present \textit{ab origine} in the concept of simultaneity, because the

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68. Hegel 2004, p. 582.
70. In Hegel’s early text \(\text{Glauben und Wissen}\), he defines the eternity of the totality as \text{absolute Zugleich} (cf. Hegel 1968 4, pp. 352–6). It should be noted here that in the \textit{Critique of Pure Reason} Kant defines the concept of the ‘present [\textit{Gegenwart}]’ as one of the derived (able to be predicated) concepts of the original concept of ‘community’ or ‘interaction’: the absolute simultaneity of the Hegelian totality is therefore absolute presence of the totality to itself. We thus find ourselves in this case close to Heidegger’s criticism of ‘the Hegelian conception of time’ as ‘the most radical… conceptual elaboration of the ordinary comprehension of time’ (cf. Heidegger 1996, p. 392; trans. modified).
71. ‘But the other side of its Becoming, \textit{History}, is a conscious, self-mediating process – Spirit emptied out into Time; but this externalization, this kenosis, is equally an externalization of itself; the negative is the negative of itself. This becoming presents a slow-moving succession of Spirits, a gallery of images, each of which, endowed with all the riches of Spirit, moves thus slowly just because the Self has to penetrate and digest this entire wealth of its substance. As its fulfillment consists in perfectly knowing what it is, in knowing its substance, this knowing is its \textit{withdrawal into itself} in which it abandons its outer existence [\textit{Dasein}] and gives its existential
simultaneous is such only with respect to the experience of a consciousness which hypostasises its own temporality and measures the phenomena of the external world on this basis. Thus the misrecognition of the difference between the concepts of *causa sui* and *Wechselwirkung* cannot be without consequences. Let us now try to determine the significance of this for Engels.

V

The question of the relation between the rational dialectic and the mystified dialectic in Hegel are well known. It was Marx who, in the ‘Afterword’ to the second edition of *Capital*, determined the terms of such question:

Fundamentally, my dialectic method is not only different from the Hegelian, but is its direct opposite. To Hegel, the life-process of the human brain, i.e., the process of thinking, which, under the name of ‘the Idea’, he even transforms into an independent subject, is the demiurgos of the real [das Wirkliche], and the real is only the external, phenomenal form [Erscheinung] of ‘the Idea’. With me, on the contrary, the ideal is nothing else than the material element reflected by the human mind, and translated into forms of thought…. The mystification which dialectics suffers in Hegel’s hands, by no means prevents him from being the first

shape over to recollection. Thus absorbed in itself, it is sunk in the night of its self-consciousness; but in that night its vanished outer existence is preserved, and this transformed existence – the former one, but now reborn of the Spirit’s knowledge – is the new existence, a new world and a new shape of Spirit. In the immediacy of this new existence the Spirit has to start afresh to bring itself to maturity as if, for it, all that preceded were lost and it had learned nothing from the experience of the earlier Spirits. But recollection [Er-Innerung], the inwardizing, of that experience, has preserved it and is the inner being, and in fact the higher form of the substance. So although this Spirit starts afresh and apparently from its own resources to bring itself to maturity, it is none the less on a higher level that it starts. The realm of Spirits which is formed in this way in the outer world constitutes a succession in Time in which one Spirit relieved another of its charge and each took over the empire of the world from its predecessor. Their goal is the revelation of the depth of Spirit, and this is the absolute Notion. This revelation is, therefore, the raising-up of its depth, or its extension, the negativity of this withdrawn “I”, a negativity which is its externalization or its substance; and this revelation is also the Notion’s Time, in that this externalization is in its own self externalized, and just as it is in its extension, so it is equally in its depth, in the Self. The goal, Absolute Knowing, or Spirit that knows itself as Spirit, has for its path the recollection of the Spirits as they are in themselves and as they accomplish the organization of their realm. Their preservation, regarded from the side of their free existence appearing in the form of contingency, is History; but regarded from the side of their [philosophically] comprehended organization, it is the Science of Knowing in the sphere of appearance: the two together, comprehended history, form alike the inwardizing and the Calvary of absolute Spirit, the actuality, truth, and certainty of his throne, without which he would be lifeless and alone. “Only from the Chalice of this realm of spirits foams forth for Him his own infinitude”’. (Hegel 1977, pp. 492–3).
to present its general form of working in a comprehensive and conscious manner. With him it is standing on its head \[\text{sie steht bei ihm auf dem Kopf}\]. It must be turned right side up \[\text{umstülpen}\], if you would discover the rational kernel within the mystical shell.\footnote{Marx & Engels 1975–2005, Vol. 35, p. 22.}

In expounding the same problem, Engels seems to accept Marx’s definition:

First of all it must be established that here it is not at all a question of defending Hegel’s point of departure: that spirit, mind, the idea, is primary and that the real world is only a poor copy \[\text{Abklatsch}\] of the idea. Already Feuerbach abandoned that. We all agree that in every field of science… one must proceed from the given facts \[\text{Tatsachen}\], in natural science, therefore from the various objective forms and the various forms of motion of matter; that therefore in theoretical natural science too the inner-connections are not to be built into the facts but to be discovered in them, and when discovered to be verified as far as possible by experiment.\footnote{Marx & Engels 1975–2005, Vol. 25, pp. 342–3; trans. modified.}

The relation between materialist and idealist dialectics is therefore one of polar opposition: the former posits matter as cause and thought as effect; the latter poses thought as cause and matter as effect. Nevertheless, the fundamental structures of dialectical movement that Hegel had correctly described remain the same in both. The frame of the problematic within which such an alternative is rendered possible is unequivocally that proposed by Fichte in \textit{The Vocation of the Scholar} and in the \textit{Doctrine of Scientific Knowledge [Wissenschaftslehre]}: the alternative, that is, between thinking the I as a production of the non-I – a thesis which would be the expression of a transcendental materialism devoid of any rationality – and thinking the non-I as a product of the I, a thesis of idealism. The Hegelian system, now thought within this problematic, needs to be set again on its feet, as Feuerbach suggested, that is, by applying to speculative philosophy the model of the subject/predicate inversion.

But is it really possible to turn Hegel upside down, or rather, is his system, as Hegel himself had said of Spinoza, fluctuating in the free ether without either height or depth?\footnote{Hegel 1968, Vol. 4, p. 392.} Can a category like that of \textit{Wechselwirkung} have a rational kernel and thus be liberated from its mystical shell, simply by making it the modality of the action of matter?

The category of \textit{Wechselwirkung} allows Hegel to make the transition from objective logic to subjective logic, from substance to subject (that is, to the I),
from blind necessity to the kingdom of freedom. Engels inverts this category, or turns it into a reflex in the mind ‘of the forms of movement of the world of nature just as of History’. He attains the same result, because the general interaction of matter reaches, via intermediate stages, to ‘its highest fruit’:

76. In the addendum to paragraph 156 of the *Encyclopaedia Logic*, after having affirmed that interaction is the relation of causality posited in its complete development, Hegel demonstrates its application to the field of history: ‘Thus, for example, in observations on history, the question treated at first is the question of whether the character and the habits of a people are the cause of their constitution and of their laws, or whether, on the other hand, they are effects of them. Further, an advance is made in so far as they both, character and habits, on the one hand, and constitutions and laws, on the other, are conceived from the point of view of reciprocal action, so the cause is the whole effect in the same relation in which it is cause, and the effect is the whole cause in the same relation in which it is effect. The same thing occurs, further, also in observation of nature, and particularly of the living organism, whose single organs and whose single functions show equally to be the one with respect to the other in a relation of reciprocal action’ (Hegel 1975, pp. 21–9). Nevertheless, a few lines later, he adds: ‘The unsatisfying aspect of the application of the relation of reciprocal action consists in the fact that this relation, instead of being able to function as an equivalent of the concept, must, rather, in its turn, above all be conceived, and this occurs if it is not limited to leave its two aspects as something given immediately but, as has been demonstrated in the two preceding paragraphs, if they are recognised here as moments of a third, higher term which is, precisely, the concept. If, for example, we consider the habits of the Spartan people as an effect of their constitution, and, vice versa, their constitution as an effect of their habits, this observation can certainly be correct, but this mode of comprehending things is, all things considered, not satisfying, because, in effect, it does not allow us to comprehend conceptually either the constitution or the habits of this people. That occurs only when both of those aspects, as well as all of the remaining sides of life and of history of the Spartan people, are recognised as founded in this concept’ (Hegel 1975, p. 219). We have already analysed how Engels uses the category of *Wechselwirkung* in the theory of nature. We should emphasise that it is a category just as central in the definition of the theory of history. Engels writes to Bloch: ‘The economic situation [Lage] is the basis, but the various elements of the superstructure [Überbau] – political forms of the class struggle and its results, to wit: constitutions established by the victorious class after a successful battle, etc., juridical forms, and even the reflexes of all these actual struggles in the brains of the participants, political, juristic, philosophical theories, religious views and their further development into systems of dogmas [Dogmensystemen] – also exercise their influence [Einwirkung] upon the course [Verlauf] of the historical struggles and in many cases preponderate in determining their form. There is an interaction [Wechselwirkung] of all these elements in which, amid all the endless host of accidents [Zufälligkeiten] (that is, of things and events whose inner interconnection is so remote or so impossible of proof that we can regard it as non-existent, as negligible), the economic movement finally asserts itself as necessary’ (Engels to J. Bloch, 21/22 September 1890, in Marx & Engels 1975–2005, Vol. 49, p. 33). Engels writes to Schmidt: ‘What these gentlemen all lack is dialectic. They never see anything but here cause and there effect. That this is a hollow abstraction, that such metaphysical polar opposites only exist in the real world during crises, while the whole vast process [der ganz frosse Verlauf] proceeds in the form of interaction [Wechselwirkung] (though of very unequal [ungleicher] forces, the economic movement being by far the strongest, most originary [ursprünglichster] and most decisive) and that here everything is relative and nothing is absolute – this they never begin to see. Hegel has never existed for them’ (Engels to C. Schmidt, 27 October 1890, in Marx &
the consciousness that in communist society auto-transparency of the natural and social totality must come to pass (that is, where natural and social matter is organised according to its nature), thus opening the kingdom of freedom:77

[In communism] man, in a certain sense, is finally marked off from the rest of the animal kingdom, and emerges from mere animal conditions of existence into really human ones. The whole sphere of the conditions of life which environ man, and which have hitherto ruled man, now comes under the dominion [Herrschaft] and control of man, who for the first time becomes the real, conscious lord [Herren] of nature because he has now become master of his own social organisation [Vergesellschaftung]. The laws of his own social action [Tun], hitherto standing face to face with man as laws of nature foreign to and dominating him,

Engels 1975–2005, Vol. 49, p. 64; trans. modified). Again, to Mehring: 'Hanging together with this too is the fatuous notion of the ideologists that because we deny an independent historical development to the various ideological spheres which play a part in history we also deny them any historical efficacy [Wirksamkeit]. The basis of this is the common undialectical conception of cause and effect as rigidly opposite poles, the total disregarding of interaction [Wechselwirkung]; these gentlemen often almost deliberately forget that once an historic element [Moment] has been brought into the world [in die Welt gesetzt] by other elements, ultimately by economic facts, it also reacts in its turn and may react on its environment [Umgebung] and even on its own causes.' (Engels to F. Mehring, 14 July 1893, in Marx & Engels 1975–2005, Vol. 50, p. 163; trans. modified). Finally, to Borgius: 'Political, juridical, philosophical, religious, literary, artistic, etc., development is based on economic development. But all these react upon one another and also upon the economic base [Basis]. It is not that the economic position is the cause and alone active, while everything else only has a passive effect. There is, rather, interaction [Wechselwirkung] on the basis [auf Grundlage] of the economic necessity, which in the last instance [in letzter Instanz] always asserts itself' (Engels to W. Borgius, 25 January 1894, in Marx & Engels 1975–2005, Vol. 50, p. 294; trans. modified). It turns out that for Engels just as for Hegel the reciprocal action of historical elements has a telos, that is, a necessary direction, imposed, in Hegel, by the concept, in Engels, by the economic base: such a telos emerges from the immanence of interaction as the destined point of arrival of the historical process.

77. 'Hegel was the first to state correctly the relation between freedom and necessity. To him, freedom is the insight into necessity [die Einsicht in die Notwendigkeit], “necessity is blind only in so far as it is not understood [begriffen]”. Freedom does not consist in any dreamt-of independence from natural laws, but in the knowledge of these laws, and in the possibility this gives of systematically making them work towards definite ends [bestimmten Zwecken]. This holds good in relation both to the laws of external nature and to those which govern the bodily and mental existence of men themselves – two classes of laws which we can separate from each other at most only in thought but not in reality. Freedom of the will therefore means nothing but the capacity to make decisions with knowledge of the subject [Sachkenntnis]. Therefore the freer a man’s judgement is in relation to a definite question, the greater is the necessity with which the content of this judgement will be determined; while the uncertainty, founded on ignorance, which apparently [scheinbar] makes an arbitrary choice among many different and conflicting possible decisions, shows precisely by this that it is not free, that it is controlled by the very object it should itself control. Freedom therefore consists in the control over ourselves and over external nature, a control founded on knowledge of natural necessity; it is therefore necessarily a product of historical development' (Marx & Engels 1975–2005, Vol. 25, pp. 105–6; trans. modified).
will then be used with full understanding [Sachkenntnis], and so mastered by
him. Man’s own social organisation, hitherto confronting him as a necessity
imposed by nature and history, now becomes the result of his own free action
[Tat]. The extraneous objective forces that have hitherto governed history pass
under the control of man himself…. [O]nly from that time will the social causes
set in movement by him have, in the main and in a constantly growing measure,
the results intended by him. It is humanity’s leap from the kingdom of necessity
to the kingdom of freedom.78

*Et voilà*, the leap from necessity to liberty, from substance to subject, is
inscribed in Engels’s thought by the philosophical memory of the concept of
Wechselwirkung and by its necessary correlate, the concept of consciousness as
reflex (the progression from in-itself to for-itself).

But why, then, have we seen, in the passage cited by Monod, a reference to the
theory of Spinoza? Let us take up again the concluding passage of this citation:

we have the certainty that matter remains eternally the same in all its
transformations, that none of its attributes can ever be lost, and therefore, also,
that with the same iron necessity that it will exterminate on the earth its highest
creation, the thinking mind, it must somewhere else and at another time again
produce it.79

For Engels, thought is the highest attribute of matter, the most complex form
of movement, which the eternal cycle [Kreislauf] of matter must return to
create. Spinoza, on the other hand, in the VI Definition of the first part of the
*Ethics*, writes:

*By God I understand a being absolutely infinite, that is, a substance consisting of*
an infinity of attributes, of which each one expresses an eternal and infinite
essence.80

The essence of every attribute is in Spinoza eternal and infinite. This means
that thought cannot be understood as the highest form of extension, just as,
on the other hand, extension cannot be considered as the lowest form of
thought (as in the neo-Platonic model). There is no hierarchy between the
attributes: they are eternal and infinite, and therefore cannot be subordinated
either the one to the other nor to any form of temporality. The asymmetry of
Engels’s thought with respect to the symmetry of Spinoza’s produces a radical

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difference in the two systems: the dialectical materialism of Engels, like Hegel’s idealism, understands the process of the becoming subject of substance as the becoming liberty of necessity, while the Spinozist theory of substance as *causa sui* – identifying *abs origine* in the absoluteness of substance the concepts of essence and existence, of power and act, of free cause and necessary cause, of *in se esse* and *per se concipi* – bars any conception of nature and of history as a *Bildungsroman* of a subject (Hegel’s Idea; Engels’s humanity). Thought and extension, understood as attributes of the eternal substance, are posited outside of duration, though they are the conditions of existence of any modal duration. This means that there is no temporality of the totality or history of the totality; neither can its eternity be understood as an absolute simultaneity in which the modal temporality is immersed; neither, finally, can it be understood as a *Kreislauf* in Engels’s sense, that is, as identity of succession and simultaneity. On the contrary, in every singular existence (of things and of ideas) the necessary contingency of duration is inscribed *ab origine*; its persevering is the open and aleatory effect of a field of encounters and clashes between powers (that is, between other durations) that can never become destined.

If therefore the concept of *Wechselwirkung* implies a totality present to itself as simultaneity, a simultaneity that constitutes the track which permits the flow of a linear, homogenous and empty time, which can be filled by the chronology of stages of development, then the concept of *causa sui* implies a totality without closure, a totality whose eternity is identified with the necessary and infinite network of modal durations. This means that freedom cannot be understood, as in Engels, as a conscious reflex of necessity, as a finally attained transparency of nature and of history to thought, but as a grade of power of necessity in the aleatory space of the conjuncture.

*Translated by Peter Thomas*

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81. Timpanaro speaks of the ‘Spinozist and Hegelian formulation of freedom as “consciousness of necessity”’ (Timpanaro 1975, p. 106), thus suppressing almost intentionally the difference between the two theories. In reality, Hegelian necessity is a rational necessity, that is, a bestowing of meaning for the elements that are here concatenated, while Spinoza’s necessity, though intelligible, is a-rational, that is, chance without meaning. Furthermore, Timpanaro seem to mistake radically Spinoza’s thought when he affirms that this ‘insists that man not only recognize necessity, but also glory and efface himself in it’ (ibid.) and therefore belongs to a whole ‘conception of philosophy as asceticism and self-repression… which Marxism utterly rejects’ in as much as it is not eudaimonistic (ibid.).
References


Bloch, Ernst 1971, Geist der Utopie, in Gesamtausgabe (GA) 16, Frankfurt/M: Suhrkamp.

Cassirer, Ernst 1977, Vita e doctrina di Kant, Florence: La Nuova Italia.


—— 1977, Phenomenology of Spirit, translated by A.V. Miller, Oxford: OUP.


Lost in Transition: the German World-Market Debate in the 1970s

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Abstract
The persistence of economic and geopolitical conflicts beyond the 1990s has revived interest in explanations that analyse international conflicts in relation to capitalism. In this debate, many contributors have accepted one or another version of a strong globalisation theory, which reflects the hopes for an age of peace and prosperity as a largely co-operative process. This paper attempts to question this thesis by introducing an almost forgotten debate: the German world-market debate of the 1970s. This approach attempted to show how the general laws of motion of capitalism prevail under changing conditions. Furthermore it pointed to the existence of many states, which again and again reproduces the reality of multipolar competitive capitalism, albeit in changing forms. In the following we outline the central – sometimes diverging – insights, before subjecting them to a critical appraisal and identifying a number of points where the theses could be developed further. Taking up the threads of that debate without repeating its weaknesses could prove productive for today’s discussion.

Keywords
capitalism, world market, imperialism, plurality of states, money relations, movements of capital

Introduction
Over the last two decades, the Marxist theory of imperialism has come to be regarded by mainstream political scientists as a relic of past left-wing movements, lacking any power to explain the world after 1989.\textsuperscript{1} But the

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persistence of state violence, geopolitical frictions and war into and beyond the 1990s has revived interest in the Marxist tradition, which analyses international co-operation and conflict in relation to the capitalist mode of production. As with every wave of the imperialism debate, be it the classical perspective during World War I, or the debates before and after 1968, the current discussion is also shaped by the particular characteristics of the capitalism of its time.

Even today, many Marxists have accepted one or another version of globalisation theory, which reflects the great political illusion of the 1990s – the hopes for an age of peace and prosperity and for a ‘new world order’ as a largely co-operative process. Left-wing theorists and critical social scientists have strongly supported the claim of mainstream researchers that the nation-state has lost sovereignty to internationalised economic processes and integrated financial markets. The traditional conclusions of the Marxist theories of imperialism are thereby turned on their heads. In what Habermas has called a ‘postnational constellation’, a global space with dissolving national boundaries, competition between states appears as a relic of a past epoch that has been superseded by the global rule of ‘total social capital’: an ‘Empire’, in Hardt and Negri’s sense. Similarly, Panitch and Gindin identify a kind of super-imperialism under the leadership of the United States: an ‘American empire’.

With very few exceptions (which include Arrighi, Callinicos and Harvey), the debate today is dominated by versions of the ultra- or super-imperialism type that stand explicit or implicitly in the theoretical tradition of Karl Kautsky. As is well known, Kautsky believed that capitalists shared an interest in exploiting the masses, and that this shared aim prevailed at the international level, which could lead to international cooperation amongst capitals in a possible ‘ultra-imperialist’ phase. In our view, this is a leap backwards that ignores crucial developments in Marxist theory. It also reveals that large parts of the Left are unaware of important debates conducted during the 1970s, among them, the world-market debate in Germany. Most of today’s theories of imperialism overlook the patterns of development characteristic of modern capitalism and its constitutive features. Above all, they ignore the methodological starting point of the existence of a plurality of states, which again and again reproduces the reality of multipolar competitive capitalism, albeit in ever-changing forms. This perspective was developed in Germany during the 1970s in the ‘world-market debate’, which was conducted under

2. Kautsky 1914.
the rubric ‘world market motions of capital’. This approach attempted to show how the general laws of motion of capitalism prevail under changing economic conditions. Taking up the threads of that debate without repeating its weaknesses could prove productive for today’s discussion. In what follows, we outline its central – sometimes diverging – positions, before subjecting them to a critical appraisal and identifying a number of points where the theory could be developed further.

The social and political context of the world-market debate

The world-market debate appeared in a general context marked by the Vietnam War, the international financial crisis and the return of economic conflict between major capitalist powers. Against this backdrop, a number of authors in the Federal Republic of Germany (FRG) attempted to advance theoretical understandings of the conjuncture by stringently applying classical-Marxist analyses of capitalism. They faced several challenges.

The world-market debate established itself in opposition both to the Soviet Marxist theory of state-monopoly capitalism and to the revisionism of the social-democratic Left. Criticism of these approaches led to the development – especially among the extra-parliamentary opposition and Socialist Students’ Federation (SDS) in West Germany – of a ‘new reading of Marx’, a tendency which, though international in scope, became particularly prominent in Germany. Deeply sceptical towards ideological Marxism, the ‘new Marxists’ set out to analyse the capitalism of the postwar era using Marx’s categories and

3. This debate took place hand in hand to another controversy better known outside Germany: the state-derivation debate. Its political background was formed by the question of whether increasing state regulation could ‘save’ capitalism, and its political aim was to destroy any illusions in the welfare state. Whereas the social-democratic theory granted the state a high degree of autonomy, the Soviet-oriented theory of state-monopoly capitalism postulated a kind of fusion of the state with ‘monopoly capital’. The state-derivation debate used methods such as the theory of value-forms to find explanations for the constitutive separation of state and capital, and thus to find out why and how this separation nonetheless led to the formation of a capitalist state. In other words, the state-derivation debate concentrated on the separation and consequent relative autonomy of the state, and on why this relative autonomy was constitutive of capitalist relations of production (for an overview, see Gerstenberger 1977, Clarke 1990). A number of contributions from this discussion played a role in the world-market debate.

4. One of their influences here was critical theory. Herbert Marcuse wrote: ‘Soviet Marxism has taken on the character of a “behavioural science”. Most of its theoretical statements possess a pragmatic, instrumentalist intention; they serve to explain, justify, control particular actions and positions, which are the actual “facts” for these statements.’ (Marcuse 1967, p. 32).
definitions as their main point of departure. This project benefited from the fortunate fact that more and more of Marx's writings, and above all, the influential *Grundrisse*, had become available to a wider public after World War II. In this general context, a productive strand of applied Marxism focusing on the development of the world economy arose, alongside and in association with the ‘German’ penchant for the philological and abstract categorial treatment of Marx.

Ironically, it was the losers of the Second World War, Germany and Japan, who turned out to be the winners of the ‘golden age of capitalism’ that followed. Germany’s manufacturing industry became extremely integrated in the world economy. After this period of growth and Germany’s rapid reintegration in the world market, the economic dynamism slackened for the first time at the end of the 1960s and the first signs of the international monetary crisis and stagflation of the 1970s appeared on the horizon. This economic setting led the nascent world-market debate to pose a different set of questions than for example dependency theory, which concerned itself with North-South relationships. The central concerns of world-market theory were the relationship between developed states, the configuration of the world market, its increasing susceptibility to crisis and the importance of exchange rates. Its proponents also hoped to be able to make whatever modest progress in filling some gaps in Marx’s work and concretise his basic ideas. In the *Grundrisse*, Marx had originally planned to dedicate a whole book to the question of the world market. Although he modified and reduced his plan as the project took shape, even in Volume Three of *Capital* he still bracketed out the analysis of ‘competition on the world market’, with the promise, never to be fulfilled, that he would return to it later. All there was to go by were a few passages in *Capital* and in the *Grundrisse*. On the subject of the world market Marx left little more than a few heuristic theses for further research.

5. The car industry had expanded its export from 11.5 % of production in 1950 to 40.6 % in 1970, while for engineering the share rose from 20.3 % to 35.5 % over the same period. This also reflected Germany’s increased weight in the world market. Between 1950 and 1977, Germany’s share of total world exports tripled from 3.5 % to 10.5 %. One reason for this was that Germany’s industrial structure was biased towards production of investment goods, which put it in a particularly advantageous position during the phase of world market expansion, bringing with it increased demand for production equipment (Altvater, Hoffman and Semler 1979). In contrast to the crises since the mid-1970s, which have led the German ‘neo-mercantile’ economic policy model into crisis, the ‘minor’ crises such as that of 1966–7 led to modernisation and refinement of the German system of wages, careful reshaping of industrial relations and deliberate devaluation of the deutschmark (Altvater and Hübner 1988).
The classical-Marxist theory of imperialism and state-monopoly capitalism

The debate over the role of the world market was conducted principally in and around the left-socialist journal PROKLA. In the following section, we will concentrate on three leading figures of the debate: Christel Neusüss, Klaus Busch and Claudia von Braunmühl. In developing their theories, each of the three authors began strictly with Marx – with the aim of advancing beyond his findings. The world-market debate strictly disassociated itself from the academic and political dogmatism of the imperialism and world market theories associated with state-monopoly capitalism. In connection with the Stalinisation of the Communist parties both within and outside the Eastern bloc, the term ‘imperialism’ had degenerated into a slogan of Soviet foreign policy. Lenin’s historically specific analysis of imperialism was lifted to a canonical status, and taken as universal theoretical truth. After 1945, it was expanded into the theory of state-monopoly capitalism. In this way, it gained the status of an official (state and party) theory of imperialism in the era of ‘system-competition’ and consequently enjoyed enormous political influence, also in the West. The struggle between the ‘forces of progress and reaction, between socialism and imperialism’ was declared to be the main international conflict, and suddenly the world appeared to be divided into two ‘world markets’.

Capitalism as a whole, the theory went, had been stuck in a ‘general crisis’ or ‘period of decline’ since 1917. The effect of this general crisis and increasing monopolisation was that capitalism could only be kept functioning through increasing political intervention by the state. ‘State-monopolistic regulation’ tended to override the law of value, and state and capital merged to form a ‘unified apparatus’. Under this new relationship between capital and state, the state became the ‘instrument of monopoly capital’.

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6. Space precludes us from including other approaches to world-market analysis that were formulated a little later and which generally each follow a different line of argument (See Olle and Schoeller 1977, Siegel 1980, and Sozialistische Studiengruppen 1981).

7. Apparently, the orthodox Stalinists remained more or less unaware that capitalism experienced its greatest boom during the post-1945 era.

8. Institut für Gesellschaftswissenschaften beim ZK der SED 1968 and 1971; also see, the rather less dogmatic Boccara et al. 1973 and Katzenstein 1973. The political consequence of this theory was classical reformism: if the economy and state had merged then a ‘popular front’ would be able to break the power of the monopolies and set society on the road to socialism simply by taking over the government by parliamentary means.
State-monopoly capitalism, according to Neusüss, could not be more than a subjectivist theory of capitalism where the monopolies decide the fate of the world. But that meant that the theory remained trapped at a superficial level, because it simply took

the monopolies’ striving for profit and power as the form in which the process where the social complex of the private producers gains the upper hand is mapped onto the plane of capitalist production.\(^9\)

It fails to consider, ‘how this pursuit of private interests tends to bring forth the world market as a coherent aggregate reproduction process of capital’, and in the process the law of value prevails through the competition between national capitals.\(^10\)

Neusüss distinguished between Lenin’s theory itself and its expansion into the theory of state-monopoly capitalism. Only in the latter form, she argued, does Lenin’s theory ‘actually’ become false. Against this understanding, Neusüss defended Lenin’s unsatisfactory conceptual definition of the manifestations of imperialism for their ‘revolutionary content’, or, in other words, for their specific political function at the time they were written. However, she went on to state that Lenin’s writings on imperialism did not progress beyond a clever description of the world and that, theoretically, he had fallen behind Marx. In this respect, she claimed, Lenin’s analysis tended towards the idea of a ‘final crisis’ of capitalism that arose from its monopolistic form and strongly tended towards violence, because any move to economic expansion would mean a ‘redistribution’ of regions that had already been conquered, but Lenin, she said, failed to properly explain the central category of the monopoly. According to Lenin, the era of monopoly capitalism had superseded free competition and the whole market had taken on an easily understandable form. As von Braunmühl put it: ‘it can be controlled subjectively’.\(^11\)

According to Neusüss, Lenin’s analysis of crisis and uneven development was similarly unsatisfactory. His argumentation emphasised only one aspect of the commodity-producing society – the absence of social planning in the production of commodities. In other words, Lenin operated on the basis of disproportionality theory, where economic crises are explained as ‘merely’ a consequence of the anarchy or unplanned character of the market, or as the result of imbalances between the different sectors of an economy. Marx’s

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10. Ibid.
central dictum that capital sets its own limits also in the field of production, as manifested in the tendency for the rate of profit to fall, is not integrated into Lenin's concept. To that extent, competition is not only an anarchic process, but also the manifestation of the operation of the law of value. All in all, Lenin's analysis tends to degenerate into moral categorisation.

Thus, and in explicit contradiction to state-monopoly capitalism, one of the first contributions to the world-market debate was that:

The explanation for the new manifestations of motion of capital at the level of the world market would be not the replacement of competitive by monopoly capitalism, but the breaking up of the English world market monopoly and the flourishing of competition between major national capitals on the world market. What characterises this development historically is not capital departing from its definition and taking on a new quality as monopoly capital, but rather that it truly brings forth the world market whose potential it bears and shifts capitalist competition from the narrow national to the planes of the world market; that capital in its real movements tends to live up to its definition as capital on a world market.

But, as so often in Marxist debate, political considerations distorted the theoretical discussion. Although Neusüss was plainly at pains to maintain a differentiated perspective on Lenin's writings, her criticism was taken as general criticism of the classical-Marxist theory of imperialism as a whole. As a result, the classical perspective was completely banished from the theoretical arsenal of the intellectuals associated with PROKLA in the course of subsequent factional struggles within the Left.

As such, this global criticism simply reflected the overestimation of Lenin, and cut itself off from a theoretical tradition where Lenin's theory was only one of many diverse theoretical approaches (Luxemburg, Bukharin, Hilferding). Above all, it cut itself off from theoretical developments that had arisen out of the collective discussion process on the definition of imperialism. For all its weaknesses in analysing the driving forces behind imperialist policy and its instrumental understanding of the state, the classical-Marxist theory of imperialism had many virtues. In its analysis, it connected two historically

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15. This is still the case today. In Grenzen der Globalisierung (Altvater and Mahnkopf 1997), a book which, if taken as a whole, is correctly regarded as the standard Marxist text about neoliberal globalisation in German, the classical-Marxist theory of imperialism is dismissed in a footnote citing Neusüss.
separate but subsequently concurrent processes – geopolitical conflict and economic competition – and provided a historical diagnosis [Zeitdiagnose] for the period of classical imperialism that was ‘doubtless, correct in principle, if not necessarily in all its details’. The most advanced theoretical work of that time, Bukharin’s *Imperialism and World Economy*, fell victim to a double non-reception. This work was first suppressed by Stalinism, and later ignored by the New Left because of Bukharin’s brief proximity to Stalin. In fact, it was precisely Bukharin who introduced a new methodological perspective into Marxist research on the international system, being the first to describe it above all as a global system of production. He chose the nature of the world market rather than the relationship between nation-states as the starting point of his analysis, understanding it as an entity in its own right that stood in a reciprocal relationship with national capitalism.

The world-market motion of capital

The leitmotif for world-market theorists was Marx’s statement in the *Grundrisse* that the ‘tendency to create the world market is directly given in the concept of capital itself’. While classical imperialism had been understood as competition between nation-states, it was now time to begin analysing the world market and monetary crisis through the lens of the theory of value.

In her book *Imperialismus und Weltmarktbewegung des Kapitals* (1972), Neusüss begins with the ‘classical’ Marxian analysis, which notes the non-identity of the ‘apparent’ manifestation of capital and the ‘essential’ laws of motion underlying these manifestations. On the question of how the world market develops, ‘mediated through the competition of capitals… and the associated development of particular historical functions of the bourgeois nation-state’, there is little to be found in Marx apart from a few asides. Klaus Busch also set himself the aim to fill that gap. In *Die multinationalen Konzerne: Zur Analyse der Weltmarktbewegung des Kapitals* (1974) he expands and concretises Neusüss’s analysis. However, the most substantial approach was developed by Claudia von Braunmühl in a series of essays that have, sadly, never been brought together in a single work.

Neusüss, Busch and von Braunmühl reconstruct the Marxian analysis of capitalism through a description and an examination of the way in which the

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law of value operates in the world market, where economic processes take on a life of their own with respect to the actors involved. The form of value (money, capital) and the law of value (the market) impose a particular logic upon people and make a particular form of rationality plausible to them – a pressure that takes effect behind the backs of the subjects. Capitalism, as a decentralised society characterised by crisis, competition and class struggle (the 'three Cs') regulates itself in this way, but the process is only permanent if the capitalist state is able to form and survive as a separate and relatively autonomous instance.

At this point, von Braunmühl in particular develops an approach to the category 'world market' that diverges methodologically from earlier Marxism, as we explain in greater detail below. In her investigation of Marxist theories of imperialism, especially Lenin’s, she discovered a 'hidden conservatism', where imperialism is understood as a kind of 'spill-over' problem in which a capital, previously active in the national framework, reaches over its borders and provokes confrontation with other capitals that are also growing out of their internal relations of reproduction.19 But the world market, she argued, has a consistency of its own and reacts on the individual nation-states with considerable force.

Neusüss and Busch deployed a rather different approach in their attempts to transcend Marx with Marx. An analysis of the world-market motion of capital could not be derived seamlessly from the inner nature of capital. Instead, they argued, it was necessary to define the 'modified forms', the 'nation-state existence of capital', in which the general laws of motion achieve their breakthrough on the world market.20

They took their reconstruction of the Marxian theory of value and attempted to expand it into the international sphere. The altered form of value, the production price, is expressed not only in the form that the individual capitals have 'already joined together to form total social capital', but also that 'each individual capital – acting only as a fragment of total social capital – attempts to attain the same rate of profit'.21 The process of the tendency for rates of profit to equalise by means of competition in the sphere of circulation leads at the national level to the formation of a 'real total social capital'. The process of enforcing the law of value brings with it growth in the productive forces, while at the same time, it operates through cyclical crises. These crisis are 'necessary',

and are the social expression of the operation of the law of value.\textsuperscript{22} Here, Neusüss is still pitching her arguments at a relatively high level of abstraction. A few chapters later, she relativises the formation of national total social capitals, because, in reality, these are internally divided as a matter of course.\textsuperscript{23}

But what about the operation of the law of value on the world market, in the form of the coming together of many national total social capitals? In other words: what is the difference between national and international circulation? What prevents the formation of a world average rate of profit and thus ultimately an international total social capital and possibly even a world-state? What prevents all commodity owners across the world from interacting as parts of an international total social capital, and sets limits to the development of competition in the world market are not simply the ‘residues’ of precapitalist modes of production, but the ‘political form of the nation-state’. Although capital creates the world market, it does not bring forth a world-state. The ‘political centralisation’ of bourgeois society in the form of nation-states is decisive for this development. By creating the general material preconditions for production, the state makes a crucial contribution to the production of a national total social capital. As an institution that rests on a capitalist base, but is also ‘beside and outside it’,\textsuperscript{24} it helps the effect of the law of value to impose itself and creates the preconditions for the formation of an internal sphere of circulation by abolishing all precapitalist ‘sources of friction’. Indicators for this are primitive accumulation, state regulation of relationships of appropriation in the form of civil law, and guaranteed free movement of capital and labour. Neusüss summarised this complex relationship as follows:

Capital constitutes itself as total social capital in relation to the many individual capitals by means of competition. But capital can of itself only really complete this process of constitution on its own initiative if all the general conditions, be they material, legal or political in the narrow sense that cannot be produced by individual capitals (because they are individual) are produced by the state according to the historical conditions. In their origins in and restriction to the nation state, the legal relations that regulate the circulation of capital as reflection and control of the economic relations between commodity owners represent the actual difference between national and world market circulation. Indeed, world-market circulation is regulated by rudimentary state institutions and fragile contractual relations exist expressing the tendency of capital to drive forward the combination of individual capitals into a real total social capital. But in contrast to the nation-state, here there is always the possibility that economic relations will

\textsuperscript{22} Neusüss 1972, p. 123.
\textsuperscript{23} Neusüss 1972, p. 173.
\textsuperscript{24} Neusüss 1972, p. 126.
The ‘modification of the law of value’ through national separation (including customs duties) is supplemented by another modification associated with national separation – the movement of exchange rates (more on which below). The circulation process on the world market also differs from that in the domestic market in that international circulation, unlike national circulation, is mediated not only through the commodity market, but also through the ‘currency market’. The circulation C-M-C becomes C-M-foreign exchange-C, because the exchange of national currencies intervenes in the exchange of commodities.

According to Neusüss, if we examine the various forms of the export of capital, rather than just the export of commodities (the circulation of capital in the form of commodities) we can observe a new development. These forms of capital (for instance, multinational companies) appear directly in the inner sphere of circulation of other nation-states without the modifying effect of the law of value. The development of the ‘internationalisation of the production processes’ (and no longer only the ‘internationalisation of the circulation of commodity- and financial capital’) has progressed considerably in comparison to 1914 – they push forward the formation of a ‘real world total social capital’.

But still, this tendency should not be taken as absolute, because nation-states remain important actors in the process. Furthermore, the associated processes of economic equalisation operate in such a way that they tend to level conditions within the North, while amplifying North-South disparities. The recurring economic crises that Neusüss associates with the tendency of the rate of profit to fall, also repeatedly set limits to this process. All in all, the difference between national and international circulation remains, and with it the potentially devastating consequences of a relapse into the brutality of inter-imperialist competition, as Neusüss concluded.

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26. Marx had already discussed the modification of the law of value in relation to national differences in wages, in Chapter 20 of the first volume of *Capital* (Marx 1972, pp. 583 ff.).
29. She writes: ‘Competition among the “band of warring brothers” can certainly turn into war by any means on the level of the world market…. Peace and order as the preconditions for
Busch developed a number of refinements of the world-market theory. He too understood the world market as a combination of different nationally delineated spheres of circulation. Capitalist competition is mediated across national barriers that

in the simplest cases (apart from import duties and other taxes on imports, export subsidies, etc.) appear as the border posts of the various national spheres of circulation, namely as exchange rates.

He backed up this observation with an empirical study of the ‘internationalisation of the production of surplus-value’ after 1945. Here, he came to the conclusion that the internationalisation of the production of surplus-value is not only the outcome of specific historical stages associated with crises, but must also be regarded as a ‘general’ tendency of capital. It is precisely the consequences of the modification of the law of value that cause the internationalisation of the realisation of surplus-value (above all in the form of commodity exchange) to lead into the internationalisation of the production of surplus-value (above all in the form of capital export). Why?

Despite Hilferding and Lenin’s best efforts, argued Busch, capital export cannot be explained exclusively or primarily through the cycle of boom and crisis. The intensity of capital export can be greater during times of boom than in times of crisis. The cause of this mistake in the classical-Marxist theory of imperialism is that at that time the development of the categories in Capital was not understood as a logical representation of the significant determining laws and variables for all (capitalist) times, but as a ‘reflection’ of the historical development of capitalism from the simple barter economy to monopoly capitalism. However, according to Busch, the phase of free competition is not ‘superseded’ by a monopoly economy. Competition and the law of value continue to operate. Monopoly always has a sporadic character, for example a

bourgeois exchange and exploitation of capital can never be ensured on the world market in the calculable and actionable manner in which it is guaranteed by the state in the national market…

[i]nstead, on the world market there is always the possibility of a relapse into “uncivilised”, namely pre-bourgeois, forms of appropriation (e.g. direct robbery or destruction of goods and people, slavery, or at least political restriction or destruction of the functioning of the world market in the form of protectionism and autarchy). Or to put it another way, the crisis of capital as world-capital is not simply world economic crisis, but – depending on the extent to which it escalates – also political crisis and the collapse of a stage of capitalist production already attained, right through to war… or revolution’ (Neusüss 1972, p. 189).

30. A similar line was taken in Altvater 1969, p. 143.
difference in rates of profit forces capitals to re-orient, marketing arrangements can break down during crises, etc.

Altogether, the two approaches, the classical theory of imperialism and the more recent world-market theory, are ‘in no way mutually exclusive’. Instead, the point is to ‘show the way in which capital’s general laws of motion are executed in historically developing forms’. In certain circumstances, the explanation of internationalisation by the modified operation of the law of value is supplemented by the derivative tendency to overaccumulate and to monopolise. In other words, in times of monopolisation and overaccumulation the general tendencies can certainly be amplified.

Busch’s insistence that the objective tendency for internationalisation of capital generates an impetus towards a supranational political instance but is thwarted by the uneven and asynchronous development of the different nations, came under closer scrutiny in his study of the crisis of the European Community (1978). There Busch concluded that:

In view of the uneven economic potentials of the member states, attempts to take the economic integration process beyond customs union are doomed to failure.34

In a period of deep crisis there is a danger of retreat into protectionism. A true economic and currency union, according to Busch, could only – if at all – be enforced by ‘the political and military pressure of a leading imperialist power’, which was not foreseeable in the European Community.35 As this patent misjudgement shows, Busch makes the mistake (like Neusüss in other places) of simply deriving the behaviour of the state from economics without taking into account political factors, class strategies and the relative strength of social forces. Claudia von Braunmühl attacks the theorem of the modified operation of the law of value. According to her, the law of value always accomplishes its work in a modified form and there is no model-like ‘actual’ operation of the law of value, and therefore the approach analysing the relationship between law of value and history is problematic. It is wrong to excise the state (and its interventions) from the totality of social developments, to regard it as external to value theory, to assign to it ‘something like extra-territorial status’.36 The attempts made by Neusüss, Busch and others to understand the ‘national’ capital on the world market as ‘individual’ capital that encounters other individual

national capitals, she writes, were similarly questionable, and this approach indicated an inappropriate course of abstraction and an underestimation of monopoly as the dominant type of capital.\footnote{In this approach, monopoly, as a formation striving for internationalisation, is ‘theoretically dissected’ and divided into its individual national parts. Then it ‘appears twice, once as a potent individual capital within the national reproduction complex and once as a component of the national capital in world-market competition, but is subject to different laws in each of these two identities’ (von Braunmühl 1976, p. 325). In reality, however, it is always the same monopoly, whose decisive function in this context, of dissolving national production processes and creating international ones, ‘must be negated in this approach. But this theorises away the material base of the question or produces the senseless necessity of formulating an imperialism theory without a concept of monopoly. The contradictions that result from the simultaneous national and international character of monopolistic individual capitals are subject to considerable theoretical distortions’ (Ibid.).}

In Neusüss’s and Busch’s approach, and in much of the state derivation debate, von Braunmühl rightly criticises the risk of underestimating the role of the subject and of class struggle, and merely looking for the objective ‘inherent course’ of the law of value – most of the debate of the time was ‘spellbound by the derivation choreographies’.\footnote{Von Braunmühl 1976, p. 326.} She also criticises Neusüss’s and Busch’s theory of the state. Von Braunmühl does not set the state conceptually ‘alongside’ and ‘outside’ capital, but understands it as immanent to the capitalist mode of production. However, and here she distinguishes herself from most of the state derivation debate, she stresses that states only appear in the \textit{plural}.

The world-market debate and the world monetary crisis

A large part of the world-market debate took place in the run-up to and during the collapse of the Bretton Woods system. Consequently, the role of national currencies, exchange rates and world currency was included in the analysis from the outset. Here, the ‘international monetary crisis’\footnote{Altvater 1969.} was seen as a symptom of a generally emerging susceptibility to crisis in capitalism. The interaction of crises in the spheres of production \textit{and} circulation was counterposed to the (neo-)classical dichotomy of real economy and circulation of money; similarly, the role of the dollar in its form and function as world currency was analysed from categorical and empirical perspectives.

Because the actions of purchase and sale can become detached from one another in international circulation (and not only there), manifestations of
world-market crises are also involved here. The necessity of currency exchange in international trade causes a doubling of circulation to take place, which further complicates the commodity’s metamorphosis. Neusüss, Blanke and Altvater even come to the conclusion, however exaggerated and inadequately argued, that ‘the necessarily crisis-prone character of the operation of the law of value on the world market first becomes apparent in the form of international monetary crises’.40

In its role as world currency, the dollar had to serve as a reserve and intervention currency and required the necessary legitimacy for fulfilling those functions. Moreover, it was also a vehicle of American imperialism, structurally binding other states to the United States and its trade interests, as well as forcing them to finance the Vietnam War:

Thus the capitalist states’ recognition of the dollar as world currency necessarily implies economic (and as a rule also political) support for American imperialism everywhere in the world.41

Above all, the drop in American productivity compared to the rest of the world had a double effect. On the one hand, the United States recorded a trade deficit for the first time since the nineteenth century, and the dollar lost its stable role as the reserve currency in the Bretton Woods system. This effect was amplified by the export of arms inflation through the system of fixed exchange rates and the pressure to devalue that arose at the same time.

The moderating role of the exchange-rate mechanism plays a central role in the modification of the law of value in the world market. More productive national capitals are able to offer their products at lower prices on the world market. Consequently, demand for their commodities grows, causing demand for their respective national currency to increase too. As a result, that currency appreciates in value and the exports become more expensive. In the less productive national capitals, exactly the opposite occurs. Low demand for their products also reduces demand for the currency, which consequently devalues and improves the country’s ability to export. According to the world-market theorists, these mechanisms often offer less developed countries structural opportunities to catch up. Here, Busch stresses the role of exchange rates more strongly than Neusüss,42 and at this point develops a different

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42. Neusüss stresses that the developed country can achieve (temporary) superprofits through currency appreciation and that through the exchange-rate mechanism an equal world-market
answer to the question of why weaker nations manage to remain relatively competitive despite all their disadvantages:

The commodities of the more developed nations experience greater upward price pressure through currency appreciation or imported inflation, whereas conversely devaluation or deflation result in lower international prices for the commodities of the less developed nations.43

Another factor protecting weaker states is the way international competition is mediated via exchange rates, the ‘border posts of the national spheres of circulation’.44 This ‘protective mechanism’ modifies the law of value and establishes an international division of labour between unevenly developed states.45 This ‘protective factor’ of the international law of value fosters a division of labour that encourages the individual nations to specialise on the production of their respective comparatively most advantages commodities. To that extent, these facts basically also concur with Ricardo’s theory of comparative costs.46 Here, we find one of the problematic ambivalences in Busch’s argumentation. In his criticism of the way dependency theory excludes the possibility of development he swings to the opposite extreme and ends up quite close to today’s theories of modernisation and globalisation, which exaggerate the international division of labour’s advantages for trade and productivity.

Busch and Neusüss both criticise the theories of ‘unequal exchange’ (Emmanuel, Palloix, Amin). Both agree that what takes place is not an unequal exchange of internationally unequal values, but merely of different quanta of price can arise without the levels of productivity having to have converged. Although she analyses the fundamental role of exchange rates in exactly the same way, Neusüss is much more cautious than Busch when it comes to the possibilities of convergence resulting from exchange rates.

44. Busch 1974, p. 42.
45. If the exchange-rate mechanism protects poorer countries, then why do they levy import duties? Busch says that this is because in these countries demands are still made on the state to protect their below-average productivity. Also the parallel process of unequal exchange forces poorer states to develop their productive forces (Busch 1974, pp. 90ff). Import duties in richer states are generally associated with partial ‘protection from outside competition’ in order to improve ‘domestic conditions of realisation’. As such, this contradicts the general world-market tendency of capital. That is why times of boom (such as post-1945) in particular are times of liberalisation (Busch 1974, pp. 93–4).
46. Busch 1974, p. 74. Due to the described exchange-rate mechanism, the appropriation of superprofits on the world market through above-average productivity of capital is only a temporary option. Busch substantiates these theses in his essay Busch 1981.
labour. The precondition for this approach, they say, is the mediation of competition on the world market through states, and this is seen in the way competition is not simply between competing individual capitals but between national capitals with their national currency as their form of representation. Marx believed that the national average intensities of labour formed a scale whose unit of measure was

the average unit of universal labour. The more intense national labour, therefore, as compared with the less intense, produces in the same time more value, which expresses itself in more money. But the law of value in its international application is yet more modified by the fact that on the world market the more productive national labour reckons also as the more intense, so long as the more productive nation is not compelled by competition to lower the selling price of its commodities to the level of their value. . . . The different quantities of commodities of the same kind, produced in different countries in the same working-time, have, therefore, unequal international values, which are expressed in different prices.

Neusüss concludes:

At the international level the category of universal labour appears in place of socially-necessary labour-time as the category of commodity production and circulation, representing the balanced average of the ranking of productivity and intensity of labour of the national capitals, namely for commodities that are exchanged on the world market.

Thus the individual nations take their places on the ladder of universal labour according to their national productivity and intensity of labour. In comparison with the less intense universal labour, the more intense produces more value with the same quantity of labour. In other words, equal international values are exchanged on the world market. There is an exchange of equivalent values, but of different quantities of labour. Thus, there is also — contradicting the conclusions of dependency theory — no transfer of surplus-value from less to more developed countries. Because the more developed countries have

47. Neusüss 1972, pp. 140–1; Busch 1974, pp. 57ff.
49. Neusüss 1972, p. 139.
50. Busch deals thoroughly with dependency theory and later also world-system theory (1974, pp. 64ff), but his differentiated response would exceed the scope of this article. Busch, and Neusüss too, criticised above all the assumption that an average international rate of profit and international production prices will prevail. This would be the only thing that would guarantee a transfer of value but, they say, these are prevented by the nation-state constitution of capital, and are also without any empirical basis.
above-average productivity they are – under given world-market prices – able to achieve superprofits on the world market in comparison to less productive nations. This can cause the average rate of profit in the developed country to rise. However, despite the unequal exchange of various quantities of labour, the less developed country can, they say, profit from the increased international division of labour through the ‘protective mechanism’ of the exchange rates described above. Neusüss also points out the possibility that less developed countries can achieve a higher rate of profit on the world market through lower wages and longer working hours.51

Although the world-market theorists’ argumentation appears convincing here, it is categorial and empirically still threadbare. Their argumentation is based on the grouping of individual capitals under the national real total social capital. But this approach throws up a problem: the unequal development of the sectors that produce only nationally or internationally traded goods. As has been demonstrated empirically (for example by Brenner), it is above all the sectors integrated in the world market whose rates of profit have fallen most sharply.52 In other words, we should weight the national real total social capital according to the country’s integration in the world market and subject it to closer sectoral investigation.

The plurality of individual states

Von Braunmühl connected the world-market debate to a number of insights from the materialist theory of the state. In her essays, she described the world market, as outlined above, as the appropriate level from which to observe the motion of capital and the effect of the law of value in general. Instead of starting with national capital and the individual state (and as a rule staying with them), von Braunmühl proposed analysing imperialism from the ‘most highly developed form’ of capitalism, that form being the fragmentated world market in which, to quote Marx,

production is posited as a totality, as is each of its aspects, with all its contradictions coming into play at the same time. The world market also constitutes… the precondition for the whole and its bearer.53

Capital progresses from the internal to the world market as an international social process that takes shape behind producers’ backs. Von Braunmühl stressed that the ‘unity of the societal production process . . . asserts itself in crises by means of the law of value’. The emergence of capitalism results at the same time from a ‘gigantic, violent process of redistribution of values in the world market that forms part of the primitive accumulation in the metropoles’. The world market has become the sphere of a global complex of production and exchange in which capital extends beyond national barriers and tends to become global capital. This tendency must be analysed in terms of ‘accumulation theory’ at the world-market level. The analysis must reconstruct the accumulation of capital categorically, in its world-market context. In relation to this totality, historic fragmentations, limitations and their political combination in the nation-state, nation-state apparatuses and their activity must be analysed as specifics.

In keeping with Bukharin, she identified a growing contradiction between the internationalisation and nationalisation of the accumulation process that is not reconciled by way of ‘globalisation’. In this way, she defined imperialism as the structuring of the world market that is determined by the exploitation imperatives of the most advanced capitals in the metropoles . . . including the resulting forms of political rule, economic and political dependency and the shape that is given to living conditions.

The concept of imperialism itself is to be seen in the dimensions of ‘the international division of labour and class struggle as these are determined by the historically changed function of national statehood’. Imperialist strategies seek to counteract the tendency for the rate of profit to fall by, for instance, absorbing commodities at less than their value or by means of advantageous forms of capital export. Unequal exchange also serves as a counterstrategy of this kind. There is also the naked power of the state in the shape of military

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55. Ibid.
59. Like many other authors, her description of imperialist practices concentrates on North-South relations. Unlike some dependency theorists, she sees capital as having an ‘interest’ in at least a partial industrialisation of the South. That, however, requires the state, as can be seen in
intervention. Sadly, she, like Neusüss, totally excluded the so-called ‘socialist’ states and their role in the world and stressed that her first concern is to analyse the metropoles.60

The world market is fragmented into different spheres – those of the many states. That is why it is not the state in general that must be analysed but ‘the specific political organisation of the world market in many states’,61 through a careful historical analysis of the specific conditions in which the different national total social capitals have taken shape. In this process, the form of the state as a political organisation of ‘separate and distinct relations of reproduction’ cannot be ‘derived from the merely internal dimensions of a commodity-producing class society alone’ – the role of the state in question in its specific relationship with the world market and with other states must always be included in the analysis from the outset.62

How did von Braunmühl account for the existence of the ‘many’ states? Not even Marx has an answer to this question. He tends more to presuppose the world market’s ‘particularism’ than to see it as a problem. Given that a strictly logical derivation is not possible, von Braunmühl argued, that leaves only historical analysis. She points out, however, that her outline of fundamental categories operates at a high level of abstraction and omits certain ‘mediating factors’ that are necessary for a specific historical analysis, such as special geographical, historical and political characteristics.63

With reference to British, French, German and American historical examples, she goes on to demonstrate that the process of creating and consolidating capitalist conditions can by no means be seen as ‘solely determined from within’, but has always been shaped by the world-market motion of capital, although this motion (the force of the world-market system) only took firm shape gradually, especially from the mid-nineteenth century onward. The emergence of statehood, national state apparatuses, their relationship to society, and class relationships must be seen in this connection.64

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62. Ibid.
64. The development of Prussian Germany, which in or around 1800 was still underdeveloped in comparison with Britain and even France, is a good example of how the impetus for capitalist
This is the point at which von Braunmühl discusses the materialist theory of the state. The state-derivation debate, she argues in her essay ‘Die nationalstaatliche Organisiertheit der bürgerlichen Gesellschaft: Ansatz zu einer historischen und systematischen Untersuchung’ (1976), is ‘caught up within the confines of a concept of the bourgeois state that is, as it were, determined from within’.\textsuperscript{65} State activity is seen solely as the result of processes of capital exploitation and class struggle within society – an elementary mistake in the ‘imperialist stage of capitalism’. Even if the ‘external’ determination of state activity was acknowledged, the ensuing insight – that capitalism is an international system of states, consisting of many nation-states – had yet to reach the theoretical level. An adequate analysis must therefore consider each individual economy and every state as an integral element of the world market. ‘If the world market is the basis and the integral realm of the capitalist mode of production’, the bourgeois nation-state is at the same time constitutive of it.\textsuperscript{66} Without the political power embodied by the bourgeois state machine, the development of the capitalist mode of production is inconceivable.\textsuperscript{67}

Citing the US as an example, von Braunmühl demonstrates the need for many separate states to be created. Viewed historically, the conflict between the former British colonies and the British Empire unfolded at the time in the eighteenth century when primitive accumulation was beginning to pose historically decisive questions regarding power over the accumulated capital and the economic favouring of England posed a central threat to the colonies’ economic and political autonomy. In order to gain political self-determination, the ruling classes in the United States had to constitute a bourgeois state of their own as the prerequisite for establishing an economic base for the rule of the capitalist mode of production. The emotional emphasis on freedom in the War of Independence development came largely from ‘without’ – in the shape of the defeat of Prussia in 1806 and the ensuing French occupation that revealed the ‘internal rottenness and weakness of Prussian Germany’ (von Braunmühl 1976, p. 296). The lack of momentum within society was surmounted by world-market pressure.

\textsuperscript{65} Von Braunmühl 1976, p. 276.

\textsuperscript{66} Von Braunmühl 1976, p. 315.

\textsuperscript{67} In her early text written in 1973 she is still a little less sure of herself on this point. There she stresses rather more strongly, in connection with the existence of a multitude of states, that the modification of the law of value that is posited by there being many states can in principle be surmounted. Whether tendencies toward internationalisation ‘lead to new forms of political combination of capital’ is an ‘empirical question’ (von Braunmühl 1973, p. 51). Yet, at the same time, she states that there is also a tendency toward more and more fixed capital that increases the inertia of capital or limits its mobility (von Braunmühl 1973, p. 48).
is essentially nothing more than the outer shell that legitimised a competing claim to power that here still required the act of formal constitution that in Europe already existed in the shape of territorial sovereignty.68

The form of the bourgeois state is assigned the ‘function’ of a separate focal point with sovereign rights to secure – both internally and externally – political and economic rule by internationally competing ruling classes. The state, no matter how extraordinarily important its economic significance might be, is only to be understood with recourse to the political aspect of rule that is embodied in the relationship of economic power between wage-labour and capital itself and [to the] competing claims to power of rival rulers.69

The state is a guarantor and regulator of the conditions for the reproduction of capital that are required within the nation-state framework and at the same time a machine for the repression of national labour.70

Competition between national bourgeoisies is likewise ‘in no way fully realised in economic competition’, underscoring yet again that ‘power’ and the desire to maintain it by all means lie at the heart of the capitalist mode of production.71 Bourgeoisies will therefore always struggle for their independence. Exploitation may, given internationalisation processes, be increasingly international in determination, but the ‘rule that underpins exploitation’ continues to be predominantly national in scope.

The ‘many’-states thesis makes her sceptical about Poulantzas’s ‘internal bourgeoisie’, the theory that the European bourgeoisies share the interests of US capital. There are limits to US hegemony and it must not, she argues, be seen as absolute.72 This view is still topical. If the American government can

71. Her criticism of the ‘globalisation discourses’ of the 1970s can also be cited here. She writes in this connection that the ‘interest of the national bourgeoisie in securing the basis of its rule’ leads, even though it transcends national borders, to the machinery of state being readjusted – and at the same time, ‘irrespective of growing incongruities between accumulation processes and state borders’, to consolidation of ‘the nation-state organisation of the world market’ (von Braunmühl 1976, p. 321).
72. This may therefore serve as a corrective to the somewhat one-sided interpretation of Poulantzas by Panitch and Gindin (2004). Poulantzas, we feel, can be interpreted differently,
not even ensure ‘peace and quiet’ in its own ‘back yard’ of Latin America, especially in Venezuela, why should it continue to be able to prevail quasi-automatically with its objectives in Europe or, arguably even more importantly, in East Asia? Might that not lead to the creation of new imperial projects? The fundamental structure of multipolar competitive capitalism would certainly allow for that.

Von Braunmühl makes an important theoretical point in her analysis. Sadly, this progress has as a rule been ‘lost’ since the decline of the Marxist Left in 1980s. Claudia von Braunmühl herself has not pursued this research any further since she abandoned Marxism. That, however, is typical of the entire decline of the radical Left in Germany in this period. We should now like to indicate in brief what an update and continuation of the world-market research programme might look like today.

A critical appraisal

The world-market debate has two merits. Firstly, it develops an important constitutive Marxist basis for the analysis of globalisation and imperialism, in terms of theory of the world market and many states. Secondly, it does not underestimate capitalism’s proneness to crises, which could easily have been the case after twenty-five years of economic upswing after the end of World War II.

The contributions described above are among the most rigorous in this Marxist debate, before or since. Not only the theory of state-monopoly capitalism but also dependency theories and early forms of the Empire thesis or old rehashes of the ultra-imperialism theory could well have benefited from an analysis of the world-market debate. A majority on the Left understood with a stronger focus on his emphasis on continuous competition, even if strong bourgeoisies do intervene in weaker ones. Poulantzas repeatedly emphasises the instability of US hegemony and calls into question at some points the tenet of an emerging ‘superstate’. Globally, he sees nation-states as continuing to be in competition with each other as reproduction locations of the various bourgeoisies. He also acknowledges the existence of substantial differences between Europe and the periphery. ‘This new dependence [US hegemony in Europe] must not be equated with the one that characterises relations between the metropoles and the formations that they rule. The analogy is flawed because, on the one hand, the metropoles continue to be centres of capital accumulation in their own right and, on the other, themselves rule over their dependent formations. Underestimation of the latter element is especially characteristic of the concepts of ultra-imperialism. In fact, American imperialism and the imperialism of these metropoles are engaged in a battle for rule over and exploitation of these formations’ (Poulantzas 2001, pp. 28–9).
imperialist policy mainly as violent suppression of national-liberation movements, with the United States as the organiser and head of a system that also concentrated on a joint defensive struggle against a reduction in the size of the imperialist world system by ‘socialism’. In all, the New Left did not progress beyond an empirical outline of the economic exploitation of the South by a kind of US super-imperialism or collective imperialism.

World-market theorists, however, see such collective imperialism as being impossible by virtue of the barrier imposed by the large number of individual states, even though imperialism might for a while seem to appear in this guise. There can be no ‘collective total capitalist at a world level’ just as little as there can be a supranational state of world bourgeois society. Some states may have entrusted tasks to supranational bodies, but the national form of the state could not be abolished.73 This explains why, despite US hegemony, the world resembles a systematic chaos than a relative order. The strict value-theoretical approach enables world-market theory to level well-founded criticism at the theory of unequal exchange by demonstrating the extent to which the law of value has prevailed in the world market.

A central aspect for world-market theorists is that they emphasise the reciprocal relationship between the world market and both the many capitals and many states. The multiplicity of states is for them a constitutive feature of capital and cannot therefore be replaced by a world state. Even a hegemonic ‘superstate’ is always unstable. Bukharin’s thesis of the internationalisation of capitalist relations of production accompanied and limited by the progressing national organisation of capital shows through as one of the world-market theorists’ conceptual bases. The German world-market debate as a whole can therefore be seen as surmounting ‘spill-over’ theories of imperialism that explain it mainly in terms of encroachments by and internationalisation of the nation-state.

Conceptual ambivalences do occur in the world-market debate, however. While Busch and Neusüss focus on the world market in their work, they are still attached to the nation-state as the main point of reference – or, as some mainstream sociologists put it, ‘methodological nationalism’. Neusüss starts methodically with national capital and the nation-state.74 For Busch, too, the starting point is the ‘sum total of different, nationally delimited spheres of circulation’.75

Von Braunmühl develops a stricter and more differentiated approach in her conceptual categories. The method used by Busch and Neusüss testifies to an additive understanding of the world market that allocates to the world market a special role but interprets it in the final analysis as the sum total of its constituent parts. Von Braunmühl, in contrast, develops in her methodological premises a superadditive understanding of the world market. She calls for the accumulation of capital and the world market’s specific form of political organisation in many states to be reconstructed in world-market categories. This procedure in effect upends the approach adopted by Busch and Neusüss, who sought to derive the configuration of the world market from national capitals. Conceptual ambiguities in the debate testify to the unfinished character of world-market theories. A markedly categorial approach may have been adopted, but despite their ambitions, the relationship between ‘logical’ and the ‘historical’ was frequently not yet clear to world-market theorists. Sometimes they were strangely intermingled, while at others they were artificially separated. Not infrequently, their own unanswered questions were followed by confident conclusions.

On several occasions the world-market debate was also criticised for its structural functionalism. That only applies to a limited extent to von Braunmühl, who accuses her comrades-in-arms of being snarled up in ‘derivation choreographies’ in which forms (type of state, type of value) force people to act in a certain way. Even so, the debate’s structuralist foundations led to theoretical weaknesses. When Busch works on a Ricardian assumption of an exchange-rate equalisation mechanism and the possibility of less developed countries catching up, he ignores the political dimension and falls foul of an economistic approach. Altvater framed a criticism of Busch’s approach that applies to the levels of both structure and function. He first criticises Busch’s fixation with exchange rates with regard to trade in goods and direct investment and his exclusion of financial markets. Exchange rates, Altvater says, exert a powerful influence on international financial markets that, in turn, influence the real economy. Altvater’s central criticism relates to the repercussions of falling exchange rates. The ‘protective mechanism’, as Busch calls exchange rates, may protect capitals that are integrated into the world market via exports,

76. Today we know that we must think more in terms of a complex interrelationship between structure and agency or between formal determination and class struggles even though, if we are to avoid falling into a voluntarism of the ‘primacy of class struggles’ (à la Holloway), structural circumstances must never be underestimated. State projects can fail and economic ‘constraints’ can be broken open at certain high-water marks of social struggle. Relations of production do not determine, they pre-form by setting a certain framework.
but it also burdens capitals that are integrated via imports. For individual capitals, just as for capital as a whole, devaluation leads not only to competitive advantages but to cost disadvantages. How (the exporters’) devaluation profits and (the importers’) devaluation losses are distributed depends on quantity and price reactions that result from the real reproductive structure of capital as a whole.\footnote{Altvater 1985, pp. 126ff. Altvater warns that the positive effects of devaluation can turn into the opposite if non-substitutable inputs become more expensive and profits fall as a result of the cheapening of social labour. The social accumulation fund can thereby decline rather than increase and the gap between the more-productive and the less-productive country would tend to increase rather than decrease.}

Above all, Altvater says, exchange rates have been regulated \textit{politically}, with state intervention to fix them, to a much greater extent than Busch assumes. Limited convertibility until 1958, foreign-exchange controls in individual countries, regulation of capital markets and numerous agreements testified – even during the long postwar boom – to a high degree of state intervention.\footnote{Altvater 1985, p. 124.}

In the post-Bretton-Woods world too, in spite of what was, on the surface, a flexible regime, exchange rates were regulated politically. By the terms of the 1985 Plaza Accord and the ‘reverse’ Plaza Accord ten years later, dollar exchange rates were politically de- and revalued.\footnote{See Brenner 2002.}

Governments’ behaviour cannot simply be seen in economic terms but must always also be analysed with reference to national and international class strategies and the balance of social forces.

Current ‘theories of imperialism’ such as those of Hardt and Negri and Panitch and Gindin emphasise the possibilities of stability and hegemony in the capitalist world order. They do so by means of a revision of Marxist theory and deny the tendency toward crisis that is immanent in the capitalist mode of production, the constitutive multiplicity of states and their possible conflict relationships. The German world-market debate, in contrast, far from foretelling doom and disaster, anticipates the globalisation debate without falling for the powerful globalisation tenet of the decline of statehood but still stresses the tendency toward crisis and instability in global capitalism. Recent studies by Robert Brenner have confirmed its assessment of crisis and development in the world economy.

Elmar Altvater, who was in close debate with Neusüss and the others, felt that crisis-proneness was particularly important. He stressed in the late 1960s that the international monetary crisis could not restore the balance of the
world economy unless it ‘raged as a crisis of production’. He was also sceptical that Keynesian instruments could cope with international economic crises appropriately. At the international economic level there was no chance of adding a positive regulatory strategy as a corrective to the negative crisis avoidance strategy indicated by the measures to resolve the international monetary crisis. Contradictions in the world economy may temporarily be kept beneath the surface by the avoidance strategy in combatting the international monetary crisis, but they will not be resolved in a regulatory manner. They will erupt once the global growth rates in world production and world trade have settled down at what is expected to be a lower level than in recent years.

Critical connections

The world-market debate of the 1970s is a corrective to the theoretical basis of contemporary imperialism theories. It can outline ways to understand better some of the most recent forms and new qualities of the internationalisation of capital and of changes in statehood. The new forms of global governance can, for example, be seen as institutionalised political co-ordination in which, however, competition is not eliminated but continued and in which specific balances of power are effective. Given the social character of production, competition is always characterised by elements of co-operation, but this co-operation must be seen as one of the shapes that competition takes. That is why it is not surprising that relations between the United States and Europe, which relatively speaking are the most strongly integrated parts of the capitalist world system, continue to be relations of both co-operation and conflict. The euro, for example, is the first currency since World War II to stand any chance of competing with the dollar for the role of the world currency. Given that decisions made by capitalist actors are based mainly on expectations, the euro poses a more serious threat to the dollar than current statistics might appear to indicate.

Marxism should be conceived as a constantly expanding research programme. At several points, the 1970s debate must be criticised and developed further. To name but two of them:

80. Altvater 1969, p. 130.
82. Callinicos 2002.
83. Other weaknesses can only be sketched here. First, the ratio of structure to agency was askew. In the German debate on the law of value in the world market, the problem of the relationship between the structures that determine capitalist society and are historically fundamental to it (wage-labour, production of surplus-value, the relationship between politics
Explanation of the plurality of individual states

As von Braunmühl argues, the structure of the multiplicity of individual states – and the associated limits to international co-operation – must be embedded in the economic analysis of the world market. World-market theorists were unable to accomplish this satisfactorily. Even von Braunmühl leaves gaps, with her orientation toward an exclusively historico-empirical explanation. The sustained historical power of the nation-state category, or, as Benedict Anderson later argued, the historic role of the nation or of nationalist movements as powerful ‘imagined communities’, is inadequate as an explanation. Only a handful of theoreticians continued to develop the materialist theory of the state constructively. Joachim Hirsch, one of the few participants in the state-derivation debate to do so, stresses in his analyses the necessary ‘plurality of individual states’ but goes beyond the purely ‘historical’ level of explanation. The possibility of a ‘world-state’ can only be considered, Hirsch says, if

and economics, the multiplicity of states and the power of the world-market system) and the changing forms in which this structure finds specific historical expression is not tackled seriously. That is why there is no theory of capitalist development, i.e. description of capitalism by periods. Real history amounts to more than categorically derived structural determinants. It takes a specific individual shape in the form of different class relationships and class struggles. On balance it can be said that ‘the historical development of the formation of capitalism may be subject to certain laws that are logical from the viewpoint of capital but the way in which they take effect depends on the class relationships and class struggles that emerge’ (Hirsch 1983, p. 160), but the general error leads in the final analysis to many abbreviated conclusions. Second, and related to this, the ‘socialist’ states were not analysed at all. Neusüss refers to a ‘second level of the class struggle – the level of state clashes between different systems of society’ (Neusüss 1972, p. 206) that she had disregarded in her analysis. But was the Cold War really just a clash between different systems? Not even von Braunmühl risks tackling the main theoretical problem: the character of ‘real existing socialism’. She sails around the problem by simply ignoring it, which is incomprehensible given that it comprises a third of the world’s population (including China) and, in the USSR, an imperial state that played a central role in the global balance of power. Sadly, critical-Marxist analyses of the Eastern Bloc’s imperialist character (See the analysis of state capitalism in Cliff 1975, or the writings of Castoriadis in Castoriadis 1988) did not find their way into their writings. In this way many of the world-market theorists continued in the final analysis to wear ‘dirty spectacles’ with regard to the Eastern Bloc and the character of Stalinism – yet instead of cleaning their spectacles, they took them off, in the 1980s at the latest, during the ‘crisis of Marxism’.

84. Busch, in his later writings, espoused the thesis that bourgeois revolutions, be they passive or from below, only achieved an internal transformation of precapitalist political and economic conditions, with the result that in its outward dealings the state retained its inherited unity of the political and the economic (Busch, Grunert and Töbergtte 1984). In view of the international development divide, he assumed that the contradiction between national and international integration could not be resolved. In terms of state theory, this division into a capitalist state within and a precapitalist state without is untenable.

capitalism is misunderstood as a simple commodity-exchange relationship and not as a society based on exploitation and class contradictions. He deals here with an important level that von Braunmühl touches on when she emphasises the ‘political aspect of rule that is inherent in the violent economic relationship between wage-labour and capital’ but fails to take it to the theoretical level. The fundamentally liberal idea of eliminating the system of competing individual states within the framework of capitalism is an illusion because it would also eliminate institutions that maintain class rule. Fundamental mechanisms to balance out conflicts both within and between classes would cease to exist because the ‘national’ class divisions they require would no longer apply, but these mechanisms are vital to the functioning of capitalism. In other words, the system will only work if the competing members of competing classes – both wage-earners and entrepreneurs – are bound together at the state level and are thereby at odds with the corresponding classes outside the territory of the state. Not for nothing is the creation of cross-class coalitions to safeguard ‘national competitiveness’ an absolutely central neoliberal argument today. The requisite coherence for the creation of ‘national productive communities’ seems only conceivable within the framework of the individual state. Even the attempt to achieve regional integration will always be a difficult venture in the given economic conditions, as developments in the European Union show.86

Another point deserves in our view to be investigated in greater detail. It is the tendency of productive capital to be ‘inert’. Beyond the globalisation hype and the fixation on monetary and financial capital, one finds that productive capital is territorially bound. Once monetary capital has been converted, productive capital is fixed in production and can no longer return into circulation, or only with great difficulty. Large parts of this fixed capital, unlike the capital that is in circulation, enter into the production process repeatedly. That is why fixed capital is relatively immobile. The quantitative importance of territorially fixed means of production exceeds by far the gross domestic product of national economies.87 Their importance does not decline with the

86. A more far-reaching analysis would need to discuss the difference between nation and state (that is why Hirsch first refers to individual and not to nation-states). World-market theorists failed to take this issue into consideration.

87. Gross fixed assets in Germany totalled fifteen trillion deutschmarks in 1997 compared with a gross domestic product of around four trillion (See Sandleben 2003). Today’s economic geography recognises this process superficially. It explains how economies of scale such as falling average costs and a growing industrial base come about. They are why many larger countries have a balanced industrial base today. Integration that can be observed is not mainly global but, if anything, national and partly regional (in some cases including neighbouring countries), such as is evident in industrial clusters.
onward march of technology (‘internet economy’). Quite the opposite: capital intensity (gross fixed assets in relation to the number of workers) increases. The drive towards ‘de-territorialisation’ happens along with ‘territorial’ fixations – and the individual state is especially appropriate to protect and to regulate these fixations with its unique social, legal and infrastructural integration and adjustment services.88

Productive capital is most important at another level too. Capitalism may produce worldwide crises but it is still able to guarantee a certain level of development (by and large, however, this development is permeated with devastating social conflicts). Capitalist development is characterised by unevenness and leads to the creation of new and relatively independent centres of capital accumulation, such as in East Asia at the present. The build-up of new productive capital or its restructuring, as in China, leads to the emergence of new economic competitors on the world market. The division of the world into North and South was misleading even back in the 1970s. Despite US hegemony, today’s world is economically a multipolar one characterised by the rise of ‘sub-imperialism’ in states striving for regional hegemony, such as India or Turkey.

(ii) **Explanation of the relationship between a state’s geopolitical activities and economic interests**

To discuss this problem we must start with the concept of the ‘relative autonomy’ of the state, which must ensure the preconditions for capital accumulation.89 This means for one that no market system can function without a relatively independent central power that tries to deal with social antagonisms even if that may lead to conflict with particular factions of capital. The importance of the capitalist state as the holder of the monopoly on the use of force on behalf of capital lies not just in the implementation of individual capitalist interests. The state is relatively autonomous and not a mere instrument of capital. Capitalist states take action to secure conditions in which capital accumulation can prosper in its entirety. A government does not pursue these objectives because its members are bribed or have close ties with capital (although that does occur), but because a flourishing capitalism is the economic basis of the capitalist state. The contemporary ‘liberal’ Western state becomes and remains a capitalist state by virtue of the very fact that state and capital are formally separated, respectively differentiated.

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89. Heinrich 2004, Chapter 11.
In the 1970s, the debate dealt as a rule, and as von Braunmühl rightly critically underlined, with relationships within society. What, however, does relative autonomy of the state mean for ‘external activities’, international economic interests and geopolitics?

As we have seen, international competition is modified by the largely national but internationalising existence of capital and by the ‘many states’. That is why research must go beyond the general laws of capital. To analyse the relationship and its transformation from economic to political and, finally, to military competition it must be more specific. Economic interests are not merely converted into state activity. Analysis of these phenomena was not undertaken in the 1970s and would need to be taken up today.

In the process, the following further point must be borne in mind. Modern imperialism began in the mid-nineteenth century by combining two different systems of competition that were previously allocated to two different logics of production – the modern economic competition of the emerging capitalist world system and geopolitical competition between states inherited from feudalism. In the decades that followed, geopolitics changed their character and took a capitalist shape. Geopolitical competition conducted by states could no longer be undertaken successfully without an industrial base (‘industrialisation of war’). At the same time, the competing capitals were from then on fundamentally dependent on the state. This structural interdependence was only relative, however. We have since faced two forms of competition in capitalism – economic and geopolitical competition, with their own distinct and changing structures. In order not to overextend and thereby devalue the concept of imperialism, we feel that it would above all make sense to see it as power-political activity in which geopolitical and economic interests are interwoven. Economic value transfers to the northern hemisphere through the activities of international enterprises, for example, take place in an imperialistically structured world but are not per se imperialist.

How these two systems of competition and the relative autonomy of the many states are interrelated in their external activity and are transformed by the creation of historical blocs into imperial or sub-imperial projects is a question for future research to examine.90

Opponents of war can already present soundly based analyses of current power politics. They have demonstrated that the struggle for the Middle East

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90. A more detailed analysis ought also to be made of the circumstances in which the use of direct physical force by one state against another state or against non-state adversaries takes place. Several factors come into play here and either prevent or foment violence and war, such as relatively close trans-Atlantic ties, the mood of the general public and the state of the military.
is not primarily a matter of the direct appropriation of wealth for certain oil companies but one of laying down the conditions and rules that govern this appropriation even if, as in the case of the 2003 Iraq War, action is required that does not make immediate economic sense. Aggressive US foreign policy can therefore be seen as an expression of worldwide competition with the European Union, the emerging economies of East Asia and the OPEC states, where oil is a strategic commodity of central importance. The geopolitics of the United States is aimed primarily at arranging these conditions in the interest of US capital as a whole (as well as for some other transnationally orientated capitals, that rely on the foreign policy of the US) – even if that might be a conflict-laden domestic political process. As some US strategists see it, this will for example shore up the dollar's role as a world currency, and that is something in which Microsoft and not just Halliburton is interested.

Further theoretical work is required if we are to better understand and respond to future conflicts. What we need is a theory of imperialist policy that enables us to analyse modern capitalism by means of conceptual and analytical instruments that embed the dynamic of capitalism – world-market integration – into a multipolar system of (state-supported) centres of capital accumulation. If consideration were also given to the ‘contingency’ of international politics – principally the influence of actions of collective actors – and to the complex relationship between geopolitical and economic competition, we would surely be a step further.

References

Busch, Klaus 1974, Die multinationalen Konzerne: Zur Analyse der Weltmarktbewegung des Kapitals, Frankfurt am Main: Suhrkamp.
—— 1978, Die Krise der Europäischen Gemeinschaft, Cologne: EVA.


Cliff, Tony 1975, Staatskapitalismus in Russland: Eine marxistische Analyse, Frankfurt am Main: Sozialistische Arbeitergruppe.


—— 1971, Der Imperialismus der BRD, Frankfurt am Main: Dietz.


The Disguises of Wage-Labour: Juridical Illusions, Unfree Conditions and Novel Extensions

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Abstract
Once we shift the intension of the concept of wage-labour from juridical attributes of negative ownership and contractual freedom to the actual performance of capital-positing labour, the extension of the concept – the cases that fall under it – changes as well. Once the concept of wage-labour is intensively re-defined as capital-positing labour, it becomes evident that the history and the geographical scope of wage-labour have not been well understood. This shift in the intension of the concept of wage-labour also disjoins the association between capitalism and freedom.

Keywords
wage-labour, free and unfree labour, freedom, slavery, exploitation, Karl Marx, Jairus Banaji, Richard Jones

What is wage-labour? Does it have an essence, many partial determinants or a prototypical form? What kind of organisation of labour and relation with employers does and does it not designate? What is the scope of its historical and geographical existence? In what sense is it free? As I intend to show in this essay, these are surprisingly difficult questions. There may be no one set of right answers even within the same school of thought. This is certainly true of Marxism, as I shall show in the review of the debate between Jairus Banaji, erudite scholar of late antiquity and Indian modes of production, and Tom Brass, meticulous researcher of unfree labour systems and distinguished editor of the Journal of Peasant Studies. My set of answers, derived from Banaji’s work, will surely prove controversial even to many Marxists. Once re-articulated and defended, however, this less than intuitively obvious conceptualisation of wage-labour should sharpen our understanding of the history and dynamics of capitalism and the characteristic unfreedom of the proletarian class.
In the traditional Marxist social science that I question herein, exploiters are often defined in terms of their property rights: slave masters and feudal lords enjoy rights over the labour of others while capitalists enjoy only ownership of means of production which are separable from the individual person (for example, land, machines and patents). A wage-worker enjoys only self-ownership, meaning not only that she is self-owned, but that she has no rights over means of production. With negative property rights – that is, alienation from the means of production – she finds herself in the paradoxical position of having freely to alienate her labour-power and to consent thereafter to its dictated use; to deepen the paradox, she is not free to alienate once and for all her own freedom to break contracts, thereby turning herself *de facto* into a thing, for then the worker would no longer be self-possessed. A wage-worker cannot, in other words, sell herself into servitude or slavery; nor can the employer make practically impossible the breaking or even non-renewal of contracts. Here the matter is not simply definitional but also juridical.

To the extent that some objects cannot be exchanged, all orders have sacred foundations. To ensure the inalienability of self-possession, American labour law ensures that a wage-labourer cannot be prevented from leaving any employment relationship by the physical restraint of her employer or by a court requirement to stay on the job (*‘a decree of specific performance’*). American labour law has also long disallowed the withholding of pay and criminal penalties for breach of contract. Moreover debt to employers cannot provide grounds to bind a worker, and debts can be dissolved through bankruptcy. These are, to be sure, real freedoms that were not simply deduced from the concept of the law but won through real struggles.\(^1\)

**Beyond a juridical understanding**

Wage-labour can be defined (incorrectly, as I shall argue), in opposition to the other dependent forms of labour, by its hard-won rights of contract, including the right to recommodify labour-power. Tom Brass, for example, puts great importance on the ‘retention’ and ‘reproduction’, by individual workers, of ‘the capacity personally to recommodify their labour power’\(^2\) – to exit from

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1. Steinfeld 2001 recounts this history in detail.
2. Brass 2003, p. 104. As will become clear, Brass’s essay is a frontal assault on Jairus Banaji’s intensive and extensive redefinition of wage-labour. Tom Brass’s recent books have been sympathetically reviewed by Surinder Jodhka (2004); they are indeed a challenging combination of careful study of labour-systems across the globe and sharp and lively polemics against postmodern and populist academic currents.
contracts into which they have themselves directly entered. In other words, he builds into the very definition of wage-labour the condition that the formal power over its time and capacity is not sold but retained as a right.3 The condition of wage-labour arises out of the juridical demarcation of person and thing.

Here we have an essentially legal definition of the wage-labourer, defined as a dispossessed person who is nonetheless a bearer of rights that can be exercised in the realm of exchange. This is not a fatally general definition. For instance, wage-labour could simply be defined as the rendering of services to another in return for a reward. But all exploitative labour relations could be subsumed under wage-labour so defined, which would then become an ahistorical abstraction and an empty generalisation. The juridical and exchange-oriented definition is instead more specific. But because it gains its specificity in the realms of the law and circulation, it is not grounded in production. Moreover, once wage-labour is distinguished as a freer form of dependent labour than serfdom and slavery, we are reminded of Marx's argument that the appearance of a formally free exchange dissolves from the perspective of the totality. Individual workers may seem to enjoy choice and freedom, but once we consider capital as a self-renewing totality there is no real mutual exchange at all, for capitalists as a whole are merely returning in the form of a wage a portion of the new value which they have simply appropriated without equivalent. As they are often paid before the sale of the produced commodities, wages may seem to be advanced. However, by centring his theory of capitalism on the problem of reproduction, Marx was able to disclose the character of wages as an allotment by the capitalist class out of the total surplus-value which workers as a whole had created in the previous period (with the original capital having been dissipated through the capitalists' own consumption). As a class, rather than a collection of individual workers, the working class turns out to be enslaved to the capitalist class. Wage-slavery is not a metaphor. The concrete individual who is enslaved is the working class as collective subject,

3. See also Krader 2003, p. 151. Krader continues: 'The right of labour is socially acknowledged as the power of its disposition over its own time and capacity in production, which is its substantive labour power. Labour is in substance unfree in this social condition, for there is no way in which it can gain the means of its subsistence, thus no way that it can gain its living, no way that it can reproduce itself and all of society save by the sale of its time and capacity to produce the goods to meet the wants and needs of all. Thus the form of equality is dirempted from the substance, and the form of freedom dirempted from the substance thereof'. Of course, it is not meeting the wants and needs of all that is fundamentally important: wage-labour can only reproduce itself if it produces profit for others.
for it is only as a member of the proletariat that an individual worker belongs to the employed class. An enslaved African was thus doubly enslaved as a concrete human being and as a member of a class – he was, in short, an enslaved wage-slave. But the latter kind of enslavement is not apparent in the visible and public realms of the law and the marketplace wherein individual human subjects make their choices. But it was precisely these blinding surface appearances which, according to Marx, are often delusive, and provide the basis of false theoretical beliefs. A focus on circulation alone gives the appearance that individual choice-making human subjects enjoy ontological primacy. But capital considered as a whole reveals that classes can themselves be concrete individuals. The formally free wage-worker is a slave not only because she must consent to despotic control over her labouring activity but because, as a member of the working class, she is in the virtual possession of and forced to perform surplus-labour for the employing class. As an individual, she seems to be free to choose and change masters, but, as a member of the class, she has no freedom to escape the performance of labour gratis for another class. Who is enslaved? Strictly speaking not a proletarian but the proletariat. Marx does not discount the importance of the formal freedoms for individual dependent workers, but his theory is on the whole deflationary vis-à-vis the actual freedom which is thereby achieved. Once we consider capital dialectically, namely as a totality and a process of reproduction, formally free wage-labourers are set apart from slaves and serfs more by their illusion of having greater real freedom than by the relatively greater real freedom which they do in fact enjoy!

Brass never lays out why wage-labour should itself be defined in terms of juridical and market freedom, and thus essentially as free wage-labour. While he sees in history the gradual realisation of the possibility of the generalisation of this contractual form of exploitation (free wage-labour), Brass insists that this freedom has to be regained through continuous struggle against capitalist attempts to circumscribe it, for without the rights of contractual bargaining the working class cannot even commence the struggle for socialism. In other words, where neoclassical economists explain and postmodernists excuse relations of long-term dependence as substitutes for trust in government officials to deliver public services, or for confidence in the ability of formal markets to function adequately, Brass explains the binding of labour as the tragic success of agrarian capitalists in attacking the power of labour gained through mobility.

4. This is explored with great acuity in John Torrance’s unjustly neglected Karl Marx’s Theory of Ideas (Torrance 1995).
Yet, having apotheosised ‘free labour as both the outcome of class struggle under capitalism and simultaneously a precursor and necessary condition of a transition to socialism’, Brass seems to restrict class struggle to the achievement of juridically free status. The class struggle of bonded labour must thus first be one for freedom of contract. Brass would, presumably, also have to judge progressive the transformation from a state-dictated form of exploitation to a liberal contractual one, that is, the change from state-capitalist régimes to free-market economies. Moreover, since the achievement of real bargaining freedoms may well be incompatible with the capital relation – think here of the use of injunctions to break strikes, or of how the ban on secondary boycotts in the US limits the bargaining power of free wage-workers – Brass is compelled to support a Sisyphean struggle against abrogations of formal freedoms as an end in itself. However, the post-liberal politico-legal régime may have already become a necessary form of the capital-relation of production and is likely to pass away only with the abolition of that relation itself. Marx had hoped that the increasing degradation and slavery of the working class would motivate revolutionary struggle against capital, not a limited battle for the realisation of liberal rights whose positive content could in fact only be maintained through the abolition of wage-labour.

Yet, as I argue here, wage-labour is not essentially a juridical and market condition. What wage-labourers endure is vulnerability arising from the personification of the very conditions of their lives in an alien agent, namely a capitalist, who will pay a wage on condition that the worker creates surplus-value over which she has no customary or legal claim. Suffering a coerced dependence on the capitalist class – a negatively-privileged juridical condition in which the wage-worker is no longer in effective possession of her conditions of production and means of life – workers must provide credit to employers who repay them with the appropriated value they have themselves created. Consequently, their labour-fund confronts them in the personage of the capitalist.

Seen this way, wage-workers cannot be divided from unfree workers, because the former are also in a state of unfreedom; and formally unfree workers may be wage-labourers as well. But now we have lost discernable criteria from the realms of law and exchange with which to identify wage-labour. Are we adrift?

Redefining the extension of wage-labour

Jairus Banaji has long defined wage-labour as an exploitative relation of production, that is, as essentially capital-positing activity. The recent publication of Banaji's "The Fictions of Free Labour: Contract, Coercion and So-Called Unfree Labour" and the review by Peter Sarris of Banaji's monograph *Agrarian Change in Late Antiquity: Gold, Labour and Aristocratic Dominance* serve well as introductions to his studies of wage-labour. Enlisting references from several living and ancient European languages, Banaji's work combines original historical research with arresting theoretical formulations. While it should be of general interest to Marxist social scientists, unfortunately no collection of his writings over the last four decades is yet available. As I shall show, he has developed a potent and persuasive conceptualisation of wage-labour. He has successfully disentangled the intension or ideal of wage-labour (ideal not in the Weberian sense of an ideal-type but in the more Aristotelian sense of that primary nature without which a thing cannot be that thing) from its empirical-historical configurations, a distinction that Banaji conceptualises as one between the capital-relation of production itself and the forms of exploitation. Banaji usually reserves the term wage-labour for the former, making the capitalist payment of money-wages for labour-power competitively sold by dispossessed workers only one form of wage-labour among some instances of sharecropping, some variations of the putting-out system, debt bondage and even slavery. A confusing category-mistake may seem to result, then, from Banaji referring to wage-labour as both the genus and a type. But Banaji’s point is that the wage in its disguised forms (the wage has appeared, for example, as a consumption loan) is no less such than when it takes the guise of money wage-payments. For Banaji, wage-labour is not to be defined through common and juridical usages but as a theoretical term within a science of society focused on social relations of production that are not immediately visible.

After all, it should be surprising to a Marxist if the essence of a thing could be defined on the basis of the delusive surface appearances of the marketplace.
and the law. The wage-labourer is not well-identified in terms of her own visible attributes (possession of juridical right and money-wage and non-possession of the means of production) because she is essentially a *relata* in the not-immediately-visible capitalist relation of production.

While wage-labour does have a clear meaning, there are some forms that are ambiguous as to whether they should count as wage-labour. In consideration of these examples, I shall not argue that wage-labour is only a *mélange* of variations in the organisation of labour (ranging over manufacture, machinofacture, piece- and time-wages) and a set of legal rights (ranging over payment periods, mobility, and bargaining). ‘Essentialist’ conceptualisation proves illuminating as we think through the implication for the extension of the concept of wage-labour. It is obvious that the extension (i.e. empirical coverage) of a concept varies with its intension (i.e. the intrinsic meaning of concept itself).\(^\text{10}\) As Wittgenstein famously underlined, the categories of ordinary language are fuzzy-edged, but this insight does not go far enough since dispute about the outer edges of a category and which instances it covers only leave the essence of the category untouched. Moreover, as Michael Billig has theorised, arguments about the intension of categories are more fundamental than those about problem cases, and cannot be dismissed as trivial verbal disputes.\(^\text{11}\) To return to the case at hand, the redefinition of wage-labour at a distance from ordinary usage disjoins the apologetic association of capitalism and freedom and allows for a disturbing revision of the historic forms of capitalist wage-labour.

This can be shown in three surprising shifts in the extension of wage-labour that follow from Banaji’s redefinition of its intension. I shall elaborate them at some length. The first shift narrows the concept’s intension, while the last two expand its extension. In other words, the recommended change in intension neither increases nor decreases in simple quantitative terms the coverage of the term. Thus, I aim to recast the term’s extension through a theoretically informed change in its intension. Correlatively, I am implicitly arguing that the juridical and market definition of wage-labour is both under- and over-inclusive.

**Wage-labour and hired dependence**

The first extensional shift is a disqualification: not all the dispossessed who must exchange labour services freely for monetary payments are in fact wage-labourers.

\(^{10}\) See discussion of concept intension and extension in Goertz 2006, pp. 69–94.

Apparent wage-workers may rather be hired dependents whose wages are not a form of *capital* because they have not produced surplus-value but only expended *revenue*. The labour-fund of wage-labourers is necessarily considered as capital. Marx writes:

> The difference [between the capitalist and other modes of production] lies in the fact that [in one case] his product appears as *wages*; that in this case, the worker's product (i.e. the part of the product produced by the worker which makes up the labour fund) 1) appears as the revenue of *others*; 2) that then, however, it is not expended as revenue, and not spent on labour by means of which revenue is directly consumed, but, 3) that it confronts the worker as *capital* which returns to him this portion of the product, in exchange not merely for an equivalent but for more labour than the product he receives contains. Thus his product appears in the first place as revenue of others, secondly, as something which is ‘saved’ from revenue in order to be employed in the purchase of labour with a view to profit; in other words it is employed as *capital*.\(^{12}\)

That is, the wage is understood in terms of both its form as *alien wealth*\(^{13}\) and its function as *capital*. For Richard Jones, it was centrally important that the majority of non-agricultural producers in India were not (to use Jones’s distinction, adopted by Marx) *wage-labourers* paid through capital advances but *dependants* hired out of the *ryot* rents that the sovereign had appropriated and expended, thereby building up towns that followed the sovereign along in his territorial movements.\(^{14}\) Marx would emphasise that this economic configuration was prone to stagnation, which he then immediately (and invidiously) compared to the explosive wealth creation unleashed by the capitalist organisation of production.

A juridical definition of wage-labour erases this real economic difference. To take a simple and illuminating example from the writer Ranganayakamma: someone who works as a cook in a restaurant finds herself in a different relation when she also cooks for the family of the owner-capitalist at his home, though, in both cases, she has negative ownership conditions over the means of production and may well be performing surplus-labour.\(^{15}\) The important

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13. The concept of alienation here seems not to be continuous with its usage in Marx’s early philosophical and economic manuscripts. Its function is to isolate a specific exploitative relation of production through comparative historical study, not to capture elements of the human condition as such or underwrite a narrative of reconciliation in history.
14. Irfan Habib (2002) has himself insisted on the importance of the difference between revenue expenditure and capital investment in his analysis of Mughal India.
difference is that, in the first case, the cook is paid out of capital, in the latter, revenue. Marx argues that this seemingly pedestrian distinction is epochal, the key to modal differences:

The distinction made between the labourers who live on capital and those who live on revenue is concerned with the form of labour. It expresses the whole difference between capitalist and non-capitalist modes of production. On the other, the terms productive and unproductive labourers in the narrow sense [are concerned with] labour which enters into the production of commodities (production here embraces all operations which the commodity has to undergo from the first producer to the consumer) no matter what kind of labour is applied, whether it is manual or not ([including] scientific labour), and the labour which does not enter into, and whose aim and purpose is not, the production of commodities. This difference must be kept in mind and the fact that all other sorts of activity influence material production and vice versa in no way affects the necessity for making this distinction.¹⁶

Tax rent, the supposedly characteristically Asian rental form of exploitation, did not enter the circuit of capital. Further expenditure therefore depended on a new claim of rental income extracted through extra-economic coercion from direct producers, putatively still organised in archaic communal villages. Rent is expended even if the product consumed represents greater labour-time than the value of the monetary or in-kind expenditure itself; the capital-relation is not formed simply because the producer’s working day can be meaningfully separated between necessary and surplus labour-time. The distinction is even more complicated: revenue expenditure need not even take the form of direct purchase of labour service; the purchased use-value need not even be directly consumed. Labour can be hired to produce commodities, but if the commodity is then exchanged for an other commodity meant for final consumption (C-M-C), labour will have been hired for non-capitalist commodity production. That is, the feudal lord pays money for the production of a commodity which he then exchanges for a commodity which he consumes. The sequence is thereby terminated in consumption: it is not the renewable circuit of capital in which the sale of commodities yields money sums for both the reproduction

¹⁶. Marx 1971, p. 432. Marx suffered however from an exaggerated sense of the importance of revenue-expending royalty in the demand for commodities in India and Asia in general. There was, in fact, a huge mass commodity market for textiles in places such as Bengal, Gujurat, and Coromandel. Indeed, a good deal of the cloth was of a coarse variety, making it suited only for poorer consumers. Goods were produced for expansive markets throughout Asia, and there were also markets for such mass-based consumer goods as rice, pulses, wheat and oil. See Hobson 2004, p. 83.
of the capitalist through luxury spending and the resumption, if not the upward spiral, of valorisation. To stress the concrete importance of this point, Banaji argues that Immanuel Wallerstein mistakes commodity-producing feudal enterprise in the second serfdom for actual capitalist production. While the former

may convert into exchange-values the greater proportion of the use-values produced for it, under compulsion by its serfs… this enterprise sells in order to consume, or in different terms, for it the production of commodities is a mediation of socially-determined levels of consumption…. The Polish nobility exported grain not by way of an accumulation of values, but in order to be able to import textiles and colonial produce not available in Poland itself.

Not only were commodities produced and sold for the purposes of feudal consumption, ‘consumption remained the determining aim and motive force of the economy’, and lords could not rationally maximise profits as they had no basis of calculating labour costs.17

Marx differentiated such commodity production from capitalist commodity production. The circulation of commodities is not the circuit of capital:

In periods of the dissolution of pre-bourgeois relations, there sporadically did occur free workers whose services are bought for the purpose not of consumption, but of production; but firstly, even if on large scale, for the production only of direct use values, not of values, and secondly, if a nobleman e.g., brings the free worker together with serfs, even if he resells a part of the worker’s product, and the free worker thus creates value for him, then this exchange takes place only for the superfluous [product] and only for the sake of superfluity, for luxury consumption; is thus at bottom only a veiled purchase of alien labour for immediate consumption as a use value.18

17. Banaji 1976, pp. 314–15. The impossibility of commensurating and calculating the various costs of production on the estate is also discussed in Gudeman 2001. The difference between the capitalist and feudal enterprise should not however be located in consumption, as Banaji does here. The capitalist only invests and accumulates capital in order to make perpetual and to increase her own fund for luxury consumption. She can only do this by way of the valorisation of capital and technological modernisation via the accumulation of capital. The feudal lord is under no such compulsion to secure his reproduction, as Robert Brenner has long reminded us; but the capitalist is not likely to allow the valorisation of capital to come at the expense of, rather than to secure, the maintenance of her own consumption fund – the real driving force behind the capitalists’ investments. The importance of the capitalists’ own consumption has been ignored even by Marxists, though the public catches a glimpse of this hidden driving motive in various public scandals over the spending habits and hidden bank accounts of CEOs.

These free workers, dependant on money payments for labour services, may appear to have been wage-labourers, but this is exactly where superficial definitions lead us astray. Marx accepts Jones’s threefold distinction of the forms of the labour-fund into the direct self-production of subsistence, the receipt of payments expended as revenue (hired dependants) and the payment of wages advanced as capital (wage-workers). Marx excerpts Jones:

‘The general labour fund consists 1st. – Of wages which the labourers themselves produce. 2ndly. – Of the revenues of other classes expended in the maintenance of labour. 3rdly. – Of capital, or of a portion of wealth saved from revenue and employed in advancing wages with a view to profit. Those maintained on the first division of the labour fund we will call unhired labourer. Those on the second, paid dependants. Those on the third, hired workmen’ (wage-labourers). ‘The receipt of wages from any one of these divisions of the labour fund determines the relations of the labourer with the other classes of society, and so determines sometimes directly, sometimes more or less indirectly, the degree of continuity, skill and power with which the tasks of industry are carried on’ (pp. 51–2). ‘The first division, self produced wages, maintains more than half, probably more than two-thirds, of the labouring population of the earth. These labourers consist everywhere of peasants who occupy the soil and labour on it. … The second division of labour fund, revenue expended in maintaining labour, supports by far the greater part of the productive non-agricultural labourers in the East. It is of some importance on the continent of Europe; while in England, again, it comprises only a few jobbing mechanics, the relics of a larger body. … The division of the labour fund, capital, is seen in England employing the great majority of her labourers, while it maintains but a small body of individuals in Asia: and in continental Europe, maintains only the non-agricultural labourers; not amounting probably, on the whole, to a quarter of the productive population’ (p. 52). ‘I have not … made any distinction as to slave labour. … The civil rights of labourers do not affect their economical position. Slaves, as well as freeman, may be observed subsisting on each branch of the general fund’ (p. 53).

Key to Marx’s understanding of bourgeois society, then, was Richard Jones’s elaboration of Adam Smith’s distinction between money payments unproductively spent as revenue (putatively characteristic of the Asiatic mode of production and, less so, of much of continental Europe) and wages productively advanced as capital (the social form of the labour fund common only to England).19

19. ‘The poverty of the Asiatic populations, resulting from the inefficiency of their labour, is sufficiently explained to all who have comprehended the principles which we have developed, by the fact that their agricultural labourers are paid by self-produced wages, and their non-agricultural labourers out of revenue. And in like manner will they infer the vast wealth of England from the circumstance, peculiar to that country, of her labouring population, both agricultural and non-agricultural, being paid out of capital. From the inefficiency of their
Precisely because the non-Marxist social-scientific lexicon does not allow the distinction between hired dependence and wage-labour, it cannot differentiate between advances out of revenue and out of capital. The crucial distinction is thus between the circuit of capital and the expenditure of revenue, between wage-labour and hired dependence; and the distinction appears most stark in the comparison of England to India. But any ‘saving’ for the purchase of means of production or the hiring of labour is immediately understood in bourgeois social science as capital. However, the differences between these kinds of workers are not visible in the realm of circulation as they may both may to have to hawk their labour-power as a result of dispossession from the means of production. As paradoxical as it may sound, one may be reduced to having to sell one’s labour-power for a wage in order to live without becoming a wage-worker proper. If one does not accept Marx’s conceptual clarification of the differences between the circuit of capital and the expenditure of revenue, then the wage need not be a moment in the circuit of capital, and wage-labour is dirempted from capital; wage-labour therefore becomes what Banaji has called an abstract formalism, that is ‘an abstraction capable of subsuming basic historical differences, and structural contrasts within the uniformity of its own concept’. Needless to say, without Jones’s conceptual distinctions, Marx’s magnum opus would have been inconceivable.

It is also worth noting that whilst Marx distinguishes hired labour from wage-labour, he does not at this point fissure the latter on the axis of productive and unproductive labour or, as is more fashionable today, on the axis of scientific and immaterial labour versus industrial and material labour: all wage-labour is considered productive, essential for the valorisation of capital through the equally essential moments of production and sale, and all productive labour, all labour necessary for the expansion of capital in any of its forms (banking, merchant or industrial), is wage- or proletarian labour. Marx defines wage-labour as that labour which is productive from the point of view of any and all forms of capital, labour through whose exploitation capital is valorised. The different roles of wage-labour in the different circuits of

agricultural labour arises the smallness of the non-agricultural portion of the Asiatic populations; and, similarly, the largeness of the non-agricultural portion of the population of England is owing to the peculiar and unrivalled efficiency of her agricultural labour’. Jones 1859, pp. 220–1.

20. A component of the labour-force has been dispossessed since the Bronze Age (circa 3000 BCE), when inequitarian systems of land tenure emerged as a consequence of the plough and animal traction, allowing one person to plough with additional labour larger areas of land, leaving others with minimal land or with having to provide their labour. See Goody 2004, p. 13.

capital (productive, commodity and money) are secondary to the distinction between wage-labour and hired dependence, the distinction between productive and unproductive labourers in what Marx calls the narrow sense.

Marxists however have been largely concerned with the secondary distinction – in part because the rationalisation of commercial costs which drain surplus-value may leave more surplus-value to be shared out among industrial capitalists, thereby raising the industrial rate of profit. This emphasis has been misplaced. It is strictly speaking true that only in the circuit of industrial capital is surplus-value both appropriated and created, but since minimising finance and realisation lags raise the annual production of surplus-value, financial and commercial capitalists may not deduce more surplus-value than that in whose production they contribute. Therefore, it can be misleading to call workers in finance and circulation unproductive labourers. All commercial, finance and industrial workers should be considered productive of the surplus-value appropriated. Capital, for its part, fights to eliminate labour paid out of revenue to the extent that such activities interfere with capital using such opportunities for the valorisation of capital. It does this, for example, by closing down a public hospital or school paid for out of tax revenue or a public utility so that a capitalist can take its business. Of course, some of the workers paid out of expended revenue may also carry out operations that speed up (and may in fact be necessary for) the rotation of capital (for instance, building and repairing a public roads system out of tax money), but these activities are not themselves aimed at profit and thus the workers do not come under the terroristic discipline of profit as do workers in the banking and commerce sectors. Whenever they can, capitalists strive to replace dependents hired by the state with wage-labourers exploited by capital. Hence the mania for privatisation which has been a hallmark of capitalist development for the last twenty-five years, and has been more important for the growth of the capitalist system, through the vent provided for surplus-capital, than the reduction of the putative deductions from surplus-value by the commercial and banking capitalists in the bourgeois fraternity. Writing in 2006, Andrew Glyn underlined that privatisation has ‘reduced the contribution of government-owned companies from 12% of UK GDP in 1979 to less than 2% today’. It goes without saying that the working class, composed of wage-labourers and hired dependents alike, should resist privatisation. The analytical distinction, in other words, is in the first place not a political distinction.

Formally unfree wage-labour

The second extensional shift widens the range under which examples of wage-labour may be found. Wage-labourers may never have had or may have lost rights freely to market their labour-power (slaves, serfs, bonded labourers, indentured servants). In other words, wage-labour is not defined by what Krader specifies in essentially juridical terms as ‘the freedom of social labour to sell its labour time in socially particularized and specified amounts, a form of freedom’ and possession of the right for the ‘negation of labour, of its limitation through contractual stipulations of the length of the labouring day, rate of production within it, conditions of work, amount of free time, retirement, and the like’.23

But, as already noted, wage-labour is simply that condition in which workers are compelled to perform capital-positing labour in order to have the subsistence-fund that they have themselves already produced directly or indirectly advanced in some form to them by someone else. Wage-labour, properly understood, is in fact compatible (as I shall argue next) with a variety of forms of exploitation – slavery, labour tenancy, nominally independent simple commodity production, and formally free wage-labour. Drawing on Yann Moulier Boutang’s research into the role played in the history of the capitalist system by ‘slavery, servitude, and all the other guises of the coercive organization of labour – from coolieism in the Pacific and peonage in Latin America to apartheid in South Africa’, Marcel van der Linden has argued that we should not redefine wage-labour but rather disidentify it with the proletariat as such. Banaji however defines wage-labour such that alternative arrangements of slavery, sharecropping or debt bondage could be examples thereof. While I agree with van der Linden that ‘free’ wage-labour has not always been the favoured labour relationship under capitalism,24 I shall not discuss here why capitalism as a mode of production came to depend on the (formally) free wage-relation and the general (though not universal) social acknowledgement of a modicum of civil rights of workers.25

As Marx himself writes:

> Although the civil rights of the labourers do not affect ‘their economical position’, their economical position does affect their civil rights. Wage-labour on a national

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25. Van der Linden 1997 offers a fascinating explanation for the spread and normalisation of formally free wage-labour. Though we share a critique of the common explanations, my own explanation differs, but space limitations do not allow me to elaborate.
scale – and consequently the capitalist mode of production as well – is only possible where workers are personally free. It is based on the personal freedom of the workers.\textsuperscript{26}

But this is to say that wage-labour is not necessarily formally free and only normally takes that form within a hegemonic and fully developed capitalist mode of production. Banaji emphasizes that ‘the expansion of total social capital’ depends on the mobility of labour.\textsuperscript{27} At this macro-economic level, the sale of labour-power in the circulation process becomes a partial determinant (along with the relation of production) of the wage-labouring class. Capital as a \textit{mode of production} does indeed depend on that minimum of civil rights of workers without which their mobility in and out of rising and declining firms and industries would be impaired and the arteries of capitalism as a dynamic totality, as a revolutionary mode of production, would thereby be hardened.

Nonetheless, capitalist production depends even today on the continued \textit{de facto} extreme violation of even those minimal civil rights in industries where working conditions are abominable and labour-power therefore cannot be securely recruited at wages that ensure at least normal profitability – virtual slavery in Brazilian mahogany farming, child labour in banana harvesting in Ecuador, contract labour, visa restrictions and \textit{bracero} programmes for agrarian proletarians in the United States. Workers such as these and bonded labourers have not been – as Brass has vigorously asserted – de-proletarianised or thrown out from the ranks of wage-labour. Formally unfree wage-labour is simply not a conceptual impossibility and wage-labour is not implicitly free.

Yet, while wage-labour cannot be identified by formal freedom, formal freedom does indeed condition class struggle. In no way, then, does my challenge to Brass’s implicit definition of wage-labour imply doubt about the importance of his vigilant, detailed, and passionate study of curtailments of workers’ formal freedoms and changing capitalist strategies for labour recruitment and exploitation. For, after all, as Jon Elster has noted:

\begin{quote}
the freedom of the worker-consumer creates in him a \textit{capacity} for the historical action of overthrowing capitalism. The conditions for the ‘real freedom’ in communism are created by workers who to some extent already partake in it, as a result of the formal freedom that compels them to be responsible for their choices.\textsuperscript{28}
\end{quote}

\textsuperscript{26} Marx 1971, p. 431.
\textsuperscript{27} Banaji 2003, p. 80.
The disguises of wage-labour

The wage itself can take on a multiplicity of disguised forms. For example, the slave masters and English agricultural capitalists of early modernity often offered a wage in kind or a provision lot to slaves and servants-in-husbandry, respectively, only on the condition that dependent labourer perform capital-positing activity. The wage-labourer did not necessarily have traditional or customary access to the provision lot. And one can easily multiply examples of disguised wage-labour. Here we have the third extensional shift, again a widening of the empirical coverage of the concept of wage-labour. In these examples, a money-wage has not been paid or labour-power has not been sold, or both; in some cases, the wage-labourer may even appear to be a petty bourgeois. None would seem to be an example of wage-labour, yet wage-labourers they all are, one and the same; wage-labour cannot be defined simply by negative ownership rights and by the possession of legal rights which may be exercised in the realm of circulation. Wage-labour is not a simple juridical condition but a relation of production. This, in turn, implies that not all forms which could be disguised wage-labour are in fact examples of wage-labour since wage-labour labour is only performed within the circuit of capital.

Banaji’s discovery of the possibility of the disguise of the capitalist relation of production came in the course of a critique of theories of the semi-feudal nature of postcolonial societies. Banaji argued against the identification of forms for the organisation of the labour process – such as sharecropping and other types of tenancy and labour tying – with particular relations of production characterised as pre-capitalist or feudal. The underlying production relations simply could not be inferred from the forms of exploitation or the organisation of the labour process. For Brass, however, when credit and product markets, or credit and labour markets are interlinked, wage-labour is simply not employed. In the former case, the producer seems to retain ownership of the means of production; in the latter case, the worker is now tied to a particular exploiter, and has lost the capacity partially to negate the labour performed through the threat of voiding a contract.

But, in his history of the nineteenth-century Deccan, Banaji has shown how the capital-relation worked through the advance by merchant-moneylenders for the subsistence of small peasants. Banaji established that the purely capitalist nature of relationship between the peasant and the money-lenders was hidden by the fact that the surplus exported from the small producer would be called ‘interest’. More generally, a landlord may tie down a

30. Banaji 1977a
sharecropper with advances of land, working capital and equipment for a share of the produced commodities, leaving him ultimately with a de facto subsistence wage; or a mining capitalist may pay only in scrips to be redeemed at a company store; or a merchant may supply working capital and raw materials only to take interest and the final product at a price that leaves the starving artisan a subsistence worker and the merchant-cum-money lord in possession of surplus-value; most of the new value created by an apparently independent port trucker can be hidden in the interest owed on the loan for the purchase of the truck and transferred to the warehouse business which purchases the haul at prices below value (indeed, at the Californian ports, truckers have been forced nominally to repossess their trucks so that they will not legally be workers and thus be unable to unionise!).

Brass actually misses Marx’s own reason for not treating a dominated peasantry as disguised wage-labour. Because wage-labourers are, for Marx, direct producers employed through the advance of capital, they come under the direction of the capitalist so that he may ensure the valorisation of his capital. For Marx, formal subsumption entails the bringing together of workers under the capitalist’s watchful eye while real subsumption entails an actual revolution in technology. Where Banaji counts as formal subsumption usurious or mercantile appropriation of surplus-value from atomised peasants and craftsmen, Marx seems to reserve the term for the direct supervision over the labour-process (as enabled, for example, by putting craftsmen under one roof) before the division of labour among them is developed and the techniques of production revolutionised. To the extent that Marx builds direct supervision into the very definition of wage-labour, it would be incompatible with many

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33. Jones (1859) argued that capital alone contributed ‘the formation of the human agency by which the continuity of labour is secured; the maintenance of the intellect which enlightens its application [and] the employment of power which resides either in a higher order of moving forces or in mechanical contrivance’. According to Jones and his colleagues, manufacture’s ‘sovereign power over the material world’ was entirely dependent on ‘the eye of a superior enforcing everywhere steady and conscientious labour’. Quoted in Berg 1980, pp. 126–8.
34. ‘This formal subsumption of the labour process, the assumption of control over it by capital, consists in the worker’s subjection as worker to the supervision and therefore to the command of capital or the capitalist’ (Marx 1994, p. 93). The same distinction is found in Volume I of Capital: ‘It will be sufficient if we merely refer to certain hybrid forms, in which… the producer has not yet become formally subordinate to capital. In these forms, capital has not yet acquired a direct control over the labour process. Alongside the independent producers, who carry on their handicrafts or their agriculture in the inherited, traditional way, there steps the usurer or merchant with his usurer’s or merchant’s capital, which feeds on them like a parasite’ (Marx 1976, p. 645). I owe recognition of these quotes to Gil Skillman. It was this direct
of the forms that Banaji considers as disguised wage-labour. In Marx’s sense, an indebted sharecropper is neither formally nor really *subsumed* to the capitalist; and, for this reason, is not a wage-labourer proper at all. In this regard, Marx does not chime with Banaji’s analysis of some forms of disguised wage-labour.

The *ryot* is HIS OWN EMPLOYER, and his mode of production is the traditional one of the independent, small, SELF-SUSTAINING PEASANT. He does not work under alien direction, for another and under another, and thus he is not subsumed as a wage-labourer to the owner of the conditions of production. These therefore do not confront him as capital. Thus even the formal capital-relation does not take place, still less the specifically capitalist mode of production. And yet the usurer appropriates not only the whole of surplus value created by the *ryot*, i.e. all the surplus PRODUCE over and above the means of production, but he also takes away from him the part of the latter, so that he merely vegetates in the most miserable manner. The usurer functions as a capitalist in so far as the valorisation of his capital occurs directly through the appropriation of alien labour, but in a form which makes the actual producer into his debtor, instead of making him a seller of his labour to the capitalist. This form heightens the exploitation of the producer, drives it to its uttermost limits, without in any way, with the introduction of capitalist production – even if at first with the merely formal subsumption of labour under capital – introducing the resulting heightened productivity of labour and the transition to the specifically capitalist mode of production . . . (*Debt slavery in distinction to wage slavery.*)35

Marx is confusing and perhaps confused here. He calls the usurer a capitalist, and understands the *ryot* as an alienated producer of surplus-value, but then argues that the formal capital-relation does not here exist. Yet, as Banaji has underlined, the loan has in fact implicitly been understood as a wage advance and the interest payment which holds the entire surplus-value can leave the supervision that was often absent for example in India. As Hamza Alavi argues: ‘There is an important difference between the Indian system of *dadni* loans and the English putting out system. In the case of *dadni* loans, the weaver was given the loan by the prospective buyer of his product which thereby bound him to deliver the finished goods to that buyer. But, given the money, the weaver was left to his own devices to procure his raw materials and work on them. The buyer-moneylender, the *dadni*-merchant, did not handle the raw materials or equipment and was not involved in the process of production in any way. By contrast, in the “putting out system” the entrepreneur took the raw materials round to the weavers, from door to door, and collected the finished cloth. He soon realised that instead of going from door to door, he could simplify his task by bringing all his weavers under one roof. That gave rise to the factory system which, in turn, led to mechanisation and a transition to the Industrial Revolution. That dynamic was absent given the financial organisation of production in India.’

35. Marx 1994, pp. 118–19
smallholder with means for subsistence only.36 This suggests that, in the above passage, Marx has conflated the organisation that the labour-process took in Western Europe with the capital-relation itself. Debt-slavery is here, in fact, a form of wage-slavery. Moreover, piece-workers, considered wage-workers by Marx, need not be under the alien direction of the capitalist, and Banaji argues that sharecroppers have often been more akin to piece-workers than serfs. Banaji seems to be on strong ground in refusing this conflation of relation of production with organisation of the labour-process, however important the latter may be in understanding the nature of society-state relations or social dynamics in general. The large-scale capitalism that would fit Marx's implicit definition of the capital-relation need not always be the organisational form most suited to the spread of the capital-relation. Indeed, Banaji argues that just such a narrow definition of the capital-relation blinds one to the epochal agrarian changes realised in colonial modernity.37

**Capitalism and formal freedom**

I have respecified the intension of wage-labour such that formally unfree workers can be regarded as examples of it. Yet, as Marcel van der Linden has argued, capitalism has shown an imperfect but very strong tendency to normalise the formal freedoms of wage-labour.38 I want to reverse the question here and enquire into why labour may not become capital-positing until and unless it has won formal freedoms. That is, one could accept Banaji's conceptualisation of wage-labour as capital-positing but disagree that labour

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36. Banaji argues that if the cash/kind advances were understood not as the actual buying of labour-power but as a loan, then the claims of creditors would have to be understood as fictitious capital, as the creditor cannot recall the actual capital but only sell his claim, his title of ownership. It is not clear to me why the understanding of the advance as a loan implies that it is fictitious capital or why this would be the *reductio ad absurdum* of failing to see the advance as the buying of labour-power. Nonetheless, to the extent that the advance functions as variable capital, it commences the circuit of capital. Unlike constant capital, variable capital is consumed in the act of production; its value is not transferred to the final product which has the composite value of the value of the used up means of production and the new value added. But even though it is consumed in the act of valorisation, the cash/kind advance commences the circuit of capital. It is thus in fact variable capital. A state bond, however, is fictitious capital in that, while its holder gains a return, the state usually expends the borrowed sum in the circuit of revenue, paying back the loan through taxation or further credit operations. The government note, in this case, is fictitious capital.


is such unless it is formally free. Wage-labour would therefore have to be formally free. In other words, it may be the case that the capitalist relation of production does not obtain unless the formally free form of wage-labour has been normalised. Against Banaji’s thesis that the capital-relation of production is compatible with a multiplicity of forms – formally free wage-labour being in no sense a norm – it can be argued that Banaji has effaced the causal importance of social form. For example, John Weeks and Robert Brenner claim that the roots of capitalism’s unique dynamic are to be located precisely in the fact that relations between classes are mediated through what appears to be an exchange rather than determined through the legal ties of slavery and the legal-cum-traditional ties of feudalism.39 On this account, Banaji’s anti-formalism would leave him unable to understand that a market in free labour is the very precondition of capitalist production. For Robert Brenner, capitalism can only proceed once the exploiter cannot extract surplus-labour through direct extra-economic coercion. Brenner does not apply the reasoning to the pivotal case of modern plantation slavery, so it is worth considering it here.

Once the slave owner has come in possession of slaves he has no need to hire or pay wages for the control of labour. He thus has no need, in order to reproduce over time his ability to control labour, to recoup any outlay on monetary wages through the production of commodities for the market. With no compulsion, after the costs of slave purchase had been amortised, to sell on the market in order to renew his ability to rehire the wage-labour out of which surplus-labour can be extracted, the slave owner is also under no compulsion to produce competitively and thus continuously to introduce technical and organisational improvements and achieve economies of scale. In other words, his own consumption needs can be met without the further mediation of the market. Once he has recovered his costs, including the purchase-price of slaves, he has no need to alienate commodities at an ongoing monetary profit – a profit which could then be capitalised to achieve economies of scale and technological renovation so as to ensure the continuing viability of his enterprise in the competitive market through which his claim on surplus-labour has to be mediated.

While the emergent capitalist tenant farmer found that the payment of rent and renewal of his lease depended on sale at value, the slave owner could arguably have sold agricultural output at rather arbitrary prices without jeopardising his continued control over surplus-labour, which could be

commanded as product in kind and direct labour services. In short, the plantation owner may not have been compelled to sell and sell at value and was for this reason not a proper capitalist on whom the market operates coercively towards the end of profit maximisation (M-C-M′) and accumulation. The slave owner can thus seemingly retreat back from the market and the compulsions which it imposes into the shell of the natural economy and devote his slave crew to self-supply while selling physical surpluses at arbitrary prices. The slave plantation then differs hardly from (an ideal-typical) feudalism in which the lord retains control over the persons of serfs and can thus secure and perpetuate his luxury consumption fund without the ongoing investment of capital. Unlike English capitalist agriculture, modern slave plantations were hybrid entities oriented, to be sure, to market-exchange but capable of surviving without it – betwixt feudalism and capitalism, yet closer to the former. And, indeed, modern plantation owners did retreat into this shell of natural economy when the market for plantation crops collapsed.

But this reasoning for the non-capitalist character of modern plantation slavery is unconvincing. Writing in defence of Brenner, Ellen Wood has granted that a formally-free proletariat, paid in money wages, is not necessary for capitalist compulsions to operate on enterprises; for example, even though early tenant farmers often relied on servants-in-husbandry whose wages were largely self-produced on the provision lots with which they were paid, and whose mobility was statutorily restricted, Wood insists that the early capitalist farmers had to produce capitalistically for a profit. Otherwise, the assumption of the monetary burden of the lease would have made no sense – the monetisation of the crucial means of production, the land, sufficed to guarantee the capitalist character of agriculture. But similar compulsions operated on the plantation owners. Modern slave plantation (excepting configurations such as the Brazilian fazenda) simply could not afford a retreat into a natural economy because of heavy debt burdens and dependence on purchased commodities for their operations. They were much more heavily implicated in the capitalist world market than, say, Eastern-European estates created in response to demographic considerations. This contrast is made sharply by Robin Blackburn:

However the undoubted fact that neither the feudal estates of Eastern Europe nor the slave plantations of the Americas can properly be regarded as capitalist enterprises should not lead us, as it has some writers, to regard them as equivalently distant from the capitalist mode. The feudal estates of Eastern Europe were a product of the manorial reaction of the fourteenth and fifteenth centuries – sometimes referred to as Europe’s second serfdom. In the first instance they were created not in response to the dictates of cash crop production but as the lords’ answer to the impact of the demographic crisis in the Eastern marchlands. Their
subsequent orientation to cereal exports required very few productive inputs from the West, and encouraged no reciprocal exchange. The American slave plantations by contrast were set up directly for the purpose of supplying the European market, and had no other raison d'être. In their operation, as in their foundation, they remained intimately tied geared to exchanges with European merchants and manufacturers. Even at the height of the Polish grain exports they accounted for only 10–15 percent of total production, with luxury items dominating imports. In the New World by far the greater part of plantation output was exported, and many productive inputs were imported from European manufacturers: equipment, implements, construction materials, clothing, foodstuffs; as for the African slaves, they also were acquired increasingly in exchange for manufactured trade goods. Western Europe’s trade with the slave plantations was thus less unbalanced and more conducive to cumulative, reciprocal expansion.  

**Wage-labour in late antiquity?**

If Blackburn and Banaji himself emphasise that feudal commodity-producing enterprises are not properly understood as profit-making enterprises, then one may be sceptical that the aristocratic large estates of late antiquity were capitalist enterprises as well. Banaji therefore insists:

> The bureaucratization of the aristocratic large estates was a sign of their ‘rationalization’, their rational control as business enterprises…. The ideal of self-sufficiency which characterized … these types of estates did not imply isolationism or natural economy. Despite the prevailing minimalist views of the ancient economy, it is clear that enterprises were run only if there were profitable, which is not to say that all owners or businesslike entities strove to expand profitability from year to year in the way modern capitalists do as a condition of their survival. Flax, fish, silk, olive-oil, glass factories, potteries, brickyards, metal-shops, dye-works, moneylending, banking, maritime commerce, the grain trade, fruit production, and the wine industry were all sectors which saw a substantial investment of private capital based on the individual pursuit of profit…. The issue, at any rate, is not whether the large estates of late antiquity were governed by use-value and comprised forms of a ‘closed household economy’, but rather how far the aristocracy’s involvement in Roman monetary economy assumed a capitalist character in displaying the features that contemporaries associated with purely capitalist behavior of moneylenders. Whatever the answer to this question, it is clear that we cannot conceive of the aristocracy of the period as a class of ‘sybaritic oligarchs’ riding out the storm of some late antique recession in the hermetic fastness of isolationist estates.  

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Yet there remain reasons for the doubts of a non-specialist, who was likely taught that the great estates in their evolution from Roman villa to Latin-American *latifundia* were oriented towards economising for self-sufficiency, expanding through addition of dependants rather than material accumulation, and consuming surpluses in lavish displays rather than capitalising them.42

Brass’s scepticism concerning ancient estate capitalism strikes a chord. Were markets in fact deep enough even with the monetisation of the economy to justify an overriding profit orientation? Were markets used to valorise invested value or diversify luxury consumption? Was the scale of the estates sufficient that after internal needs were met there was enough land and labour available for the making of a substantial enough mass of profit to justify on going capital investments? Were the aristocrats compelled to make profits? As noted, Weeks and Brenner have argued that a commodity-producing enterprise will not find it rational to forgo the maintenance of self-sufficiency to maximise profits through specialisation of production unless the exploiter is actually forced to produce for profit on account of having had to invest money-capital in the purchase of means of production and the hire of labour-power, the consequence of the elimination of all ownership rights in persons. That is, production only becomes truly capitalist, compulsively oriented towards valorisation, once the conditions of production have to be paid for. This may not be the case if workers can be recruited through ‘wages in kind’, for example in the case of sharecroppers. Banaji, however, does emphasise that many estate workers were paid for in coin, but the grounds for Weeks’s and Brenner’s scepticism of ancient capitalism would remain if the means of production were for the most part secured without the mediation of the market, though again tax burdens could have compelled an orientation towards profit-making.

One has similar questions about Banaji’s analysis of sharecropping in the Byzantine world. Banaji defines the portion allowed a sixth- or seventh-century Byzantine sharecropper a wage presumably because the reduced share only allowed subsistence, and was backed by the real threat of eviction.43 But while such a sharecropper may have been *de facto* a property-less producer and forced to produce for an other, he was not necessarily a capital-positing or capital-creating labourer. What (again) if his surplus output was mostly used to maintain and diversify the luxury consumption of the aristocratic class? To be sure, his labour-fund may have confronted him as alien property, but that had to have been advanced as capital for the producer to be classified properly as a

43. Banaji 2003, p. 82.
wage-labourer. Banaji does not prove this in the case in question, though he has certainly established that wage-labour was employed at times in late antiquity. However, while he disputes ‘that all sharecroppers, labour tenants, and bonded labour are wage-workers’, he does not give us clear criteria by which to identify those who are and to establish categories for those who are not. Brass argues that Banaji seems at times to turn wage-labour into the very purely abstract formalism that he once criticised – that is, wage-labour has become, to use again Banaji’s own lucid expression, ‘an abstraction capable of subsuming basic historical differences, and structural contrasts within the uniformity of its own concept’. This would seem to be the consequence unless wage- or proletarian labour is understood exclusively as a ‘moment’ in the circuit of capital. In other words, one’s effective dispossession and the alien personification of the labour-fund are not sufficient for the wage-labouring condition. Indeed, the basis of Banaji’s criticism of Maurice Dobb was that the latter’s definition of wage-labour as paid labour was formalist in the sense above, since he would be ‘compelled to argue that when some of the most deeply entrenched feudal estates of thirteenth century based their production mainly or entirely on paid labour (“wage-labour” in Dobb’s sense), specifically capitalist relations of production were established’.

Because not all possible forms of disguised wage-labour are wage-labour, it is not clear, in the absence of exhaustive empirical research, which forms properly belong to the extension of the term. Seizing on this problem, Brass has issued this four-point criticism of Banaji:

The resulting problems Banaji has with the existence of historically specific components of a working class, and where capitalism is present its reduction of them all to ‘disguised’ wage-labour, are four-fold. First, because he perceives rural households as cultivators who are not in the main dispossessed, and as such cultivate products for capital, Banaji dismisses the need for capital either to dispossess producers or to form a labour market. Second, he fails to recognise that ‘forced commercialisation’ of peasant cultivation is the not the same as bonded labour. Whereas debt bondage entails the appropriation of capital from indebted workers of surplus value, forced commercialisation can involve the appropriation of surplus product by agribusiness from what are in fact other small agrarian capitalists. Third, notwithstanding that the ‘disguised’ wage-labour is that of small holding peasants, such cultivators are termed by him a ‘proletariat’, despite the fact that they are separated neither from control of a particular employers – they are unfree as a consequence of being indebted to ‘moneyed capitalists’ – nor

44. Brass 2003, p. 119.
from their means of labour (land). And fourth, because he is unsure as to whether or not debt bondage is actually a capitalist relation, Banaji’s theory is unable to account for the fact that rich peasant households can do become accumulators of capital using intra-kin coercion. Rather than originating externally and affecting all household members uniformly, therefore, such compulsion operates from within the peasant household itself, and affects only landless members of these same units.47

I contend that these objections are empirically false and theoretically invalid. First, Brass does not prove capital’s need to dispossess. I need only refer again to what has been one the tensest labour conflicts in California. In order to have workers de-classified as wage-labourers, capitalists have employed those port truckers who, since they lease their trucks, are legally considered independent contractors and thus denied the rights of unionisation. Here the exploitation of wage-labour has been intensified through the nominal repossession of the means of production (the trucks had been owned by the trucking companies). In this respect, Brass’s definition of wage-labour leads one to support a juridical myth. Second, Banaji has never argued that all small peasants forced into commercialisation through linkage of credit and product markets are wage-labourers; Banaji himself emphasises that forced commercialisation differentiated the peasantry, leading to the emergence of substantial cultivators who made ‘widespread and extensive use of farm servants or permanent labourers who were subjected to various degrees of bondage’.48 For this very reason, he has polemicised against calls for a kisan (peasant) politics which can only subordinate the interests of the exploited to the exploiting peasantry.49 In no way does he treat all ‘relational forms’ under capitalism as wage-labour. However, it is surely incorrect to suspect that any indebted non-employing petty bourgeois may well be a disguised wage-labourer. In this respect, Brass has identified a real difficulty. The third point implicitly restates Brass’s definition of wage-labour; it does not answer why the tying of labour or the nominal ownership of some means of production are incompatible with wage-labour – that is, the coerced production of surplus-value appropriated by another without equivalent. Finally, Banaji is not at all vague that debt bondage can sometimes be a capitalist relation, and I can find no evidence to support Brass’s claim that Banaji equates those who pledge familial labour with those who actually perform the labour. The latter are obviously the wage-earners. Banaji has, in fact, underlined the importance of

47.  Brass 2003, p. 113
gender and caste relations in the control of disguised wage-labourers. In the end, the real difficulties in the identification of disguised wage-labour should not send one back into the comforting arms of formalist definitions derived from the realm of circulation.

Conclusion

Once we shift the intension of the concept of wage-labour from juridical attributes of negative ownership and contractual freedom to the actual performance of capital-positing labour, the extension of the concept – the cases that fall under its concept – changes as well. Once the concept of wage-labour is intensively re-defined as capital-positing labour, it becomes clear that the history and the geographic scope of wage-labour have yet to be properly understood. Indeed, my own thinking on this matter was stimulated by questions over the capitalist character of American plantation slavery which some Marxists questioned on the assumption that slave labour cannot be wage-labour. Finding the essence of wage-labour in capital-positing activity not only allows a change in the extension of the concept and thereby a challenge to the apologetic Eurocentric occlusion of slavery and colonialism in the writing of the history of capitalism, it also allows us to throw into relief the way in which wage-labour in whatever form is enslaved. There is no need to genuflect before capitalism for its putatively miraculous and irreversible break with the unfreedom of all previous (especially Eastern) societies. This is not to imply indifference towards form; indeed, once it is understood that the form of wage-labour is not given, that form can then be studied as an outcome of continuing struggle without ever losing sight of the unfreedom suffered by all wage-labourers alike.

References


50. See also Bayly 1999, which shows convincingly that modern untouchability results from such use of caste ideology in the context of the mobilisation of labour under the specific conditions of colonial modernity.
51. I hope to relate at a later date my research on plantation slavery and the origins of racism.
52. This has been challenged by Jan Breman in his own way; see the introduction to his work by van der Linden (2003). Banaji dedicates his essay (2003a) to Breman.
—— 1977b, 'Modes of Production in a Materialist Conception of History', *Capital and Class*, 3: 1–44.


Krader, Lawrence 1975, The Asiatic Mode of Production: Sources, Development and Critique in the Writings of Karl Marx, Assen: Van Gorcum and Co.


Here Is the Rose, Dance Here!
A Riposte to the Debate on the Argentinean Crisis

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Abstract
This article aims to contribute to the debate on the short- to medium-term political implications of the 2001 Argentine crisis (see issues 10.4, pp. 5–38 and 14.1. pp. 155–248 of this journal). The bulk of the argument deals with the criticism of the notion of ‘reinvention of politics’. The article presents the theoretical premises and empirical data which sustain this proposal. It is argued that in order to appreciate the political innovation brought about by the events of December 2001, it is important first to consider the political, social and economic forms of capitalist transformations and crises that shaped them. Secondly, to locate this event in historical perspective, as a constitutive node within a non-teleological continuum of resistance. Thirdly, to view capitalist crises as presenting open opportunities for the reinvention of the forms of resistance, and to underscore that reinvention occurs as a result of simultaneous struggles against capital and for self-affirmation and recognition. By using examples of organisational innovation and social intervention by the *piquetero* movement it is suggested that December 2001 led to new practices or facilitated the development of existing forms of collective action that have often been overlooked by those disappointed by the ensuing political developments. The article also discusses the problem of periodisation, addressing the relationship between Marxism and the use of data produced by non-Marxist researchers, and calls into question the adequacy of Cartesian rationality for understanding December 2001 and the meaning of political change in Argentina.

Keywords
Argentina, capitalist crisis, reinvention of politics, theory of subjectivity, insubordination, *piquetero* movement

Introduction
When I was asked to write about the Argentine crisis by *HM* editors in January 2002, I could only offer a report of what I understood to be taking place at the time, including a background to the crisis. I am grateful to the *HM* editors for organising replies to my article, and to the commentators for considering my paper an inspiration for discussion. Since submitting my contribution in
August 2002, many significant political events have taken place in the country, some of which have come to constitute the focus of my ongoing research on popular mobilisation, and political and institutional change, looking at the case of the movement of the unemployed.¹

Quite a few observations made by the commentators, particularly those related to the scope and impact of social mobilisation and its development in the post-crisis period, address similar issues to mine. Insofar as my subsequent work has not been acknowledged in the debate, I am forced to be self-referential so as to present my arguments clearly, and for this I apologise to the reader. In this article, I will deal with what I consider the most challenging issues addressed by the authors which have made me reflect on my own work, but will leave aside many others, particularly those which I believe correspond to the authors’ intention either to present their own work or argue tangentially with other authors through my work.

The bulk of my response will deal with the commentators’ critique of my idea of the ‘reinvention of politics’. This is organised in four parts. First, I discuss the theoretical premises and empirical data which sustain my idea of the re-invention of politics. Secondly, I explain the reasons for the periodisation used in the article. Thirdly, I address the relationship between Marxism and the use of data produced by non-Marxist researchers. Finally, I assess the adequacy of ‘rationality’ for understanding December 2001 and the meaning of political change in Argentina.

I. The re-invention of politics (theory and reality)

Juan Grigera takes up the issue of the lack of change in Argentina by providing ‘“a more sober picture” of the supposed “reinvention of politics”’.² He claims that ‘a class-struggle analysis of the Argentine crisis cannot run on into an optimistic view of rebellion without first giving an account of wages, job conditions, trade unions and so forth.’³ However, he does nothing of the kind. Rather, to demonstrate that things have remained the same, he presents an extensive analysis of the development of social movements in the last three years, listing such events as factory occupations, the movement of the unemployed, barter clubs and neighbourhood assemblies. Yet the focus on these advances

¹. The author is a ESRC grant holder. Her project (2005–7) is entitled ‘The Movement of the Unemployed in Argentina’ ESRC Programme on Non Governmental Public Action (NGPA), Centre for Civil Society, LSE. See <http://www.lse.ac.uk/collections/NGPA/Default.htm>.
confirms rather than refutes the idea of re-invention of politics, as these were unimaginable prior to 2001.

Similarly, Iñigo Carrera argues that nothing like the re-invention of politics will occur until the Argentine working class starts moving in the ‘right direction’. ⁴ He depicts current theoretical debates on revolution as a ‘fashionable attempt to excise working-class revolutionary action from its base in objective knowledge’, ⁵ debates that are inspired by theories that are ‘in vogue among many critics of capitalism’. ⁶ Presumably, like all ‘fashion’, Iñigo expects this present ‘fad’ to fizzle out at some point.

Like Grigera and Iñigo Carrera, I recognise the centrality of the organised labour movement as crucial to the development of a conscious and effective class struggle in Argentina. But one of the salient features of mobilisation in December 2001 was the absence or deficiency of organised labour as a main protagonist. The reality of December 2001 differs significantly from what some had hoped it would become, so one must try to explain why this was the case, as well as assess the strengths and weaknesses of the forms of expression of class consciousness and rebellion.

I strongly object to Iñigo Carrera’s trivialisation of recent intellectual efforts to rethink the meaning of revolution today. The authors in the present debate have rightly observed my appreciation of Holloway’s work. However, the wholesale assimilation of my work with Holloway’s illustrates both Iñigo Carrera’s lack of awareness of the debates that Holloway’s work has inspired ⁷ and an underestimation of my own work. It should be clear that my argument about the re-invention of politics in Argentina is based on a historical and empirical analysis framed within a set of theoretical ideas that I have developed over the last ten years. I shall take this opportunity to clarify my divergences with Holloway, particularly in relation to the ideas discussed in his most recent book. ⁸

To begin, the form of popular mobilisation of December 2001 that so greatly disappoints the commentators in this debate for apparently failing to produce any real change, was, in fact, qualitatively different from those of the past. In a country with a high level of institutionalisation of class conflict and political participation, with a historically well-organised labour movement and a developed political system, the protests of December 2001 were characterised by a mobilisation in the streets that rejected the state rather than

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5. Iñigo Carrera 2006, p. 211.
7. See for example Dinerstein 2005a.
defended or attacked political leadership. The protagonists were not necessarily engaged in political or labour organisations, and we witnessed spontaneous mobilisation with no leadership in the traditional sense. The rejection of institutional, hierarchical politics (including political parties and trade unions) was in the name of radical, direct, concrete and democratic forms of action. Different components of this network of resistance reinvented the practice of civil disobedience under the slogans of ‘radical democracy’, ‘dignity’, ‘autonomy’, which came to occupy a central place in the struggle over the meaning of the crisis. What made these problematic from the perspective of both the political establishment and traditional Marxists is that they rejected or jeopardised the existing lexicon and categories of political struggle.

How can we appreciate the significance of this form of insubordination? My first suggestion is that the political significance of a specific form of insubordination cannot be fully grasped by disregarding the political, social and economic forms of the capitalist transformations and the crises which preceded and contextualise it. In other words, there is an inner connection between the form of capitalist development (and crisis) and the forms of insubordination produced at its heart.

The events of 2001 were shaped by short-, medium- and long-term transformations at national and international levels. To give details of such transformations is beyond the scope of my task here. Suffice it to say that, on the one hand, the antecedents of the disorganisation of the working class and attenuation of trade unions, which gave the December crisis its dominant political character, were mass unemployment, casualisation of labour, job insecurity and instability, a fragmentation of the working population into a variety of sub-groups (ranging from unionised employees to marginalised informal sector workers), the crisis and stunted renewal of previous forms of union organisation and representation, changes in the relationship between the state-sponsored labour movement and the state, and the emergence of new identities, such as the piqueteros, as well as the diminution of the previously sizeable and self-assured middle class.

On the other hand, December 2001 was the manifestation of a long-term process of the crisis of capital accumulation based on the intensification of privatisation, deregulation, financial speculation, indebtedness, money laundering, increasing regressive income distribution, tax evasion, and so forth which, unlike the 1970s, transformed Argentina into a ‘legitimate’ heaven for capital during the 1990s. Following Clarke, the state cannot resolve the contradictions inherent in capitalist accumulation but can contain them temporarily.9 In this

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particular case, it did not manage to do so. In December 2001, this particular form of accumulation of capital, the role of international financial institutions within it and the ways in which the state facilitated it, together with the misery suffered by the working and middle classes, became progressively apparent. As the political class became perceived as greedy, corrupt and inefficient, the Argentine rebellion (unlike other cases, where popular mobilisation entailed the defence of the state or political leader, as in Venezuela) showed a transitory rejection of the state and institutional politics altogether, in favour of the development of new popular organisations. Autonomy (or the search for it) became, for the first time, central to politics, overshadowing institutional politics.

I also argued that December 2001 was a turning point in Argentinian history, i.e. a node within a historical devenir, and that the forms of mobilisation and participation that followed point to a process of the re-invention of politics. This is sustained by my second point: the creative power and novelty of moments of insubordination, such as December 2001, must be understood in historical perspective, as each of these moments constitutes a node within a historical continuum. The establishment of a non-teleological historical continuum where ‘every precipitated form becomes in turn dissolved, changes into a new form’ allows us to capture continuities, but also the uniqueness of each moment.

Let me explain. Whether one thinks December 2001 was much more or much less progressive than other moments of insubordination is irrelevant here. What is important is that it became a new ‘hinge’ between two political moments: before December 2001, Argentina was subsumed under reform and crisis, where nothing could be thought of outside neoliberal ‘stability’. After the December 2001 conjuncture, original developments followed. Protest and mobilisation challenged established channels and forms of doing politics (including the Left’s). There was incredible innovation in the forms of organisation and articulation of resistance wherein (i) new identities such as ‘neighbours’, or ‘workers involved in factory takeovers’ resulted from collective action; (ii) public spaces (parks, neighbourhoods’ corners) rather than unions or parties headquarters, were appropriated as the fora for the development of cultural, social and economic projects and the co-ordination of action; (iii) the use of assemblies as a form of discussion and decision-making spread; (iv) newly created horizontal structures, like inter-zone inter-neighbourhood assemblies, board meetings, and provincial, regional and national conferences (inexistent before December 2001) served the purpose of co-ordination of resistance.11

The fact that, after December 2001, Argentina became part of a new Latin-American political conjuncture – where populist or left-of-centre parties have taken power (such as in Chile, Bolivia, Venezuela, Uruguay, Brazil), and where ideas of the state’s ‘return’ to its ‘proper task’ of repairing the damage caused by neoliberalism and taking initiative in social progress has spread, is not simply a political strategy of the élites after the defeat of social movements, but the outcome of the struggle over the form of the state where the action of labour and social movements was essential. This change presents new challenges to unions and social movements, improbable before December 2001, as the government is both revitalising its relationship with trade unions and challenging the dichotomy between autonomy and engagement with the state put forward by social movements in December 2001.\textsuperscript{12}

These developments allow me to present my third idea: that crises always present an opportunity for the re-invention of the forms of insubordination. Whereas a capitalist crisis can involve, as Holloway suggests, ‘a salto mortale for capital, with no guarantee of a safe landing’,\textsuperscript{13} it involves, likewise, a salto mortale for insubordination. More than ‘objective’ opportunities to undertake a revolution against capitalism, crisis offers an opportunity for the deconstruction and recomposition of ‘subjectivity’, as during crises the ‘objectivity’ of capital stumbles with unexpected results and both terms of the relation are renegotiated.\textsuperscript{14}

However, and here is my fourth idea, in order to appreciate the political significance of a form of rebellion it is important to conceive it not only as a rebellion against capital but simultaneously a struggle against capital and for self-affirmation and recognition. Here lies my point of divergence with Holloway, which allows me to affirm that there was a re-invention after December 2001: to Holloway, ‘the scream of insubordination’ is ‘the scream of non identity’\textsuperscript{15} against classification.\textsuperscript{16} But it must be noted that, together with classification, the process of valorisation of capital also entails the expansion of indifference ‘toward any specific kind of labour’,\textsuperscript{17} and therefore a process of homogenisation. Whilst the struggle against classification rejects identity, the struggle against indifference aims to reinvent identities, organisations, and mobilisation strategies vis-à-vis the dehumanisation and invisibility entailed by the

\textsuperscript{12} See the political strategies and policy-making implemented by the Ministry of Employment, Labour and Social Security and the Ministry of Social Development respectively in Dinerstein 2007c.
\textsuperscript{13} Holloway 2002a, p. 204.
\textsuperscript{14} Dinerstein 2005b.
\textsuperscript{15} Holloway 2002, p. 151.
\textsuperscript{16} Holloway 2002a and 2002b.
\textsuperscript{17} Cleaver 2002, p. 141.
valorisation of capital. The movement against classification and for recognition is contradictory. Whereas the former encourages rejection of any identity that might obstruct insubordination, the latter forces us to re-invent our selves in new forms of resistance. Identity becomes the terrain on which negativity and positivity coexist and interact. Why is this important? My proposal of the re-invention of politics is based on the idea that a view of class struggle which only accounts for the struggle against classification is incomplete. The moment of rejection of the status quo cannot be ‘the only path to emancipation’, as negation is inevitably followed by a positive moment of re-invention and affirmation.

As a means of dealing with Grigera’s assertions that ‘nothing has changed’ I will now refer, albeit briefly, to the ongoing research on the short- and medium-term social, political and institutional impact of the action of several organisations of the unemployed as an example of change. Recent research by myself and others suggests that, in addition to having made unemployment and the unemployed visible, the piquetero organisations have innovated social and political action. Their action can be seen as ‘multidimensional and creative’, as each organisation articulates union-like [sindical], political, economic and social actions. In this sense, they escape simplistic sociological categorisations. This innovation led to major changes in the mobilisation strategies, strategic orientations and organisational structures of both the political Left and trade unions.

Secondly, they have located the issue of ‘autonomy’ at the centre of politics, which now forms the basis of these organisations in particular those which are not directly subordinated to left political parties or trade unions. The intervention of piquetero organisations at local levels mitigated the ruinous effects of combined unemployment and poverty, preventing the transition of many from unemployment to destitution, and helping to resist isolation, depression and demoralisation. Far from being only ‘self-help’ alternatives, the ‘productive projects [projectos productivos]’ pursued by the piqueteros are

18. On this, see Laclau and Mouffe 1999.
20. The struggle of the unemployed against identifications and the tension between the unemployed (classification) and piqueteros (self-affirmation) is the best example of this.
21. See Footnote 1 in this article.
22. Dinerstein 2002b.
24. Ranging from literacy campaigns, to popular primary and higher education, to school diners, to land occupation and housing construction, to the creation of work co-operatives and community farms [huertas comunitarias], to recycling activities, to the negotiation with enterprises of temporary jobs for the local unemployed and creation of ad hoc job exchanges.
deeply political and aimed at replacing the individualistic logic of social policies. They help to form (or at least to discuss) new forms of social relations where dignity prevails and social action forms the core of political action. The action is undertaken on territorial basis and creates solidarity networks in each locality. These developments may be unrelated to any specific ideologies or party lines but they do encourage reflection on collective achievements and the formation of political attitudes.

Thirdly, swinging between power and counterpower, they inspired institutional changes and influenced policy-making in at least three ways: (i) by influencing new social programmes, which encourage principles of the ‘social economy’ and have incorporated the communitarian and solidarity principles and social practices that underpin the projectos productivos into a ‘new policy ethos’; (ii) by motivating policies aiming at ‘genuine’ job creation and the fight against unregistered work; and (iii) by fostering new spaces of political and inter-ministerial articulation in order to deal with the problem of unemployment and these new organisations. These institutional and policy changes are not the result of a top-down strategy, but the outcome of long-term struggle between the piqueteros and the state, through which the former have achieved public recognition, underlining their influence rather than their ineffectiveness.

II. Periodisation

Certainly, with regard to periodisation, critics may propose alternatives. Mine is consistent with my theoretical premises and systematic empirical and historical analysis of economic, political and social transformations in Argentina. This allowed me to put forward a critique of politicist views. Hence, I find Grigera’s allegation that I am ‘sadly positivist’ and that my periodisation ‘fails to be rooted in any kind of analysis of concrete capitalist forces of production’ not only imprecise, but offensive.

In the article in question, I focused on the last three decades of change at the level of the political régime. Changes in the political régime and state institutions are good indicators of the ways in which the state filters and structures social and labour movements’ action and the manners in which

27. Dinerstein 2005c.
insubordination frames itself, engages, resists and challenges the state through the political régime.\textsuperscript{30} They also show how the state facilitates a determinate form of capital accumulation and the ways in which the capitalist class resists state regulations. I aimed to show that changes at the political-régime level are underpinned by class struggle, and that the so-called ‘eternal instability’ of Argentine politics and the economy are in fact due to capital’s compulsion to produce crisis as a means of defeating the working class and social movements.

I argued that December 2001 epitomised twenty-five years of struggle and change.\textsuperscript{31} Each period discussed in my paper was examined via both the economic and political forms of capitalist development and the predominant form of insubordination that emerged at their heart. Briefly, in the context of a global crisis and recomposition of capital, the period 1976–82 inaugurated in Argentina a pattern of accumulation which favoured the agro-export model, strengthening the more outwardly-oriented sector of the economy at the expense of national industry. This transformation, sustained by state terrorism, and (physical) disappearances marked the kind of resistance that emerged in the following period, i.e. of ‘transition to democracy’ (1983–9): human-rights movements and some unions which were now undertaking a democratic renewal. During the 1980s, class struggle took the form of a struggle over the meaning and content of democracy. I pointed to the other, overlooked, force – the transition towards the legitimisation of the terrorism of money. Hyperinflation was the ultimate expression of class struggle and became the means of both valorisation of capital and the harnessing and repression of labour.\textsuperscript{32}

Bonnet and I concur with the characterisation of the 1990s as a moment of overwhelming imposition of the ‘terrorism of money’, or, as Cleaver puts it, money-as-command.\textsuperscript{33} The central feature of the neoliberal period (1991–2001) was the achievement of stability. The convertibility plan of 1991 and the control of inflation were key elements on which to construct a new paradigm which organised capitalist ‘violence’ in this specific form.\textsuperscript{34} This commentator also agrees with me that ‘we need to understand the dynamics of the convertibility plan as an expression of the development of the antagonism between capital and labour’.\textsuperscript{35} This is why I talk about ‘stability’ rather than

\textsuperscript{30} See McAdam et al. 1996 (eds.).
\textsuperscript{31} Dinerstein 2002, pp. 7–8.
\textsuperscript{32} Dinerstein 2002a, p. 13.
\textsuperscript{33} Cleaver 1996.
\textsuperscript{34} Dinerstein 1999.
\textsuperscript{35} Bonnet 2006, p. 167.
convertibility and other economic and financial measures, since the former goes far beyond the latter.

The identity and organisational forms of resistance that stood against ‘the violence of stability’ were shaped by the neoliberal reforms: they were struggles against what I have elsewhere called ‘virtual disappearance of labour’, that is, the ‘invisibilisation’ of labour by means of privatisation, deregulation, unemployment, poverty, casualisation of labour, political indifference.\(^{36}\) The period between 1999 and 2001 was a moment of intensification of these features, leading to December 2001. My final step was the collapse of the Menemist ‘stability’ and the crisis.

III. Not ‘Marxist enough’

The claim that I am not ‘Marxist enough’ due to my use of data and material provided by non-Marxists, or the so-called ‘artifices of populist diagnoses’\(^{37}\) which are seen as ‘incompatible with a Marxist critique’\(^{38}\) reflects a typical form of Marxist sectarianism, and it is, frankly, bewildering. Whilst I do not advocate the neutrality of social sciences, I have used the data produced by historians, economists and sociologists whose empirical work has sometimes been path-breaking in revealing the full scope of social processes. Mindful use of empirical data presents a great source of information for anyone, including Marxists, who aims to develop a serious discussion about the crisis. I have used their data to understand the formation of the domestic capitalist class and the sources of its economic power, the transfer of economic sources from the state to the business élites over the last twenty years, the connection between the growth of external debt and capital flight, the process of the emptying-out of the Argentine financial system during the 1990s. These are just a few examples of the data which, whatever the political identification of the researchers, is invaluable in forming a more comprehensive analysis.\(^{39}\)

As for the use of the term ‘financial valorisation of capital’, I agree that ‘the very distinction between financial and industrial capital is anachronistic’\(^{40}\) I

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\(^{36}\) Virtual disappearance describes the ‘derecognition’ and classification by the state and society of those ‘excluded’ by abstract processes of domination and violence such as poverty and unemployment as opposed to the physical disappearance of labour which occurred during the late 1970s.

\(^{37}\) Grigera 2006, p. 222.

\(^{38}\) Bonnet 2006, p. 159.


\(^{40}\) Clarke 1988, pp. 4–5.
used the term to characterise the ways in which global capital recomposed since the 1970s wherein transactions in the international financial markets became a high component of total of transactions and the global expansion of credit became noteworthy. These features had a major impact on the national economies of Latin American countries, as a minimum in terms of creating a massive external debt. Whilst, in 1977, the total of the external debt – private and public – in the region constituted 105,650 million dollars, in 1983 it constituted 310,200 million dollars. Argentina is one of the best examples of this.

IV. Passion and intellectual itchiness

My final point addresses very briefly the dichotomies between rationality and irrationality suggested by Iñigo Carrera when he boldly claims that, in my portrayal of December 2001, ‘rationality has given way to the exaltation of irrationality. Every revolutionary determination of the working class has come down to Holloway’s scream’. I knew that the use of a very unorthodox term such as ‘the unrealised’ or expressions such as ‘that which cannot be explained but felt’ to name the force behind 19–20 December could cause some intellectual itchiness. However, I could not find a better way to convey what participants in the December events (of different ages, sexes, classes, political affiliations) had told me, that is, that they felt that it was a historical moment of liberation of their powers, a moment of the deployment of the power of the people, full of emotions and unexpected surprises, a moment that united everyone who went on the streets for different reasons united in the feeling that enough was enough.

Despite Iñigo Carrera’s faith in the importance of the scientific objective knowledge and his rejection of philosophy for being ‘the natural field to cultivate irrationality’ (!), I am forced to point out that his ideas on ‘rationality’ are irrational. Implicitly, he advocates a Cartesian approach to class struggle. By this I refer to Descartes’s idea that “man consists of two radically different substances” (mind and body), which are united into one individual and reason has “the unlimited capacity to control and direct passion”. This distinction expresses the hegemony of reason as a form of control over desire.

42. Iñigo Carrera 2006, p. 211.
43. Excerpts from author’s interviews with participants of the 19–20 December events, several focus groups, May and June 2002, Buenos Aires.
44. Iñigo Carrera 2006, p. 211.
The idea that mind governs body seems even more inadequate when we consider the aforementioned features of December 2001: physicality, territoriality, noise, the search for visibility, corporeality. Against Descartes, I advocate Spinoza’s radical idea that a human being is ‘one of unity expressed as both a mode of extension, a body, and as a mode of thought, a mind’. The relationship between mind and body in Spinoza’s account ‘is not one of causal interaction but one of identity’. This has interesting political implications: in the Spinozan resolution of Descartes’s paradoxical relation between mind and body, passion – if well channelled – is ‘good’, because it is related to the possibility of creation and activity, self-determination and knowledge.

This perspective does not prevent the formation of consciousness based on the material conditions within which the working class lives and acts, but facilitates the inclusion of the forgotten dimension of consciousness: passion. According to Spinoza, an emotion becomes action when we have an ‘adequate idea’ of it. I argued that, as the epitome of ‘feelings’ of liberation, ¡que se vayan todos! was qualitatively significant... it constitute[d] the initial ‘adequate idea’ that, as Deleuze suggests with reference to Spinoza, put people “in possession of their power of understanding, and so by our power of action”.

The two key words here are initial and adequate. The passion unleashed in December 2001 put a rational limit to the irrationality of capital. Like the demand of the Mothers of the Plaza de Mayo: ‘Appear alive [aparición con vida]!’ regarding the disappearance of their sons and daughters at the hands of the dictatorship, ¡Que se vayan todos! also ‘demanded the impossible’. By so doing, it opened new spaces for action outside of the sphere of institutional power and politics, and which called into question the Cartesian ‘rational’ principles on which the sociological positivist theory of action is based.

To learn that a Marxist colleague conflates the passion and utopia entailed in ¡Que se vayan todos! with irrationality, religion, faith, ghosts and spirits is disheartening: the battle of Buenos Aires stood up to the dystopian project of neoliberalism, a project that celebrates, like Inigo Carrera appears to do, the end of social dreams. The recovery of radical practices for social change

51. See Joas 1996.
52. See Dinerstein and Neary 2002, p. 5.
(which might not have been completely successful in terms of the ‘outcomes’ sought by the commentators) was immensely important and unleashed, as I illustrated, a series of changes that were unthinkable before the battle of Buenos Aires. Hier ist die Rose, hier tanze!

References


Bonnet, Alberto 2006, ‘*Que se Vayan Todos!*: Discussing the Argentine Crisis and Insurrection’, *Historical Materialism*, 14, 1: 157–84.


McAdam, Doug et al. (eds.) 1996, Comparative Perspectives on Social Movements, Cambridge: Cambridge University Press.


Schatan, Jacob 1998, El Saqueo de América Latina, Santiago de Chile: LOM Ediciones, Universidad Arcis.
Archive

The Podolinsky Myth: An Obituary
Introduction to ‘Human Labour and Unity of Force’,
by Sergei Podolinsky

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Abstract
The relationship between Marxism and ecology has been sullied by Martinez-Alier’s influential interpretation of Engels’s reaction to the agricultural energetics of Sergei Podolinsky. This introduction to the first English translation of Podolinsky’s 1883 *Die Neue Zeit* piece evaluates Martinez-Alier’s interpretation in light of the four distinct but closely related articles Podolinsky published over the years 1880–3. This evaluation also emphasises the important but previously underrated role of energy analysis in Marx’s *Capital*. Engels’s criticisms of Podolinsky are found to be quite justified from both political-economy and ecological perspectives. From the standpoint of Marx and Engels’s metabolic and class-relational approach to production, Podolinsky’s attempt to reduce use-value to energy is fraught with problems. Podolinsky’s energy reductionism does not even come close to representing an alternative value analysis – let alone a groundbreaking perspective on ecological history – as was suggested by Martinez-Alier. Far from Marx and Engels’s vision of communism as an ecologically sustainable and coevolutionary human development, Podolinsky’s conception of human labor as an energy accumulation machine seems to uncritically mimic the standpoint of the capitalist interested in using nature only to extract as much energy throughput (work) as possible from the labour-power (potential work) of the worker.

Keywords
Marxism, ecology, thermodynamics, energy, metabolism

I. Marx and Podolinsky: the nature of the controversy

The early years of this century have seen a remarkable transformation in the understanding of classical Marxism and the environment. The first wave of ecosocialist scholarship in the 1980s and early 1990s – the work of figures
such as André Gorz, Ted Benton, Juan Martínez-Alíer, and James O’Connor – pioneered in bringing innovations in green thinking to socialism. These thinkers, however, tended to be highly critical not only of the Marxist tradition, but of Marx and Engels’s position on the environment. They often pointed to the ecological potentials of Marx’s early writing. But it was usually assumed that in their mature writings the founders of historical materialism had turned away from these concerns, embracing a strong ‘Prometheanism’. In contrast, the second wave of ecosocialism, in which the authors of this introduction have played a central part, went back to the roots of the Marxist tradition to explore these issues more systematically, examining the ecological ideas to be found in the mature works of the founders of historical materialism. This led to the resurrection of Marx and Engels’s analysis of sustainability, which was central to their understanding of capitalism’s contradictions and the transition to socialism. This was evident in particular in Marx’s notion of the metabolic rift. This second wave of ecosocialist research has led to the widespread acknowledgement of the ecological underpinnings of the classical-Marxist critique of capitalism.1

In one area, however, Marx and Engels’s understanding of ecology and hence their theory of metabolic rift continues to be questioned, particularly in relation to their alleged rejection of the second law of thermodynamics and of the application of this to economic thought, preventing the emergence of a Marxist ecological economics. The key figure in advancing this critique is Juan Martínez-Alíer, whose 1987 work on ecological economics is widely viewed as the preeminent history of that field. It is largely through Martínez-Alíer’s writings that the work of the late-nineteenth-century Ukrainian socialist, Sergei Podolinsky, has become a focal point in the debate over the potential for a Marxist ecological economics. As Martínez-Alíer recently acknowledged, ‘the relationship between Marxism and ecological economics’ was discussed in his book ‘mainly by looking at Engels’s negative reaction to Podolinsky’s agricultural energetics’.2 In subsequent writings, Martínez-Alíer has continued to subject Marx and Engels to critique for rejecting both Podolinsky’s ideas and the economic relevance of the basic laws of thermodynamics.3 As a result, Marx and Engels’s dispute with Podolinsky has become as important to the understanding of the development of Marxist thought as earlier disputes with such figures as Proudhon and Dühring. This introduction and the following

3. For the most recent example, see Martínez-Alíer 2006, pp. 275–6.
translation of Podolinsky’s most frequently cited article on ecological economics comprise an attempt to bring a final accounting to this debate.

Martínez-Alier’s influential history argued, more concretely, that Marx and Engels failed to incorporate energy flows and thermodynamic concerns into their historical and economic analyses. His argument comprises three specific claims. The first claim is that Engels misunderstood and rejected the second law of thermodynamics. In particular, Martínez-Alier alleges that Engels saw the law of increasing entropy (the second law of thermodynamics) as contradicting the conservation of energy (the first law). The second claim is that Marx’s Capital fails to analyse the place of energy flows in capitalist industrial development; nor does it consider environmental constraints posed by conservation of energy, limited supplies of non-renewable energy sources, and the entropy law.

Martínez-Alier’s third, and most important claim, since it purports to provide a solid historical basis reinforcing the others, is that Marx and Engels dismissed Podolinsky’s pioneering work on the energetics of agricultural labour, thereby foreclosing an important opportunity to introduce energy and thermodynamics into Marxist theory. More specifically, Podolinsky attempted to reconcile Marx’s labour theory of value with the first law of thermodynamics – something Marx evidently had failed to do. In addition, ‘Podolinsky studied the law of entropy and the economic process, and he tried to convince Marx that this could be brought into the Marxist analysis’. Unfortunately, so this influential story goes, neither Marx nor Engels appreciated these groundbreaking contributions by Podolinsky, and this may be seen as a crucial missed chance for an ecological Marxism.

The first full English translation of Podolinsky’s 1883 article in Die Neue Zeit provides a good moment to reconsider Martínez-Alier’s third claim,
that is, his prestigious account of the ‘Podolinsky business’ – as Engels referred to it in his letter of 19 December 1882 to Marx, where he commented on Podolinsky’s work.11 This introduction to the translation also addresses Martínez-Alier’s second claim, regarding the absence of energetics and thermodynamics in Marx’s *Capital*, insofar as this is necessary to interpret Engels’s critique of Podolinsky.12 However, Martínez-Alier’s first claim – Engels’s purported misunderstanding of the second law – lies outside the main scope of our analysis here and hence will be dealt with only tangentially. It needs to be noted, nonetheless, that this claim also misses the mark by treating Engels’s rational scepticism regarding the cosmological heat-death theory of the universe hypothesis (an extrapolation from the concept of entropy that does not have the same scientific standing as the second law of thermodynamics itself) as a blanket disavowal of the entropy law and its terrestrial-historical impact.13

Podolinsky’s basic ideas on the energetics of human labour were published in four different versions, Russian, French, Italian, and German, over the years 1880–3.14 In previous writings, we have subjected the French and Italian versions of Podolinsky’s work to close analysis. But the German rendition (in *Die Neue Zeit*) is especially important not only because it develops Podolinsky’s conception of human labour at greater length and in more detail than did the French and Italian versions, but also because it is the version that Martínez-Alier uses to analyse the implications of the Podolinsky incident for an ecological Marxism. Nevertheless, Engels’s comments on Podolinsky, in the above-mentioned letter to Marx, were based on the Italian version published in 1881, not the *Die Neue Zeit* version which appeared two years later, while Marx seems to have only read (and taken extracts from) a preliminary draft of the French version which was published in 1880. It is therefore necessary and appropriate to take this opportunity to reevaluate Podolinsky’s analysis, Engels’s reaction to it, and Martínez-Alier’s influential interpretation, in light of the differences between the *Die Neue Zeit* article and the earlier versions considered by Marx and Engels.

Our introduction here to this important manuscript begins with a brief biographical sketch of Podolinsky and a synopsis of his main arguments as

12. For a detailed discussion of the key role of energy and thermodynamics in *Capital*, see Burkett and Foster 2006, pp. 117–40.
13. The problems with Martínez-Alier’s argument on Engels and the second law detailed in a separate work by the present authors, Foster and Burkett 2008.
they were first presented to Marx and Engels. It is then shown that, contrary to Martínez-Alier’s account, Engels engaged with the 1881 (Italian) version of Podolinsky’s work very seriously in the spirit of critique. What Engels objected to was not so much Podolinsky’s proposed energetic basis for the labour theory of value (a notion that Podolinsky himself failed to develop at all), but rather his tendency to reduce labour and production, and indeed all use-values, to pure energy terms, and his lapse into an isolated system view of human economy. Indeed, in treating human labour as a ‘perfect machine’ in the sense of Carnot’s ideal steam engine, and championing maximum ‘accumulation of energy on the earth’ as the historical task of socialism, Podolsky had in effect denied the relevance of the second law for human production. Engels’s criticisms of Podolsky are informed by a metabolic and open-system conception of human labour which naturally incorporates environmental constraints on human production, including limited stocks of energy-resources as well as friction and other forms of matter-energy dissipation.

With so much as backdrop, this introduction proceeds to consider the additional insights obtainable from the 1883 German version of Podolinsky’s work translated into English here. We find that the energy-reductionist notion of human labour apparent in Podolinsky’s earlier articles emerges even more clearly from the more detailed discourses and applications in his final Die Neue Zeit article. For example, Podolinsky now defines labour more overtly as physical (muscular) activity, an activity which purposefully accumulates energy on the earth. In general, the German version translated here reduces use-value to pure energy quantities even more insistently than do the French and Italian versions, rendering more palpable the divergence of Podolinsky’s approach from Marx and Engels’s metabolic conception of human labour and human wealth. At the same time, the German rendition carries over the anti-ecological features that Engels found in the Italian version, namely, the calculation of energetic labour productivities without taking account of non-labour inputs (including coal), the failure to deal seriously with the role of friction and biochemical processes in human labour and production, and the closed-system interpretation of the human labourer as a ‘perfect machine’.

Finally, we show below that Engels's metabolic and open-system critique of Podolinsky is fully in line with Marx’s approach to production in general and

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15. This portion of our analysis summarises the more extended discussion in Foster and Burkett 2004.
to capitalist production in particular. In fact, Marx's *Capital* (the first volume of which was published fifteen years earlier) had already answered Podolinsky's question about the thermodynamic consistency of surplus labour (in its specifically capitalist form as surplus-value), and metabolic-energetic analysis was a central element of Marx's critique of capitalist exploitation. *Capital* also used thermodynamics (analysis of the conservation and transformation of material forces) to show why capitalism generates much more throughput of matter and energy than prior modes of production. More specifically, Marx showed how capitalist mechanisation of production led to a definitive breaking of the solar budget constraint – a key turning point in the history of human production according to contemporary ecological economics. *Capital’s* analysis of the metabolic rift created by capitalist production is also quite consistent thermodynamically.

We end this introduction by offering a proper and respectful burial for the Podolinsky myth as constructed by Martínez-Alier. Marx and Engels's metabolic conception of human labour has a much richer ecological content than does Podolinsky's energy-reductionist procedure. Moreover, the historical-class content of Marx and Engels's conception – its unique blending of the material and the social – enabled them to avoid the élite-engineering perspective on social reform that Podolinsky adopted under the influence of the French 'living machine' school. Ultimately, Martínez-Alier is only able to exclude classical Marxism from the history of ecological-economic analysis insofar as he reduces ecology to empirical energy accounting, that is, to 'counting calories' as Martinez-Alier himself puts it.17

II. Podolinsky's life and work

Sergei Podolinsky (1850–91) was a Ukrainian physician who, despite being a member of the wealthy landed gentry class, gravitated toward socialism through his involvement in the resistance to Tsarism and his concern with the agrarian or peasant question.18 While studying the natural sciences at the University of Kiev, Podolinsky came under the sway of socialist-populist thought. It was also in Kiev that he, like many others, was exposed to Marxist political economy through the guidance of Nikolai Sieber (1844–88), the father of Marxist economics in Russia and the Ukraine. In 1872, Podolinsky

took up medical studies in Paris and Zurich, but he remained active in the dissemination of Ukrainian-nationalist and socialist ideas as well as in the provision of medical help to workers and peasants.

It was no doubt while studying the sciences and medicine that Podolinsky first became interested in energy issues. One of his teachers in Zurich was the German physiologist and metabolic-energy theorist Ludimar Hermann (1838–1914). Also, while in Paris, Podolinsky could not help being exposed to the energetic-physiological analyses developed by prominent French writers such as Claude Bernard (1813–78), Gustave Hirn (1815–90), and Étienne Jules Marey (1830–1904). These theorists applied the emerging ideas of thermodynamic science, as well as Carnot’s earlier work on the efficiency of steam engines, more or less directly to human labour, thus conceiving of human beings as ‘living machines’.19 Marey, for example, began his Animal Mechanism with the words:

Living beings have been frequently and in every age compared to machines, but it is only in the present day that the bearing and justice of this comparison are fully comprehensible. No doubt, the physiologists of old discerned levers, pulleys, cordage, pumps, and valves in the animal organism, as in the machine. The working of all this machinery is called Animal Mechanics in a great number of standard treatises…. Modern engineers have created machines which are much more legitimately to be compared to animal motors; which, in fact, by means of a little combustible matter which they consume, supply the force requisite to animate a series of organs, and to make them execute the most varied operations.20

The treatment of animals (including human beings) as thermodynamic machines was thought to lead to easily quantifiable relations of food (combustible matter), heat and useful work. Hirn, as explained by Marey, carried out experiments in which he ‘enclosed the subject in a hermetically closed chamber, and made him turn a wheel which could, at choice, revolve with or without doing work’.21 The object was to measure the energy efficiency of human labour in ways equivalent to the measurement of the thermodynamic efficiency of a steam engine. Unfortunately, such energy-reductionist approaches were to leave a deeper imprint on Podolinsky than did the more metabolic, and less mechanical, methods of Hermann.

After receiving his medical doctorate at Breslau in 1876 and briefly returning home to Kiev in 1877 (where he married Maria Andreeva, the daughter of a

landowner), Podolinsky settled in Montpellier, France in early 1878. There, he practised medicine and lectured at the local medical school. The years 1878–80 were also Podolinsky’s most productive as a writer. Among his major works from this period are *The Life and Health of People in the Ukraine* (1879), which utilised his practical experience as a physician, and *Crafts and Factories in the Ukraine* (1880), the first economic monograph to be written in the Ukrainian language. In addition, Podolinsky continued to make personal and financial contributions to the Ukrainian socialist and nationalist journal *Hromada [Community]*, published out of Geneva, for which he co-authored an 1880 manifesto calling for Ukrainian national independence and socialism.

At the same time, Podolinsky was working on a new study of the energetics of human labour, focussing mainly on agriculture. What appears to have been the first, and by far the lengthiest, version of this new work was published in the Russian journal *Slavo* in early 1880. Like the subsequent versions, it dealt with various terrestrial energetic stocks and flows (and their connections with solar energy), with the effects of plants and animals on the amount of useful energy available for human economy, and with the unique capability of human labour to purposefully accumulate energy in useful forms.

The last point was illustrated with some simple calculations of the energy productivity of agricultural labour in France, in which Podolinsky compared the respective caloric contents of agricultural output and (animal and human) labour input.

Podolinsky then sought to spread his ideas to the Western-European context by preparing shorter versions of his work in French, Italian, and German. The French version was published in the Parisian *La Revue Socialiste* in June, 1880. Prior to its publication, Podolinsky sent a draft of this version to Marx. We know this from two letters sent to Marx by Podolinsky on 30 March and 18 April 1880, and more directly from extensive excerpt-notes taken by Marx from the draft in question. Unfortunately, Marx’s reply to Podolinsky’s
first letter, and any comments he may have given to Podolinsky, have not survived.27

The *Revue Socialiste* piece is the shortest of the four versions of Podolinsky’s work. The next version was published in two instalments in the Italian periodical *La Plebe* in 1881.28 An English translation of this Italian version appeared in print only recently on the initiative of the present authors.29 Although the *Plebe* piece contains twenty paragraphs which do not appear in the *Revue Socialiste* article, the basic argument is essentially the same in these two versions.30 Nonetheless, the Italian rendition has an independent importance because it is the version that was read and commented upon by Engels in his letter of 19 December 1882 to Marx.31

The fourth and last version of Podolinsky’s energy analysis appeared in two instalments in 1883, in the inaugural volume of *Die Neue Zeit* (journal of the German Social-Democratic Party).32 This rendition exceeds the Italian version by over three thousand words (although it is still much shorter than the Russian version which appeared in *Slovo* three years earlier). The differences between the German and Italian versions are actually quite significant, especially in terms of the former’s more insistent championing of a thermal-machine approach to human labour.33

Unfortunately, by the time the *Neue Zeit* piece appeared in print, not only was Marx dead (the second installment of Podolinsky’s article was preceded by

27. We know Marx did send a reply because Podolinsky referred to it as a source of ‘great joy’ in his second, 8 April 1880, letter to Marx (Martinez-Alier 1987, p. 62). The loss of this letter from Marx to Podolinsky and any other correspondence that Marx and Engels may have had with him can be attributed to the fact that all of Podolinsky’s private papers appear to have perished.

28. Podolinsky 1881.


30. This statement is based on our comparison of Podolinsky 2004 with an unpublished English translation of Podolinsky 1880 by our colleague Mark Hudson.

31. Marx and Engels 1975b, p. 410. Martinez-Alier and Naredo (1982, p. 222, footnote 17) stated incorrectly that ‘Engels’s comments are addressed to the article published in *Die Neue Zeit*. They said this even after noting that ‘Engels refers to the Italian version of Podolinsky’s article’ (Martinez-Alier and Naredo 1982, p. 216). The problem is that Martinez-Alier and Naredo assumed that all four published versions of Podolinsky’s work were identical, apparently without checking (see footnote 33, below).

32. Podolinsky 1883.

33. Martinez-Alier and Naredo (1982, pp. 209 and 222, Note 17) were thus doubly wrong to assert that the 1883 article published in *Die Neue Zeit* was the same one that Podolinsky had previously sent to Marx in March 1880. Also misleading is Martinez-Alier’s later statement that ‘Podolinsky’s original article appeared in similar Russian, French, Italian and German versions between 1880 and 1883’ (Martinez-Alier 1987, p. 47).
an obituary for Marx), but Podolinsky's own career as an intellectual and activist was over. In January, 1882, he suffered a mental collapse from which he never fully recovered. His parents received special permission to repatriate him to Kiev in 1885, and he remained there until his death in 1891.34

III. The logic of Podolinsky's analysis

As mentioned earlier, Engels's critique of Podolinsky was based on the Italian version published in *La Plebe* in 1881. However, all the passages that Engels referred to were carried over to the 1883 *Die Neue Zeit* article. For the reader's convenience, therefore, all quotations from Podolinsky's text are taken from the following German version (in English translation). For completeness, however, we paginate the more or less identical passages from the *La Plebe* version (again, in English translation) in the corresponding footnotes.35

Podolinsky develops his argument in six steps. First, he poses the question as to how surplus labour and surplus product are consistent with the first law of thermodynamics. Given the 'constancy of energy', labour 'consists only in a conversion of certain quantities of forces'.36 At the same time:

We know that human labour can accumulate greater quantities of energy in its results than was necessary to produce the labour power of the worker. Why and in what way does this accumulation of energy arise?37

To answer this question, it is necessary to consider how human labour converts 'natural forces' into forms appropriate to 'the satisfaction of human needs'.38 This leads to step two in Podolinsky's argument, which is that the analysis of human labour as energy-conversion should take account of the tendency toward increasing entropy (the second law). As Podolinsky describes it, any conversion of energy 'occurs through energy losing its less enduring forms and other more immutable forms taking their place'.39 As a result, 'further
transformations of energy gradually become more difficult’. 40 However, having located this tendency toward increasing entropy on the level of the entire universe, Podolinsky immediately downplays its relevance for human history, due to the earth’s ongoing exposure to the sun. As he says,

we still receive on our earth enormous quantities of physical forces that are capable of experiencing the most varied transformations, as whose expression all the physical and biological phenomena appear.41

Hence, ‘the danger of one day suffering a lack of transformable forces on the surface of the earth is still a long way off’.42

The issue then becomes to what extent these ‘transformable forces’ are suitable ‘for the satisfaction of the needs of the organic world in general and of the human species in particular’.43 In this third step, Podolinsky considers not only the energy directly contained in the sun’s rays but also geothermal energy sources, coal, and the forces represented by the wind, oceanic tides, rivers, streams, and waterfalls.44 He goes on to examine the effects of undomesticated animal and plant life on the quantity and distribution of humanly useful energy on the earth.45 Podolinsky’s main conclusion here is that ‘the greater part of the physical forces on the earth’s surface is far from being in the most advantageous condition for the satisfaction of human needs’.46 He also finds that plants have a more positive effect on terrestrially available energy than do wild animals. Through the process of photosynthesis, solar energy ‘can be accumulated for a longer time on the earth’s surface, taking on forms that temporarily guard it against dispersion’.47 Podolinsky points to the role of plant life in the formation of coal deposits.48 He further refers to a report by Thomas Sterry Hunt indicating, in Podolinsky’s words, that

the free oxygen of the atmosphere… was previously combined with the carbon that now constitutes coal – and was freed from it only through the influence of the sun’s rays by means of a very rich growth of plants.49

40. Ibid.
41. See also, Podolinsky 2004, p. 62.
42. See also, Podolinsky 2004, p. 62.
43. Ibid.
44. See also, Podolinsky 2004, pp. 63–4.
45. See also, Podolinsky 2004, pp. 63 and 66.
46. Ibid.
47. See also, Podolinsky 2004, p. 62.
48. Ibid.
49. Ibid.
Martinez-Alier has taken this reference to Sterry Hunt here as evidence that Podolinsky recognised the effects of carbon dioxide on climate change, writing that,

(he [Podolinsky] added in a footnote) [that] there was a theory which linked climactic changes to concentrations of carbon dioxide in the atmosphere, as Sterry Hunt had explained at a meeting of the British Society for the Advancement of Science in 1878.50

Yet, although it is true that Sterry Hunt is referred to in a footnote in the final German version of Podolinsky’s argument, no such statement on carbon dioxide concentrations and their relation to climate change is actually to be found in Podolinsky’s article (or in the earlier French and Italian versions).

By 1880, when Podolinsky first published his work, the fact that carbon dioxide and other gasses could affect global temperature was well established. The experimental laboratory basis for the notion that carbon dioxide helped regulate the climate through what is now commonly called the ‘greenhouse effect’ had been carried out in 1859 by the British physicist John Tyndall, who was the first to theorise this relation. Interestingly, Marx attended Tyndall’s lectures and was especially intrigued by his experiments on solar radiation.

The later global warming hypothesis with regard to carbon dioxide and the tendency of global temperatures to rise secularly was not introduced until 1896 by Swedish climatologist Svante Arrhenius. Arrhenius, like other climatologists of his day, was responding to Louis Agassiz’s introduction of his ice age theory in 1837, which by the mid-1860s had become part of the scientific consensus. Since he was primarily concerned about the appearance of another ice age, Arrhenius saw anthropogenic carbon dioxide emissions as having a possible beneficial effect in raising global temperature. It is quite possible that this prevailing ice-age focus may have contributed to Podolinsky’s conviction, which pervades his work, that the terrestrial accumulation of solar energy and the rise in temperature that this involved was an unalloyed good.51

In any event, the primary function of Podolinsky’s terrestrial energy survey is to set up the fourth step in his argument. Given that ‘plants on the earth’s

51. For all this background see Fleming 1998, pp. 65–82; Weart 2003, pp. 1–11; Imbrie and Imbrie 1979; Scheider and Londer 1984, pp. 34–6; Uranovsky 1935, p. 140.
surface are the worst enemy of the dispersion of energy into space’, purposeful
human labour, especially agricultural labour (including livestock raising), has
a unique potential to enhance the terrestrial accumulation of energy. For
even though

plants accumulate energy in the substance of their own bodies, they cannot, in
the majority of cases, set such energy into movement independently; they cannot
usefully employ it in the sense of a general increase of the quantity of force on the
earth’s surface.

Only human labour, and the labour of the domesticated animals assisting
human workers, can systematically and on a large scale ‘increase the quantity of
accumulated energy of plant life and reduce the quantity of energy dispersed by
animals’. As Podolinsky indicates:

By cultivating plants in places where they do not yet exist, or exist only in a small
amount, by draining marshes, irrigating the deserts, applying perfected cultivation
systems, using machines for agriculture and, finally, by protecting the cultivated
plants against their natural enemies, we reach the first of the two indicated goals.
Through the displacement or extermination of animals that are damaging to the
plant kingdom, we work at the same time for the second goal. In both cases, we
obtain as a result an absolute or relative enlargement of the solar energy retained
on the earth’s surface.

It is in this context that Podolinsky introduces some simple estimates of the
energy-productivity of French agricultural labour, focussing on hay and wheat
cultivation. He measures energy productivity as the energy surplus produced
per hour of caloric (human and animal) labour input, with the surplus defined
as the excess caloric content of agricultural output per hectare compared to
that of uncultivated (‘natural’) pastures. Podolinsky’s calculations, reproduced
in Table 1, show that labour increased the energy accumulated per hectare at
a rate of nearly 41 calories per hour of labour input in hay production, and by
over 22 calories per hour of wheat-cultivating labour.

52. See also, Podolinsky 2004, p. 64.
53. See also, Podolinsky 2004, p. 66.
54. Emphasis in original. See also, Podolinsky 2004, p. 64.
55. See also, ibid.
56. See also, Podolinsky 2004, pp. 64–5.
Table 1
Podolinsky’s Calculation of the Energy Productivity of (Animal and Human) Labour (Per Hectare, Based on Data for 1870s France)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Product (kg)</th>
<th>Energy-Product (kcal)(^a)</th>
<th>Energy Surplus over Natural Pastures (kcal)</th>
<th>Energy Input (kcal)(^b)</th>
<th>Hourly Energy Productivity of Labour (kcal/hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Pastures</td>
<td>2,500 (hay)</td>
<td>6,375,000</td>
<td>–</td>
<td>none</td>
<td>–</td>
</tr>
<tr>
<td>Sown Pastures</td>
<td>3,100 (hay)</td>
<td>7,905,000</td>
<td>1,530,000</td>
<td>37,450(^c)</td>
<td>40.85</td>
</tr>
<tr>
<td>Wheat Cultivation</td>
<td>800 (wheat)</td>
<td>8,100,000</td>
<td>1,725,000</td>
<td>77,500(^d)</td>
<td>22.26</td>
</tr>
<tr>
<td></td>
<td>2,000 (straw)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Assuming 2,550 kcal/kg of hay and straw, and 3,750 kcal/kg of wheat.
\(^b\) Assuming 645 kcal per hour of horse labour and 65 kcal per hour of human labour.
\(^c\) Assuming 50 hours of horse labour and 80 hours of human labour per hectare.
\(^d\) Assuming 100 hours of horse labour and 200 hours of human labour per hectare.

At this point, Podolinsky still has not answered his opening question concerning the energetics of surplus labour, that is, how human beings are able to convert their own labour and other energy inputs into need-satisfying products containing an energy surplus. All he has done is to show the empirical plausibility of this energy surplus, and how such a surplus can be translated into figures on energetic labour productivity (the shortcomings of Podolinsky’s calculations are discussed in Section IV.) It is one thing to assert that ‘this surplus of energy’ comes ‘from the labour of humans and domesticated animals’\(^{57}\). It is quite another to explain it. And it does not help to engage in circular logic by defining labour as any activity that produces an energy surplus, as when Podolinsky tells us that:

*Labour is such a use of the mechanical and intellectual energy accumulated in the organism, which has as a consequence an increase of the general energy budget of the earth’s surface.*\(^{58}\)

\(^{57}\) Emphasis in original. See also, Podolinsky 2004, pp. 65–6.
\(^{58}\) Emphasis in original. See also, Podolinsky 2004, p. 66.
It is only well into the second instalment of his article that Podolinsky attempts a thermodynamic explanation of surplus-labour and surplus-product. He does this by treating the human labourer as a thermal machine. More specifically, this fifth part of his argument begins with a discussion of experimental research by Hirn and Hermann von Helmholtz (1821–94), which established that ‘the human machine’ is capable of converting roughly one-fifth of the nutritional energy needed to keep it running into useful work. Podolinsky then argues that this ‘economic coefficient’ should be adjusted downward to reflect the fact that labour’s product must satisfy needs over and above ‘the need for nutrition and for air to breath’, including both non-nutritive material needs and ‘purely intellectual needs’. For illustrative purposes, he assumes a true contemporary coefficient of one-tenth. He then notices a dual contradiction: How is an economic coefficient of less than unity consistent with labour’s production of an energy surplus, and with the historical growth of labour productivity? As per the second half of this contradiction, Podolinsky suggests that ‘the needs of savages are much easier to satisfy than those of civilised people, and therefore its economic coefficient is significantly greater, perhaps 1/6 instead of 1/10’. If this is true, then it would appear that the savages are more energy-efficient than the civilised people, even though the latter are more productive. Be that as it may, the issue remains as to how labour’s production of a rising energy surplus jibes with an economic coefficient falling toward zero from a level below unity.

Podolinsky’s solution to this contradiction is to assert that ‘the labour of humanity’ represents ‘an example of what Sadi-Carnot called a perfect machine’, that is, a stream engine that achieves a ‘circular process of the transformation of heat into work, and work again into heat’ without any loss of energy due to friction or other forms of dissipation.

When we observe the labour of humanity, however, we have before our very eyes an example of what Sadi-Carnot called a perfect machine. For from this perspective, the human organism would be a machine that not only transforms heat and other physical forces into labour, but which also brings about the operational reverse cycle, i.e. it transforms labour into heat and into the other

59. See also, Podolinsky 2004, p. 67.
60. See also, Podolinsky 2004, pp. 67–8.
61. See also, Podolinsky 2004, p. 70.
62. See also, Podolinsky 2004, pp. 69–70. Carnot’s reverse-cycle uses the heat differential between the boiler and the condenser to sequentially do work (as heat moves from boiler to condenser) and maintain the heat differential (as heat moves from condenser to boiler). In its pure form, this cycle abstracts from friction and presumes that the engine constitutes an isolated system (Carnot 1977).
physical forces which are necessary for the satisfaction of our needs, heating with its own labour converted into heat, its own steam boilers, so to speak.63

Podolinsky even posits that the energy productivity of human labour exceeds that of Carnot’s ideal steam engine:

A steam engine, for example, even if it could function for a longer time without the involvement of human muscular power, does not possess the ability to produce the elements necessary to undertake its own work the following year. The human machine, on the other hand, creates new harvests, raises the young generations of domesticated animals, invents and builds new machines etc. In a word: humanity regularly creates the material and the elements for the future continuation of its labour. Thus, humanity fulfills Sadi-Carnot’s requirement of perfection much better than any artificial machine.64

Finally, the sixth part of Podolinsky’s argument applies this perfect-machine perspective to human history. Here, Podolinsky compares different modes of production as alternative ‘means of employing human labour to draw upon a larger fraction of natural forces for the satisfaction of human needs’.65 His presumption is that ‘the best means are those that cause the largest accumulation of energy on the earth’.66 By this criterion, hunting-and-gathering societies are the most backward because they are based ‘merely on the use of force amassed already through earlier life processes’ rather than on ‘useful labour, upon an accumulation of energy’. Slavery, while ‘already an advance… is still very imperfect’ because it wastes too much potential energy-accumulating labour on ‘perpetual wars’ and on the idle classes of slave owners and overseers.67 Feudalism increases the productivity of labour by giving the serf ‘a parcel of land that he is allowed to work without being overseen by the eyes of the lord

63. See also, Podolinsky 2004, p. 70.
64. See also, Podolinsky 2004, p. 70. The notion of the human body as a ‘more perfect’ machine than the steam engine had been previously expounded by others. For example, nineteenth-century physicist and pioneer of thermodynamics Peter Guthrie Tait quotes James Prescott Joule (one of the discoverers of the first law of thermodynamics) as having stated that ‘the animal frame, though destined to fulfill so many other ends, is, as a machine, more perfect than the best contrived steam-engine; that is, capable of more work with the same expenditure of fuel’ (Tait 1864, p. 344; compare Martínez-Alier 1987, p. 51). What Podolinsky offered, however, was a much more extreme interpretation of human labour-power as a ‘perfect machine’ in Carnot’s strict sense – indeed exceeding Carnot’s own notion of what was thermodynamically possible.
65. See also, Podolinsky 2004, p. 71.
66. Ibid. Emphasis in original.
67. See also, Podolinsky 2004, p. 71.
and without feeling the whip of the overseer’, but it still holds back energy accumulation by forcing the serf to engage in ‘compulsory labour for the lord’ and his various functionaries.\textsuperscript{68} Capitalism enhances energy accumulation through the development of division of labour and machinery; yet it ‘has its dark side’ of energy disaccumulation: overproduction and unemployment, which ‘intensify the useless dispersion of the already available labouring powers’.\textsuperscript{69} By comparison, socialism will achieve a much ‘greater accumulation of energy on the earth’s surface’.\textsuperscript{70} It will do this by distributing food more equitably and improving public health care, thereby increasing ‘the muscular and nervous force of humanity’; by implementing improved accounting systems that reduce fraud and waste; and by putting an end to overproduction crises.\textsuperscript{71} For Podolinsky, in short, socialism is desirable because it most effectively realises the potential of human labour as a perfect energy-accumulation machine.

IV. Engels on Podolinsky

Martínez-Alier and Naredo argue that Marx and Engels ‘failed to appreciate the significance of Podolinsky’s view for the Marxist system’, not only in terms of the energetics of labour-values but also ‘for a more accurate definition of the notion of “productive forces”’.\textsuperscript{72} According to the same authors, Engels responded to Podolinsky by asserting that ‘economics should not be mixed up with physics’.\textsuperscript{73} Engels apparently ‘saw no limits to the amount of energy that could be harnessed by the work of man’.\textsuperscript{74} The ‘no limits’ charge against Engels is repeated in Martínez-Alier’s influential \textit{Ecological Economics}, as is the assertion that Podolinsky’s ‘Energy accounting . . . gave a scientific basis to the labour theory of value, a point that neither Marx nor Engels appreciated’.\textsuperscript{75} More recently, Martínez-Alier has referred somewhat obliquely to an unsuccessful attempt by Podolinsky ‘to convince Marx’ that the entropy law ‘could be brought into the Marxist analysis’.\textsuperscript{76}

\textsuperscript{68} See also, Podolinsky 2004, pp. 71–2.
\textsuperscript{69} See also, Podolinsky 2004, p. 72.
\textsuperscript{70} See also, Podolinsky 2004, p. 73.
\textsuperscript{71} Ibid.
\textsuperscript{72} Martínez-Alier and Naredo 1982, p. 209.
\textsuperscript{73} Martínez-Alier and Naredo 1982, p. 208.
\textsuperscript{74} Martínez-Alier and Naredo 1982, p. 216.
\textsuperscript{75} Martínez-Alier 1987, pp. 49 and 222.
\textsuperscript{76} Martínez-Alier 2006, p. 276.
These claims seem *prima facie* extravagant insofar as they hinge on Podolinsky’s analytical contribution as summarised above. Podolinsky does not provide a substantive answer to his opening question about the energetics of surplus-labour. Even if one accepts the perfect machine analogy, the whole question is how human labour is able ‘to bring about the operational reverse cycle, i.e. to convert its labour into an accumulation of physical forces necessary for the satisfaction of our needs’.77 Insofar as human beings are not literally steam engines, the analogy merely repeats the assertion that human labour accumulates energy.

The basic shortcoming of the perfect-machine analogy is its lack of any conscious connection to the relations of production. The perfect human machine is an abstract-ideal concept, that is, it is derived from completely unreal assumptions fully devoid of historical-social content.78 This diverges from Marx, who analyses production in terms of the social relations between producers and the material conditions of production, starting with the land, and (in class societies) the corresponding relations between producers and appropriators of the surplus-product. Not surprisingly, Podolinsky’s analysis of the relative efficiency of different modes of production is basically a shallow, energy-reductionist recasting of some established results from Marxist political economy and historiography. For example, Podolinsky could have drawn some of his ideas on capitalism’s energetic wastefulness from Marx’s *Capital*, where we read of the ‘shameless squandering of human labour-power’ by the suppression of wages to low levels and consequent failure to apply labour-saving technology more fully, and by the ‘anarchic system of competition’ with its ‘vast number of functions at present indispensable, but in themselves superfluous’.79 Long before Podolinsky, Marx emphasised the colossal waste of human energy represented by capitalism’s reserve army of unemployed. Marx even expressed his ‘absolute general law of capitalist accumulation’ in energetic terms:

> The greater the social wealth, the functioning capital, the extent and energy of its growth, and therefore also the greater the absolute mass of the proletariat and the productivity of its labour, the greater is the industrial reserve army. The same causes which develop the expansive power of capital, also develop the labour-power at its disposal. The relative mass of the industrial reserve army thus increases

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77. See also, Podolinsky 2004, p. 70.
78. Similarly, Podolinsky conceptualises the ‘energy coefficient’ on the asocial level of an isolated individual worker. See below for further discussion.
with the potential energy of wealth. . . . This is the absolute general law of capitalist accumulation.80

By contrast with Marx's sophisticated material-social analysis of the energetics of human labour (see Section VI, below), Podolinsky's contribution reduces to the observation that labour captures and accumulates energy in humanly useful forms. As Engels generously puts it in his to Marx letter of 19 December 1882, Podolinsky's

real discovery is that human labour is capable of retaining solar energy on the earth's surface and harnessing it for a longer period than would otherwise have been the case.81

Before getting into Engels's criticisms, it is worth noting that none of them concern the relationship between Podolinsky's energy accounting and Marxian value analysis. But Engels's silence in this connection has nothing to do with any lack of appreciation for Podolinsky's contribution. The fact is that Podolinsky has nothing to say about value as such, unless one identifies value with the physical energy content of commodities— an approach that would be more Ricardian than Marxian.82 Podolinsky does not connect the caloric magnitudes in his energy-productivity calculations to phenomena such as wages and market prices, for the simple reason that his energy-accounting framework does not consider the specific social forms of capitalist production, exchange, and distribution. Even Podolinsky's opening query raises the issue, not of surplus-value specific to capitalism, but rather of surplus-labour in a physical sense applying across different modes of production.83

Engels's critique focuses on the shortcomings of Podolinsky's energy-productivity calculations from a metabolic and open-system perspective. Engels was deeply distrustful of all efforts to reduce physical (let alone social) phenomena to purely quantitative energy terms. For systems of material forces connected with life forms, especially, he felt that a metabolic approach was required, that is, an approach focusing on biochemical exchanges and transformations of matter and energy, with due allowance for dissipative

82. For detailed discussions of this point, see Foster and Burkett 2004, pp. 41–4; Burkett 2006, pp. 18–19, 37–41.
83. See also, Podolinsky 2004, p. 61. The same goes for Podolinsky's 8 April 1880 letter to Marx, which refers to 'my attempt to bring surplus labour and the current physical theories into harmony'. Quoted in Martínez-Alier 1987, p. 62 (our emphasis).
processes of friction and decay. Accordingly, in *The Dialectics of Nature*, Engels expressed great scepticism about efforts 'to re-import the thermodynamical category of work back into political economy'; arguing that the conception of human labour as a steam engine would lead to 'nothing but nonsense':

Let someone try to convert any SKILLED LABOUR into kilogram metres and then to determine wages on this basis! Physiologically considered, the human body contains organs which in their totality, *from one aspect*, can be regarded as a thermodynamical machine, where heat is supplied and converted into motion. But even if one presupposes constant conditions as regards the other bodily organs, it is questionable whether physiological work done, even lifting, can be at once fully expressed in kilogram-metres, since within the body *internal* work is performed at the same time which does not appear in the result. For the body is not a steam-engine, which only undergoes friction and wear and tear. Physiological work is only possible with continued chemical changes in the body itself, depending also on the process of respiration and the work of the heart. Along with every muscular contraction or relaxation, chemical changes occur in the nerves and muscles, and these changes cannot be treated as parallel to those of coal in a steam-engine. One can, of course, compare two instances of physiological work that have taken place under otherwise identical conditions, but one cannot measure the physical work of a man according to the work of a steam-engine, etc.; their external results, yes, but not the processes themselves without considerable reservations.

Engel's first specific comment on Podolinsky follows directly from this metabolic critique of the labour-as-steam-engine analogy. He points out that Podolinsky's energy-productivity figures assume an equivalence between labour input and the calories consumed by (human and animal) labourers as food (see Table 1). This neglects the fact that nutritional calories 'are known in practice to lose on conversion into other forms of energy as a result of friction, etc., a portion that cannot be put to use. Significantly so in the case of the human body'.

Moreover, during the labour process itself, additional energy is 'lost in the increased heat given off by the body, etc., and such useful residue as remains

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86. Engels 1987, p. 586 (capitalisation and emphases in original). This passage from Engels was written in 1875, well before Podolinsky published his work in ecological economics. Both Marx and Engels had studied some of the most advanced physiological treatises of their day. As a basis for his argument here Engels referred to experiments on energy and human work by the noted physiologist Adolf Fick, a friend of Clausius who integrated the second law of thermodynamics into his physiological studies. Marx left behind extensive extracts in his notebooks from Fick's work. Podolinsky himself did not cite Fick. See Martinez-Allier 1987, p. 50; Rothschuh 1973, pp. 248–9; Kolman 1971, p. 233.
lies in the fertilising property of excretions'. From this angle, it appears that 'the physical labour performed in economic labour... is [in energy terms] invariably less' than the caloric content of food consumption. In other words, Podolinsky's calculations do not allow for metabolic-entropic disjunctures between the caloric contents of produced use values and primary inputs. Here the steam engine analogy upon which such calculations were often based was misleading. As Helmholtz had pointed out as early as 1854,

the animal body... does not differ from the steam engine, as regards the manner in which it obtains heat and force, but does differ from it in the manner in which the force gained is to be made use of [that is, in bio-chemical processes].

Engels goes on to question the practicality and relevance of Podolinsky’s energy-accounting exercises, especially in non-agricultural production:

In industry all calculations come to a full stop; for the most part the labour added to a product simply does not permit of being expressed in terms of cal. This might be done at a pinch in the case of a pound of yarn by labouriously reproducing its durability and tensile strength in yet another mechanical formula, but even then it would smack of quite useless pedantry and, in the case of a piece of grey cloth, let alone one that had been bleached, dyed or printed, would actually become absurd. The energy value conforming to the production costs of a hammer, a screw, a sewing needle, is an impossible quantity. To express economic conditions in terms of physical measures is, in my view, a sheer impossibility.

Does this statement show that Engels felt physics was irrelevant for economics, as asserted by the conventional interpretation? Not at all. Engels is merely insisting that wealth or use-value cannot be reduced to pure energy, and that economics cannot, therefore, be reduced to an energetic exercise in counting calories. ‘Matter matters, too’ as the great ecological economist Nicholas Georgescu-Roegen puts it. Moreover, to insist that economic conditions are social and therefore cannot be expressed in purely physical terms hardly represents a blanket denial of the usefulness of physics or of any other kind of natural science for economics. It is one thing to integrate physical laws into

88. Ibid. Engels's references to the energy lost from the body from excretions, etc. are similar to the observations in Marey 1874, pp. 16–17.
89. Marx and Engels 1975b, p. 410; emphasis in original.
90. Helmholtz 1873, p. 238.
economics; it is quite another to ‘confuse the physical with the economic’ as Podolinsky did. The problem is that Podolinsky ‘sought to find in the field of natural science fresh evidence of the rightness of socialism’ without taking adequate account of the social and even the material dimensions of human labour. He tried to apply directly to human labour an ideal model (Carnot’s reverse cycle) which abstracted from friction and other important aspects of real-world production. In doing so, Podolinsky ignored Carnot’s own warning against the practical application of the concept of perfect energy efficiency even in the case of steam engines:

> We should not expect ever to utilise in practice all the motive power of combustibles. The attempts made to attain this result would be far more hurtful than useful if they caused other important considerations to be neglected. The economy of the combustible is only one of the conditions to be fulfilled in heat-engines. In many cases it is only secondary. It should often give precedence to safety, to strength, to the durability of the engine, to the small space it must occupy, to small cost of installation, etc.

How much more important such material qualifications of the energetic efficiency criterion must be in the case of human labour!

Moreover, unlike Carnot’s ideal heat engine, which was conceptualised as an isolated system, human labour relies on inputs of natural resources while constantly emitting matter-energy throughput into the environment. Labour’s ‘accumulation of energy on the earth’ is not self-driven and permanent but rather externally fuelled and fully subject to entropic dissipation under the second law. In treating human labour as a perfect thermal machine and advocating socialism as a superior means of energy ‘accumulation’, Podolinsky neglected this crucial form-divergence between human production and Carnot’s ideal reverse cycle. Podolinsky’s energy-productivity calculations thus disregarded important open-system and entropic aspects of human labour. For example, as Engels pointed out, they did not track ‘the fresh cal’ that each worker ‘absorbs from the radiation of the sun’, without which neither human life nor human labour would be possible. Perhaps more importantly, Podolinsky argued as

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94. Ibid.
96. Marx and Engels 1975b, p. 411; emphasis in original. Martínez-Alier argues that Podolinsky ‘did not include solar radiation in the input of energy, because he was writing as an ecological economist. Solar radiation is indeed a free gift of nature (so far without an owner, therefore without payment of rent)’ (2005, p. 8). It seems that Martínez-Alier does not want to
though labour was the sole direct energy input into production, notwithstanding the fact that, as Engels objected, ‘the energy value of auxiliary materials, fertilisers, etc., must also be taken into consideration’.97

What Podolinsky has completely forgotten is that the working individual is not only a stabiliser of present but also, and to a far greater extent, a squanderer of past, solar heat. As to what we have done in the way of squandering our reserves of energy, our coal, ore, forests, etc., you [Engels tells Marx] are better informed than I am.98

Engels’s comment actually highlights two distinct shortcomings of Podolinsky’s energy-productivity calculations. First, in comparing the caloric content of agricultural output per hectare with that of uncultivated (‘natural’) pastures, Podolinsky implicitly presumed that the latter had not been reduced by various forms of human extractive labour such as hunting and gathering as well as forestry (not to mention disruptions from agricultural and industrial pollution). Given the negative impacts of expanding human production and population on non-domesticated plant and animal species, the treatment of uncultivated lands as simply ‘natural’ (in other words, exogenous) undoubtedly results in a sizeable overestimate of the relative caloric content of cultivated harvests.

Second, and more obviously, the presumption that labour is the sole input itself created an upward bias in Podolinsky’s productivity estimates, corresponding to the missing inputs of fertilisers, such as manure and guano, and of fuels, especially timber and coal. Podolinsky’s failure to include fertilisers in his estimates was quite extraordinary in an 1880 context, given the nature of the agricultural crisis that had swept Europe and North America in the mid-nineteenth century, which resulted in the raiding of the battlefields and catacombs of Europe for bones to fertilise the agricultural lands, the importation of guano and nitrates from Peru and Chile, and the beginnings of an industry

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98. Ibid. (emphases in original).
for the production of fertilisers. Such issues had occupied as central a figure in the chemistry and agriculture of his time as Liebig, and had been commented on by Marx in *Capital*, which Podolinsky had presumably read.\textsuperscript{99}

Nor is it easy to see how Podolinsky could have left coal out of his estimates. He was, of course, aware of the role of coal in both industrial and agricultural production. As we have seen, he emphasised it as one of the main forms in which plants contribute to the accumulation of useful energy on or in the earth. In addition, one of his early socialist propaganda writings, published in 1875, was *The Steam Engine* – a utopian novelette about a rural worker who is severely injured by a threshing machine while working in the fields and who dreams of a socialist future.\textsuperscript{100} Nonetheless, Podolinsky did not include coal and other non-labour inputs in the denominators of his energy-productivity measures.\textsuperscript{101}

Podolinsky’s adoption of the perfect-machine analogy also led him to downplay the temporary nature of the energy stabilisation achieved by human labour in its output. He strongly endorsed the cosmological extrapolation of the entropy law in the form of the ‘heat death of the universe’ hypothesis near the beginning of his article. Yet neither his energy-accounting nor his historical discussion of energy accumulation recognise that labour, and the matter-energy throughput it initiates and oversees, are themselves subject to entropic dissipation (the second law). Engels, by contrast, emphasises that human labour is ‘capable of retaining solar energy on the earth’s surface’, not permanently, but only ‘for a longer period than would otherwise have been the case’.\textsuperscript{102} ‘In stock farming’, for example, ‘energy is stabilised in as much as the vegetation, that would otherwise rapidly wither, die and decompose, is systematically converted into animal protein, fat, skin, bone, etc., hence stabilised over a longer period’.\textsuperscript{103} In his follow-up letter to Marx on 22 December 1882, Engels elaborates the point and extends it to livestock raising and manufacturing production, observing that the:

> storage of energy by means of labour takes place strictly speaking only in *arable* farming. In stock farming the energy stored in plants is, in general, merely

\textsuperscript{99} Foster 2000, pp. 147–63.

\textsuperscript{100} Serbyn 1982, p. 6; Martínez-Alier 1987, pp. 54–6.

\textsuperscript{101} Martínez-Alier (1987, p. 222) argues that Engels was wrong to state ‘that Podolinsky had forgotten’ about coal (see also Martínez-Alier and Naredo 1982, p. 217). But Engels’s criticism was focussed precisely on Podolinsky’s energy-accounting exercises, not on what Podolinsky may have said about coal in a broader context.

\textsuperscript{102} Marx and Engels 1975b, p. 410.

\textsuperscript{103} Marx and Engels 1975b, p. 411; emphasis added.
transferred to the animal, hence we can only speak of storage in so far as nutritive plants are put to use which would, in the absence of stock farming, go to waste. In all branches of industry, on the other hand, energy is merely expended. The most one can say is that vegetable products such as wood, straw, flax, etc., and animal products in which plant energy is stored, are made available by processing, i.e. are preserved for a longer space of time than if they had been allowed to decay naturally.104

In this connection, Martínez-Alier distorts the significance of Engels’s argument that the amount of energy stabilised per hour of human labour ‘is dependent solely upon the level of development of the means of production’.105 According to Martinez-Alier, this statement shows that Engels ‘saw no limits to the amount of energy which could be harnessed by the work of a man’.106 But neither in his comments on Podolinsky nor anywhere else does Engels suggest that there are no physical or energetic limits to the development of the means of production. Rather, as shown above, Engels open-system metabolic approach emphasises the constraints placed on labour’s energy accumulation by finite stocks of nonrenewable resources, as well as by friction and other forms of dissipation and decay. Martínez-Alier somehow twists Engels’s rational concern with the extractive and entropic matter-energy throughput of human production into an altogether different and false assertion that there are no entropic limits to this throughput! In reality, the ‘no limits’ perspective applies much more accurately to Podolinsky, with his notion that human labour is a more than perfect machine in the Carnotian sense, than to Engels.107

Another source of Podolinsky’s insensitivity to open-system considerations is his initial treatment of the energy efficiency of labour in terms of the ‘economic coefficient’ (work divided by energy consumption) of an individual isolated human labourer. Apart from its complete lack of socio-economic content, such a perspective can easily downplay the non-labour elements of matter-energy throughput extracted and emitted by real-world systems of

107. Martínez-Alier (2006, p. 277) asserts incorrectly that Podolinsky’s analysis of ‘capitalist accumulation’ took full account of energy-dissipation (for instance by the burning of coal), and that Podolinsky’s notion of energy-accumulation refers only to labour’s conversions of direct solar energy flows. As we have seen, both Podolinsky’s agricultural energy-productivity calculations and his qualitative analyses of energy-accumulation include the full energy content of produced output, while failing to net out the energy content of non-labour inputs.
human production. Engels’s open-system approach, by contrast, recognises that the true economic coefficient is the ratio of produced wealth (measured in use-values) to the total material throughput generated by an economic system.108

V. Elaborations in *Die Neue Zeit*

We now consider whether the German version of Podolinsky’s work includes any additional analyses running counter to our own reinterpretation. Does the article in *Die Neue Zeit* contain important insights that Marx and Engels may have missed or ignored, due, perhaps, to their reliance on earlier renditions of Podolinsky’s argument? Section III has already shown that the German version includes the exact same energy-productivity calculations for agricultural labour that were presented in the earlier French and Italian versions of Podolinsky’s work. Furthermore, all the passages quoted in Section III in connection with the theoretical treatment of human labour as an energy-accumulation machine, including the perfect machine analogy, were from the German version (the passages in question being identical in the Italian rendition).

There are, however, five passages in the German article that do not appear in the Italian version which was evaluated by Engels. First, there is a much more extensive treatment of ‘the radiating energy of the sun’, and of how this energy takes on ‘higher forms on the earth’s surface’ that are more or less employable for satisfying human needs. Here, Podolinsky provides more information on the potential usefulness, and limitations (due to problems of friction and harnessability), of such inorganic energy sources as the earth’s rotation and magnetic force, tides and other water currents, winds, and geothermal heat (including hot springs) He also offers some geo-historical conjectures in support of the superior energy-accumulating capabilities of plants compared to animals. In this latter context, Podolinsky gives a somewhat clearer explanation of the process by which coal deposits were formed, as well as some additional data on coal deposits in Great Britain and North America. Nonetheless, the article in *Die Neue Zeit* does not address the squandering of coal which worried Engels; nor does it consider the role of coal and other non-labour inputs in a proper accounting of labour’s energy-productivity. Hence, this central element of Engels’s critique still stands.

The second insertion in the German version reconsiders ‘the boundaries of useful labour’ from the standpoint of ‘the muscular labour of animals and humans’. Here, Podolinsky argues that the food-seeking movements of a snail or a butterfly do not qualify as labour insofar as they do not transform the slightest quantity of solar energy into such higher forms which by their further deployment could increase the store of energy on the earth’s surface.

Far from qualifying Podolinsky’s mechanistic energy-reductionism, this discussion solidifies and amplifies his identification of labour (and implicitly of all use-value) with purposeful energy accumulation:

For we should keep in mind that by the word ‘labour’ must be understood a ‘positive act’ of the organism, which has a necessary consequence an accumulation of energy…. Viewed from this perspective, we can conclude that the different movements of animals that are self-evidently goalless or have as a goal merely the seeking out of means of nutrition, etc., cannot be counted as labour, precisely because they leave behind no increase of energy accumulation.

Under this definition, any (mental or physical) activity whose goal is to reduce the energy used by each hour of human labour does not qualify as labour unless and insofar as it increases the caloric content of total output.

Third, the article in Die Neue Zeit has an extended discussion of the economic coefficient (ratio of work performed to energy input) of human labour. More details are provided on Hirn’s ‘important experiments on the conversion of the heat of the human organism into labour’. By isolating a man in a box, strictly controlling his intake of air and food, and restricting his activity to a series of calorically measurable tasks, Hirn provided the basis for Helmholtz’s efforts to calibrate ‘the percentage yield of the heat transformed during labour’. The German version also contains a more in-depth qualification of the figure of one fifth for the economic coefficient implied by the work of Hirn and Helmholtz. Together with the role of non-nutritional needs that was addressed in the French and Italian versions, Podolinsky now emphasises certain ways in which ‘the human organism is much more complicated than any other thermal machine’. For instance, human workers are able to consciously impede the dispersal of energy from their bodies through the use of clothing, shelter, and heating devices. Compared to machines, human labour has a variety such that its ‘mechanical achievements are already so rich and diverse that they are overtaken by a mechanical apparatus only with difficulty’.
None of these qualifications alter Podolinsky’s basic conception of labour as conscious energy accumulation, however. He continues to insist that ‘we can apply most of the laws of the steam machine or any other thermal machine (set into movement by heat) also to the labouring human’. And he still ascribes ‘the increase and development of humanity’, compared to other species, to humanity’s superior ability, especially through agriculture, ‘to employ its mechanical energy in a direction that enabled a general accumulation of energy on the earth’s surface’. For Podolinsky, in short, not only human labour but human evolution can be reduced to purposeful energy accumulation. It is the imperative to accumulate energy, as a condition of human growth and development, that drives humanity’s evolution toward socialism in Podolinsky’s view.

In a fourth addition to the German version, Podolinsky supports his application of thermal-machine analysis to the human labourer with two quotations from Carnot’s work, *Reflections on the Motive Power of Fire*. In the quoted passages, Carnot suggests that the efficiency of heat-engines should first be ‘considered independently of any particular agent’, so as to derive principles ‘applicable not only to steam-engines but to all imaginable heat-engines’ regardless of how the ‘difference of temperature’ needed to create an ‘impelling power’ is generated in each particular case. But the sentences quoted by Podolinsky have to do with the generality of Carnot’s analysis across different kinds of mechanical heat engines, not animate ones. They are not meant to suggest that the abstract analysis of inanimate heat engines is directly applicable to human workers. There is certainly nothing in Carnot’s discussion that effectively counters Engels’s critique of energy-reductionism applied to human labour.

Podolinsky’s fifth and final elaboration in *Die Neue Zeit* addresses the apparent contradiction between Quesnay’s and Adam Smith’s respective conceptions of productive labour. Quesnay, the physiocrat, held that the source of all value is the land, whereas Smith argued that only labour is productive. Podolinsky suggests that they are both right because even though ‘labour… creates no material’ it does add ‘something to the object that was not created by labour’, namely energy. His entire discussion remains on the level of use-value, unconnected to the social relations of production. As such, it has no clear implications for Marxian value analysis, according to which productive labour under capitalism is that which ‘creates surplus-value directly, i.e….. is directly consumed in the course of production for the valorisation of capital’. As Marx says, apropos Podolinsky:

110. Marx 1976a, p. 1038 (emphases in original).
Only the bourgeoisie can confuse the questions: what is productive labour? and what is a productive worker from the standpoint of capitalism? with the question: what is productive labour as such? And they alone would rest content with the tautological answer that all labour is productive if it produces, if it results in a product or some other use-value...111

Marx’s critique applies doubly to Podolinsky’s tautological conception of useful labour as energy accumulation.

All in all, the additions in Podolinsky’s Die Neue Zeit article do nothing to correct the shortcomings highlighted by Engels’s notes on the Plebe version.

VI. Thermodynamics, energy accumulation, and ecological crisis in Marx’s Capital

In addition to the serious flaws in Podolinsky’s work, another reason why Marx and Engels did not feel obligated to respond to it publicly was no doubt that Marx had already incorporated relevant thermodynamic phenomena into his own analysis of capitalist development in Capital. This observation runs counter to the conventional wisdom, even among so-called ecological Marxists, that Marx’s mature economic work contains no significant energy analysis. James O’Connor, for example, asserts that ‘Marx did not pay sufficient attention to energy economics’, including the fact ‘that capitalist production (like all production) is based on energy flows and transformations’.112

As with the Podolinsky myth, the primary source of this standard view is the work of Martínez-Alier, who, in his influential article co-authored with José Manuel Naredo, argues that ‘energy analysis… has been alien to Marxism’.113 Martínez-Alier and Naredo assert that Marx’s analysis in Capital is ‘inconsistent with energy analysis’ due to its labour theory of value and its ‘metaphysical… notion of “productive forces”’.114 These charges are repeated in Martínez-Alier’s oft-cited Ecological Economics, which states flatly that Marx’s economics ‘did not… comprise the flow of energy’.115

The reality is quite different. Energy flows, and the correlation of forces, are central to Capital’s analyses of commodity exchange, wage-labour, exploitation, and industrial development. Although Marx does not reduce the analysis of

production to ‘counting calories’ (quantitative energy accounting), his socio-
metabolic approach yields profound insights into the energetics of capitalist
production and the roots of ecological crisis, while conforming fully to the
first and second laws of thermodynamics.

For Marx, ‘useful labour . . . mediates the metabolism between man and
nature’, and the human labourer ‘can only proceed as nature does herself, i.e.
he can only change the form of the materials’.\footnote{116} The actions of the labourer
‘are not to be conceived of as acts of creation but solely as a reordering of
matter’, a ‘work of modification’ in which the labourer ‘is constantly helped by
natural forces’.\footnote{117} Marx’s conception of labour, as ‘a process between man and
nature’ thus incorporates exchanges and transformations of both matter and
energy, fully subject to the laws of thermodynamics.\footnote{118} Far from metaphysical,
labour is ‘the everlasting nature-imposed condition of human existence’, one
that only ‘develops the potentialities slumbering within nature’.\footnote{119} Indeed,
when discussing the creation of a surplus-product, Marx counsels that: ‘It
would be absolutely mistaken to attach mystical notions to this spontaneously
developed productivity of labour, as is sometimes done’.\footnote{120} As if responding to
Podolinsky’s fantastic notion of human labour as a more than perfect thermal
machine, Marx insists that ‘in no case would . . . surplus product arise from
some innate, occult quality of human labour’.\footnote{121} Marx accordingly castigated
the Gotha Programme for asserting that ‘labour is the source of all wealth’,
because to do so was to ‘fancifully’ ascribe ‘supernatural creative power to
labour’.\footnote{122}

Turning to capitalist economy in particular, Marx treats commodity
exchange as an extension of the metabolic process of human labour, with the
commodity itself as ‘the economic cell-form’ of this metabolism.\footnote{123} Given that
the production of use-values relies on natural materials and forces (matter and
energy), and that ‘exchange transfers commodities from hands in which they
are non-use values to hands in which they are use-values’ it follows that
commodity exchange ‘is a process of social metabolism’.\footnote{124} As Marx says,

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\begin{itemize}
  \item 116. Marx 1976a, p. 133.
  \item 117. Ibid.
  \item 118. Marx 1976a, p. 283.
  \item 119. Marx 1976a, pp. 283 and 290.
  \item 120. Marx 1976a, p. 647.
  \item 121. Marx 1976a, p. 651.
  \item 122. Marx 1966, p. 3 (emphasis in original).
  \item 123. Marx 1976a, p. 90.
  \item 124. Marx 1976a, p. 198.
\end{itemize}
the exchange of commodities breaks through all the individual and social limitations of the direct exchange of products, and develops the metabolic process of human labour.\textsuperscript{125}

Crucially, Marx insists that use-value is a prerequisite for value (abstract labour, as represented by money), in other words, that ‘nothing can be a value without being an object of utility’.\textsuperscript{126} If a product ‘is useless’ (as measured by market demand), ‘so is the labour contained in it; the labour does not count as labour, and therefore creates no value’.\textsuperscript{127} ‘Value is independent of the particular use-value by which it is borne, but a use-value of some kind must act as its bearer’.\textsuperscript{128} It follows that Marx’s metabolic conception of useful labour is an essential element of his value analysis.

In asserting that Marx’s value theory is incompatible with energy analysis, Martínez-Alier seems to presume that Marx, like Adam Smith and David Ricardo, reduced value to labour-time based on a normative and/or empirical presumption that labour is more important or primary than other productive factors such as energy. For Marx, however, it is capitalism that reduces value to labour-time, based on workers’ social separation from necessary conditions of production, starting with the land. The necessary connection between value and use-value is full of tensions precisely because of its basis in workers’ alienation, an alienation which makes it appear as if value is independent of nature. For Marx, value and use-value do not comprise a dichotomy but rather a unity-in-difference or moving contradiction, as the material requirements of value accumulation constantly violate the metabolic-energetic conditions needed for a healthy and sustainable human development.\textsuperscript{129}

Marx’s metabolic-energetic approach is quite evident in his analysis of labour-power: its characteristics, its value, and its exploitation by capital. The very term labour-power indicates Marx’s concern with energy conversions in this context. Says Marx: ‘Labour-power itself is energy transferred to a human organism by means of nourishing matter’.\textsuperscript{130} It comprises

\begin{quote}
the aggregate of those mental and physical capabilities existing in the physical form, the living personality, of a human being, capabilities which he sets in motion whenever he produces a use-value of any kind.\textsuperscript{131}
\end{quote}

\begin{footnotes}
\item[125] Marx 1976a, p. 207.
\item[126] Marx 1976a, p. 131.
\item[127] Ibid.
\item[128] Marx 1976a, p. 295.
\item[129] For details on this point, see Burkett 2003.
\item[131] Marx 1976a, p. 270.
\end{footnotes}
Energetic considerations are central to Marx’s analysis of the value of labour power, the minimum of which is defined by the value of the commodities needed for the worker’s physical subsistence. Marx notes that this subsistence component is defined by the worker’s ‘natural needs, such as food, clothing, fuel and housing’ – needs which ‘vary according to the climactic and other physical peculiarities of his country’.

Moreover, the value of labour-power includes the value of commodities ‘necessary for the worker’s replacements, i.e. his children’, the reason being that ‘labour-power exists only as a capacity of the living individual’ and is thus by nature ‘subject to wear and tear . . . and death’.

Marx, in short, explicitly treats the role of metabolic energy conversions, including matter-energy dissipations, in the reproduction of human labouring capacity. The advantages of Marx’s approach over Podolinsky’s ‘thermal-machine’ perspective are even clearer from Capital’s discussion of the exploitation of labour-power. Here, the capitalist appropriates the ‘use of labour-power’, namely, ‘labour itself’, and in this process the worker ‘becomes in actuality what previously he only was potentially, namely labour-power in action’. Marx insists that this conversion of potential into actual work is subject to the first law (conservation of energy) whether labour is considered as production of use-values or as production of values. Even though the substance of value is abstract labour (‘homogenous human labour, human labour-power expended without regard to the form of its expenditure’), the ‘creation of value’ still requires ‘the transposition of labour-power into labour’, i.e., a ‘productive expenditure of human brains, muscles, nerves, hands, etc., of the labour-power possessed in the bodily organism’ of the worker.

The creation of surplus-value likewise requires that ‘fluid, value-creating labour-power . . . be incorporated’ into means of production both materially and energetically. Capitalist exploitation is not a process in which workers create something out of nothing. To emphasise this point, Marx tells us: ‘What Lucretius says is self-evident: “nil posse creari de nihilo”, out of nothing, nothing can be created’. ‘All the phenomena of the universe’, Marx quotes the eighteenth-century Italian economist Pietro Verri as saying, ‘whether produced

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137. Ibid.
by the hand of man or indeed by the universal laws of physics, are not to be conceived of as acts of creation but solely as a reordering of matter'.

That ‘out of nothing, nothing can be created’ is just as clear from Marx’s analysis of how the capitalist’s exploitation of labour-power imposes additional maintenance requirements on the worker. As a result of labour,

a definite quantity of human muscle, nerve, brain, &c., is wasted, and these require to be restored. This increased expenditure demands a larger income.

Here, Marx employs a metabolic energy income/expenditure approach strongly influenced by his study of the German physiologist Ludimar Hermann. An important feature of Hermann’s analysis was its sensitivity to the irreducible biochemical dimension of metabolic energy conversions, in other words, its refusal to treat labourers as equivalent to steam engines. This refusal is equally apparent in Capital’s treatment of the relationship between the value of labour-power and the length of the working day, where Marx notes that the worker’s subsistence requirements depend on the rate of ‘conversion of living substances into motion as it applies to the nature of man’. Higher wages (and material consumption) may thus compensate for longer work time only ‘up to a certain point’, beyond which further increases in work time cause a ‘deterioration’ of labour-power ‘in geometric progression’.

Because it ignores Marx’s metabolic-energy analysis of labour-power and its exploitation under capitalism, Martínez-Alier’s influential critique misses the pre-emptive answer Marx gives to Podolinsky’s question about the thermodynamic consistency of surplus-labour (in its specifically capitalist form, surplus-value). For Marx, as we have seen, the distinction between labour-power and labour expended is a distinction between potential work and actual work. The amount of productively expendable energy encapsulated in

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139. Marx 1967, p. 171.
140. Hermann 1875; Baki 2001, p. 378; Burkett and Foster 2006, p. 121.
142. Ibid. At this point Marx quotes Sir William Robert Grove’s pioneering analysis of the convertibility of different forms of energy, On the Correlation of Physical Forces: ‘The amount of labour which a man had undergone in the course of 24 hours might be approximately arrived at by an examination of the chemical changes which had taken place in the body, changed forms in matter indicating the anterior exercise of dynamic force’ (Ibid.). For Marx’s study of Grove, see Baki 2001, pp. 385–6; Burkett and Foster 2006, p. 122.
144. On the roots of Capital’s application of the ‘potential’ versus ‘actual’ distinction in Marx’s study of thermodynamics, see the note by Engels in Marx 1976b, p. 158; Griese and Pawelzig 1995, p. 133.
labour-power is thus quite distinct from the caloric quantity of useful work needed to produce the worker’s commodified means of subsistence. Indeed, it is the excess of the former over the latter that enables the capitalist to extract surplus-value from the worker. As Marx indicates: ‘The fact that half a day’s labour [for example] is necessary to keep the worker alive during 24 hours does not in any way prevent him from working a full day’. In short, the capitalist takes advantage of the fact that ‘What the free worker sells is always nothing more than a specific, particular measure of force-expenditure’; whereas ‘labour capacity as a totality is greater than every particular expenditure’. The result is an energy subsidy for the capitalist who appropriates and sells the commodities produced during the portion of the workday (surplus labour-time) over and above that needed to produce the means of subsistence represented by the wage (‘necessary’ labour-time).

‘For the capitalist’, this surplus of energy (and of value) ‘has all the charms of something created out of nothing’. But it actually represents capital’s appropriation of part of the potential work created by the daily metabolic-energetic regeneration of the worker’s labour-power. This regeneration occurs largely during non-work time, through rest, access to fresh air, as well as through various domestic reproductive activities undertaken by the worker and/or the worker’s family members. Indeed, the tendency of surplus labour-time to encroach on the free time required for these regenerative activities, and the attendant need for social restraints on capitalist exploitation, are major themes in Capital.

In other words, energy analysis is a crucial element in Marx’s famous investigation of the struggle over the working day. Ironically, it was in this investigation that Marx revealed capitalism’s tendency to convert workers into machines for the production of surplus-value. It is, after all, the capitalist who haggles over the meal-times, where possible incorporating them into the production process itself, so that food is added to the worker as to a mere means of production, as coal is supplied to the boiler…

Podolinsky’s conception of human labour as a steam engine thus corresponds to the exploitative, brutal, and unsustainable viewpoint of capital. By extending

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and intensifying work time, capitalism ‘seized the vital forces of the people at their very roots’, threatening a ‘degradation and final depopulation of the human race’.\(^\text{150}\)

\textit{Après moi le déluge!} is the watchword of every capitalist and of every capitalist nation. Capital therefore takes no account of the health and the length of life of the worker, unless society forces it to do so.\(^\text{151}\)

This ecological perspective on capital’s exploitation of society’s human resources is based solidly on Marx’s metabolic-energetic dissection of labour-power and surplus-value.\(^\text{152}\)

Foreshadowing ecological economics, \textit{Capital}’s energy analysis proceeds from the \textit{endosomatic} level of human labour-power and its bodily organs to the \textit{exosomatic} level of tools and machines as extended organs of human labour.\(^\text{153}\)

In considering machinery as a means of extracting more work from labour-power, Marx was forced to confront the role of extra-human energy flows and energy conversions. This is evident from Marx’s opening definition of machine:

The machine, which is the starting-point of the industrial revolution, replaces the worker, who handles a single tool, by a mechanism operating with a number of similar tools and set in motion by a single motive power, whatever the form of that power.\(^\text{154}\)

Machines are thus means of converting both materials and (human and extra-human) energy into commodities bearing surplus-value.

\(^{150}\) Marx 1976a, pp. 380–1.

\(^{151}\) Marx 1976a, p. 381.

\(^{152}\) Burkett 1999, Chapter 10.

\(^{153}\) See Daly (1968, pp. 396–8) on the importance of the endosomatic/exosomatic distinction in ecological economics. For details on Marx’s development of this distinction, and its connections with Hegel and Darwin, see Foster and Burkett 2000; 2001. Martínez-Alier (2005, p. 3) asserts that ‘Marx does not seem to have considered the metabolic energy flow, so he could not trace the distinction … between endosomatic use of energy in nutrition and the exosomatic use of energy by tools’. This has to rank as one of the most uninformed statements ever made by a scholar of Martínez-Alier’s reputation. Not only did Marx make such a distinction (which went back to the ancient Greeks) but in his hands and those of Engels it became the basis for an original conception of human evolution in line with Darwin’s analysis. See Foster 2000, pp. 196–207; Winder, McIntosh, and Jeffrey 2005, pp. 351, 354–5.

\(^{154}\) Marx 1976a, p. 497. This definition was adapted from the work of the English engineer and economist Charles Babbage [1791–1871].
Expanding upon this conception, Marx treats the industrial revolution using a model of *machinery systems* consisting of ‘three essentially different parts, the motor mechanism, the transmitting mechanism and finally the tool or working machine’. For Marx, mechanised production involves the transfer of force from one part of the system to another, starting from the motor which ‘acts as the driving force of the mechanism as a whole’, on through the transmission mechanism which ‘regulates the motion, changes its form where necessary, and divides and distributes it among the working machines’, and finally to the working machine which ‘using this motion…seizes on the object of labour and modifies it as desired’. This model was informed by Marx’s extensive theoretical and practical studies of energy conversion, the mechanical theory of heat, and industrial technology.

One important implication of Marx’s analysis is that the industrial revolution started not with the motor mechanism and its power sources but rather with the tool or working machine. The key development, in Marx’s view, was the conversion into a machine process of the portion of labour that involved working directly on the raw material(s), as a result of which the machine ‘performs with its tools the same operations as the worker formerly did with similar tools’. This conversion, which depended on the prior separation of the worker from control over the means of production (partly through the application of detailed divisions of labour), was the crucial prerequisite for the wider industrial application of extra-human, including inanimate, power sources. As Marx observes, ‘assuming that [the worker] is acting simply as a motor, that a machine has replaced the tool he is using, it is evident that he can also be replaced as a motor by natural forces’. The mechanisation of tools freed these tools from the limitations of human labour-power as the direct motive force, while the increasing scale of machine systems necessitated the application of more powerful energy sources – starting with animal, water and wind power but soon graduating to coal-driven steam (and later electrical) engines.

Accordingly, when analysing the immense throughput of materials generated by mechanised capitalist production, Marx emphasises the consumption of

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156. Ibid.
158. Marx 1976a, p. 495.
160. Marx 1976a, p. 496.
161. As Marx (1976c, p. 203) indicates, ‘the increasing productivity of labour is expressed precisely… in the increasing mass of raw material that is transformed into products, worked
energetic materials serving as ‘ancillaries’ to production – ‘coal by a steam-engine’, ‘materials… for heating and lighting workshops’, etc. He points out that: ‘Even in branches of industry that do not use any specific raw material of their own, there is still raw material in the form of ancillary material’, especially energy sources ‘such as indigo, coal, gas, etc.’ True, Marx’s analyses of materials-supply problems focus not on fuel crises, but rather on shortages of food and cotton in the industrial sphere and of soil nutrients in agriculture. The latter were, after all, the main materials shortages occurring in Marx’s time. But there is no reason why Marx’s analysis cannot be extended to fossil-fuel-based crises.

At any rate, Marx’s analysis of capitalist machine systems answers a crucial question in ecological energetics: how the industrial revolution definitively ‘broke the budget constraint of living on solar income’. And unlike ecological economics, which has tended to shun class analysis, Marx’s explanation (as shown above) roots the development of fossil-fuel-driven technologies in the social relations of production.

Naturally, Capital’s discussion of the industrial revolution eschews the energy reductionism that afflicted Podolinsky’s ‘perfect machine’ perspective on human labour. For example, Marx’s study of science and technology made him highly cognisant of how problems of friction shaped the development of real-world machine systems, including motor mechanisms and their power sources. He noted that the limitations of water power ‘gave the impulse for a more accurate investigation of the laws of friction’, thus creating some of the scientific basis for the development of coal-fired steam engines. Marx also showed that water-power was only displaced by steam-power as the development of the entire mechanism of production (in both scale and complexity) demanded increasingly large concentrations, and more flexible, controllable, transportable, and storable forms, of energy.
Marx was, of course, aware that capitalism’s ‘development of the productive powers of labour’ involved not just machine systems as transmitters of energy, but also ‘the appliance of chemical and other natural agencies’.\footnote{Marx 1976d, p. 34.} In agriculture, especially, the ‘conscious, technological application of science’ must deal with ‘the fertility of the soil’ and its necessary basis in ‘the metabolic interaction between man and the earth’.\footnote{Marx 1976a, pp. 637–8.} Marx’s concern with the metabolic (not simply energetic) preconditions of sustainable agriculture both spurred and was spurred on by his study of the leading agricultural chemists of his time, including Justus von Liebig and James Johnston.\footnote{Mayumi 1991, pp. 37–48; Foster 2000, pp. 149–54; Baksi 1996, pp. 272–4, and 2001, pp. 380–2. On the rather dubious basis of a reference to ‘Moleschott’s metabolism’ in a playful love poem that Marx wrote to his wife Jenny, Alfred Schmidt claimed that the Dutch physiologist Jacob Moleschott was the main inspiration in Marx’s use of the metabolism concept (Schmidt 1971, pp. 86–8). This view was later adopted by Martínez-Alier and others (Martínez-Alier 2005, p. 3, and 2006, pp. 274 and 289). It is true that Marx and Engels were both well aware of Moleschott’s work. (Marx attended some of Moleschott’s lectures, along with those of Liebig, Tyndall and Huxley.) But the concept of metabolism was already widespread within biology, chemistry and physiology at the time they were writing and was used by many other thinkers with whom they were familiar, including Liebig, whose influence on Marx and Engels’s work was much more profound. Engels referred to Moleschott as a mechanical materialist and a proponent of the crude social-Darwinist ‘struggle for existence’, contrasting this to Liebig who emphasised the interdependence of nature (and of nature and society) (Marx and Engels 1975a, Volume 45, pp. 106–8). It is the latter approach that Marx focused on in his analysis of the metabolic rift (Liebknecht n.d., p. 106).} But Marx recognised the irreducible biochemical element in any kind of production where something is ‘added to the raw material to produce some physical modification of it, as chlorine is added to unbleached linen, coal to iron, dye to wool’.\footnote{Marx 1976a, p. 288.} In these cases, production consists of two periods: ‘the labour process, and a second period in which [an] unfinished product is handed over to the sway of natural processes, without being involved in the labour process’.\footnote{Marx 1976a, p. 317; for details see Burkett 1999, pp. 41–7.} Such biochemical operations obviously reduce the relevance of purely energetic analysis (‘counting calories’).

Building on his analysis of machinery and large-scale industry, and applying Liebig’s theory of metabolic reproductive cycles, Marx shows that capitalism systematically degrades the productive powers of the earth and of labour-power both energetically and biochemically. He points out how the growing matter-energy throughput of mechanised production, the industrialisation
of agriculture which led to the systematic and intensive robbing of the soil, and the spatial division of labour between agriculture and manufacturing, all combine to ‘simultaneously undermin[e] the original sources of all wealth, the soil and the worker’.\textsuperscript{174} Capitalist production ‘disturbs the metabolic interaction between man and the earth’ insofar as it prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing; hence it hinders the operation of the eternal natural condition for the lasting fertility of the soil.\textsuperscript{175}

It also reduces the agricultural population to an ever decreasing minimum and confronts it with an ever growing industrial population crammed together in large towns; in this way it produces conditions that provoke an irreparable rift in the interdependent process of social metabolism, a metabolism prescribed by the natural laws of life itself.\textsuperscript{176}

The systemic-energetic dimension of this metabolic rift is clear from Marx’s insistence that:

Large landed property undermines labour-power in the final sphere to which its indigenous energy flees, and where it is stored up as a reserve fund for renewing the vital power of the nation, on the land itself. Large-scale industry and industrially pursued large-scale agriculture have the same effect. If they are originally distinguished by the fact that the former lays waste and ruins labour-power and thus the natural power of man, whereas the latter does the same to the natural power of the soil, they link up in the later course of development, since the industrial system applied to agriculture also enervates the workers there, while industry and trade for their part provide agriculture with the means of exhausting the soil.\textsuperscript{177}

Marx thus applies the metabolic energy income/expenditure approach (previously used to analyse the exploitation of labour-power alone) to the entire ecological system of land and labour power. In fact, he had sketched out this application several years earlier, in \textit{Theories of Surplus Value}.

\textsuperscript{174} Marx 1976a, p. 638.  
\textsuperscript{175} Marx 1976a, p. 637.  
\textsuperscript{176} Marx 1976c, p. 949.  
\textsuperscript{177} Marx 1976c, pp. 949–50.
Anticipation of the future – real anticipation – occurs in the production of wealth in relation to the worker and to the land. The future can indeed be anticipated and ruined in both cases by premature overexertion and exhaustion, and by the disturbance of the balance between expenditure and income. In capitalist production this happens to both the worker and the land. . . . What is expended here exists as power and the life span of this power is shortened as a result of accelerated expenditure.178

Marx’s rift analysis recognises that capitalism does not create or destroy matter-energy, but does degrade it in the sense of a reduction in the combined metabolic reproductive capabilities of land and labour-power. This degradation can be seen as a historically specific form of entropy – one produced by capitalist industrialisation based on the social separation of the producers from the land and from other necessary conditions of production.179 And, as Peter Dickens observes, Marx’s ‘notion of an ecological rift, one separating humanity and nature, continues to be helpful for understanding today’s social and environmental risks’.180 The rift approach has recently been applied to the problems of global warming, depletion and degradation of oceanic ecosystems, disruptions to the global nitrogen cycle by inorganic fertilisers, and the dynamics of ecological imperialism.181 Yet Martínez-Alier’s conventional wisdom excludes Marx’s analysis from ecological economics simply because it does not reduce everything to quantitative energy flows.

VII. Conclusion

Marx and Engels found Podolinsky’s energy-dogmatism inadequate for the treatment of human labour as an environmentally open system structured by specific class relations. Their own approach was both historical and metabolic. While incorporating energetic factors, it also recognised the irreducibly material (including biochemical) and irreducibly social character of human production. The ‘human labour as machine’ analogy was neither holistic nor social-relational enough to be helpful in this context. Engels’s criticisms of Podolinsky were thus more than justified. In fact, by the time Podolinsky’s work was published, many leading thermodynamic theorists had, like Marx and Engels, rejected the notion that human beings and their labour could be

viewed simply as thermal engines, and called for a more nuanced physical, biochemical, and thermodynamic analysis. The emerging anti-reductionist view – represented by such key scientists as William Robert Grove, Justus von Liebig, Ludimar Hermann, and William Thomson – understood the first and second laws of thermodynamics not just quantitatively but also qualitatively, in terms of the transformations among various co-developing material forces.\textsuperscript{182} This implicitly dialectical current was closely studied by Marx and Engels, and, as we have seen, it greatly influenced Marx's mature analysis of capitalist exploitation and industrial accumulation at certain key points.

Unfortunately, Podolinsky chose to follow the opposing, rigidly mechanistic, current which reacted to advances in thermodynamics by seeing the work of animals and human beings in terms of the steam engine. The most direct influence in this respect was likely the French 'living machine' school represented by Bernard, Hirn, and Marey – all of whom were cited by Podolinsky. As Gleyse observes, it is difficult to ignore the capitalist functionality of this school together with its élite-engineering perspective on social efficiency and reforms:

The idea of the rationalised energy-producing body... was perhaps not only developed in part from the technology of the steam engine, but also through the economic need for more and more efficient factory production. At least we can perceive... a metaphorical dialogue between these two types of language. But in both instances it would seem that a group of pioneers was instigating a system of control over the general population... In the industrial universe and in the factory environment 'man' became a theoretic entity in accordance with values represented firstly by the steam engine and then by the machine... A kind of implacable logical cycle was set up: technology gave birth to science and then science, expanding beyond its first field of application, or else being applied (or even misapplied) to other fields, led in turn to the birth of a technology, or sometimes even a technocracy. It was the human body, or more particularly in this case the physical activity associated with it, that was the subject of this technology. But this technology should not just be considered as such; above all else it was a widespread system of control that organised society, or at least a system that a few influential people wished to promote for the greater good of the masses... Hirn consolidated this paradigm and applied it to corporal practices as a whole, going beyond the limited field of industrial production.\textsuperscript{183}

Exemplifying such positivistic views in physiology, Bernard wrote in 1865 that:

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There is an absolute determinism in all of the sciences because, each phenomenon being linked necessarily to physico-chemical conditions, the scientist can modify these conditions to master the phenomenon, that is to say, to hinder or favour its manifestation. In the case of inorganic bodies, there is no debate on this subject. I would like to prove that it is the same for living bodies, and that, for them also, determinism exists.184

One sees in such outlooks the intellectual roots of Podolinsky’s attempt to ground value-analysis in energy flows and of his vision of socialism as a tightly engineered machine dedicated to the accumulation of energy on the earth. It is interesting to note that these features of Podolinsky’s thought have been rejected by some of the giants of modern ecological economics. Georgescu-Roegen, for example, referring to ‘the fallacy of the energy theory of economic value’, explicitly rejected what he understood to be Podolinsky’s attempt ‘to replace labour by energy in Marx’s theory of value’, supporting Engels’s argument in this regard, and suggested that Engels’s critique of the labour-as-steam-engine analogy ‘ought to kill in the bud any temptation to replace economics by some energetics’.185 Both Georgescu-Roegen and Daly have pointed out that the ‘principle of energy maximisation’, according to which the (human and other) systems that survive and grow are those that utilise the most energy reproductively, wrongly reduces use-value to pure energy.186

Meanwhile, the power of Marx and Engels’s metabolic-energetic approach has received notice from a growing number of ecological economists. Kenneth Stokes, for example, observes that Capital’s ‘surprisingly contemporary thermodynamic vision of the economic process is a clear departure from the circular flow concept; for it is suggestive of the modern open-systems theoretical perspective’.187 He goes on to state that Marx and Engels’s ‘model explicitly embodied… the metabolic interaction of man and nature; the notion that the economic process is embedded in the biosphere’, and that it treated ‘social change’ as ‘an endogenous dialectic process in which the nature-society nexus displays reciprocal and complex interpenetrations’.188 Georgescu-Roegen’s student and leading follower, Kozo Mayumi, offers that

Marx effectively evaluated and appreciated the development process of agriculture and the destructive aspect of modern industry in terms of the circulation of matter between nature and man.189

188. Stokes 1994, p. 64.
By comparison, it is difficult to see what important insights into contemporary ecological crises can be obtained from Podolinsky’s energy-reductionist approach. The only possible advantage of Podolinsky’s analysis over Marx and Engels’s lies in the former’s effort to trace productive energy flows empirically. As shown above, however, this attempt to reduce production to pure energetics (‘counting calories’) may raise more questions than it answers. Certainly, it does not constitute a valid physical scientific basis for Marxist value analysis. Indeed, insofar as Podolinsky adopts a quasi-Ricardian, physicalist, notion of value as embodied energy, it draws attention away from the radical socio-ecological implications of Marx’s value-form perspective. For Marx, the apparent independence of value from nature, and the anti-ecological character of the value accumulation process, are historical outgrowths of capitalism’s alienation of workers from nature and from other essentially communal conditions of production. One of the most severe collateral damages of the Podolinsky myth has been its reinforcement of the serious misunderstandings among ecological economists (and even among many so-called ecosocialists) about the real ecological significance of Marx’s value-analysis.190

Marx and Engels’s socio-metabolic approach to human labour offers a more pro-ecological and humanly liberating vision of socialism than does Podolinsky’s mechanical-engineering perspective. Instead of treating socialism as an energy-accumulation machine, Marx and Engels see it as a system of sustainable human development that maximises the self-management capabilities of workers and communities.191 As Marx indicates:

Freedom, in this sphere, can consist only in this, that socialised man, the associated producers, govern the human metabolism with nature in a rational way, bringing it under their collective control instead of being dominated by it as a blind power; accomplishing it with the least expenditure of energy and in conditions most worthy and appropriate for their human nature.192

Among socialism’s first tasks, in Marx’s view, is the healing of the rift between people and nature through a ‘systematic restoration’ of society’s reproductive metabolism with the land ‘as a regulative law of social production, and in a form adequate to the full development of the human race’.193 This restoration will once and for all relegate Podolinsky’s work, and all other energetic myths, to their rightful place in the pre-history of materialist ecology and of human

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development. If Podolinsky remains important to Marxist theory (and to ecological economics) and well worth close study today, this has less to do with what he offers directly than with the new insights into Marx and Engels’s much more formidable economic-ecological synthesis that a critical scrutiny of his work provides. In this sense, we can certainly say of Podolinsky, R.I.P.

References


Human Labour and Unity of Force

Sergei Podolinsky

I. The doctrine of energy

If we acknowledge the correctness of the theory of the unity of force, of the constancy of energy, we are also obliged to accept that nothing can be created by labour and that its goal and its utility consists only in a conversion of certain quantities of forces. In what way do these conversions come about? What are the best means of employing human labour in order to draw upon a greater fraction of natural forces for the satisfaction of human needs? We want to try to give an answer to this question in the present essay.

We know that human labour can accumulate greater quantities of energy in its results than was necessary to produce the labour-power of the worker. Why and in what way does this accumulation of energy arise?

In order to answer this question we have to pay closer attention to the general diffusion of energy in space.

The total energy, the whole sum of physical forces of the universe, is a constant quantity. It is entirely otherwise, however, with the quantities of energy in the different parts of the universe. Some celestial bodies send significant quantities of different physical forces through the universe to other celestial bodies. This fact allows us to say that the first bodies, the suns, have energy in a greater quantity than the second, the planets and their satellites. The latter celestial bodies receive their energy from their closest suns in the form of illuminating, heating and chemically potent rays. Such an exchange of force between the bodies that have more energy and those that are endowed with less must lead, after a more or less long time, to a universal equilibrium of energy.

This equilibrium, however, cannot be accomplished other than by means of a whole series of transformations of physical forces. Observation teaches us that all such transformations of physical forces are accompanied by a tendency of those physical forces to assume a determinate form, namely that of the heat uniformly distributed throughout space. This last form of energy is the enduring form which is transformed with the most difficulty, while all other forms of energy – light, electricity, chemical affinity, etc. – are transformed frequently into heat, at least partially, in the course of their transformations.

In this way, a conversion of the energy of the universe constantly occurs through energy losing its less enduring forms and other more immutable forms taking their...
Thus further transformations of energy gradually become more difficult. After a long series of millions of years, therefore, all energy has to take on an enduring form, namely, that of heat uniformly diffused throughout the universe. If the universe endures for long enough, every type of mechanical movement perceptible to our senses and thus also every type of the phenomena of life will be completely absent, for a difference in temperature is absolutely necessary in order to transform heat into any other force. This tendency of energy towards a general equilibrium is called dispersion [Zerstreuung] of energy or, following the terminology of Clausius, entropy. This latter expression signifies the quantity of transformed energy that is no longer capable of any reverse cycle transformations. From this follow the two laws of Clausius: the energy of the universe is constant. The entropy of the universe has a tendency to reach a maximum.

Thus, in the strict mechanical sense of the word, the energy of the universe is an always and absolutely constant quantity. However, this energy, brought completely into equilibrium, would be incapable of generating all those phenomena in the inorganic and organic world that we now observe, and which represent, fundamentally, nothing more than an expression of the different transformations of energy. That part of physical force that has now already been transformed into uniformly diffused heat constitutes, in a manner of speaking, a leftover of the world’s activity, a leftover that gradually grows more and more.

Presently, however, we still receive on our earth enormous quantities of physical forces that are capable of experiencing the most varied transformations, as whose expression all the physical and biological phenomena appear. According to Secchi, each square metre of the sun’s surface delivers 5,770,540 kilogrammometres or 79,642 horsepower of labour. A few square metres of the sun’s surface would suffice to set all the machines on the earth into motion. The total labour-power of the sun is estimated at 470 quintillion horsepower. If we accept the widespread theory that establishes the source of the sun’s heat as its own condensation [Verdichtung], we find that 18,257 years would be necessary for the reduction of the apparent diameter of the sun by a single second and 3820 years would need to pass before the temperature of the sun would fall by a single degree. The last figure will in no way appear to be exaggerated if we consider that the sun’s substance is probably almost constantly in that state of chemical indifference, caused by the high temperature, which is known by the name of dissociation.

We thus see that the danger of one day suffering a lack of transformable forces on the surface of the earth is still a long way off; at the same time, however, we note upon closer inspection that the distribution

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3. Biology is the doctrine of living animals.


of these forces is not always the most advantageous for the satisfaction of the needs of the organic world in general and of the human species in particular. We believe, however, that it is in the power of humanity, to a certain extent, to effect changes in this distribution that will enable us to use a greater part of the world’s energy for the benefit of humanity.

In reality, the greater part of the physical forces on the earth’s surface is far from being in the most advantageous condition for the satisfaction of human needs.

Humans above all need significant quantities of food, combustible material and mechanical work forces; the most advantageous forms of physical forces would thus be: 1) the more or less free chemical affinity in the form of nutritious substances deriving from plants and animals or in the form of combustible material, and 2) any mechanical movement which could serve as a driving force for the machines working for the benefit of humanity.

We see, though, that our globe in itself provides very few physical forces shaped into such advantageous forms for humanity. If the interior of the earth is really still in a state of incandescence and thereat are found large quantities of dissociated elements which, thanks to the high temperature, contain significant quantities of potential work, we nevertheless do not use these. Rather, we experience only their destructive effects at the time of earthquakes and volcanic explosions. Incidentally, we are nevertheless partially recompensed by the exceptional fertility of volcanic earth and by the increase in temperature in the vicinity of volcanoes. ‘On the slopes of Etna’, E. Reclus says, ‘the earth is so fertile that its products are able to suffice for a population three or four times more dense than that of the other counties of Sicily and of Italy. More than three hundred thousand inhabitants are clustered on the slopes of this mountain, which from a distance is considered a place of terror and imminent danger, and from time to time this proves to be the case as it is uncovered to flood its countryside with a deluge of fire. At the base of the volcano the cities touch and follow one another like pearls in a necklace.’

In general, however, the surface strata of the earth’s crust are made up of chemical compounds, which contain almost no free chemical affinity and consequently have very little potential (possible) force of movement. We find the same thing in relation to the bodies of water and atmosphere that surround the surface of our globe, and with which we continually come in contact. All movements of air and water, ebb and flow, the movement of the waves caused by the wind, the currents of the rivers, the force of falling rain, even the wind, borrow their forces from the sun’s energy or are caused by the gravity of the moon and the sun. The chemical affinity that is accumulated in the form of coal inside the earth is likewise an effect of solar heat, a product of the sun’s rays over the course of many thousands of years. Even the free oxygen of the atmosphere, according to new geological hypotheses, was previously

combined with the carbon that now constitutes coal – and was freed from it only through the influence of the sun’s rays by means of a very rich growth of plants.\(^7\)

All these examples show us very clearly that the radiant energy of the sun is almost the only source of all the forces on the earth’s surface useful to humans. We know, however, that the quantity of the energy that is radiated by the sun towards the earth would be thrown back into space in the same amount if this energy did not undergo certain transformations, which allow it a longer stay and even to become an accumulation of solar energy on the earth’s surface. This actually occurs whenever the sun’s rays that arrive to us, warm, illuminating and chemically effective, are so received by matter that they are transformed into free chemical affinity or into mechanical movement. In this last case, a part of the radiating solar energy is no longer, according to the well-known Kirchhoff’s Law,\(^8\) simply thrown back into space. Rather, it can then be accumulated for a longer time on the earth’s surface, taking on forms that temporarily guard it against dispersion. ‘Energy rises by degrees’, says the famous English physicist William Thomson about this process.\(^9\) The following words of Secchi illustrate the point well: ‘The sun's rays that fall on the plants are not reflected by them to the same degree as would be found for the desert or mountainous rock. They are held back in a greater measure and the mechanical force of their vibration is used for the decomposition of compounds of oxygen with carbon and with hydrogen, of saturated and enduring compounds, which are known by the names of carbon dioxide and water’.\(^{10}\)

What occurs during this process? A part of the sun’s heat perishes as such. It is held by the earth’s surface without raising its temperature, that is, without increasing its losses [into space]. With the same loss [into space], the earth’s surface obtains more energy, or receiving the same [quantity of

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energy], it loses less of it. However we may look at this process, we obtain under the influence of plants an accumulation of energy – and not radiated energy, like, for example, heat, electricity and light, but energy of a higher degree – which can be kept for hundreds of years and still retains the capacity for further transformations. Thus the plants on the earth’s surface are the worst enemy of the dispersion of energy into space.

II. The transformable energy on the earth’s surface

We thus see that the radiating energy of the sun has not yet completely lost the ability of taking on further higher forms on the earth’s surface. Nevertheless, the way in which this process happens ranges within relatively narrow limits. More specifically, this transformation happens in the following ways:

1) The generation of winds, that is, through the impetus which the air gains from changes in temperature.
2) The elevation of water by means of evaporation.
3) The dissociation of enduring compounds, for example, of water, of carbon dioxide, of ammonia during the growth of plants.
4) The muscular and nervous labour of animals and humans.
5) The work of the machines made by humans, which have the sun’s heat as their only driving force, in either a mediated or an immediate way, as in the case of the now widely known solar machine of Mouchot.11

Of course, there are also enormous quantities of transformable energy on our earth, outside of this list of processes we have compiled. These, however, have been left unused by humanity up until now.

First place, according to its size, is taken by the energy of the movement of the earth around the sun and around its own axis. Both movements are forms of energy that are still very transformable or, according to Thomson, high-grade energy, as are in fact all mechanical movements. There is a well-known calculation according to which the immediate stop of the earth in its cycle around the sun would be expressed in the development of a quantity of heat, for whose generation it would be necessary to burn a quantity of coal exceeding the mass of the earth fourteen times. The energy of rotation [Umdrehung] around the earth’s axis is likewise of a very significant amount. However, the influence of both movements on the distribution of energy on the earth’s surface has not been precisely determined. Concerning the energy of rotation around the axis, however, this conclusion is perhaps not completely correct because it is known that a part of this energy is transformed into heat under the influence of friction against the mass of water remaining behind in the change from low to high tide. This increases

11. [A reference to the work of the French mathematics teacher and engineer/inventor Augustin Mouchot (1825–1912). Mouchot was awarded a Gold Medal at the Worlds Fair of 1878 for his research relating to the use of solar heat. In 1861 he had patented the first machine capable of producing electricity by exposure to the sun. His device used glass-enclosed water to evaporate water in an iron bucket, with the resulting steam providing a motive force for a simple engine. See Frank Kryza, The Power of Light: The Epic Story of Man’s Quest to Harness the Sun. New York: McGraw-Hill, 2003, Chapter 6 (editorial note).]
the temperature of the water, while the movement of the earth, even if very insignificantly, is slowed down. By using the tide as a moving force for machines, for example, mills, we hold water up during its highest point at the time of the high tide and use the receding water during the low tide. On the whole, however, the tides are still relatively rarely used as motors.

We have already seen that the inner heat of the globe likewise does not play a very significant role in the economy of energy on the earth’s surface. If we view magnetism as an expression of the energy found in the earth’s interior, it of course represents a relatively significant quantity of force that is not to be scorned because it is used during navigation and for the fabrication of many scientific apparatuses. At any rate, the absolute size of the earth’s magnetic force is not very noticeable in comparison to the solar energy effective on the earth’s surface.

Thermal springs furnish us with a not large but nevertheless advantageously applicable quantity of transformable energy. Their heat can be used for various technical ends, for example, for the heating of houses, for the preparation of mortar, etc. We still do not know how to apply the heat of the thermal springs as motor power; to a small degree, such an application is of course entirely conceivable.

There is very little free chemical affinity on the earth’s surface, except for that (already mentioned) of the oxygen in the atmosphere. Inside the earth there are certainly significant masses of metals and sulphur in a free state, but we feel little of the efficacy of their chemical energy on the earth’s surface.

Turning now to the forms of transformable energy already enumerated at the beginning of this section, we see that the movement of the air or the wind is a very high-grade and, in the human sense of the word, useful form of energy that can furnish a large quantity of mechanical work. Nonetheless, it is not very difficult for us to show that the movement of air is nothing other than a part of solar energy, comprehended as in retrogressive transformation. In order to generate the active force of the wind, the sun must deliver a many times greater amount of energy, of which a significant part is dispersed into space. It cannot happen otherwise, however, because the sun’s heat, a low-grade energy, according to the general laws of dispersion, cannot ever be completely transformed into the mechanical movement of air, a higher-grade energy. Even that part of energy that is transformed into movement passes over into dispersion, for the wind is nothing other than a result of the tendency towards equalisation of temperatures.

What has been said about the force of movement of the wind is likewise applicable to the forces of the water currents and in general of falling water. By falling on the millwheels, water gives a higher fraction of useful work than either the steam engine or electromagnetic machine or the more advantageously equipped organisms of pack animals or of humans can deliver. We should not forget here, however, the enormous mass of solar energy that has served to raise the water by means of evaporation.

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We see from all this that regardless of the significant quantity of solar energy retained by the earth's surface, it is nevertheless in no way rich in transformable energy such as, for example, mechanical movement or free chemical affinity. Even heat is not in abundance. We find free chemical affinity accumulated in large quantities only in combustible materials of organic derivation. This mass as such is of course significant. According to approximate calculations, the English coalfields amount to 190,000,000,000 tonnes of coal and the North-American even 4,000,000,000,000.13 This whole quantity, however, just as with all the other organic combustible materials, e.g. peat, petrol etc., is formed by the influence of solar energy, i.e., from the plants on the earth's surface from different epochs. We believe, that is, that plants, with the help of solar rays, have in the course of centuries transformed a saturated substance deprived of free chemical affinity, carbon dioxide, into coal, which contains a large quantity of such energy. At the same time, the oxygen of the atmosphere was freed from the carbon dioxide to which it was previously bound, and its energy of chemical affinity thereby freed up to nourish the life of the higher organisms, of animals and humans.

III. Energy accumulation

We can begin our investigation from the moment when the earth's land surface was formed to such an extent that the earth's crust frustrated a significant influence of the earth's inner heat on its surface temperature. As this filling up was already so advanced that the temporarily dissociated water could be transformed into steam and a large part of the steam could be transformed into fluid water (which, dissolving the salt that had been condensed up until then, formed the oceans in the depressions of the earth's crust), most of the chemical processes in the inorganic substance of the earth's crust were already finished. Chemical affinity was already saturated to approximately the same degree as today, if we leave out of consideration the processes of plant life. We even believe that thanks to its influence the saturation of chemical affinity is not as extensive now, for, according to the above mentioned hypothesis, the whole quantity of coal now found in the earth's layers was then in compound with the oxygen of the atmosphere. We know, that is, that the plants draw their carbon from the carbon dioxide of the atmosphere. We have no reason to suppose that they would have done differently during the coal period. Therefore, we have every right to believe that at the beginning of organic life the quantity of unsaturated chemical energy on the earth's surface was insignificant. The influence of the transformable energy inside the earth was constantly diminished by the gradual swelling of the earth's crust. Of course, back then the earth received somewhat more energy from the sun than it does now. However, the dispersion of the same was also much more significant, for the earth was then hotter than it is today and radiated more energy into icy space. The large quantities of energy obtained from the sun increased only insignificantly.

the energy of the earth, because the chemical solar rays then found no such substances upon which they would have been able to exercise an influence, as now occurs, for example, with the help of plants, that is, through the dispersion of unsaturated compounds. The same thing occurred with heat and light rays. Heat rays were merely absorbed in the same way as its dispersion and did not increase the amount of transformable energy on the earth's surface. With the exception of the movement of heated air and the water, solar energy was not transformed into any other form on the earth's surface, as still now occurs on the plantless sand area of the Sahara desert or on the ice sheets of the polar regions. If one does not consider the heat contained inside the globe, the quantity of transformable energy contained by the sun back then and the preservable solar energy on the earth's surface appear to have been less significant than at the present time. For if we reckon the coal beds within the earth's surface (to which we are completely entitled, given the organic derivation of the coal deposits), we find ourselves today in possession of very significant quantities of transformable energy. This supply consists, on the one hand, in the unsaturated affinity of enormous quantities of carbon, and on the other, in the free affinity of the oxygen of the atmosphere.

If we examine the course of development of this process, we find that energy contained inside the earth plays an ever-smaller role in the course of time in the formation of the energy budget of the earth's surface. The quantity of energy obtained from the sun decreases, slowly, but regularly. In order for an accumulation of energy to be formed on the earth's surface despite the diminished supply of it, it is essential that a process come about that works against the dispersion. This process must be such that a part of the heat obtained from the sun is transformed into other forms of energy, into chemical affinity, mechanical labour, etc., and, indeed, into ever greater masses.

At the moment, the earth's surface has in a higher degree than formerly the quality of converting lower forms of solar energy (heat) into higher forms (chemical affinity, movement). One must have a correct idea of such a conversion working against the process of dispersion, in order to recognise its significant complexity. This is especially the case with regard to the transformation of heat into mechanical activity. The ways and means in which solar energy is transformed into mechanical movement are also certainly not numerous.

It is easy to prove that the quantity of solar energy that is transformed into free chemical affinity or into mechanical work is not always the same and that, among other causes, it can also be influenced by the activity of humans.

One can, that is to say, assume as undoubted that the existence of plants has the quality of effecting an accumulation of solar energy on the earth's surface to a higher degree than that of animals. The coal deposits are a smoking gun in this regard. One should even recognise that despite the new theories (Bernard, et al.) about the unity of life in both kingdoms, aluminum animals lose a large quantity of their heat through

respiration and movement, that is, they disperse much solar energy into space that had been accumulated by plants. It is of course very difficult to ascertain the precise relation of the two quantities; it is certain, however, that humans, though certain activities dependent upon their wills, can increase the quantity of accumulated energy of plant life and reduce the quantity of energy dispersed by animals.

By cultivating plants in places where they either do not yet exist, or exist only in a small amount, by draining marshes, irrigating the deserts, applying perfected cultivation systems, using machines for agriculture and, finally, by protecting the cultivated plants against their natural enemies, we reach the first of the two indicated goals.

Through the displacement or extermination of animals that are damaging to the plant kingdom, we work at the same time for the second goal. In both cases, we obtain as a result an absolute or relative enlargement of the solar energy retained on the earth's surface.

We are thus presented with two parallel processes which, taken together, form the so-called life cycle. Plants have the quality of accumulating solar energy; animals, however, by nourishing themselves from plant stuffs, transform a part of this saved energy into mechanical labour and disperse it afterwards into space. If the amount of energy accumulated by plants remains larger than that of the energy dispersed by animals, there arises a build up of energy stores, e.g. in the period of the formation of coal during which it seems plant life had a preponderance over animal life. If, on the other hand, animal life obtained the upper hand, the accumulated energy store would soon be dispersed and animal life would have to return to the mass determined by the plant kingdom. In this way a certain state of equilibrium between the accumulation and the dispersion of energy would develop. The energy budget of the earth's surface would then be of a more or less stable size; the accumulation of energy, however, would fall to nothing or at any rate much lower than at the time of the preponderance of plant life.

Factually, however, we see no such stagnation of the energy budget on the earth's surface. The quantity of accumulated energy is even now generally understood to be growing. The quantity of plants, of animals and of humans is now undoubtedly more significant than in previous times. Many previously infertile strips of land are now cropped and covered with luxurious plant growth. In almost all civilised lands the harvests have increased. The number of domestic animals and especially of humans has substantially increased. If some countries have lost their earlier fertility and number of inhabitants, that depends on far too gross and self-evident business mistakes; otherwise, however, the opposite is the rule, and on the whole a general increase of the amount of nutritious material and of transformable energy on the earth's surface can no longer be denied.

The most important cause of this general increase is the labour performed by humans and the domesticated animals used by them.

Some examples from the agricultural statistics of France will illustrate for us the correctness of this proposition:

At the moment France possesses nine million hectares of forest, which deliver a yearly yield of 35,000,000 cubic metres, or nearly 81 million metric quintals, of dry wood. Thus, each hectare delivers a yearly yield of nine metric quintals or 900 kilograms. Each kilogram of dry cellulose contains 2550 calories, so consequently the yearly accumulation of energy on each hectare of forest constitutes the quantity of $900 \times 2,550 = 2,295,000$ calories.

The natural pastures in France cover an area of 4,200,000 hectares and produce
each year on average 105,000,000 metric quintals of hay, that is, 2,500 kilograms on each hectare. The accumulation of solar energy thus represents $2,500 \times 2,550 = 6,375,000$ calories per hectare.

We therefore see that without the contribution of labour, plant growth yields an accumulation of solar energy that does not exceed the amount of 2,295,000 to 6,375,000 calories per hectare, even in the most favourable conditions (as they are encountered in the forest or on the pastures).

Where, however, labour is applied, we immediately see a significant increase. France currently possesses 1,500,000 hectares of artificial pastures that, after deducting the value of the sown seeds, yield in an average year 46,500,000 metric quintals of hay, that is, 3,100 kilograms for each hectare. Consequently the yearly energy accumulation is $3,100 \times 2,550 = 7,905,000$ calories per hectare. The excess in comparison with the natural pastures thus equals 1,530,000 calories per hectare, and this surplus is due only to the labour used in the creation of the artificial pastures. The quantity of this labour for a hectare of artificial pasture is approximately the following: 50 hours of labour of a horse and 80 hours of labour of a human. The whole labour expressed in terms of thermal units is 37,450 calories. We thus see that each calorie of labour applied in the creation of artificial pastures effects a net energy accumulation of $1,530,000 : 37,450 = 41$ calories.

We observe the same thing also in the cultivation of grain. France grows something over 6,000,000 hectares of wheat, which, deducting the seed, gives 60,000,000 hectolitres of grain and a further 120,000,000 metric quintals of straw. Each hectare thus gives 10 hectolitres or 800 kilograms of grain and 2,000 kilograms of straw. The 800 kilograms of grain contain – according to a special calculation of the composition of starch, bran, etc. – approximately 3,000,000 calories, which, together with the $2,000 \times 2,550 = 5,100,000$ calories found in the straw, make up the sum of 8,100,000 calories.

The surplus in comparison with the natural pastures is $8,100,000 – 6,375,000 = 1,725,000$ calories. In order to obtain this, approximately one hundred hours of horse labour and 200 hours of human labour are used, which together have the value of 77,500 calories. Consequently each calorie in the form of labour for cultivation of the pastures generates a terrestrial accumulation of solar energy equivalent to $1,725,000: 77,500 = 22$ calories.

Where does this surplus of energy come from, which is indispensable for the elaboration of this mass of nutritious and combustible materials? We can give only one answer: from the labour of humans and domesticated animals. What, then, in this connection, is labour? Labour is such a use of the mechanical and intellectual energy accumulated in the organism, which has as a consequence an increase of the general energy budget of the earth's surface.15

This increase can come about either directly, through the transformation of new quantities of solar energy into more transformable forms, or also in a mediated way, through protection against that dispersion into space, which would have occurred inevitably without the involvement of labour. To this last category belongs, for example, the labour of the tailor, the shoemaker, construction workers and such.

It is clear, from this perspective, that useful labour can only be ascribed to humans and some animals, which are either managed by humans, as with domesticated animals, or which, like ants, partially work on their own, and partially devote themselves to the breeding and raising of domesticated animals, driven by their own instincts.

The movement of air, i.e., the wind, cannot ever be regarded in and for itself as useful labour, for, left to itself, the wind, through the dispersion of its energy, generates no new accumulation of energy on the earth's surface. The same is also the case for water currents as a moving force.

Although plants accumulate energy in the substance of their own bodies, they cannot, in the majority of cases, set such energy into movement independently; they cannot usefully employ it in the sense of a general increase of the quantity of force on the earth's surface.

Man-made machines may, if left to themselves, remain in operation for a long time; but they would nevertheless not yield any useful work, for we still cannot imagine an artificial mechanism that would have the ability to progressively augment the solar energy accumulated on the earth without the participation of the muscle-power of humans.

Finally, even the nervous labour of humans only becomes really useful labour for humanity when it leads to some type of muscular effort. For we do not know any other way of achieving through nervous labour an immediately useful goal, i.e., an absolute or relative increase of the energy available in the human kingdom.\textsuperscript{16}

In passing over to the muscular labour of animals and humans, it is similarly difficult to determine with certainty the boundaries of useful labour. If we subject a lowly member of the animal kingdom to observation, we will find out only with great difficulty which of its functions should have the name of labour attached to it. Often labour is confused with mechanical movement; hence, the question becomes: are the fluttering of a butterfly and the crawling of a snail also labour?

From our point of view, we can confidently answer: no. The crawling of a snail and the fluttering of a butterfly are not labour, for they are accompanied merely by a dispersion of energy, but not by an accumulation of energy. But, one could reply, the snail crawls around in order to find food, the butterfly flutters about in order to find a good place for the development of its larvae. We, however, reply in turn: nature knows no goals and reckons its account merely from the results. The entire life of the snail, all of its crawling, seeking for food, digestion of the found means of existence and the ability gained from this for new movements, do not transform the slightest quantity of solar energy into such higher forms which by their further deployment could increase the store of energy on the earth's surface. A snail is incapable of dedicating itself to

agriculture, thus it also cannot increase the accumulation of solar energy through plants. One might perhaps respond to us that the snail, even if not through its life, then at least through its death, could advance the growth of plants. For a snail can, given good conditions and rich nutrition, destroy a large mass of plant material. If, on the contrary, it is forced to suffer hunger and die in the case of a failed crop of the types of plants most beneficial to it, it thereby gives the plants the possibility of developing in greater numbers, thus increasing the accumulation of energy. This is certainly a curious objection, the answer to which is not difficult. If the luxuriousness of the growth of plants of any particular locality really increases through the loss of the snail, it is then very probable that also the number of enemies of this plant growth will increase. After its death, the snail is no longer in a condition to keep the plants it formerly exploited from their new enemies and therefore the energy conversion remains presumably the same as it was before.

For we should keep in mind that by the word ‘labour’ must be understood a ‘positive act’ of the organism, which has as a necessary consequence an accumulation of energy. Therefore the ‘passive fact’ of death in the struggle for life can never belong to the category of labour.

We have introduced this example – which admittedly may seem peculiar to many – in order to assign the question of the conservation of energy its correct place from the beginning. It could, for example, appear that the death of the snail or the caterpillar actually encourages plant growth simply due to the fact that they no longer destroy any plant material. After all, one says that a capitalist saves when he does not consume all of his income. We have just sought to show, however, that a snail can never perform useful labour because it never increases the accumulation of energy through its activity. The same is the case regarding those conscientiously saving humans [the capitalists].

We hope that we have thus managed to bury the doctrine of saving or, as it were, of negative labour. For labour is always a positive concept, which consists in such an expenditure of mechanical or physical labour that has its end result an increase of energy accumulation.

Viewed from this perspective, we can conclude that the different movements of animals that are self-evidently goal-less or have as a goal merely the seeking out of means of nutrition, etc., cannot be counted as labour, precisely because they leave behind no increase of energy accumulation. Thus, for example, the activity of the spider that goes to great pains spinning its web and that of the doodlebug, despite all of the engineering knowledge involved, are still not by a long way useful labour.

In the strict sense of the word, it is only with the agriculture of humans that the correctness of our definition of labour becomes clear. For it is evident that a hectare on a wild steppe or in a virgin forest, without the involvement of humans, produces each year merely a determinant quantity of nutritious material, but the application of human labour can raise this amount ten or twenty fold. Of course, the human creates neither material nor energy. The material was already contained in its totality in the ground, in the seed and in the atmosphere; all of the energy was furnished by the sun. Thanks to the involvement of humans, however, a hectare of land covered with cultivated plants can accumulate perhaps ten times the quantity of energy it would have without their involvement. One should not believe that all of this energy was already aggregated in the soil and merely dispersed in a greater amount by human labour. That would not
be correct, for agriculture exhausts the soil only if it is conducted irrationally, that is, wastefully. On the contrary, a perfected agricultural science gives the best harvests precisely in the lands where agriculture has flourished already for a longer time, e.g. in England, France, Belgium, in Lombardy, in Egypt, China, Japan, etc. Therefore we believe we are correct to say that scientifically organised agriculture can be counted as one of the best examples of really useful labour, that is, such labour which increases the amount of solar energy upon the earth’s surface.

IV. The labour of the human organism

Beginning with the distribution of energy in space, we have arrived at human labour, an important factor in the distribution of energy upon the earth’s surface. We have not said anything until now, however, about the emergence of that capacity for labour in the human organism, without which the accumulation of energy on the earth’s surface under the influence of labour would be difficult to explain. From where in the organism does the energy necessary for labour derive? Which mechanisms does this activity use? What phenomena accompany it?

We can answer the first question by saying that the whole mechanical labour of animal organisms has its source in nutrition. The free chemical affinity of nutritious material is saturated within the organism by the inhaled oxygen, and thereby converted into heat. A part of the latter passes over into mechanical labour.

Hirn conducted one of the first and most important experiments on the conversion of the heat of the human organism into labour.17

He used a large wooden hermetically (airtight) sealed box, but which was furnished with glass openings in order to be able to observe its interior. In the box a human who served as the object of the experiment could find enough free space in order not to touch its walls. The air necessary for breathing was admitted through a pipe and the exhaled gases were removed in the same way. At the beginning of the experiment, the human remained in a state of rest. In the further course of the experiment, however, he performed a determinant sum of labour in the box, climbing up or down a ladder. The mechanism for this was arranged in the following way:

In the lower part of the box was mounted a wheel that turned around an axis, being set into movement by a belt outside the box. During the movement of the wheel, the human who served as the object of the experiment had to imitate the movement with his feet while holding himself up on a handrail mounted in the upper part of the box, just as if he were climbing stairs. Accordingly, rungs were also mounted on the wheel at certain intervals. When the wheel was moved in the opposite direction, the human had to descend onto the wheel and, after an hour, for example, his centre of gravity had covered the same distance as the circumference of the wheel in the opposite direction.

The quantity of heat energy generated by the worker is different in these three cases, according to whether the man was at rest or descended onto or dismounted the wheel. These differences agree completely with the postulations of the mechanical theory of

17. [Gustave Adolphe Hirn (1815–90), French industrialist and thermodynamic theorist/engineer. He tried to apply to human muscular labour the concepts and measurement methods developed in his experiments involving steam engines (editorial note).]
heat. It was the case, namely, that during the
pause each gram of oxygen inhaled delivered
5.18 to 5.80 calories, while during labour it
only delivered 2.17 to 3.45 calories. This
experiment yields very important results.
For it gives us the possibility, even if only
approximately, of determining the size of
the economic coefficient of the human
machine, that is, the percentage yield of
the heat transformed during labour.\(^{18}\)
Helmholtz managed on the basis of Hirn's
experiment and with the help of some
hypotheses commonly acknowledged in
physiology to quantify this coefficient.\(^{19}\)

At complete rest, an adult human delivers
a quantity of heat in the course of an hour,
which carried over into labour, could raise
the body of this human to a height of 540
metres. This height is precisely that at which
one arrives when mountain climbing
without particular effort in the course of an
hour, that is, under the same conditions as
in Hirn's experiment. However, during this
experiment the respiratory activity of the
worker was intensified fivefold. It follows
immediately that the economic coefficient
of the human machine represents 20% or
1/5 of the total heat generated by the
organism or, what is the same thing, that
the human possesses the ability to transform
1/5 of the total energy added by nutrition
into muscular labour. As is generally known,
even the most advanced steam engines do
not reach this quantity. This extraordinary
capacity to convert lower forms of energy
into mechanical labour is found to an even
higher degree in some of the inner organs
of the human body, e.g. in the heart.
Helmholtz has found that the heart, by
means of its own force, could raise itself up
to a height of 6,670 metres in the course of
an hour. The strongest locomotives, which
e.g. are used on the Tyrol railways, could
not raise their own weight up over 825 metres
in an hour. Consequently, these locomotives,
considered as machines, are eight times weaker
than a muscular apparatus similar to the
heart.\(^{20}\)

The causes of this disproportionately
significant strength of the muscular
apparatus have been partially explained by
the latest researches in the field of muscle
physiology. In part, however, they still
remain shrouded in darkness. Here is not
the place to enter into further discussion of
this matter. In general, however, we can
apply most of the laws of the steam machine
or any other thermal machine (set into
movement by heat) also to the labouring
human.

In this comparison we should not forget
that the human organism is much more
complicated than any other thermal
machine. All artificial machines obtain their
sources of movement in one or a few ways,
e.g. through the burning of combustible
material, through chemical processes in
galvanic elements, etc. Similarly, the work
of machines proceeds only in one or a
few directions. We observe something
completely different when it comes to
humans. Even though nutrition together
with the inhaled gases are likewise almost
its only sources of force, the human

\(^{18}\) The economic coefficient of a machine is that number which gives the relation of its
efficiency to the heat used by it.

\(^{19}\) [Hermann von Helmholtz (1821–94), German physicist and physician, and one of the
co-discoverers of the first law of thermodynamics, which he termed the 'Law of Conservation of
Force' (editorial note).]

\(^{20}\) Verdet, Théorie mécanique de la chaleur. II., 246. [Oeuvres de Émile Verdet, Volumes VII–
VIII. Paris: Imprimerie Impériale, 1868–72 (editorial note).]
organism possesses, on the other hand, certain abilities to prevent the energy from dispersing. These are partially applied instinctively, as satisfaction of needs, and also partially deliberately, in the form of education, learning, and improvement. For instance, houses and walls, which merely satisfy our immediate needs and protect us from the excessive lack of warmth, also lead to a saving and advantageous distribution of energy in the human body just as much as does, for example, instruction in a useful employment of energy during labour.

A second and even more significant difference between the human organism and any other thermal machine consists in the diversity of human labour. Without taking the intellectual activity of humans into account, the mechanical achievements of humans are already so rich and diverse that they are overtaken by a mechanical apparatus only with difficulty. It is precisely this diversity of movements that gives human labour the ability to cause simultaneously all those transformations in the environment, which in their end results make possible an accumulation of energy. Such is the case, for example, with the long series of various kinds of cultivation. This diversity of movements of the human machine is the most important cause of the higher productivity of the labour of humans.

On the other hand, we must also mention those causes that apparently result in a significant decrease in the high economic coefficient of the human machine. Foremost is the necessity of satisfying some purely intellectual needs, which meanwhile cause a great addition to the general energy budget of humanity. Naturally, the higher the development of humanity rises, the greater the role these intellectual needs play in its life.

However, there are not a few purely material needs in addition to the need for nutrition and for air to breath, and it is not easy to determine the quantity of necessary labour for these. Since we still do not have a close measure of this, we hold ourselves to the following calculation, which is certainly inexact but nevertheless is provisionally adequate for our purposes.

In most civilised lands food expenditure represents approximately half of the budget of the middle classes. Housing, clothing and the satisfaction of intellectual needs claim the second half. We should conclude from this that if the economic coefficient, calculated according to the quantity of nutrition and the inhaled oxygen, equals the fraction of 1/5, and if the whole quantity of energy that is claimed by humanity for the satisfaction of its material and intellectual needs is properly brought into consideration, this coefficient must be decreased to the fraction of 1/10, and then even more so in light of the fact that a human passes a significant part of its life, during childhood, old age and sickness, as unproductive.

Thus, if we consider the human organism as a thermal machine with an economic coefficient of 1/10, it becomes possible to define a little more closely the preconditions of human life on earth. In earlier times of its presence on this planet, humanity did not yet have the means to increase the earth's energy store. We should thus believe that humanity lived exclusively from materials drawn from already existing stores. Actually, humanity did nothing more than hunt wild game, catch fish, gather fruits and consume all of these foodstuffs, without furnishing any type of useful labour; that is, humanity simply dispersed energy into space. If humanity had reached no higher development than the wild animals, it would probably have been made extinct by other animals, or at any rate its number would have been one corresponding merely to the general
conditions of the struggle for life. But under the influence of very special conditions, particularly of an advantageous organisation of the brain and the upper extremities, humanity began to employ its mechanical energy in a direction that enabled a general accumulation of energy on the earth’s surface. With that, the existence, increase and development of humanity were also made possible. Humanity is no longer bound by the quantity of the energy store; on the contrary, it can independently increase this store. Whether or not it really did this from the beginning, whether or not it currently does this in all cases, is an altogether different question. The possibility, however, is already at hand. Of course, at the beginning of civilisation, the dispersion of energy, due to destruction of forests, unregulated hunting etc., exceeded by a long way the accumulation of energy through agriculture and animal husbandry. With time, however, both influences came into equilibrium and finally the accumulation of energy by means of agriculture began to gain the upper hand over the dispersion of energy. Actually, of 1,300–1,400 million humans, barely 100 million are fed with the products of hunting, fishing or solely of animal husbandry, i.e., with foodstuffs that are not a product of human labour. All the remaining humans, 1,200–1,300 million in number, are obliged to feed themselves at the cost of agriculture, that is, at the cost of an energy accumulation that is the immediate result of human labour. If all present cultivation together with the more than 1,000 million tillers of the soil should ever disappear, the remaining humans would have great difficulties in feeding themselves with natural products, and would certainly not manage without also resorting themselves to tilling the soil. It immediately follows from this that no less than 1,000 million humans must now regularly be occupied in working on the accumulation of solar energy on the earth’s surface in order to satisfy the needs of the entire population.

As we have seen, the economic coefficient of this labouring human machine, that is, of the entirety of humanity, equals approximately the fraction of 1/10. Although humanity can transform only 1/10 of its energy into mechanical labour, this quantity already suffices for it to support a more or less steady growth of the human population. Even though humanity’s intellectual needs grow with its development and the economic coefficient thereby naturally becomes smaller, the total labour of humanity in general is nevertheless progressing. What are the causes of this apparent contradiction?

Since the development of the mechanical theory of heat, any process that leads to the production of mechanical movement can be compared to the activity of a thermal machine, i.e. a machine that transforms heat into labour. Incidentally, such views were enunciated in the past by Sadi-Carnot in his famous work that appeared in 1824. ‘In order to consider in the most general way the principle of the production of motion by heat, it must be considered independently of any mechanism of any particular agent. It is necessary to establish principles applicable not only to steam-engines but to all imaginable heat-engines, whatever the working substance and whatever the method by which it is operated’. Sadi-Carnot says further: ‘Whenever there exists a difference of temperature,… it is possible to have also the production of impelling power’. 21

21. Sadi-Carnot, Réflexions sur la puissance motrice du feu et sur les machines propres à développer cette
We know, however, that the entirety of the heat can never be transformed into work, and that in the most advantageous of cases hardly 20% of useful work is obtained. All remaining heat is for the most part dispersed. In order to come to an accurate conception of the quantity of work obtained, we must move on to consider the machine’s opposed transformation of work into heat, so that we can determine the quantity of heat contained in our work. Following Sadi-Carnot, this would be a reverse cycle or circular process. In his opinion, we can speak of a relation between the contained work and the employed heat only when the cycle is completed. Sadi-Carnot names a machine that carries out this circular process of the transformation of heat into work, and work again into heat (existing only in the imagination, for it has not yet been constructed), the perfect machine. Such a machine cannot yet be mechanically made, for it would have to apply the heat itself, by means of its own labour, to its own steam boilers.

When we observe the labour of humanity, however, we have before our very eyes an example of what Sadi-Carnot called a perfect machine. For from this perspective, the human organism would be a machine that not only transforms heat and other physical forces into labour, but which also brings about the operational reverse cycle, i.e. it transforms labour into heat and into the other physical forces which are necessary for the satisfaction of our needs, heating with its own labour converted into heat, its own steam boilers, so to speak. A steam engine, for example, even if it could function for a longer time without the involvement of human muscular power, does not possess the ability to produce the elements necessary to undertake its own work the following year. The human machine, on the other hand, creates new harvests, raises the young generations of domesticated animals, invents and builds new machines etc. In a word: humanity regularly creates the material and the elements for the future continuation of its labour. Thus, humanity fulfills Sadi-Carnot’s requirement of perfection much better than any artificial machine.

The degree of perfection of the human machine is not however always the same and changes not only depending upon its economic coefficient but also particularly with respect to its ability to bring about the operational reverse cycle, i.e. to convert its labour into an accumulation of physical forces necessary for the satisfaction of our needs. Of course, the needs of savages are much easier to satisfy than those of civilised people, and therefore its economic coefficient is significantly greater, perhaps 1/6 instead of 1/10. However, the labour of the savage is much less productive in its end results than that of the civilised human, because the savage lives for the most part from natural produce that he finds already at hand, while the civilised human satisfies his needs with the products of his labour and in this way creates an accumulation of energy on the earth’s surface, whose quantity exceeds the force of his muscles by at least ten times.

The necessary conditions for the continuation of the work of an inanimate machine are not immediately dependent upon the work of this machine, upon its

qualities. All artificial machines on the contrary are immediately dependent upon the muscular labour of the human who governs it, and supplies it with the heat engendering substance. The conditions of labour or, if we will, of the existence of the human machine, can on the other hand be rigorously established:

So long as the labour of the human machine can be transformed into such an accumulation of energy, capable of satisfying our needs, which exceeds the entire force of humanity by so many times as the denominator of the economic coefficient is greater than its numerator, the existence and the possibility of working is guaranteed for the human machine.

Every time the productivity of human labour falls below the size of the inverse economic coefficient, poverty and often a decrease of population arises. Conversely, when the utility of labour exceeds this size, we have to expect an increase of prosperity and an increase of population.

V. Labour as means for the satisfaction of our needs

The degree in which our needs can be satisfied by the accumulation of an energy supply is dependent on a whole series of factors that we will now subject to our attention. The most important of these are: the energy supply on the earth’s surface, the number of humans, the extent of their needs, and the productivity of their labour, i.e. their ability to increase the energy accumulation.

The availability of a sizeable store of energy in the plant kingdom alleviated significantly the struggle of prehistoric man against the wild animals, despite the latters’ greater force and ability to procure food for themselves. The use of fire, i.e. the solar energy accumulated by plants, was a powerful ally of humanity during its earliest and most difficult victories.

If humanity achieved all these victories while it was still in a lower stage of development, this occurred mostly because even then the energy store which it knew how to use was greater than that available to all of the stronger animals. The wildest predators could only set the force of their own body against humans, but humans, naturally much more weak, met them with a whole arsenal of offensive and defensive weapons, whose comparatively colossal store of energy only they knew how to use. In the beginning they used their victory in the most wasteful way without thinking about a renewal of the dispersed energy accumulation. Naturally, the energy store in the hands of humanity in such an inefficient economy remained a very insignificant one. Further, since the numerical population is dependent on the size of this store, it will not surprise us if we only rarely encounter a dense population during the hunting and animal husbandry periods. This situation changes only with the general spread of agriculture, which, through the application of the mechanical labour of humanity on energy accumulation, enables a more rapid increase of population.

In order to understand fully the influence of useful labour on the accumulation of energy and consequently also on the increase of population, we must deal a bit more closely with the special character of labour as a means for the satisfaction of our needs.

We can see from the following passages on labour of three famous economists how difficult it is to come to a correct understanding of it without using the methods of contemporary science. Quesnay said:
'Labour is unproductive'. Adam Smith: 'Only labour is productive'. Say: 'Labour is productive, natural forces are productive and capital is productive'.

Is it possible to reconcile such contradictions? Apparently, this is only a semantical dispute. Adam Smith said, for example: 'The yearly labour of a nation is the base fund \[Urfond\] which produces all objects that are necessary or comfortable for life; all of these objects are either the immediate product of labour or they are bought for the value of this product'. Sismondi added: 'We believe with Adam Smith that labour is the sole source of wealth, ... however, we add that utility is the only goal of the accumulation (of products) and that the national wealth only grows with national usage'.

For his part, Quesnay says the following: 'We are not concerned with the formal side of production, how, for example, the hand workers who work any type of material perform their labours, but rather with the real production of wealth. I say real production because I will not deny that the labour of the worker gives the raw material an allowance of value, but one should not confuse a simple addition of commodities with their real production'.

Today we can ascribe this contradiction to the fact that labour of course creates no material, so that the productivity of labour can only consist in adding something to the object that was not created by labour. This 'something' is in our opinion energy. On the other hand, we know that the only means through which humanity is in a position to increase in any situation the quantity of energy is the use of his labour-power. Therefore, Quesnay was correct when he said that labour does not create any real commodity precisely because labour cannot create any material. However, Smith was equally correct, because that which we need in any commodity, that which satisfies our needs, can only be attained with the help of labour.

Of course, one should not forget that the earth's surface has the ability, apart from the influence of human labour, to accumulate a certain quantity of energy that can be used by humans. But the older economists already knew that these stores were insufficient in comparison to those furnished by labour. Thus, for example, James Stuart said: 'The natural products of the earth which are presented independently from the will of the humans and always in a merely inadequate quantity resemble the

From all sides, therefore, we obtain evidence that the natural products of the earth are in no position to satisfy all of our needs and that we are obliged to increase the quantity of products artificially. Useful labour serves as a means to this end.

According to everything that has been said, we can arrive at the following conclusions as an answer to the question posed at the beginning of our work:

1) The total quantity of energy that the earth's surface receives from its interior and from the sun is gradually being reduced. Despite this, the accumulation of energy on the earth's surface is growing.

2) This increase takes place under the influence of the labour of humans and domesticated animals. By the word 'labour' we understand any use of mechanical or physical force of humans or animals that leads to an increase of the energy budget on the earth's surface.

3) The human, considered as a thermal machine, possesses a certain economic coefficient that becomes ever smaller with the growth of human needs.

4) At the same time, however, the productivity of labour rises as the economic coefficient sinks, and in this way needs are satisfied more easily and in a greater number.

5) So long as the average human has at his disposal a quantity of chemical affinity and available mechanical labour which exceeds his own force as many times as the denominator of the economic coefficient is larger than its nominator, the existence of humanity is materially assured.

VI. Unity of force and political economy

Here we have arrived at the point where we should give an answer to the second question we posed: 'What are the best means of employing human labour in order to draw upon a larger fraction of natural forces for the satisfaction of human needs?'

In general terms, we have already given this answer: \textit{the best means are those that cause the largest accumulation of energy on the earth}. Primitive cultivation – which is not yet actually a cultivation, because it is not based upon useful labour, upon an accumulation of energy, but merely on the use of force amassed already through the earlier life processes – cannot be reckoned among these means. The savage, by nourishing himself with fruits or roots, hunting game or catching fish, merely disperses the previously accumulated energy into space.

The slave economy is already an advance; but even it is still very imperfect, for this form of society, which has its foundation in perpetual wars, excludes a large part of the workers from participation in the accumulation of energy, in the labour that is really useful for the satisfaction of human needs. Without speaking of the immense number of workers killed or wounded in the continual wars, we mention only the standing regular armies, the owners of slaves
and their cohorts of overseers in order to show how many unuseful and unproductive elements are contained in the society founded upon slavery.

Feudalism already contains more elements of progress. At least the serf possesses a parcel of land that he is allowed to work without being overseen by the eyes of the lord and without feeling the whip of the overseer.

But how evanescently small is this progress still! How tiny are the parcels of the serf in comparison to the incalculable goods of the lord. For the serf, free labour-time is merely a short repose after the long days of compulsory labour for the lord. One should therefore not wonder that the productivity of labour under feudalism did not reach even the median of today's productivity.

Thus we come to the capitalist mode of production. This form of production knows how to use the division of labour and, as this no longer sufficed for it, it began to employ machines for industry and for agriculture on a large scale. It achieved magnificent results that exceeded its own expectations. But capitalism also has its dark side.

Instead of increasing the accumulation of energy on the earth, the machines often intensify the useless dispersion of the already available labour powers. They do this by excluding a part of the proletariat from production following upon inevitable overproduction. Under socialism, by contrast, any mechanical or any other improvement would directly reduce the labour time of all workers, giving them the leisure for new production, for intellectual and artistic culture, etc.

A higher level and a more equitable division of the quality and quantity of foodstuffs would inevitably bring about an increase in the muscular and nervous force of humanity. From that would spring a new growth of production and a greater accumulation of energy on the earth's surface.

An exact and precise system of accounting, which neither hides nor falsifies the numbers, would conserve much superfluous labour that is lost in the current anarchy.

Rational public health care and the possibility of accommodating all of the demands of science in one's personal hygiene would necessarily raise the life-expectancy of humanity and simultaneously also the productivity of the human organism to such a height which today is only found in exceptional cases.

Such are, in our opinion, in the form of a very short and perhaps overly general sketch, the relations between the accumulation of energy and the different forms of production. We hope to return to this question in a more extensive work in the near future.26

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Translated by Peter Thomas
Edited and Annotated by Paul Burkett and John Bellamy Foster

26. This hope of the gifted writer could unfortunately not be fulfilled. It was not granted to him to explicate further his fruitful idea of applying the results of the physical sciences to political economy, for soon after completing the sketch published here he fell victim to an incurable neuropathy. The Editor. [This footnote was inserted by the editor of Die Neue Zeit, Karl Kautsky.]
Review Articles


The question of how the transition began from feudal society to capitalism has long been the subject of scrutiny and controversy. It was at the centre of two rounds of debates among Marxists, in late the 1940s and 1950s, and again the 1970s.¹ And it has been a theme in some mainstream academic sociology and economic history, although often under the rubric of ‘modernisation’ (as if capitalism were the only possible ‘modern’ organisation of society).

These two books both throw light on the issues, although in different ways. Christopher Dyer’s *An Age of Transition?* takes on some of the key questions frontally, using a certain amount of Marxist language, and in doing so, presents important challenges to conceptions that all-too-often taken for granted by many people. John Landers, by contrast, deals with such issues only in passing, and is mainly concerned with the way in which dependence on ‘organic’ energy (human and animal muscle as opposed to water, wind, coal, steam and oil) puts constraints on patterns of social behaviour in general and warfare in particular. And he does so in a terminology that is certainly not Marxist, although, some of his conclusions do, illuminate the transition.

There was a polarisation in the Marxist debate essentially along the same lines in both rounds, although some of the protagonists were different. On the one side stood those who held that the impetus to the development of capitalism was from a push towards the marketisation of the economy which came from outside Europe. In the first round of the debate, during the 1950s, Paul Sweazy based himself on the arguments of Henri Pirenne who claimed that the Islamic conquest of the seventh century had closed the Mediterranean to trade. The supposed reopening of Mediterranean trade from the twelfth century onwards produced a growing penetration of in Western Europe by production for the market and with it an initial push towards capitalist development. In the second round of the debate, the emphasis had shifted, and Immanuel Wallerstein and other ‘world-system’ theorists stressed the role played by the creation of the European maritime empires of the sixteenth century.

¹ The first debate was collected together in Hilton (ed.) 1976. The second debate involved a polemic by Robert Brenner in *New Left Review* against the views of Sweezy and Wallerstein (Brenner 1977), and debates between Robert Brenner and various non-Marxist and Marxist historians in the collection *The Brenner Debate* (Aston and Philpin (eds.) 1985).

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and seventeenth centuries. The influx of gold and silver from the Americas was presented as the decisive factor transforming the social and economic relations of parts of Western Europe and enabling them to leap ahead of the rest of the world.

The opposed position in the first round was presented by Dobb, who stressed internal developments in Europe in precipitating the emergence of capitalist forms of exploitation. His arguments were taken up and given an added twist by Bob Brenner in the second round.² What was decisive, Brenner argued, was not what happened in the towns, as the participants on both sides in the first round of the debate had assumed, but in agriculture. And, here, what was decisive was the outcome of the class struggles between peasants and feudal lords which erupted during the great crisis of fourteenth century. There were, in Brenner’s view, three possible outcomes to these struggles, each of which determined future economic development.

The peasants could wrest control of the land from the lords. In this case, there would be no capitalist development since the peasants would be able to maintain themselves through subsistence agriculture and would not be forced into wage-labour. The essential prerequisite for capitalist exploitation, the separation of the immediate producers from the means of production, would be blocked. This, Brenner argued, happened in France.

The second outcome was for the lords to smash peasant resistance and keep complete control of the land themselves. If this happened, then they would respond to any expansion of the market by more feudal coercion against the peasantry, again blocking the emergence of capitalist forms of exploitation based upon wage-labour, albeit from the opposite direction to the French case. This scenario, Brenner argued, was that which came to pass in Eastern Europe and southern Italy (and, for that matter, on the latifundia of the Americas).

But what, Brenner asked, if neither the peasants nor the lords won decisively? In that situation, the lords would be under pressure to come to compromises in which they gave up their direct, coercive control over the lives of the individual peasants by abandoning labour services and the taking of produce in kind, but kept their ownership rights over land. They would then respond to any market pressures using the only labour available to them, free labour, to produce for the market – or, by leasing out their land to an entrepreneurially minded minority of the former peasants to do so. In this way, capitalist farming based upon free labour would emerge from feudalism. This, Brenner claimed, was what happened in England, but nowhere else in Europe, after the famines of the early fourteenth century, the Black Death of the mid-century and the great peasant uprising of 1381.

Brenner’s approach had real strengths. By putting the stress upon the emergence of capitalist forms of exploitation using free labour it explained things the ‘market-led’ approach of the Sweezy failed to do – above all, why the expansion of the market led to a resurgence of feudalism in some parts of the world but a rise of capitalism elsewhere.³ It also explained why an inflow of bullion into the Iberian Peninsula should not lead to a rise of

³ Wallerstein recognised the role of free labour at the ‘core’ of the system, but argued that there were ‘capitalist forms’ not based on free labour and that ‘the motivations of landlord and labourer in the non-“free” sectors were as capitalist as those in the core’ (Wallerstein 1974, p 126).
capitalism there, but nearly a thousand miles further north. Finally, it drew attention to
something sometimes forgotten by urban-based theorists – the growth of towns and
industry is not possible in predominantly agricultural societies unless changes in the
countryside lead to an increase in the surplus available for feeding and providing raw
materials to those involved in other forms of activity. There could not be a rise of capitalism
in the towns without moves to a capitalist transformation of the countryside.

It was, then, not surprising that Brenner’s ideas became the common sense of a good part
of the Marxist academic Left in 1980s and 1990s. Their emphasis on the class struggle as
the decisive factor in the transition earned them the name ‘political Marxism’, which has
since been applied to a whole school of figures like Ellen Wood, George Comninel and
Benno Teschke (although Bob Brenner, it should be added, is not responsible for the
implications others have drawn from some of his arguments).

There were, however, three sets of objections that could be made to Brenner’s position. I
expressed these in an article I wrote in the late 1980s.4 The first was that accepting it meant
tearing up the whole account of the rise of the bourgeoisie in the medieval and early-
modern period formulated by Marx and Engels in *The German Ideology, The Communist
Manifesto, The Peasant War in Germany* and elsewhere, and taken for granted by numerous
writers in the Marxist tradition ever since. This could not, however, be a decisive objection,
however much it might upset those of us who had in the past produced popular expositions
of Marxism that relied on Marx’s own approach.5 After all, we are meant to be ‘scientific’
socialists and that means recognising that Marx and Engels themselves were often mistaken
(for instance, when Marx saw precolonial India as an unchanging society based upon
communal village property).

The second objection was the contingent character it gives to the rise of capitalism in
England. Everything depends on the accidental outcome of the class struggle in the
countryside. The rising bourgeoisie fighting to shape society in its own image disappears,
since no army ever goes into battle under the slogan, ‘We must not win completely!’ Such
a position creates a strange gulf in Brenner’s own writings between his account of the rise
of capitalism from the fourteenth century onwards and his prominent role he ascribes of
And people influenced by Brenner, like Ellen Wood, Comninel and Teschke, have gone on
to deny the bourgeois character of the great revolutions.

This may be ‘class-struggle’ Marxism, but it is class struggle without any element of class
consciousness determining its outcome. Its focus is not really on politics at all, but on
purely economic struggles confined to the countryside. It seems almost accidental that
other urban-centred political and ideological struggles also took place in the centuries of
the rise of capitalism – the Renaissance, the Reformation, the religious wars of the sixteenth
century, the Dutch revolution, the Thirty Years War, the English Revolution, the
Enlightenment, the American and French Revolutions. But that is something we would
have to live with if the Brenner approach alone made coherent sense of the evidence from
economic history.

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4. These were the key arguments I put at much greater length in my article, ‘The Transition
But there are a third set of objections based on the real lack of coherence of the ‘political-Marxist’ approach. It does not explain why the outcome of the crisis of the fourteenth century was, in England at any rate, different to the outcome of previous crises in agrarian societies – for instance at the time of the collapse of the Roman Empire.

It creates a disjuncture between what happens in the countryside and what happens in the towns, although Rodney Hilton showed many years ago that, by the fourteenth century, agricultural producers in much of England were linked to some degree into trading networks of rural markets and small towns. The Brenner approach dismisses the class struggle in the towns as irrelevant to that in the countryside, although a section of the urban population supported the English revolt of 1381 and outbreaks of peasant insurgency elsewhere in Europe. It ignores developments in the direction of capitalism and the exploitation of free labour occurring elsewhere in Europe, even if in places like Northern Italy and the southern Low Countries they were eventually aborted or postponed. Finally, it rests on the assumption that the rural economy and society were more or less unchanging until the class struggle of the fourteenth century had its peculiar outcome.

This last assumption was something more or less taken for granted by all the participants in the 1950s debate and by most of those in the 1970s.6 But it just does not hold up. Some forty years ago, Lynn White showed that production in the medieval centuries was far from unchanging.7 A whole series of new techniques found their way into both agriculture and handicraft production. The point has been confirmed by many studies since. Dyer’s book provides a welcome summation of much of what we now know about the centuries before the crisis of the fourteenth century. His book, he writes, is designed to ‘counteract the view’ that the later Middle Ages ‘should be seen as frustrated by underdevelopment and constraints’ (p. 9). He describes as completely one-sided the once prevalent ‘pessimistic view of the twelfth and thirteenth centuries’ which emphasised

high densities of people seeking to make their living from limited amounts of land, an increasing proportion . . . holding no more than a few acres and depending for part of their living on thinly rewarded wage labour [with] eventually . . . poor land, would have been taken into cultivation under pressure for holdings and food production [proving] to be infertile [and with] cultivators who did not make technical innovations to relieve these problems. (p. 9.)

This view comes from applying ‘modern yardsticks’ to a previous age and the result is that ‘the real achievements of the Middle Ages are noted but underrated’ (p. 12).

Growth is recorded up to about 1300 – that is expansion in the number of people, in the number and size of settlements, in the area of land under agricultural exploitation, especially the area under the plough, and overall output. The twelfth and thirteenth centuries saw an expanding commercial economy, an increase in

6. Although Wallerstein, for instance, argued that within Western European feudalism ‘there were tiny economic modules whose population and productivity were rising’ (Wallerstein 1974, p. 18).
the number, size and wealth of towns. . . . The revenue of the great estates sometimes rose threefold. (p. 8.)

He points out that it puts a very different perspective on the economy and society of around 1300 to compare them not with today, but with what existed in, say, 850, when towns were few and far between, money hardly used, even the living standards of the upper classes meagre. In the interim, there had been the introduction of new technologies in both country and town:

Innovations and new methods are thought to have diffused across the continent to England, sometimes from an ultimate source in the east. This is probably the case for innovations in making and smelting metal, in use of gunpowder, in shipbuilding or papermaking. But some could have originated in England, such as the windmill which . . . appeared around the shores of the North Sea at the end of the twelfth century. . . . In the case of the more intensive methods of farming in which fallows were eliminated through growing peas and beans as fodder crops, their appearance on the North Sea littoral of Norfolk and Flanders suggests parallel development in similar environments. Practical farmers, faced with growing population densities and strong urban influence, in different countries adopted similar techniques through trial and error. (p. 15.)

‘The extension of cultivation and reclamation schemes of the twelfth and thirteenth centuries’ brought ‘perhaps a million acres of woodland and similar quantities of moor, heath and fen . . . into more productive use as arable and improved grassland.’ On top of this,

changes in the intensity of agriculture . . . created the farming systems of the eastern coastal regions, such as north eastern Norfolk, where by the thirteenth century the arable land was ploughed repeatedly, weeded intensively, thoroughly manured and cropped continuously, with only occasional fallow years or sometimes with no fallow at all. Throughout the country, valleys were flooded for fish ponds, garden plots enclosed for growing industrial crops such as flax, hemp, dye plants, fruit and vegetables, animas were housed in substantial buildings, and many other devices were used to increase output. (p. 20)

Such growth in agricultural output created the conditions under which there was a sufficient surplus of food after feeding the agricultural workforce to maintain a growing urban population. Much of the urban population was, of course, involved in catering for the demands of a ruling class which siphoned off most of the agricultural surplus. But not all. Just as improvements in agriculture encouraged growth of the towns, some of the output of the towns went back into encouraging expansion in the countryside:

Town could grow in number and the total urban population could only expand as it did by making and selling for a wide market, which included peasant consumers. . . . The urban artisans and small traders stimulated the better off peasants into expanding production, and the demand from the peasants in turn encouraged an increase in the number of specialist artisans to make more cloth, utensils and implements, and to prepare food and drink for consumption in both
town and country... the market allowed a minority of peasants to expand their holdings, make more money and add further to demand. (pp. 25–6.)

The peasants did not sell their produce in the market simply to pay money rents and tithes. They also bought things for consumption and production. ‘We know from archaeological excavations’ that a peasant

would have owned pottery vessels, wooden tableware, knives and other kitchen utensils, furnishings such as candleholders, metal buckles and brooches, iron farming tools, and horse harness and horseshoes. (p. 26.)

This was a dynamic, rather than a static economy, even if its dynamism was much slower than that of modern capitalism. ‘Producers would react to opportunities for sale by specialisation, which in turn had an impact on technology. Different cultivators made their own assessment of the best combination of crops and animals’ (p. 28).

Improvements in technology can be linked to the increases in buying and selling... The market was therefore thus playing an important role in the late medieval economy. Goods could be transported through a tolerably efficient infrastructure. The urban sector provided a network of commercial opportunities. The market penetrated deeply into society, touching not just the affluent... but also the half yardlanders and cottagers. It stimulated mutually advantageous and wealth creating exchange between town and country, rewarded the skills of those with talent (and cunning) and encouraged specialisation in production and some technical change. (p. 29.)

The towns were rather more important, according to Dyer, than they are often portrayed:

It used to be said that a tenth or an even smaller fraction of the medieval population lived in towns, but in the poll taxes of 1377–81... the proportion of town dwellers from county to county varies between 15 and 25 per cent, with a median near to 20 per cent. A similar figure would be expected in c.1300... (p. 24.)

Dyer does not spell out the implications of such conclusions for the debates over the transition within Marxism. But implications there are. First, they do not validate the Sweezy approach, despite the emphasis they put on the rise of the towns and the market. For, Sweezy, the impulse to the rise of market relations was external to feudal society. By contrast, Dyer’s conclusions are closer to the position of Guy Bois, who argues,

the market is in no manner a body foreign to feudalism; its introduction, or rather, its extension, is related to the putting in place of the new seigniorial structures... and it plays a key role in the development of feudal society.8

Still less do Dyer's conclusions justify the approach which puts the emphasis on the conquest of the Americas two centuries later. What they do do, is undermine any view that focuses exclusively on what happens in the countryside, especially if such a view sees the rural economy as essential stagnant until the late fourteenth century.

Instead, they suggest the relevance of a central element in Marx's own understanding of societial change which is missing from both sides in both rounds in the Marxist debates. This is the role of changes in the forces of production. Again, as Guy Bois points out, 'At the same time as medieval growth is inseparable from a demographic push, it is inseparable from a push of the productive forces.' This change is slow and is runs up against a blockage created by the existing structure of society, but nevertheless takes places.

It is such slow advance of the productive forces which, in my view, alone enables us to explain the advance of the market and towns in a society to which they were initially marginal. Advances in production (as a result both of population growth and the slow diffusion of new techniques) created a growing surplus over and above what was needed to provide for the subsistence of the immediate producers. The great bulk of this was taken by the feudal lords whose search for more luxury products encouraged the growth of commerce, markets and towns. In the towns, increased specialisation led to the rise of new classes created by the mechanisms of feudal society but whose productive relations were different to those between lords and serfs. And the towns and markets, arising out of what happened in the countryside, then fed back into it, influencing production there. The lords, in their search for funds to buy the new sorts of produce, sometimes encouraged the cultivation of specialist cash crops, and then some of the peasants producing these began to use some of the cash to improve their own productive tools and techniques. In Bois's words, there arose around the towns 'isles of intensification… arising from qualitative modifications in traditional techniques'. The town and the countryside then further interacted to change each other's forces and relations of production.

Dyer points to one of the changes – a growing differentiation within the peasantry.

Rural society before the Black Death cannot be described as egalitarian, as is all too apparent when the wealthy bought land from their poorer neighbours in hard times. In the thirteenth century most Midland villages contained a good number of tenants with 15–30 acres, and a substantial minority with 5 acres or less. In East Anglia 80 per cent of tenants often had less than 5 acres, and a prosperous minority cultivated 10–25 acres. (p. 78.)

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9. An approach which is tends to predominate in the ‘world-system’ theorists of the rise of capitalism. In Wallerstein's *The Modern World System*, there is a discussion about the development of the capitalist-free labour relation in agriculture – but he then concludes that capitalism could not have continued to develop without an ‘expanding economic pie’ brought about by ‘overseas expansion’ in the fifteenth and sixteenth centuries. Such eclecticism opened the door to people like Gunder Frank to deny there was anything special about capitalism (see Frank 1998, p. 228).


Many of the features of the early modern period can be observed before 1500 and even before 1300. The conception of ‘economic improvement’ was current among both lords and peasants before the Black Death. Some of the features of the ‘consumer society’ can be traced back to the fourteenth century, if not earlier. The enclosure movement of the thirteenth century probably planted more miles of hedges than that of the fifteenth. (p. 244.)

The thirteenth century looks less rigid and backward than was once thought and emerges as an era of commercial growth, technical adaptation, mobility, urbanisation, informality, competitiveness and flexibility. (p. 245.)

The fourteenth century is as important for Dyer as for Brenner. But, unlike Brenner, he sees its crisis as a rapid escalation of the changes that had already started in the previous centuries:

The ‘new middle ages’ can be summed up as a period of flexibility and variety, which went through a process of commercialisation in the thirteenth century, and emerged from the shock so the fourteenth century crisis with an enhanced capacity for change – a weakened aristocracy, a mobile and less restricted peasantry, and a lively industrial and urban sector. Many of the features of that period, from family structure to farming methods, bear a strong resemblance to those prevailing in the sixteenth and seventeenth centuries. (p. 40.)

He is at pains to stress that what emerged from the crisis of the fourteenth century was not yet ‘capitalism’. Competitive capital accumulation had not yet taken grip of the whole society, and neither was there a ‘proletariat’ in the modern sense. Most waged labour was done by young people who could still hope later in their lives to become ‘masters’ in their own right.

The transition was for the long term, and it should not be cause of surprise or disappointment that such a momentous episode begins before 1300 and was complete only after 1800. (p. 246.)

The most important difficulty with Dyer’s account lies in a tendency to downplay of class struggle – although he says the rising of 1381 ‘encouraged peasants and put lords on the defensive in negotiations over the next half century’ (p. 96). What is decisive for him is the shortage of labour following the near halving of the population by the Black Death. It was the difficulty the lords had in finding labour to man their fields that led them to accentuate the trend to waged rather than forced labour – and to contract out production on their demesne land through leases to members of the lower gentry, to merchants or, most often, to the more innovative (which usually meant wealthier) peasants. Yet class struggle creeps into Dyer’s account in a way whose importance he himself does not seem to grasp. And it is class struggle of a more rounded, conscious sort than in the Brenner account.

Dyer stresses that differentiation within the peasantry even before the century of crisis had led to the rise of a narrow stratum of richer peasants using waged labour. They pushed from below to expand their holdings not only by buying out or renting from other peasants, but also by leasing from the lords. So the first moves to enclose land before the fourteenth
century and the wider moves after it could come from richer peasants as well as from among the lords. And these richer peasants expanded their holdings as the market networks through which they sold their produce drew them into ever-tighter relationships with those sections of the urban middle class increasingly reliant on employing wage-labour. Dyer notes that these groups came to share social attitudes which two centuries later were to be described as ‘puritan’.

In other words, the re-organisation of social relations in the aftermath of the Black Death was prepared by changes before it, and was not only a question of the lords taking certain decisions, but also of the way the emergence of a richer layer of peasants with its own material interests and world. And the rise of this layer was, in turn, connected to the slow diffusion of new techniques, the growth of output, the rise of markets and the growing interconnectedness of town and country.

A period of deep social crisis is a period in which class antagonisms deepen, as each tries to pass the burden of the crisis on to the other. That was why across Europe there were repeated risings in town and country alike in the fourteenth and early fifteenth centuries. But peasant risings are rarely outbursts of blind anger. They are shaped by people with certain conceptions of the world. And we know from, for instance, Rodney Hilton’s magnificent Bondmen Made Free,13 that the risings of the fourteenth century often had at their fore precisely the richer, more innovative, peasants and received a degree of support from their fellows among the artisans and lesser merchants of the towns. They were not simply expressions of peasant revolt, but were also shaped to promote the interests of what Dyer refers to as the ‘new men’. These pushed their demands, sometimes through insurrection, sometimes through pressing their claims through the old legal structure (something Dyer refers to on several occasions), sometimes by taking advantage of the sudden shortage of labour. But, in each case, what they were grappling towards, in the midst of the feudal crisis, were new ways of organisation production, exploitation and, ultimately, society. It required several centuries and further great social crisis before people came to a clearer understanding of the new ways were and imposed them on society as a whole. After all, even in the 1640s, the people who groped towards re-organising society in a capitalist direction understood what they were doing in religious terms. But the struggles of the fourteenth century were a first step. And often playing an important role in those struggles were networks of richer peasants, ambitious artisans and middle merchants with conceptions of society rather different to those of the existing feudal order.

Landers has a different focus from Dyer. His concern is with analysing the limitations of the ‘organic economy’, one overwhelmingly dependent for its energy on animal, human and vegetable resources, as opposed to mineral ones like water-power, windpower, oil and coal. He only refers in passing with the factors he sees as pushing the change to what he calls the ‘mineral’ modern economy. Insofar as he has a view on this, it is to put the emphasis on the ‘political’ element in bringing the change about:

Military success could lead to the political integration of space and thereby foster economic integration by enriching the elite and so boosting the long distance luxury trades. Expansion might also become self-sustaining as resources were

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mobilised for war, leading to territorial conquests and the exploitation of new resources for further expansion. Where large states arose in this way a second kind of economic integration occurred as political centralisation fostered the growth of metropolitan power centres whose provisioning required inter-regional grain trade. (p. 380.)

But he hold back from seeing this as the cause of the transition, noting that military expansion might eventually be a self sustaining process, but to set it in motion resources had first to be mobilised either by coercion or inducement. This initial ‘pump-priming’ presented great difficulties for rulers without access to powerful state apparatuses’. (p. 380.)

He points to a succession of cases from the Roman Empire onwards in which excessive political ambitions eventually collapsed in the face of economic constraints, and he suggests it was only when England began to develop an economy no longer dependent on ‘organic’ resources alone that these constraints were overcome but provides no answer as to why Britain – and then the rest of the world – was able to advance in this way.

Yet, again and again, his empirical survey of the ‘organic economy’ points to elements of change taking place within it – change which Marxists would call the ‘development of the forces of production’. So, although he repeatedly stresses the constraints on human behaviour in such an economy, he recognises that there could be development within it:

The energy inputs available to the organic economies were very restricted and this lowered productivity in all sectors…. Low productivity meant that living standards were low and the resulting poverty constrained both the accumulation of capital and the incentives to invest productively. Technological development occurred, subject to these constraints both in agricultural and non-agricultural production. In agriculture this took the form of new crop mixes and more efficient exploitation of animal muscle power. These helped raise output in line with population growth… (p. 71.)

He spells out in some detail the advances which occurred with the use of new crops and changes in crop rotation, improvements in the harnessing of animals and changes in plough design (pp. 54–7). He also points how:

Technological developments… enabled more efficient furnaces to be built, allowing greater output of ferrous metals whose scarcity impeded the diffusion of efficient tools and machinery…. Wind and water power were also exploited, but a great deal of non-agricultural technology was developed to allow the more efficient exploitation of muscle power through devices such as the pulley, crank or wheelbarrow…. (p. 71.)

He notes that it was in the medieval period that these advances took place in Europe. ‘The classical world produced surprisingly little in the way of productive technology, whereas the ensuing centuries were relatively fecund’ (p. 71). In other words, however slow economic change was in feudal Europe, its economies and its technology were not static. Unfortunately,
however, abstractness in Landers’s approach prevents him from developing a substantial account of the changes taking place – and of how they impacted on feudal relations of production. There are a series of points important for anyone who wants to develop such an account, but no real attempt to pull them together.

So, for instance, Landers has a long discussion on the dynamics of population growth, pointing to the cyclical pattern in pre-industrial societies of periods of substantial growth interspersed with periods of stagnation and decline. But he virtually omits to make one central point – that there is a massive, if slow, long-term growth of population, so that each cycle of growth and decline is at a higher level than the previous ones.

The question of agricultural productivity looms large in any discussion either on the tenth to thirteenth centuries or on the fourteenth century. The main positions in the two rounds of the Marxist debate more or less assumed it did not grow, just as they assumed no advance of the forces of production generally. In so far as they discussed the question, they accepted what was then an orthodox view of agricultural output based on the law of diminishing returns. People would cultivate the most fertile land first, but then, as population grew, they would cultivate fertile land that was less fertile. Total output would grow, but less rapidly than the population, so that overall levels of nutrition would fall. The orthodoxy is to be found, for instance, in Postan’s *The Medieval Economy and Society*. He not only used figures from the English East Midlands to show that output per head had fallen at the end of the thirteenth and beginning of the fourteenth century. He then asserted that there must have been a long decline in the centuries before. This is a view Brenner accepts, despite polemics against Postan’s ‘Malthusianism’ in ‘Class Structure and Economic Development in Pre-Industrial Europe’.

Landers provides the elements of a more sophisticated account. He notes:

> Population pressure was a recurrent problem in organic societies, but it would be wrong to infer that the central problems of pre-industrial economic demography was always and everywhere one of over-population…. The equation of poverty and famine-proneness with the symptoms of population growth… fails to recognise that these can be symptoms of classic under-population…. Where numbers were low and labour scarce the consequences could be severe because fixed amounts of labour were required to clear land for cultivation regardless of the number who were then going to cultivate it, and small numbers impeded capital formation and the division of labour. (p. 61.)

Increased labour can lead to more of it being used to obtain more land for agriculture – and land which can turn out to be more fertile than that already tilled – by draining marshes or clearing forests. It can also be used, for example, for gathering dung from some distance away, and for planting additional crops like legumes that do not damage the fertility of the land. Finally, the labour of an increasing number of specialist artisans is not all devoted to producing luxury goods. Some of it goes into producing new tools (threshing and grinding mills, steel tips for ploughs, wheelbarrows) which increase productivity and reduce waste in farming.

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15. This is the first article in the Brenner Debate. For his acceptance of Postan’s assumptions, see Brenner 1985b, p. 217.
This is a point Dyer makes when he rejects ‘a direct and simple relationship between dense population and poverty’, pointing to the use of new techniques and the way in which some of the ‘marginal lands’ turned out to be very productive (p. 36). And Landers, referring to a finding of Wrigley, points out that, because the peasant household had certain fixed costs it had to cover (rent of one sort of another, preserving enough seed for next year’s sowing), an increase in the number working (and living off) its land could be to its advantage, even the extra output produced was small: ‘average net productivity’ could rise even though ‘gross productivity’ declined (pp. 61–2). However, both Dyer and Landers at points fall into using shorthand expressions that repeat an orthodoxy they have challenged elsewhere, as when Landers writes, ‘when the population grew, conditions of life for the mass of people deteriorated’ (p. 19).

There are three ways of describing of productivity in agriculture: per seed planted, per unit of land and per person. Productivity per grain seed planted can be estimated. According to Georges Duby, it grew from the ninth to the twelfth century by around 100 per cent, so that

A great change in productivity, the only one in history until the great advances of the eighteenth and nineteenth centuries, occurred in Western Europe between the Carolingian period and the dawn of the thirteenth century.16

Productivity per unit of land can also be measured. But productivity per person raises a problem, since increased prosperity as a result of rises in the first two forms of productivity might lead to the peasant population simply having more children (for instance, by marrying earlier) who so that output per head does not rise. New techniques then will have made labour potentially more productive than previously. There will have been important advances in the forces of production. But population growth prevents this potential being realised. When this happens in the modern world, economists talk about ‘hidden rural unemployment’. In feudal Europe, there could be advances in the forces of production in agriculture which were then hidden by the need to feed people whose labour could not be used very productively.

Such an interpretation makes sense of the growth in population and output up to the end of the thirteenth century. It also makes sense of the sudden problems in getting enough food to feed the mass of people that then expressed themselves in a series of famines. What caused consumption to grow faster than what the soil could provide with existing techniques was not complete absence of growth of the forces of production, or population growth as such, but the impact on food supplies of having to cater for increasing consumption by the exploiting class (luxury consumption and military consumption). At that point, food availability per head did begin to fall and a general economic and social crisis began. But, once the plague hit, the surviving population was able take advantage of the previous advances in technique to obtain increased levels food output per head and to increase its consumption. Those who gained most were those (the richer peasants) who had been most innovative and had swallowed up land from other peasants in the previous period. Associated with developing forces of production, they were able to put themselves at the

head of the movements over general peasant grievances against the lords – and then to do deals with the lords to exploit their fellow peasants.

The Black Death plays a central role in all accounts of the crisis of the fourteenth century. Without it, there would have been a chronic crisis produced by the increased frequency of famines. But there would not have been the massive depopulation, the labour shortage and the change in social relations that followed. Yet was the Black Death a result of the wider crisis, or a contingent event, unconnected with the dynamics of feudalism (except in so far as the expanded trading networks facilitated the spread of the epidemic)? Dyer hedges round his question. Landers asserts forcibly that it cannot be blamed on the nutritional impact of the wider economic crisis, since the rich suffered as much from it as the poor. Instead, he suggest the blame lies with that ‘the overcrowding and sanitary breakdown’ that occurred as ‘people took to the road in search of food or crowded into inadequate accommodation to save money on rent or fuel’ (p. 31).

Guy Bois has denounced as ‘very ideological’ the thesis that the destruction of the Black Death was a ‘biological accident’.¹⁷ His response is that the bubonic plague might have been a one-off catastrophe caused by the spread of a new infection, but that that does not explain why it took so long for population levels to recover. Usually, they would have done so in a few years. Responsibility for the continued demographic devastation lay with a whole range of other infections, like tuberculosis, which flourished amidst the widespread undernourishment of mass of people.¹⁸ This is one issue where only further knowledge can decide who is right and who is wrong, although Guy Bois's position does intuitively seem to make sense.

There is one issue in the previous debates that Dyer does not attempt to grapple with – that of why England (and Holland) made the transition before anywhere else. But Landers does make a key point.

In early modern north west Europe cities emerged with had a more dynamic role and they were located in the two countries which had most fully realised the potential for growth within the confines of the organic economy. These were the England and the Dutch republic, and of these two, it was the Dutch republic that led Europe in terms of productivity and income per head for much of the period. (p. 120)

These were, of course, the countries where urban groups eventually led sections of rural populations in revolutionary movements.

There is much else of interest in both these books. People interested in what really did happen in England will want to read and possibly re-read Dyer. Landers's more abstract exposition does not have the same immediacy. But he does provide a range of different material which makes one question some old assumptions. Just take one point he makes. The level to which medieval and early-modern societies used iron did not just depend on their knowledge of techniques. It also depended on the availability and cost of the fuel needed for smelting iron ore. Since the fuel was overwhelmingly wood or charcoal, iron

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¹⁷. Bois 2000, p. 3.
remained relatively scarce and costly. The result, he says, that European ‘civilian technology
continued to rely on wood until the eighteenth century’. This would seem to throw doubt
into Irfan Habib’s assertion that industry in Mughal India lagged behind that in Europe
since its machinery was made of wood not iron, despite a similar level of technology.19
Landers’s limitation of his account to the European experience means that he does not
himself look into this point – or into the exceptional case of first millennium China, where
iron was much more widely available (and coal use higher) than in either Europe or India.

Both these books draw together a mass of recently discovered material on what society
was really like during the centuries of the ‚transitional’ . Marxists who read them will be
prepared to take up the old discussions with greater confidence. In particular, they will be
a bit more charitable than has recently been fashionable to Marx’s own description of how
one mode of production changes into another. He famously wrote in 1859:

in the social production of their existence, men inevitably enter into definite
relations, which are independent of their will, namely relations of production
appropriate to a given stage in the development of their material forces of
production…. At a certain stage of development, the material productive forces
of society come into conflict with the existing relations of production…. From
forms of development of the productive forces these relations turn into their
fetters. Then begins an era of social revolution.

The tendency of post-Stalinist ‘New-Left’ Marxism has been to distrust these formulations.
The emphasis on the ‚forces of production’ has given way to a single-minded concentration
on the relations of production. This was in the first place partly a reaction to the crude
Stalinist notion that all that mattered was the forces of production – with corollary that one
need not worry about the despotism in the USSR, since industrial advance alone would
 inexorably lead to ‚communism’ and human emancipation. But the same theme was taken
by some variants of pro-Maoist thought, since it justified the voluntarist view that all that
was needed to produce socialism in the economically backward conditions of China four
decades ago was will power and quotations from the Little Red Book. Hence a certain
parallelism on this point between the humanist Marxism of someone like E.P. Thompson
and the Mao-influenced Althusserian school. Neither have room for material processes
leading to one mode of production arising within another. Modes of production then
become hermetically sealed one from each other because the dynamic, disruptive,
transformative, element has been removed from Marx’s account. ‘Political Marxism’ tries to
fill the gap by plucking bits of class struggle out of thin air, without grounding them in
material developments.

Marx did not see changes in the forces of production as automatically producing changes
in the wider society. The whole point of his account is that change is not mechanical and
automatic. Relations of production are changed under the impact of advances in the
productive methods – but can feed back into the lives of people involved in producing to
delay or prevent such advances continuing. Changes in social relations which are stimulated
by changes in production can clash with the class interests attached to old ways of organising

the superstructure and be crushed by them. Society develops by the dialectical interactions of its different levels, not by mechanical causation from one to another. But it does develop. It is precisely this dialectical interaction we see in England (and, in my view, in Western Europe generally) from the tenth to the thirteenth century. That is why Marxists will read Dyer’s book in particular with interest even if he does not himself fully develop the argument. It can make an important contribution to moving forward the old debate on the transition.

Reviewed by Chris Harman
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**References**


Ulrike Meinhof was arguably the most interesting figure on the political Left in postwar West Germany. She first gained notoriety in the late 1950s and early 1960s for her incisive reporting in the influential left-wing journal *konkret*, which she also edited for a time. The characteristic flair of her writings on the domestic and foreign affairs of the *Bundesrepublik* made her well-known beyond the – then – still relatively small number of radical anti-authoritarian and labour activists, groups which included many members of the liberal intelligentsia. Her analyses of events in West Germany through the 1960s acted as a barometer of the increasing radicalisation, and then the bitter disillusionment of the vibrant student movement and extra-parliamentary opposition (APO), from the time when its wide-ranging challenge to the status quo gained momentum through to the moment when it helplessly crashed against the walls of a vindictive state repression.

In May 1970, Ulrike Meinhof took a step most of her deeply frustrated comrades did not: she opted for armed resistance as an ‘urban guerrilla’. With Meinhof’s help, Andreas Baader, who was serving prison time for an arson attack on a department store, arranged to be brought to a library under armed guard, ostensibly to consult with her on a research project. Once there, he was freed by a masked group which overpowered his guard. Baader, along with Meinhof, Baader’s lover, Gudrun Ensslin, and a handful of other militants, went underground to form the Rote Armee Fraktion (RAF). For the next two years, the RAF staged a series of armed attacks against the police, the judiciary and a number of US military installations, and published statements justifying their actions as part of a global anti-imperialist liberation struggle, which, they claimed, had finally come home to roost in the heart of industrial Europe. By provoking the West-German state and pushing it towards ever more severe repressive measures, they aimed at unmasking its role as a proto-fascist enemy of the German working class. All the while, the RAF remained on the run from an increasingly intense and comprehensive national dragnet. Ulrike Meinhof fitted perfectly in her role as RAF publicist, particularly given her extensive knowledge of Marxist theory...
and familiarity with the writings of Fanon, Guevara and other figureheads involved in national-liberation struggles throughout the global South, and not least, her unmatched writing abilities. While no major RAF text was written without extensive discussion and critique from other members, she was often given the task of drafting their public statements and later giving them a final form.

In the span of two weeks in June of 1972, Andreas Baader, Holger Meins, Gudrun Ensslin and finally Ulrike Meinhof were captured and placed in high-security cells at various prisons around West Germany. The next five years were marked by bombings and kidnappings carried out by younger RAF ‘generations’ against prominent names in government and business. Through sympathetic attorneys, acting as messengers, the leadership in prison managed to retain ideological, if not always operational, control over events outside. A crescendo of violence was reached in the autumn of 1977, the so-called ‘German Autumn’, which culminated in the kidnapping and eventual killing of Hanns Martin Schleyer, head of the West German Council of Industries, and in the foiled attempt, in co-operation with the PLO, to hijack a Lufthansa jet in order to force the West-German government to free Baader, Ensslin and the other surviving RAF leaders. Throughout this period, the federal authorities relentlessly tightened the conditions of incarceration faced by Meinhof and the other prisoners, constructing a new maximum security compound (Stammheim) near Stuttgart specially to hold members of the RAF and other left-extremist groups, and passing legislation stripping the prisoners of many of the basic rights previously guaranteed by the Basic Law. The day after the attempt to free them failed, Baader, Ensslin, and Raspe were found dead in their cells. By that time, Ulrike Meinhof had been dead for over a year, found hanged in her cell at Stammheim in May of 1976. Opinions differ to this day about whether the deaths of Meinhof, Baader, Ensslin and Raspe were indeed suicides, and even the authoritative liberal account can do no more than offer circumstantial evidence. While the brutal conditions in prison could certainly have led to suicide without any additional element of conspiracy, the vindictiveness with which the West-German state pursued the RAF, and the gratuitous harshness of the conditions faced by the prisoners, have led many who otherwise condemn the RAF outright to the unshakeable belief that they were killed.

Peter Brückner’s book is an attempt to explain something Klaus Wagenbach (publisher of the volume) said in his graveside speech at Ulrike Meinhof’s burial in 1976, namely, that ‘what had killed Ulrike Meinhof were the German circumstances [die deutsche Verhältnisse]’. In the first part of the book, Brückner intersperses essays and excerpts from Meinhof’s writing with documentation supplementing her radical analyses, and with his own short commentaries. His main purpose here is to show that even many of her most shocking and seemingly hyperbolic condemnations of West-German politicians and policies were in fact richly and unmistakably supported by direct quotes, explicit federal government policies and other publicly available documents. Among the issues to which Meinhof returned

6. The subsequent biographies of some of these attorneys would provide rich material for political analysis: Otto Schilly served as the federal Minister of the Interior under Chancellor Gerhard Schröder, and was regularly taken to task by democratic activists for his overzealous security measures. Horst Mahler is now a prominent ideologue of the nationalist far Right.
repeatedly were the undermining of the principles of the 1949 Basic Law (the West-German constitution), especially through the long-discussed *Notstandsgesetze* [Emergency Laws]. The wider pattern of pro-capitalist class domination evident in government policies; the nexus of ‘restoration’ tendencies in the state apparatus and continuities between West Germany and Nazi power elites; the links between the emerging Cold-War position of West Germany and the rabid anti-communism of government and media; the dangers of official non-recognition of the DDR (the ‘Hallstein doctrine’) and the associated ambitions for ‘reconquest’ of East Germany by reckless reactionaries; the selling out of the Sozialdemokratische Partei Deutschlands (SPD) in its bid for a share of political power; the Vietnam War and West Germany’s supportive role; and the overweening repression of domestic political dissent. Probably the most salient strength of Meinhof’s analyses was her ability to illuminate the links between international imperial dynamics and the pursuit of ‘internal security’ within West Germany. Brückner’s term for the technocratic complex of domestic repression measures emerging over the course of the 1960s is the ‘new discipline’, which he contrasts with the ‘old discipline’, characterised by patriarchal authoritarianism and clearly traceable back through Imperial Germany to Prussian statist and militarist traditions. One of the weaknesses of the book is that he devotes little effort to elaborating this conceptual distinction. As I will argue below, the contemporaneity of these two ‘disciplines’ places the book at a specific historical moment in the development of critical analyses of power relations during the 1970s.

The repression of political dissent was something both Brückner and the publisher Wagenbach had experienced first-hand, in the form of arrests, apartment searches, and bans on publication. In both 1972 and 1977, Brückner was suspended from his duties as Professor of Psychology at the University of Hannover for his critical positions and political statements. As Ulrich K. Preuss explains in his foreword, Brückner became something of a scapegoat in the so-called ‘Mescalero affair’. After the 1977 RAF killing of federal prosecutor Siegfried Buback, an anonymous student published a reflection in which he admitted that, after initially experiencing ‘klammheimliche Freude [secret joy]’ at the murder, he gradually changed his mind and came to reject the killing. Completely ignoring the larger, anti-terroristic purpose of the piece, the mainstream media fastened onto the above-quoted formulation as a sign of the murderous tendencies supposedly inherent in left-critical culture. Brückner was one of a number of university professors who signed a public letter urging a fairer and more open public discussion of the issue, but was quickly stigmatised as an example of the ‘sympathisers’ who purportedly provided indispensable support to the terrorists (p. viii). The larger point here is that both author and publisher take as their starting point a fundamental political affinity with Ulrike Meinhof, and while neither agreed with the actions of the RAF, their critique of Meinhof’s political trajectory is a sympathetic one.

The second part of the book shows that Meinhof’s analyses, based in the German reality of its time, allowed that very same reactionary and hostile reality (the West German ‘Verhältnisse’ of the book’s title) to make her abstractions, analogies and abbreviations ‘run amok’ (pp. 171–2). Consequently, Brückner claims, her decision to embrace armed struggle was misguided. With the terms ‘abstraction’, ‘analogy’ and ‘abbreviation’, Brückner marks out an historical-materialist critique of the RAF’s ‘urban guerrilla’ concept which proceeds roughly as follows. Firstly, Meinhof and her comrades failed to recognise that ‘imperialism’ does not mean the same thing or involve the same conditions in the centre as in the global
South. Thus, the fighting methods which might prove effective in the 'Third World' could not be assumed to be effective in West Germany. Secondly, in particular, the militant class consciousness, the mass radicalisation of workers normally understood to be a prerequisite for successful revolutionary armed struggle, was completely absent in West Germany and other Western democratic capitalist countries. Bought off by the fruits of the West-German 'economic miracle' of the 1950s and 1960s, thoroughly brainwashed by purveyors of ruling-class ideology such as the Springer presses, and invited to invest in the status quo by the capitulationist Social-Democratic Party and unions, the West-German working class was highly unlikely to see in the terrorism of the RAF a furtherance of its own interests (pp. 137–8, 140–1, 160–1, 167, and 180–1).

Brückner also attempts to piece together an account of how the concrete, material conditions in which Ulrike Meinhof lived both while operating underground and after her capture, could have led to a de-historicisation and de-particularisation of her view of the world. He argues that the intense and pervasive personal experience of state repression and surveillance on the run and in the prison 'death tracts' caused her (and many of her comrades) to lose sight of the differences between West Germany and a fully totalitarian, airtight security state engaged full-time in crushing the lives of working citizens for the sake of the pursuit of surplus-value. He does not deny the importance of systems for maintaining class domination, but points out that 'nevertheless the people live (including those who do not struggle), and many live happily' (p. 170). Despite all the trappings of authoritarianism, control is not even close to total, dissent remains possible, many of the tools of integration, such as education, are double-edged swords that can be turned against the status quo (p. 168). In fact, argues Brückner, the student activism of the 1960s and the New Left can be seen as signs of incipient emancipation, which no sensible leftist should have assumed would be easy or proceed without resistance from the ruling class (p. 166). The deeper existential-psychological dynamic leading Meinhof to lose sight of these facts Brückner describes as a 'disappearance of place and time':

This disappearance of place and time, as though imperialism had really swallowed up the Lebensgelände [life-space] of social processes (and with it the ‘places’, the topography of everyday being-in-the-world), [had] torn the people from the temporality of their lives, is expressed and dealt with by Ulrike M. Meinhof – and by other comrades – as an essential and communicable inner experience . . . (p. 172.)

Insofar as this placeless and timeless experience comes to dominate the life of RAF members, they are forced into an all-pervasive actionism in order to continually re-create a ‘home’ for their identities. As the wellspring of legitimate revolutionary identity shrinks ever more tightly down to the imperative for violent action, Meinhof and her comrades adopt an ever more absolutely polarised view in which anything short of immediate and unquestioning support for their programme brings uncompromising condemnation. (pp. 172, and 175–6)

Brückner's sympathetic critique of the RAF earned the implacable scorn of Baader and Ensslin as they read the manuscript for this book in their cells in 1976. In his afterword, the publisher Klaus Wagenbach recounts how Klaus Croissant, then acting both as Ulrike

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9. This and other passages from Brückner translated by the reviewer.
Meinhof’s executor and as Baader and Ensslin’s most trusted attorney in their marathon legal battles, first attempted to block the book’s printing and then succeeded in blocking its delivery with a court order (which he was eventually persuaded to withdraw). Wagenbach includes at the back of the volume a reproduction of a scathing note he received from Gudrun Ensslin in the midst of the whole affair. Thus, to an uncommon degree and at every level, this is a thoroughly political book, caught up at the time of its publication in the still red-hot struggles it seeks to interpret. For this alone the book is valuable as an historical document.

The interest Brückner’s book holds for Marxists writing in the early twenty-first century is not merely antiquarian, however. Most obviously, it has the potential to lend some historical background and contrast to current processes and discourses of ‘terrorism’, ‘security’, and ‘imperialism’. One of the key problems for critical politics then, as now, is mass complacency in the face of, or even widespread, active support of, initially ‘exceptional’ security measures taken by the state to combat terrorism. Again, this complacency plays a central role in Brückner’s critique of the RAF: the political consciousness and experience of the West-German working class in the 1970s was basically pro-state, and thus barren ground on which to try to plant the seeds of revolution through violence. Although the details vary somewhat, many other commentators on the West-German Left basically shared this critique. In what follows, I review some of this literature in order to show that West-German Marxist commentary in the 1970s itself pointed implicitly toward an articulation with Foucauldian categories, and indeed included important elements of the kind of analysis of ‘biopower’ and ‘liberal governmentality’, which Foucault himself was developing during the same period.

There is by now a long tradition of attempts to bring Marxist and Foucauldian approaches together, undertaken as a rule by scholars working primarily as ‘advocates’ for Foucault, and generally failing to convince historical materialists. Some German theorists have launched a renewed attempt, arguing that the recent availability of some of Foucault’s later political texts, and recent scholarship developing his concepts of ‘biopower’ and ‘governmentality’, have gone a long way toward removing important misconceptions that previously made his work appear so indigestible to Marxists (and vice versa). While there is real promise in this effort, the tack taken here is not one of imposing Foucauldian categories from outside but rather delineating an historically specific and contingent convergence, in the late 1970s and early 1980s, of broadly Marxist analyses with Foucault’s efforts during the same period, in order to grasp contemporary power relations in Western democratic capitalist societies. A case can be made that, even apart from the larger issue of fundamental compatibility, in the particular context of late-1970s West Germany, a contingent articulation between the two modes of analysis is justified. This is because Foucault’s later political theorisations and those of West-German Marxists actually shared

an object of analysis. Foucault’s efforts to illuminate the connections between ‘exceptional’ security measures and the everyday contentment of populations, like the West-German leftist writing reviewed below, was in fact specifically informed by his understanding of the West-German state’s ‘security apparatus’ and its responses to the RAF. At the same time, West-German Marxist analyses of the repressive state’s support for class domination gravitated toward the sorts of concerns and insights more typically associated with Foucault’s approach. Despite all of these caveats, the qualified, contingent articulation between Foucauldian and Marxian analyses sketched below naturally raises the larger issue of their general compatibility. Thus, I close by offering a brief sampling of what can be more accurately perceived as the important unresolved issues between the two perspectives, now that it is possible finally to move beyond unjustified early fears of Foucault’s political ‘quietism’ or fundamental hostility to Marxism.

The RAF in contemporary West-German historical-materialist perspective

A convenient place to track the gravitation of West-German Marxist thought toward Foucauldian themes can be found in the pages of *New Left Review* and *Telos*. Both journals published contributions from important West-German left theorists with enough regularity to allow a fairly detailed reconstruction of contemporary themes. To understand why West Germans were so complacent in the face of escalating state repression in response to the RAF, Marxist analysts began by investigating the histories and compositions of the West-German bourgeoisie and working class. Oskar Negt, in an excerpt from a 1976 book, recounts the long tradition of conservative-authoritarian ‘restoration’ in Germany going back to Luther’s advocacy of the brutal crushing of the sixteenth-century peasants’ revolt. At the centre of his story is the hapless German bourgeoisie:

The German question is the question of the general social conditions that have prevented a bourgeois revolution as well as the formation of the bourgeoisie as an autonomous, self-conscious political class. All other things, even the typically statist orientation of the German working class and its forms of economic and political organisation, are secondary phenomena by comparison…. Compared with England and France, the German bourgeoisie failed to liberate itself from feudal coercive domination and the absolutistic state through self-conscious revolutionary action and to assert itself as an autonomous class. Yet only in doing so could it have acquired the objective potential for regarding liberal freedoms as its own affair to be strongly defended.

This failure of the bourgeoisie to ‘regard liberal freedoms as its own affair’ was clearly one of the basic conditions determining bourgeois passivity in response to 1970s security

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16. This sampling is of course not representative of the whole spectrum of Marxist thought in West Germany at the time. However, again, the thinkers published in English were among the most influential on the West-German Left, and the themes they chose to treat can thus safely be assumed to have had considerable resonance there.
measures. Günter Minnerup, in a sweeping survey of ‘West Germany Since the War’ for *New Left Review*, also notes the importance of the absence of any bourgeois revolution.\(^\text{18}\)

But the main focus of his careful political-economic analysis is the West-German working class. He asks,

> [H]ow is it that a country with such a rich mass socialist tradition, with one of the best-organised and most experienced working class movements, and with a high degree of student radicalization in the late sixties, today appears to be the last stable fortress of reaction in Europe?\(^\text{19}\)

Minnerup’s answer traces a complex set of interlocking developments. In the early post-war decades of the ‘economic miracle’, objectively high rates of exploitation of workers were offset by rising standards of living which, especially in view of the slower economic development in the DDR, boosted the effectiveness of Cold-War anti-communist propaganda. By the time West-German industry was forced to begin shifting systematically toward the kind of capital-intensive restructuring that led to rising unemployment, anti-communist ideology was firmly entrenched in the working class. The class-collaborationist position taken by the SPD starting with its 1959 *Godesberger Programm* further discouraged militancy. So did the shifting economic composition of the working class brought on by sectoral shifts in the West-German economy away from its earlier predominantly industrial character. In the early- to mid-1970s, working-class militancy was further undermined by the global recession. By the middle of that decade, as the RAF’s death-struggle with the state was escalating toward its bloody climax, these changes had brought the working class to a condition in which it could quite easily be pacified by a combination of four factors. Firstly, the sharpest repressive measures were not directed at workers so much as at radical-democratic activists and students. Secondly, there was a massive anti-terrorist propaganda campaign carried on by state and mainstream media. Thirdly, many West Germans were receptive to an inherited tradition of Prussian authoritarianism. Finally, the SPD’s inclusion of left extremists along with right extremists in the category of enemies of the ‘*wehrhafte [militant] democracy*’ it urged workers to defend.\(^\text{20}\)

To the extent that these class analyses are correct, they explain a general passivity in the face of repressive measures shared by both historic classes. Oskar Negt argues that the bourgeoisie’s failure to emancipate itself was also stamped onto the working class. Because the bourgeoisie had placed itself under the protection of the Junker aristocracy in charge of the nineteenth-century imperial German state, ever since then, for working-class parties or

\(^{18}\) Minnerup 1976.

\(^{19}\) Minneturp 1976, p. 4.

\(^{20}\) Minneturp 1976, p. 41. Although ‘militant democracy’ is the usual translation of this important term, its sense is better captured by ‘fortified democracy’. The idea behind the term is that the democracy of the Weimar Republic in the period between WWI and the Nazi seizure of power was incapable of defending itself, as evidenced by the fact that Hitler was able to come to power legally, without having to inflict any explicit injury upon the Weimar constitution. With this historical lesson in mind, the builders of the post-World-War-II West-German system formulated a variety of legal and constitutional mechanisms aimed at preventing democratic institutions from being used to dissolve the political order enshrined in the Basic Law.
unions, ‘a confrontation with the immediate class enemy was also always a direct confrontation with the state’. And the histories of both major classes in Germany thus tended to encourage Germans to conflate the existing government and political-economic status quo with transcendent political ideals (since 1945, ‘freedom’ and ‘democracy’).

However, all of this does not by itself explain the severity of the repression West-German workers and bourgeoisie were willing to accept in the 1970s. A number of left commentators remark on the seeming disproportionality both of the propaganda and of the laws and executive orders passed to combat terrorism. The Mescalero affair in which Peter Brückner became involved is illustrative not merely of the blatant selectivity of reactionary responses to critical discourse but also of a characteristic conflation of ‘terrorists’ with ‘sympathisers’. Negt offers a psycho-political explanation again based on the peculiar history of the German bourgeoisie:

In political terms, lack of identity and a deflected self-consciousness led [the bourgeoisie] to a terroristic inclination to coerce identity, projecting one’s own violent tendencies onto the enemy. These totalitarian projections fail to make any fine distinction between revolutionaries and radical democrats…. Because of these distortions and projections, the power of the restoration in Germany has always contained an element of over-compensation – literally of retaliation for insubordinate behavior. No proper proportion exists between the means applied and the real threat of class domination.

The over-compensating repressive measure that might have appeared most likely to spark resistance from both major classes was the Radikalenerlaß [Decree against radicals], approved by the Federal Chancellor in 1972 and popularly known as the Berufsverbot [Employment prohibition]. The draconian physical treatment and systematic stripping of the rights of the RAF prisoners in Stammheim were also a constant theme in left discussions. In a language that anticipates Giorgio Agamben’s by a quarter century, the activist Daniel Cohn-Bendit struggled to convey the situation to Jean-Paul Sartre in a 1979 interview:

This is difficult to explain. There is surely a whole string of laws, especially concerning terrorism, that go much further in Germany. I would say that the guerrilla groups are put outside of the law in the literal sense of the term: there isn’t any law that protects them.

But however shocking, this treatment was something most West Germans could observe from a distance. The Berufsverbot, by contrast, had the potential to have a direct impact upon the material interests of large numbers of citizens. It allowed investigations and surveillance by the state to ensure that no individuals associated with officially designated

radical organisations would be hired into the public service. Although the number of people actually blacklisted and denied employment through the 1970s stood only in the hundreds, hundreds of thousands of applicants had had to undergo checks. As Jack Zipes notes, the language of the executive order made it clear that any doubt as to an applicant’s commitment to the existing system would be grounds for rejection.27 Nevertheless, public opinion polls showed that the Berufsverbot enjoyed widespread support among West Germans of all classes.28 Large segments of the bourgeoisie and the working class, in other words, were apparently unconcerned not only by repressive measures in general but even by quite extreme ones, measures severe enough to attract international criticism.

In 1979 and 1980, the New Left Review and Telos published a series of pieces which began to suggest that the focus on what was specifically German about the whole dynamic between the RAF and state repression in the Bundesrepublik was out-of-date, and that political conditions had changed enough that an understanding of this striking cross-class passivity might require a different form of analysis. Russell Berman put it most combatively:

The shift of the West German discussion to a critique of the bureaucratic repressive state converged with issues raised in France by Foucault and in the current reception of critical theory in the United States. Nothing could be more inappropriate than to explain contemporary developments in the Federal Republic on the basis of a specifically German heritage.29

Berman’s last claim overshoots the mark: the historically and geographically specific class-based analyses offered by Negt and Minnerup do indeed explain important aspects of the background to the failure of the RAF’s revolutionary strategy and the complacency of West Germans in the face of escalating repression. But something about the character of the repressive apparatus was coming to be perceived as new. In a 1979 speech in New York City, Hans-Magnus Enzensberger, long-time editor and publisher of the influential Kursbuch, and, like Klaus Wagenbach, personally familiar with state censorship and intimidation, suggested a ‘dual-systems’ approach to understanding the nature of the contemporary West-German restoration. While acknowledging the historical importance of the lack of a bourgeois revolution in Germany, Enzensberger argued that the problem of the late 1970s stemmed from the fact that there were two systems of repression operating side-by-side. ‘Each system has its own logic and… these logics are not reconcilable. All they have in common is the mad idea of perfect “internal security”.’30 The first system is the old patriarchal-imperial-Prussian authoritarian state tradition, in the lineage of Metternich, Bismarck, Hitler and Konrad Adenauer, the first Chancellor of the postwar period. It is this tradition in which the bourgeoisie became ensnared and failed to pursue its emancipation. The second system of surveillance and repression, on the other hand,

is a genuine product of the post-Second-World-War period. . . . Its domestic basis is the integration of the working class by means of mass consumption and the welfare state.31

Here Enzensberger echoes Brückner’s distinction between the ‘old’ and the ‘new discipline’. But Enzensberger lends the distinction more revealing precision. What he has in mind here is not simply the familiar buying off of the working class with ameliorative ‘bread and circuses’. Whereas the first, older system is personified in the reactionary Franz-Josef Strauss, open advocate of tight state censorship of the press and military re-conquest of East Germany, Enzensberger singles out as his representative of the new system Horst Herold, head of the Bundeskriminalamt [BKA, the West-German equivalent of the FBI] throughout the 1970s.

What distinguishes Herold’s approach to security from previous authoritarianisms is its emphasis on information gathering and data manipulation, systems adjustment, the policing of normality instead of merely the abnormal. Herold’s new methods have, according to Enzensberger, transformed the meaning of ‘police’:

> the police – on the grounds of its privileged access to information – is given the role of a central research and development apparatus, which acts as an early warning system, discovers defects and plans political strategies.32

This new ‘progressive police’ has succeeded in generalising the model of the security tradeoff at airports, in effect telling West Germans that their world is a world of multiplying risks:

> We do not dream of contesting this. On the contrary we draw your attention to it. We ask for understanding on your part. In return we promise to obviate these dangers so far as is in our power; we offer you the maximum of security. If you don’t want to be blown up you must accept our control system.33

Whereas the old system of police power was built on the idea of ‘latent civil war’, the new system aims at integration, and its methods are ‘too clinical, too unbloody to arouse mass feelings like hatred and solidarity’. In fact, argues Enzensberger, this new system ‘enjoys the passive, and even in part the active, support of the mass majority of our population’. In order to maintain this system of power, West Germans need no longer be motivated by racism or chauvinism, but merely by ‘self-interest, which may be short-term but nevertheless corresponds to reality’.34

Horst Herold’s system, however, is not destined to achieve complete control, in part because it continues to co-exist with the older system.

The peculiarly German flavor, the penetrating national aroma, which characterises the repressive measures in the Federal Republic – think only of the Berufiverbot

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34. Ibid.
or the general hysteria about terrorism – are explained, I believe, by the superimposition of the old and new methods.

On the one hand, this leads to breakdowns and failures in the security systems themselves. It also

confuses the radical-democratic opposition, whose rhetoric is fixed on its own tradition and that of its opponents. The left is more concerned with pigs of the old school, of the kind that has been described over and over again from Heine to Tucholsky, than with Dr. Herold and his colleagues at home and abroad.\(^{35}\)

This is a useful observation, and it casts both Ulrike Meinhof’s writings and Peter Brückner’s handling of them in a different light. In the first part of Brückner’s book, again, he devotes considerable effort to hunting down and presenting quotes from Federal authorities that seem to substantiate Meinhof’s strongly-worded diagnoses of West-German political culture. But most of those quotes actually stem from the likes of Franz-Josef Strauss, in other words, from representatives of the ‘old’ repressive system. Neither Meinhof nor Brückner offered a detailed analysis of the relations between this older system and the newer system growing up alongside it. This newer system, however, played an important role in maintaining the complacency of both the working class and the bourgeoisie, whose members had in large numbers bought into a comprehensive discursive and institutional complex concerned above all with security.

Enzensberger’s analysis already offers many points of contact with Foucault’s exactly contemporaneous development of the concepts of governmentality and biopower: the broader, ‘progressive’ role of police and the move from a ‘civil-war’ model of police-society relations to a model of integration, the overarching focus on security, the centrality of statistical information, the move from traditional ‘motivational’ ideologies (such as racism) to the basic pursuit of biologically conditioned self-interest as the foundation of social order. Many of the other salient insights of Foucault’s analyses can be found (albeit with a different vocabulary, of course) in a paper by Joachim Hirsch published in *Telos* in 1980–1.

Hirsch begins by asserting that Marxist theories of the state offer only underdeveloped tools for analysing the ‘bourgeois socialisation context’ under conditions of the internationalisation of production.\(^{36}\) According to Hirsch, recent intensification of the real subsumption of new areas of social life under capitalist relations of production lead to social disintegration across a range of institutions such as the nuclear family, which, ‘isolated, dysfunctional and at the same time overcharged with compensatory emotional claims’, fails as an agency of socialisation. This leads the state to become ever more intimately involved in life, and in the process, production and reproduction merge into a ‘seamless functional complex in which decision-making by others becomes all-dominant’. But this is not a matter simply of increased state dominance and corresponding advances in the subjugation of individuals and groups: ‘It is less true than ever that the state “intervenes” from the “outside” in an essentially self-regulating social process’. Instead, government becomes both ‘the materially

\(^{35}\) Enzensberger 1979, p. 12.

\(^{36}\) Hirsch 1980–1, p. 79.
supporting caretaker of existence and the controlling, repressive ‘surveillance state’. They are just two sides of the same coin’. The developing ‘security apparatus’ crosses beyond still-identifiable state institutions into other social centres, so that the whole complex encompasses courts, juvenile bureaus, state, free and denominational therapeutic agencies, housing offices, administrative and medical complexes controlling birth control, role model producers, social bureaus and social workers. Here it is less and less a question of the treatment of ‘deviants’. The ‘normal’ population has now become the object of this regulatory and control network.

The security apparatus operates in a continuous ‘state of emergency’, most obviously with respect to threats such as that posed by the RAF, but this ‘crisis’ mode is normal across the whole range of institutions, where the crises are perhaps more mundane and more personal but nevertheless a continuously renewed product of the ongoing disintegration attributable to the international capitalist régime of accumulation. Hirsch, like Enzensberger, places knowledge at the centre of the new security apparatus, and notes that the social sciences assume a new role under it as providers of ‘investigative knowledge’. He also sees little immediate prospect of widespread and organised resistance to it that might move beyond a ‘diffuse, anti-bureaucratic resentment’. This is because, ‘despite everything, the state is still desperately needed’. For these reasons, neither the bourgeoisie nor the working class is likely to be the source for systemic change; instead it will have to come from segmented and unco-ordinated ‘civil struggles’.

Foucault, the RAF and wider theoretical issues

Through this admittedly limited sampling of leftist writings from the late 1970s and early 1980s, it is possible to observe a basically Marxist tradition of critical thought grappling with the ever-more-complex question of how power relations work in late capitalism. As the analyses by Enzensberger and Hirsch demonstrate, it was possible to arrive at a new set of conclusions about the workings of power without denying the continued centrality of historical-materialist categories such as capitalism and class. Foucault’s concurrent studies of biopower and governmentality converged on similar conclusions, showing how states and non-state institutions and techniques of control came to be animated by a concern for the (demographic and biological) ‘life’ of populations rather than for direct domination. By shaping the social environment of the pursuit of individual interests in such a way that these interests reinforced social order, many of the new police and bureaucratic techniques of the eighteenth, nineteenth and twentieth centuries dovetailed with the requirements of

38. Hirsch 1980–1, p. 84.
42. Hirsch 1980–1, p. 89.
the capitalist mode of production, while not being reducible to those requirements alone.43 The two basic approaches, while not reducible to each other by any means, admit of more productive articulations than has hitherto been recognised. The recent publication of more of Foucault’s writings and lectures on power through the late 1970s opens up new connections with Marxist analyses not primarily because he is more explicit about the value of Marxism,44 but because they reveal a much more extensive engagement with the category of the state, and an interest in neoliberalism as a set of governmental techniques animated by a common ‘rationality’.45 Instead of simply enumerating Foucauldian insights that can enrich Marxist analyses, I will also suggest a number of ways in which historical-materialist concerns could correct some problems and compensate for some important gaps in Foucault’s approach.

One example of a gap in Foucault’s writing is that his handling of the state and of neoliberalism generally shy away from much explicit engagement with core economic categories such as production, consumption, class and capital accumulation. That this absence is not dictated by Foucault’s method or theoretical principle is clearly implied, for example, by his claim that the ‘principal form of knowledge’ in modern rationalities of governance is ‘political economy’.46 The insights Foucault provides into the proliferation of techniques of ‘empowerment’ highlight a whole set of concrete practices by which individuals are encouraged to strive to gain control over their lives, and in doing so further cement neoliberal ideologies.47 But neither he nor his inheritors dwell much on systematic (class) differences in the conditions under which individuals try to construct themselves through such techniques. More generally, the genealogy of ‘technologies of the self’, initiated by Foucault in the early 1980s and focusing at first on classical Mediterranean and early Christian practices, could be brought up to the present and dramatically enriched by a sustained encounter with historical-materialist accounts of the role of consumption, commodity fetishism and reification under capitalism.

A related weak point in Foucault’s later political writings is the gap between this analysis of individual (self-)constitution and integration and his equally thorough discussion of techniques for the management of populations. Intermediate groups such as classes are not extensively treated. The recently published lectures on biopower from 1976 do include an extensive discussion of the new role taken on by older ideologies of ‘race’ in allowing political theory to cope with social divisions emerging from industrial society. Certainly, the West-German bourgeois discourse of anti-communism is inflected with the unmistakable image of a (hypothetically) militant working class as a dangerous ‘race’ against which ‘society must be defended’.48 A thorough Marxist engagement with this argument might clarify how political terminologies drawn from racial thinking are transformed when applied to class divisions, and might provide a corrective to the blind spot in Foucault’s thinking mentioned above.

44. Ibid.
45. Foucault 2003; Dean 1999; Rose 1999.
47. Cruikshank 1999; Rose 1999.
48. This is the English title given the compilation of Foucault’s lecture course from 1976 (Foucault 2003).
A particularly promising zone of potentially mutual enrichment between the two perspectives, and one which bears directly on the problem of complacency raised by Brückner’s book, is indicated by the concept of ‘security’. What Hirsch struggled to articulate was the dual nature of apparatuses of security, as both practices of control and practices of material support of populations. Foucault’s discussions of security from the same years aim precisely at this problem, and although he does not pursue the issue in this direction, it is useful to compare his concept of security with the materialist principle of the primacy of material interests. To couch the fundamental material interests all people share in terms of ‘security’ is to allow a clearer view of the links between the material, economic empowerment and well-being traditionally in the foreground of Marxist analysis and physical and psychic security against violence and other life-threatening disruptions as well as against fear of risks and threats. ‘Security’, as Foucault uses the term, encompasses both, and begins to make more intelligible the continuities between the benevolence of the West-German state as provider of education and welfare services and its draconian handling of the RAF and the threat of terrorism. His attempts to clarify these links referred directly to what was going on in West Germany at the time. Klaus Croissant, the attorney whose office was the main communication centre for messages passed to and from the prisoners in Stammheim in the 1970s, fled West Germany for France at the height of violence during the German Autumn of 1977, and applied for political asylum. He was wanted by the Bonn government for ‘support of a criminal organisation’ under one of the new laws passed to combat the RAF. Foucault commented on the issue in a number of interviews at the time, and while he supported Croissant’s application for asylum, he opposed the characterisation of the Bonn government by many left intellectuals as ‘fascist’ or ‘totalitarian’. Instead, he characterised West Germany as a ‘security society’ regulated by a ‘security state’. An important feature of this constellation was what he termed a ‘security pact’ between the state and the population, according to which the population accepts that the state will occasionally operate outside the law. Thomas Lemke summarises Foucault’s argument in a way that anticipates quite closely the basic argument regarding sovereignty which was recently put forward by Giorgio Agamben and taken up by Michael Hardt and Antonio Negri:

In order to be able to guarantee security, the state must be able to move against and outside the legal framework. The abuses, illegalities and irregularities of the state are not unavoidable deviations or the growing separation between ideal and reality, but rather form the basis and guarantee of the lasting and regular existence of the Rechtsstaat [rule of law]. In this perspective these insecurities, threats, etc. constitute an everyday, average level of angst. For Foucault, the Angststaat [anxiety state] thus becomes the other side of the rule of law.49

Where a Marxist approach could be useful here is in showing how the ‘anxiety state’ in postwar Western capitalist societies, and arguably West Germany in particular, traded in central ways not just on fears of terrorism as an isolated phenomenon but on fears of threats to private property régimes, of general strikes, that is, of open class warfare. Peter Brückner’s sympathetic critique of Ulrike Meinhof and the RAF groped toward some of these

interpretive lines, but was born in the historical hiatus between the brutal events themselves and the emergence of an adequate interpretive framework in which to grasp them. Thirty years later, the emergence of this framework continues to be slowed by an incomplete and hesitant encounter between Foucauldian and Marxist interpretive systems.

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References


Jessop, Bob 1990, *State Theory: Putting Capitalist States in their Place*, University Park: Penn State Press.


The title of Blaschke’s book tells us that it links up with the kind of studies in the social sciences that are based on the proposition that a certain general idea, philosophy or concept is germane to the interpretation of specific issues. In the present case, it is obvious that economics and the economy are meant to figure prominently in achieving interpretive new insights into particular works of literature. This method is legitimate and even inevitable with regard to the fact that strong economic drives can be located in a conspicuous number of twentieth-century writers, such as the ones selected by Blaschke. Other names might be added. Blaschke himself mentions Hermann Broch, Thomas Mann, John Dos Passos, Emile Zola, André Gide, Luigi Pirandello, Hugo von Hofmannsthal, Rainer Maria Rilke, Ezra Pound, Bertolt Brecht, Walter Mehring and Ernst Toller (one might add Upton Sinclair, Theodore Dreiser, F. Scott Fitzgerald, Virginia Woolf, and many others). However, as Blaschke correctly suggests at the outset of his monograph, the intertwining of literary criticism with political economy has not been sufficiently explored, unlike the multifarious mass of aesthetistic, epistemological, psychoanalytical and sociological interpretations. The proof of the representation of aspects of economics in many modernist novels is, as Blaschke self-confidently declares, in the critical explanation of works written by the five modernist writers selected for his book. In the second, analytical, section he often triumphs against the theoretical odds to substantiate his thesis convincingly, though his claim to being a pioneer (besides Mark Osteen’s The Economy of ‘Ulysses’, 1995) of a new mode of research might be passed over as a young scholar’s brave self-promotion.

Blaschke’s text is based on a doctoral dissertation (Free University Berlin, 2001), supervised by Gert Mattenklott, an eminent German professor of aesthetics, German literary history and cultural studies, and a member of the board of the German Institute of Critical Theory (InkriT). Avowedly, Blaschke’s aim is to present a study in literary criticism, not in economics. In other words, what he seems anxious to avoid, though in fact he does not ultimately succeed, is to subordinate fictional narratives to the force of economic arguments. For this reason, he chooses a methodological procedure that is selective rather than deductive, and allows him a free hand to ‘orientate himself . . . towards an eclectically wide-ranging corpus of theories which are ushered in order to elucidate particular economic figurations’ (p. 14; all subsequent quotations of German sources in my translation). In other words, he believes that he can operate between the Scylla of reducing literature to an illustration of economic theory and the Charybdis of literary close reading that marginalises economic topics.

This ambiguous and elusive approach, however, has its risks, even if it goes with a sophisticated practice of textual analysis. On the one hand, it tends to neglect linguistic form which gives sense and meaning to a very particular aesthetic whole. Literature is not dogmatic; it is not logical; it is not reason-able. Literature establishes its particular authority; it is uncertain and open to interpretation.1 Blaschke has learnt from Mattenklott that works of literature are aesthetic formal entities. He also approves of Luhmann’s idea that art functions as ‘communicative disruptive action’ (‘kommunikatives Störmanöver’; p. 87). But when he plunges into the waters of economics and literature, the aesthetic principles drift gently away into the air of abstraction.

1. Blaschke has learnt from Mattenklott that works of literature are aesthetic formal entities. He also approves of Luhmann’s idea that art functions as ‘communicative disruptive action’ (‘kommunikatives Störmanöver’; p. 87). But when he plunges into the waters of economics and literature, the aesthetic principles drift gently away into the air of abstraction.
various economic assumptions reified in the fictional text and to read the text as an act of representing these ideas is permanently in danger of going astray, or at least of fostering partial inferences. On the other hand, the conceptual premise upon which the project of interpretation is based must be carefully worked out in factual, epistemological and ideological ways. Weakness of the theoretical postulate will distort the results of practical critical reading.

In the light of this, the flaws of Blaschke's argument are revealed. He deliberately shies away from firmly grounding his own researches in a coherent theoretical basis which would allow him to assess systematically the specific forms of literary representation in which narration and economy converge. His hesitations are rooted in a sweeping rejection of 'neo-Marxist' approaches and 'ideological critique' which, as he muses, 'almost exclusively talk about alienated and “false” forms of consciousness' (p. 12). What Blaschke unveils at this early point of the book is his intention to table a contradictory position to Marxist materialist and historical thinking in toto and to Marxist literary criticism in particular, which, as he asserts against one's better judgment, are ruled by a matrix of homological reflection, determinism and teleology.

Ultimately evading the methods of historical materialism and subscribing to eclecticism, Blaschke decides in favour of a metonymic procedure of selecting particular categories which are meant to represent the economic space as a whole. Daringly, and obviously haphazardly, he chooses the notions of homo oeconomicus and credit as his major parameters. He argues that the micro-economic conceptions of homo oeconomicus and credit... must be understood as a correlative to macro-economic, sociologically oriented analyses and also as coterminous with modernist novels which are structured around a single subjective protagonist. (p. 13.)

Neither the one nor the other are convincing. Generally speaking, the conception of separating particular categories for examining complex structures is an important tool of systematic analysis. (Marx sketches out logical categories such as capital in general and in particular, use-value, exchange-value, surplus-value, the commodity, etc.) But the logical terms have to be grasped within the structural whole of an economic system. Blaschke, however, dislikes this general principle. His 'wide heuristic conception of economy' falls into the 'central terms' (besides homo oeconomicus) of 'money, exchange, value, gift and credit' (p. 98). Depending on the given prospective possibilities of application, he deliberately calls particular categories into play in order to explicate a literary text. In this way, the terms turn into metaphysical entities, though they still denote particular aspects of the economic system.

The dismissal of macro-economic theorems is proof of the fact that fundamental questions of political economy, for Blaschke, are to be viewed solely in terms of his individual non-materialist and subject-oriented propositions. He even ignores James Mill's four Elements of Political Economy (1821), production, distribution, interchange and consumption; not to speak of Marx who points out, in a strictly materialist way, that capital and its self-utilisation are the starting point and the end, the motif and purpose of capitalist production; that production is always production for the benefit of capital, but not a means of shaping social life in such a way as to have a beneficial effect on all social producers.
Furthermore, Marx suggests that the power of capital is personified in the individual capitalist who stands for the self-determination of the social conditions of production, despite the individuality of the producers themselves.² Conspicuously, Marx does not ban subjectivity from objective economic processes. The ‘individual capitalist’, or capitalist entrepreneur, inevitably has to calculate, invest, organise, take risks, orient production towards the market and position himself within a competitive economy. It did not escape Marx’s notice that in economy, objective processes always interrelate with subjective agency yet always remain self-determined.

It was John Stuart Mill who coined the term homo oeconomicus which was meant to denote the ‘model of a rationally guided economic agent’.³ For Marx, the term was ‘an adequate description of human behaviour inevitably caused by capitalist production’.⁴ Marx even ascribed to homo oeconomicus an ‘emancipatory potential’ which makes men “see their position in life and their mutual relationships with each other with sober eyes.” In this way, they face a society that drowns all emotions “in the icy-cold water of egoistic calculations.”⁵ Gramsci emphasises that Marx’s entrepreneur is a historically concrete abstraction, but not a universal biological human being.⁶ Blaschke’s study fails to match up to a closely and subtly argued theoretical outline of what the title implies, not to speak of a historical discussion of the category homo oeconomicus. Seven pages of the Introduction suffice, as Blaschke seems to think, to explain the ‘central term (‘Leitbegriff’) homo oeconomicus’ (pp. 17–24). He stands the Marxist materialist and historical conception on its head. For his part, he follows Gebhard Kirchgässner (Blaschke’s main source) who, explaining the ‘economy’, gives priority to the ‘rational choice’ of homo oeconomicus ‘under the complex conditions of circumstances, preferences and “uncertainties”’. This basically accurate description of entrepreneurial activity is undermined by the premise that the economy is not primarily the ‘objective space of production, consumption, commerce and purchase’ (p. 18). In addition to Kirchgässner, Blaschke quotes at length the definition of homo oeconomicus proposed by Alfred Fey.⁷ Influenced by the historical school, Fey perceptively suggests that first, homo oeconomicus is (in a negative way) free of any ethical or psychological elements; that second, he is (in a positive way) governed by the principles of rationality and economic knowledge; that third, he always applies these maxims of human reason to economically relevant activities; that fourth, he is a fictitious figure who “by no means claims to reflect concrete interrelationships”, but rather is a figure of abstraction, the “fictitious subject of our fictitious actions within the existing rational schemes” (p. 19). Blaschke would have been well advised to consider Fey’s classification seriously. However, being an eclectic omnivore who devours everything in the hope of properly digesting it, his

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2. See Marx 1964, pp. 260, 274.
3. Marquardt and Candeias 2004, column 501. – This article (columns 501–10) offers a precise historical abstract of the use of the category of homo oeconomicus. Blaschke does not mention J.S. Mill.
8. Fey 1936.
only conclusion is that Fey’s fourth notion of the ‘fictitiousness of *homo oeconomicus*’ might be analogously be traced in the fictional figurations of literature (p. 20).

In economic terms, Blaschke heavily relies on Kirchgässner’s theory. He dismisses the assumption of an ‘egoistic’ *homo oeconomicus*, which was held by the historical school, and follows Kirchgässner’s revisionist notion according to which *homo oeconomicus* is defined as ‘neutral’, being both egoistic and altruistic, profit-oriented and social-minded. This is, in fact, a conception that completely redefines what has been historically understood by the term.

Under the influence, perhaps, of Osteen’s *Economy of ‘Ulysses’,* Blaschke establishes ‘the alternative model of gift (or act of giving) and overspending (*Gabe* und *Verausgabung*) to the ‘conception of individual maximising (self-)interest’ (pp. 19 and 100). On the one hand, Blaschke defines *homo oeconomicus* as an egoistic and self-interested, yet also an altruistic, helping, free-giving subject; on the other hand, in accord with the classical definition, he continues to describe *homo oeconomicus* as a soberly calculating entrepreneur. Blaschke’s cursory references to Mauss, Bataille, Derrida, Onfray, Starobinski, Hyde and Bourdieu obscure, rather than illuminate, any conception of the act of giving the author himself might have. He sympathises, however, with what he represents as Derrida’s conception of *gift*, which, as he suggests, ‘works towards a wide, quasi-universal *homo oeconomicus* model’ (p. 101), i.e. Blaschke’s many-faceted figure. Needless to say that this ‘finished example of the new man’ is seen as reverberating in the literary texts discussed in the book.

In Blaschke’s favour it must be noted, however, that a careless and ill-considered use of *homo oeconomicus* is spreading. The conception of a conference on ‘Literary Criticism of Economic Culture’ (27 and 28 January 2006 in Berlin) tells us that ‘labour and property, appropriation and sale, affluence and shortage, production and consumption, demand and transference, trade and circulation, wealth and poverty’ are ‘the economic criteria that are configurational of *homo oeconomicus*.’ Whoever this new ‘economic man’ might be, it is certainly not *homo oeconomicus* as imagined by Mill, Marx, Gramsci and even Kirchgässner. Osteen also uses the term carelessly at one point, telling us that ‘like Odysseus, in many ways Bloom is the epitome of *homo oeconomicus,*’ a ‘facet of choices, a spurner of options known as “opportunity costs”’. But, in contrast to Blaschke’s strategic use of the term, Osteen employs it only metaphorically for what he otherwise calls ‘a commercial man’.

With Kirchgässner’s model in mind, Blaschke presents three reasons to make *homo oeconomicus* plausible as a ‘fundamental heuristic category’ (p. 21). First, he commits

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9. For a concise assessment of the historical school, see Candeias and Marxhausen 2004, columns 367–75. Schmoller argued that the historical school opposes utilitarianism, which means that it also opposes the idea of *homo oeconomicus* (see col. 369).

10. Osteen’s close reading of Bloom’s economic thinking in *Ulysses* focuses on the fact that ‘throughout *Ulysses* Bloom shuttles between a shrewd, sometimes mercenary, analysis of economic benefits and generous willingness to offer gifts to the needy’ (1995, p. 71).

11. Osteen is much closer to Derrida, defining ‘greater economy’ as ‘the human place in the material cosmos’ (1995, p. 97).


himself to the divine naïveté of putting on record that since no-one has ever taken the category to the realm of literature, he ‘just wants to see how far one can go’ (p. 21). Second, in his bizarre opinion (which is meant to outrival the sociological readings of Lukács and his followers), he argues that the model of rationally calculating *homo oeconomicus* instantly corresponds to the subject-centred structure of modernist texts. Thirdly, in a faintly neoliberal way, he compels us to believe that the topical theoretical debates in economics are characterised by the fact that they ascribe dominating importance to micro-economic units compared to macro-economic categories. It is acutely disappointing to learn that this is imagined as being caused by ‘the collapse of socialist systems and the difficulties of Keynesian politics’ (p. 21).

Blaschke’s second fundamental category is *credit*. His introductory passage (1.3.), however, is cursory in the extreme (pp. 25–7). He suggests that the provision of credit facilities is a constituent of the modern economy. At the outset, Blaschke, who is always at pains to refute vulgar materialism, submits an argument of astounding vulgarity. He takes it for granted that there is a logical coincidence between the circulation of paper money, which is no longer covered by its gold equivalent, and certain modes of modern thinking, such as the distinction between signifier and signified in Saussurean structuralism, the turn from realism to abstraction in twentieth-century painting, the uncertainty of referentiality in modernist poetry and the installation of an unreliable narrator in modernist prose. (The latter is believed to represent the condition of post-religious universalised credit.) On another occasion, Blaschke wishes us to believe that *credit* ‘is the always unstable basis of modern production, modern love relations and modern narratives’ (p. 398) which are treated as equivalent to each other.

In spite of this doctrinal analogism, Blaschke’s application of *credit* proves to be much more convincing and helpful in the analytical part of the book than the transference of *homo oeconomicus* into the realm of literature. Coupling *credit* with the human properties of trust, risk and disappointment, he succeeds in dissecting the correlation between economic credit terms and personal or love relations, above all in Unamuno’s *Niebla*. Throughout the analytical part, Blaschke is (supported by succinct examples) preoccupied with the ambiguous interconnections between *credit, gift, overspending (homo oeconomicus)* with love/sexuality, which are structured both in antithetical and coterminous ways. On a larger scale, he resolutely acknowledges the existence of a modernist antithesis (‘Gegenlogiken’) between ‘art as a space of disinterested pleasure, as useless and therefore infinitely valuable gift’ and, on the other hand, the ‘economy as a sphere of shortage and desire, utility and greedy consumption’ (p. 400). Quite apart from Blaschke’s generalisation, this polarisation has been inherent in the self-definition of modernist thinking and, for this reason, a major metafictional subject of discussion in modernist literature itself. Correspondingly, it has figured prominently in critical assessments of modernism for decades. But, to the reader’s great surprise, Blaschke himself tends to ignore his own maxim when the interpretation of novels is at stake.

Blaschke’s critical investigation of the parallels and interrelations between *credit* etc. and subject relations (love, sex) reveals two obvious lacunae, which are, however, relevant to a materialist consideration of this theme. First, he fails to distinguish between the immediate representation of economic aspects in ways that influence the attitudes of the fictional characters, and a metaphoric use of economic notions which directs the focus back on the fictional figures. The scrutiny of this problem is central to literary and ideological criticism.
More to the point than Blaschke’s general drift of argument is a thesis that supports the examination of sexuality and economics in a book by Michael Tratner, which was also published in 2001. Tratner suggests that the economic and the sexual display ‘mutual representability’, which means that ‘the terms in one discourse turn out to be useful to represent elements in another’. A presupposition such as this could have helped Blaschke to achieve more balanced and less blinkered results. Second, Blaschke fails to read the modernist novels against a coherent description of the socio-historico-cultural circumstances which prompted writers to refigure economic problems in the realm of fiction. In his parallel research, Tratner cogently asserts that

a set of attitudes coalesced in discussions of economics and sexuality during the period from 1920 to 1960 to such an extent that they can be described as ‘dominant’: the Keynesian orthodoxy in economics that oversaving is harmful, and the prevalent view of sexual theorists from Wilhelm Reich through Alfred Kinsey to Bernie Silbergeld that repression is harmful.

It would have been extremely welcome if Blaschke had systematically explored this cultural field.

One cannot, however, reprimand him for completely neglecting the cultural and theoretical contexts. Chapter 2, designed as an ‘Inventory of the Studies on Economy and Literature’ (‘Inventur vorliegender Forschungen zur Ökonomie und Literatur; pp. 36–106), engages with ‘a tendentially comprehensive and at the same time qualitatively selective’ account of what the author calls ‘the topic of economy and literature’ (p. 37). The ‘intention’ is, as he tells us somewhat pathetically, not to provide an introduction to his ‘model terms’ (‘Leitbegriffe’), but rather ‘to offer a typology and a summary of all available studies,’ that is, ‘a methodological and historiographical discussion of academic research’ (p. 37). His casual potpourri of theories about what he calls ‘literary economics’ (another instance of Blaschke’s ignorance of precise terminology) is in fact a large-scale exercise in eclecticism, which the reader will find more perplexing than illuminating in the end.

Ideologically, the ‘inventory’ is guided by a vulgar and biased censure of Marxist and neo-Marxist thinking. Lukács figures as universal bogeyman, which by itself is sufficient proof of Blaschke’s anachronistic position. Benjamin and Adorno are dismissed as the protagonists of intellectual games who play with transcendental abstractions such as reification, alienation, capitalism, standardisation and subjective identity. Brief reviews of selected parts of the writings of Goldmann, Macherey, Althusser, Eagleton, Jameson, Rossi-Landi, Goux and Bourdieu put further emphasis on Blaschke’s critical distance from various forms of neo-Marxist thinking. By contrast, he more or less sympathises with non-Marxist studies on the intersection of money and ideology, or literature, written by Marc Shell, John Vernon, Walter Benn, Jochen Hörisch, Enrik Lauer, Jacques Attali, Ulrich Fülleborn, Niklas Luhmann and Dirk Baecker. Obviously, Blaschke is looking for

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18. Blaschke fails to note, for instance, that both Eagleton and Jameson cogently argue that the technical complexity of modernist writers is a severe reaction against reification and commodification.
precedents that legitimise his own eclectic procedures. But, sadly, he draws no convincing central argument or systematic conclusion from his ‘inventory’. For this reason, there is no link between the theoretical and the literary parts of the book.

In Part III, Blaschke offers a lot of new interpretative aspects with regard to the novels he discusses in some detail: *La Niebla* by Miguel de Unamuno, *Ulysses* by James Joyce, *La Coscienza di Zeno* by Italo Svevo, *Der Mann ohne Eigenschaften* by Robert Musil and *Voyage au bout de la nuit* by Louis-Ferdinand Céline. In my review, which focuses on economic and methodological problems, a detailed appreciation of what Blaschke has to say in his closely argued literary readings must be suspended. While recommending this series of interpretations to all who want to know more about the novels mentioned, I shall confine myself to some aesthetic considerations. In most general terms, Blaschke’s argument suffers from a simplistic correlation of economics with literature. He supposes that the writers set out to depict metonymic instances of economy, such as *homo oeconomicus* and *credit*. This new-fangled sociological exegesis of literary texts is based on a misunderstanding. What a novel unveils is not that the writer brings into life fictional characters whose thinking and behaviour homologically comply with specific economic theorems and practices. It is a mark of modernist literature that the writer deliberately positions himself, or herself, in opposition to particular types of (class) consciousness and to ideologically inflected thinking. His authority is legitimised by subjectivity, alongside which other opinions and attitudes exist. He challenges economic practices, political power, religious doctrines and the institutions of state, religion and law through his self-authorised writing. Disobedience and difference are at the core of his or her literary activity. In this respect, it is not urgent to focus criticism on the question of an untrammeled representation of non-literary reality. It is not primarily important to define in which ways literary characters perform acts of giving and to what extent characters and actions designate aspects of *homo oeconomicus* and *credit*. But it is highly relevant from the point of literary criticism to acknowledge, as Osteen does, that Bloom’s ‘commodified world of objects whose use-value is often secondary to the value as exchangeable merchandise’ is an aspect usually represented in the ‘realist novel’.19 Literary criticism (to which Blaschke pledges allegiance) has to offer insights into the performativity of language in modernist (and realist) fictional artefacts which seek to constitute self-determined authority and to establish the functional dimension of ideological critique. To single out one exemplary case I shall briefly point to Blaschke’s detailed description of the main characters of *Ulysses* who are shown to be representing *homo oeconomicus* and being guided by *credit* (desire). Blaschke analyses are detailed and informative when concerned with the textual appearance of, and the characters’ immersion in, economic aspects. One would enthusiastically praise them, were it not for the reservation that a major part of his insights echo (or even duplicate) what Osteen has already revealed. Advancing his particular argument of how the characters re-present *homo oeconomicus* Blaschke falls into his own trap of deliberately distorting the literary text by cramming it under the bell jar of his principles. Topping his nonsensical exaggerations, he appoints Molly Bloom to ‘femina oeconomic’ (p. 202). Leopold Bloom is not, as Blaschke argues, ‘Joyce’s *homo oeconomicus*’ (p. 163),20 but rather, if one accepts the category, his humorous or even

20. Osteen painstakingly emphasises that Bloom’s ‘small economics’ of commercial thinking are foregrounded in the ‘Calypso’ chapter whose ‘art’ is, according to Joyce, ‘economics’, whereas
satirical, inversion. In this context, it is astonishing that Blaschke is nearly silent as regards the fact that Bloom is a canvasser of advertisements. In Joyce criticism, the role of advertising in the capitalist market system and its reflection in *Ulysses* has been duly studied since the 1990s.21 As far back as 1988, Mary King argued that Bloom, the protagonist of *Ulysses*, is ‘an archetypal representative of the commodity world of capitalism, which, as advertising man, he is employed to serve’.22

If the economic question is given a methodical reading, and if one also follows Blaschke’s own postulate of a critical ‘reconstruction of the intertextual web of motifs and the narrative arrangement’ (p. 53), an examination of Joyce’s ‘extraordinary emphasis on money and economic transactions’23 must come to the fore. Focussing on the characters, Blaschke metaphysically stands facts on their heads and distorts Joyce’s strictly materialist way (though not Marxian analysis, which is not the field of literature) of engaging with economics, money, property, commodities and the institutions and discourses superstructuring them. The characters are involved in this social system, as we are in ours, and react correspondingly in different individual ways. The proper method of investigating the interrelations between literature and economics, then, is to analyse the literary presentation ‘of the workings of Dublin’s entire society, in which money becomes not only a means of exchange, but an important end in itself.’24 Subscribing to the subjective emphasis of (Kirchgässner’s) *homo oeconomicus* Blaschke becomes unduly absorbed in a corresponding emphasis on the fictional characters.

In the economic context, Joyce’s representation of Dublin as a specifically coded space which stands for colonial social and economic processes is of major importance. The economic relations and the materiality of the city are an alternative place to the oppressive power of Britain and the Catholic Church, which, paradoxically, are part of the city itself. At the same time, Dublin appears as a zone of colonial conditions where the ‘paralytic’ (Joyce’s term) economic, social, political and ideological miseries of Ireland come to a focus. Dublin figures as a space where the social spatialisations of money relations and subjective utopias, modernity and outmoded traditions, national aspiration and nationalism, conventions and modernisation, privacy and politics, intellectual potential and fanaticism exist side by side, merge, bifurcate, oscillate, collide and still lack satisfying social and economic solutions. The characters are part of this whole. To this core of the novel, Blaschke’s approach offers no key.

By the end of the book (annoyingly, index-less) the reader will come to the conclusion that, in Blaschke’s actual usage, the real category of *homo oeconomicus* becomes a *tabula rasa*, to which a deliberate, unstable, improper, irritating meaning is attributed. For this reason, it is misleading to employ it as a theoretical foundation on which the practical readings of literary works rest. In a general way, any topical application of the category of

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the later chapters concern themselves more explicitly with the ‘great economics of birth and death, national politics, the universe’ (1995, p. 94).


24. Ibid.
*homo oeconomicus* is forced back to the conceptual understanding drafted by Mill and Marx. What the fictional (Fey) *homo oeconomicus* would mean under the conditions of contemporary late capitalism, is still open to definition... if it is a problem at all.

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References


The history of the Democratic Republic of Congo is a catalogue of domination and robbery. Situated in central Africa, Congo is one of the most mineral-rich countries in the world. Throughout the twentieth-century, its wealth was pillaged: first by the Belgians, then by the neocolonial rulers, with the complicity of international companies and, finally, by its neighbours – again with international involvement. Congo is economically important not only to formal trade, but also to global informal networks, which profit from the porous nature of its borders with nine countries and from the lack of effective legislation or regulation within the country.

Congo’s political story is also significant, reflecting the shifting patterns in global politics through the colonial period, the Cold War and the post-Cold-War era. From 1885, it was the possession of King Leopold of Belgium, and the administration was taken over by the Belgian government in 1908. Demands for independence were made in January 1960 and, by June, the Belgians had left. For the population, the transition to independence was complicated by the desire of the Belgians to retain control of resources and the growing interest from the superpowers in Congo’s positioning in the Cold War. Patrice Lumumba, the elected prime minister, was killed in January 1961 by a coalition of CIA, Belgian and Congolese forces, and power was seized by Mobutu Sese Seko, an important ally for the USA.

Marxist literature on Congo is sparse, and of the books reviewed here, only Nzongola-Ntalaja’s has a Marxist perspective. Some earlier contributions are worth noting: Bézy focuses chiefly on the underdevelopment of Congo under colonial rule. Depelchin, criticising Bézy, argues that the underdevelopment of Congo was accompanied by an – also under-researched – process of capital accumulation by Belgian companies, claiming that it is in the light of this that Congo’s frequently cited ‘potential’ should be assessed. However, Depelchin’s work analyses capital more thoroughly than labour and, published in the early 1990s, it predates the major upheavals in Congo and the interests they represent. Nzongola-Ntalaja focused his early work on class and revolution. The question of whether classes existed in postcolonial Congo, though, is contentious: whilst there were distinct social groups, the evidence of class consciousness is weak, and Nzongola-Ntalaja’s work falls short.

1. The country now called the Democratic Republic of Congo was Congo Free State from 1885, The Belgian Congo under colonial rule, The Congo at Independence, and Zaïre from 1971 to 1997.
of a comprehensive analysis of class.\textsuperscript{5} In a more candid appraisal of the mechanics involved, Callaghy notes that the lack of industrialisation, bureaucratisation and formal economic integration limits the depth of capitalism and classical multi-class politics.\textsuperscript{6}

By the 1990s, the rule of Mobutu was stuttering to a close and he was of no further use to his patrons in the USA. Mobutu maintained power through his increasingly brutal treatment of the population, by orchestrating pillages, funding death squads and retreating from public view. Decades of warped decision-making had privileged Mobutu and left the country in political and economic devastation. Whilst Mobutu kept a grip on the formal institutions of power, informal economies and the political arrangements they required were the real means of survival and organisation for much of the population.

The wars

In 1994, the genocide in neighbouring Rwanda led to a massive inflow of fugitives as the ousted government, army and followers arrived over the border into the Kivu region of eastern Congo. This destabilised the area and established the dynamic for a conflict that continues today, between the old Rwandan régime, which is perceived by the new Rwandan government as posing a security threat, and the new Rwandan government, which is perceived as illegitimate and authoritarian by the old régime.

Since the mid-1990s, Congo has witnessed two major wars and numerous other forms of violence, including local and provincial level fighting, cross-border attacks, state repression and debilitating neglect. These wars were a long time coming. Various disciplines propose theories on the causes of violence: neoclassical economists argue that resources are significant, particularly when a country has a heavy dependence on primary commodities.\textsuperscript{7} Theories of ethnicity suggest that the dominance of a particular ethnic group and the differences between ethnic groups contribute to the outbreak of violent conflict. Much political theory holds that inequality or exclusion potentially results in reprisals and war. According to such theories, Congo’s past provides a puzzling combination of extraordinary provocation and remarkably little direct violence. Since the first Congo war broke out at the end of 1996 that has changed and there has been massive violence: estimates suggest that the wars have claimed over four million lives, making this conflict the deadliest since the Second World War.

The first war began in late 1996 when Laurent Kabila, long-time adversary of Mobutu, forged a coalition between interest groups in the east of the country. Heading the Alliance of Democratic Forces for the Liberation of Congo, he marched across the country and toppled Mobutu. Kabila ruled from Kinshasa for a year, but, in August 1998, Rwanda and Uganda, which had supported Kabila, were angered by his perceived anti-Tutsi stance and his inability to secure the Kivus, and backed the Rally for Congolese Democracy (RCD) in a rebellion against him. Violence in Congo has been used to establish political processes and

\textsuperscript{5} Schatzberg 1980, pp. 17–32.
\textsuperscript{6} Callaghy 1984, p. 25.
\textsuperscript{7} In particular, Collier’s work on ‘Greed and Grievance’ presents the case that economic opportunity is the most significant factor accounting for the outbreak of civil war (2000).
systems of resource acquisition and distribution. This has rewarded the use of violence, and has implications for how state power is built or diminished, and of how alternatives to it are mounted.

The violence and its associated power have given rise to forms of resistance. Resistance in Congo is remarkable for its longevity and ingenuity and can appear to be a paradigm of adaptation, upholding the notion that ‘where there’s a will, there’s a way’. Such a maxim, though, does not recognise the unsuccessful struggles of millions of people who have been faced with violence and have not found a way out. Resistance in Congo is not a story of conventional bravery, as there have been too many victims: resistance has provoked killing and lack of resistance has resulted in many deaths.

This article reviews three recent books on Congo. The first, by Georges Nzongola-Ntalaja, presents the popular political struggle in *The Congo from Leopold to Kabila: A People’s History*. Adopting a narrative style, Nzongola-Ntalaja details the events, alliances and forms of resistance in chronological order from the formation of the Congo Free State in 1885. The second book under review is an edited volume by Theodore Trefon, *Reinventing Order in the Congo: How People Respond to State Failure in Kinshasa*. This addresses a different kind of resistance – that of everyday survival in Congo’s capital city. The chapters address aspects of life in Kinshasa, all of which have been compromised and mutated by the vicissitudes of a state in the throes of collapse. The third book is edited by John F. Clark, *African Stakes in the Congo War*. Assuming the broader perspective of international relations and politics, and particularly relations with neighbouring countries, Clark and the other contributors examine the dynamics of aggression, and its effects on people in Congo. These books are brought together in a single review to explore the complementarity (or otherwise) between their differing perspectives. The strengths and weaknesses of each notwithstanding, these books offer a plethora of expressions and interpretations of power and resistance.

**Domestic struggle**

Nzongola-Ntalaja is a Congolese academic and activist. He has written extensively on nation-building and politics, and works at the Oslo Governance Centre of the UNDP. His book is a political account of Congo’s history: starting with the acquisition of the territory by King Leopold of Belgium, Nzongola-Ntalaja examines the forms of leadership that emerged and the types of opposition that arose in response, tracking popular resistance to exploitation and repression. He distinguishes a number of eras: that of imperialism and colonialism, which gave rise to the independence struggle, that of the neocolonial state and the second independence movement, that of the Mobutu régime and the struggle for multiparty democracy, and that of the conflict in the Great Lakes region.8 He argues that the struggles for democracy and for national liberation are linked, and he perceives a continuity in the popular will from the time of colonial oppression to the present day victimisation by neighbouring countries and international powers.

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8. The conflict in the Great Lakes region is the violence that has affected Congo, Rwanda, Burundi and Uganda since the genocide in Rwanda in 1994, and especially in the period of the second Congo war, from 1998 to 2002.
Political arrangements are legitimised by their authors: King Leopold – heading a violent regime of resource extraction – described his mission as humanitarian, a word that requires no further justification. The colonialists, continuing the exploitation, conjured up the notion of a ‘white man’s burden’: the duty to improve the material and moral lot of the Africans. Nzongola-Ntalaja notes that the very existence of an indigenous culture in Congo was threatening to these régimes and so was subjected to institutionalised racism that claimed and promoted the superiority of the colonial agenda. But the Congolese have resisted. Political initiative, he asserts, was taken most commonly by the intellectual leadership but has been sustained through the struggle of the popular classes.

Peasants’ and workers’ revolts took place in the era of 1900–45. According to Nzongola-Ntalaja, this period also saw the formation of social classes: a large and constant working class, and the évolués – those who had table linen, spoke French to their children and could be appointed to minor administrative posts. Nzongola-Ntalaja charts how the pettiness of the concessions made by the colonial administration caused frustration amongst the évolués, leading them to join the ordinary people in the independence struggle in an anticolonial alliance. This alliance broke up at Independence when it transpired that the petty bourgeoisie had wanted the Europeans out of the country and a transfer of power to their hands, but the other classes were militating for more radical change.

The meddling of the Americans throughout the 1950s and the ascendance of Mobutu – initially described as a pro-Western moderate – to dictatorship is recorded in persuasive detail. This includes an account of the nationalist project of Zaïrianisation, which placed companies within the control of the political élites and simultaneously increased dependence on outside players. The manipulation of economic and political assets led to an inversion of values, described as ‘Zaïrian sickness’ and epitomised by the rule of Mobutu. The quality of Nzongola-Ntalaja’s writing on the Mobutu era contrasts with that of the report of the conflict in the Great Lakes which is over-ambitious and brief. It gives a summary of the history of Rwanda, the significance of which is to set the scene for the conflict in Congo. Its treatment of the politicisation of ethnicity, the rallying of alliances and the subsequent instability in Congo may provide those unfamiliar with the region with a broad-brush understanding of some elements of the conflicts, but the chapter offers little of analytical or empirical importance.

Throughout the book, the style is arresting, partly due to Nzongola-Ntalaja’s familiarity with the characters involved. Nzongola-Ntalaja derives his intellectual direction from Fanon and Cabral. Fanon’s influence is perhaps strongest in Nzongola-Ntalaja’s rejection of the first Independence, which, in his estimation, amounted to a change of guard rather than a genuine liberation. As such it led, in accordance with Fanon’s thesis, to disastrous rule in the first half of the 1960s and the use of further violence. With regard to the work of Cabral, Nzongola-Ntalaja elucidates a number of forms of domination. One of Cabral’s tenets is that imposing domination is easy under certain circumstances, but that it can be maintained only by permanent suppression or by killing the population. These two means of dominance, and the accompanying attempts to instil foreign culture, have been evident in the colonial era and since. Other themes in Fanon’s and Cabral’s writing that are taken

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up by Nzongola-Ntalaja include the national nature of the struggle, the need to maintain cultural values and the challenges of doing so. Nzongola-Ntalaja makes no pretence of neutrality. On the contrary, he presents himself and his work as part of the movement for democracy, and devotes attention both to the interests of powerful external actors in directing affairs in Congo and to the struggle of the people of Congo against their leaders.

There are two features of the book that attract critical comment. The first is its descriptive style. This has the advantage of delivering an accessible narrative. The disadvantage is that, in presenting a singular story, the approach leaves the reader with little in the way of a framework for analysis. This is a limitation as far as developing an understanding of Congo is concerned, and also means that the book does not contribute to a theoretical understanding of events elsewhere. In addition, Nzongola-Ntalaja adopts an informal diction, reports hearsay and frequently does not cite sources. Again, this is an advantage in offering an engaging account, but the numerous unsupported stories undermine the academic merit of the work.

Secondly, this book is not an account of politics but a political account. Nzongola-Ntalaja declares his political hand at the beginning of the book, but while he presents his work as part of the democracy movement, at times his contempt for external parties or for politicians of a stripe other than his own descends into the construction of conspiracy theories. There is little subtlety in his interpretation and he frequently works with a binary categorisation of ‘good’ and ‘bad’ when judging the motivations and capacities of politicians. Whilst this may be intended to guide the reader, its impact is to compromise the author’s ability to make a sound appraisal of the state or the opposition movement in Congo.

The impression of methodological shortcuts and political bias is reinforced by the fact that Nzongola-Ntalaja makes assertions that are, in a literal sense, not wholly true. His presentation of Laurent Kabila as incompetent and universally disliked, for example, is contested by people in Congo, many of whom have respect and fondness for him, and portraits of him remained on billboards on the streets of Kinshasa five years after his death. Nzongola-Ntalaja’s project is ostensibly to promote democracy, but his assumption of an undifferentiated ‘ordinary people’ with shared political views and interests forecloses a more careful disaggregation that would have granted greater credibility both for his writing and for his political struggle.

Some of the shortfalls relating to the use of evidence and argumentation are redeemed by the concluding chapter, which impressively brings the threads of the book together, and, notwithstanding some reservations, Nzongola-Ntalaja’s work offers an important insight into Congolese politics. The difficulty Nzongola-Ntalaja faces as an author is to make the failures of the resistance movement intellectually problematic: the evidence of the resistance movement is sparse, even with the reports of the successive heroism of Lumumba, Mulele and Tshisekedi. Nzongola-Ntalaja is writing along an analytical edge – his task is to persuade the reader that the failures he documents are both surprising and explicable.

**Evading the state**

In a sense, Theodore Trefon’s *Reinventing Order in the Congo*, encounters a similar problem: in recounting stories of survival in Congo’s capital, Kinshasa, the book throws light on something that it presents as unlikely. This is difficult, though, as Trefon acknowledges at
the outset that many people die in Kinshasa and in the rest of Congo – the ‘miracle’ signally fails them. As in Nzongola-Ntalaja’s book, it seems overall that the phenomenon is neither entirely surprising nor fully explained. The people of Kinshasa do not offer a successful political challenge to the incapacitating power of state abuse and neglect, and their means of survival are uncertain in terms of avoiding further devastation or death.

Trefon provides a comprehensive opening chapter, introducing the question of how people survive in the unusually awkward conditions of Kinshasa. He identifies a number of themes that are elaborated on through the book, including the subjects of dependencies, food, faith and children. Whilst this introduction constitutes a strong start and demonstrates a commanding knowledge of Kinshasa, there is no concluding chapter and there is some impression of a random series of events after the introduction. The only chapter that engages significantly with the background to the disruption of social and political life is that by de Villers and Onasombo, placed towards the end of the book. For analytical purposes, it would make more sense to have this near the beginning.

Some distinction can be made between the first half of the book, which concerns the methods by which people access services, and the second half, which – broadly – concerns particular sectors of society, although there is no class analysis. With regard to the former, the book reports on the ways in which the population of Kinshasa, faced with a lack of state provision, has moved towards the formation of co-operatives and other informal social innovations to secure food, water and medical care. The second half of the book offers perspectives on civil society, and on groups such as single mothers and street children and the social space they occupy.

The book is strictly circumscribed in geographical and temporal terms. This is a strength in that the chapters are, without exception, interesting and focused. They provide insights into the way that people live in Kinshasa and, as they deal with contemporary events, they preserve a snapshot of this juncture in history. Nonetheless, describing a city devoid of its historical context restricts the analysis of how the conditions described came about, whose interests they serve and of the dynamics that exist between sectors. Similarly, as the book only addresses life in Kinshasa, it disregards the linkages between the capital and other parts of Congo, or between Congo and the rest of the region or the world.

A more serious hazard is posed by the methodology. There is variation in the approach of the chapters, some authors preferring an authoritative tone whilst others present a greater degree of detail. Throughout, there is greater attention to description than to analysis, and many of the chapters rely on anecdotes as opposed to evidence and argumentation. As the book gives very little contextual explanation, it is not obvious what its purpose is: there is little opportunity to learn from it, save for the particulars of everyday survival. Furthermore, on the few occasions when authors do comment on events in the rest of Congo (for example, p. 61), there is a loss of specificity and relevance.

Also within the scope of a critique of the methodology, the central theme of the book – survival – is presented in almost mystical terms, and the ‘miracle of Kinshasa’ is accompanied by a gauche engagement with magic and spiritualism. Trefon explicitly distances himself from the ‘heart of darkness’ interpretation of events in Congo, but – in line with many of the other contributors to the book – does not come to terms with the full normality of what happens. Even the chapter by de Villers and Onasombo, despite its political analysis, ends with the possibility that the crowd mourning Laurent Kabila was ‘trying to exorcise the demons and malicious spirits that haunt the tragic history of Congo/Zaïre’ (p. 154).
The phenomenon of the miracle of Kinshasa is in some ways an attractive notion, but not one that offers analytical insight, and the constant reminders of mystery risk portraying the Kinois as a pathologically dreamy population. The opposite interpretation is what emerges from the stories themselves – of practical responses to enduring problems. The assumptions of magic infect the narrative: the chapter by de Boeck on child witches, for example, explains the increase in the number of street children as being the result of increased witchcraft accusations. No data is presented, except an excerpt from an interview conducted at a Church of the Holy Spirit, which cannot be admitted as an impartial source on such a subject. Assumptions are also made about the psychological state of the Kinois. One author claims there has been a ‘rise of selfish individualism’ (p. 23), another that ‘jealousy is a very powerful emotion in Kinshasa’ (p. 94), but no evidence is brought to bear on these assertions.

Another feature of the book is its uncritical attitude towards sources. Despite some warnings about the perils of collecting and accepting figures, for the most part reports from aid agencies are liberally recited. The work of international agencies, apart from in the chapter on NGOs, receive extremely bland treatment, and they are presented simply as organisations that fill the gaps left by the state. This frailty results partly from the general lack of political analysis and partly from the paucity of empirical work, which necessitates reliance on the work of others: NGOs provide statistics that are easily integrated into the narrative.

As the book avoids political engagement, it is unsurprising that few contributors mention the wars, and none gives them considered attention. Whilst the events described do attest to the various dimensions of crisis, the tendency to maintain the discussion at the micro-level renders the wars practically irrelevant, as little fighting has taken place in Kinshasa. A more thorough investigation would have identified that the effects of the fighting are relevant to the way that trading is done, to international relations, to urban migration and to the role of the state in conducting civil and military affairs.

There is a clue to the book’s weaknesses in the subtitle, how people respond to state failure in Kinshasa. The book is essentially about how people react to state failure, whereas a more interesting question would have been how people interact with state failure. Devoting some attention to how the events described relate to the informalisation of the economy and the repression of political resistance, along the lines of the analysis of MacGaffey,\(^\text{11}\) would have allowed for some understanding of how people find themselves needing to buy out of a system, and the conflicts between the short- and medium-term implications of doing so. The role of the population and their strategies in accelerating the demise of state infrastructure and services would have made a more significant story.\(^\text{12}\)

\(^{11}\) MacGaffey 1991. Through an analysis of the second economy, MacGaffey argues that such forms of trade are political as well as economic events, in that they deny the state revenue and other support. It is a theme she takes up with Remy Bazenguissa-Ganga in Congo-Paris: Transnational Traders on the Margins of the Law (Africa Issues, 2001). In this book, the authors consider the second economy on a transnational scale, arguing that engagement with it enables people to confront and reject the marginalisation imposed on them by formal political and economic structures.

\(^{12}\) Schatzberg argues that dichotomies between exploited and exploiter do not hold, and particularly in situations of conflict. He gives an example of an unpaid police officer who extorts
Regional political economy

Clark’s edited book, *The African Stakes of the Congo War*, presents a framework of analysis in the introduction and the contributions are of a consistently high standard. Written from the perspective of international politics, this book gives a straightforward analysis of power, as seen from a political-economy angle. This book identifies the political and economic involvement of neighbouring countries and a number of players in Congo itself, focusing primary on the second Congo war – that started with the Rally for Congolese Democracy (RCD) rebellion in August 1998. The book is elegantly ordered, with Part I giving the historical context to the war, Part II examining the post-Mobutu régimes and the regional support they received, Part III looking at the contestents to the Congolese state, and Part IV investigating non-state phenomena. There is an illuminating coherence achieved by bringing these components together in an edited volume.

Clark identifies three perspectives on the war in Congo:

The first perspective sees the Congo war largely as an issue of state collapse, succeeded by a scramble of unscrupulous neighbors for the lush spoils left unguarded and unclaimed.

The second, ‘that the species of war that we now observe in Congo is part of a larger, continental trend’ and that ‘recent changes in international policies may have impacted the stability of African states’ (p. 2). And the third that sees the war ‘not as a result of internal collapse but as primarily the result of external intervention’ (p. 4). Attention to these perspectives allows for consideration of international politics, the Cold War, its end, the changing nature of sovereignty, and the need for regional allies.

In analysing the post-Mobutu regimes and their supporters, the rule of Laurent Kabila (1997–2001) and of his son, Joseph Kabila (2001–present), is examined alongside analyses of Angola and Zimbabwe. These are important contributions as the incentives and involvement of these two countries are not commonly subject to the same degree of scrutiny as those of the countries on Congo’s eastern border, particularly Rwanda and Uganda. In addition, these chapters stand as testimony to the speed at which situations change. The fight against UNITA was a primary factor in Angola’s involvement in the war in Congo and, as far as Angola was concerned, a fight that was preferable on Congolese soil. The study of Zimbabwe also offers a fascinating example of how shifts, even over just a few years, can greatly alter the political economy and alliances of the region.

The chapters on the opposition movements within Congo and of the involvement of Rwanda and Uganda offer useful examination of players whose activities have attracted international attention following the publication of the UN’s Panel of Experts Report on the exploitation of natural resources from Congo. The territorial invasion of a country by money from a poorer farmer, and asserts that to explain this as false consciousness, ‘neither provides a way out of the dilemma nor contributes significantly to our understanding of human behaviour’ (1970, p. 25). The collusion of the population in Mobutu’s pillages and the violent relations between nearby social groups in Congo similarly demands a more plausible and more enlightening explanation.

two foreign armies is exceptional in Africa and, whilst – in line with mainstream thinking\textsuperscript{14} – economic opportunities are found to play a role in the violence, particularly in its perpetuation, the analysis goes far beyond that offered by neoclassical economics. The authors study a number of competing hypotheses to establish a range and ordering of priorities that influenced decisions to invade. The chapters arrive at nuanced conclusions relating to the economic and political motivations, and also to the constraints on, and personal ambitions of, the presidents of Rwanda and Uganda.

The closing section of the book consists of an investigation into the small arms trade, a political-economy evaluation of the costs of the war, and an evaluation of the impact of internally displaced people and refugees. This section ambitiously aims to enumerate, if not to quantify, the contributing factors – in terms of arms, and the costs for people in Congo and for others in the region. Nonetheless, some of the analytical precision is lost in this section on account of the broader approach, and the argumentation is less rigorous and less conclusive.

The notion of African ‘stakes’ in the Congo war is significant in framing the analysis – the question is not only about motivations, but about how events evolve politically. As many of the players have found, incentives for involvement may conflict or change over time, and the possibility of withdrawing is not always available. According to Longman’s analysis (Chapter 8), for example, the RCD and their Rwandan backers made political miscalculations in attempting to take Kinshasa a second time in August 1998. Despite the similarities in the political climate with the invasion one year earlier, the Congolese military did not desert, and the armies of Zimbabwe and Angola came to the assistance of President Kabila. The Rwandans found their situation inextricable: they had security concerns and needed to exert influence, but were perceived by the Congolese as invaders and oppressors.

**Power & violence**

All three books attest to the fact that political power is closely connected to the use of violence and to the acquisition and distribution of material wealth.\textsuperscript{15} Mobutu’s violent repression secured his authority by crushing competition and concentrating resources – both the natural and commercial resources from Congo and aid from donors – into his hands and the hands of his supporters. The motivations for neighbouring states to become embroiled in the fighting, according to Clark’s account, hinged largely on the political or economic gains they could make. These were sometimes contradictory, for example when making economic gains had political costs, or when political expediency, such as Museveni’s support for Kagame, involved significant financial outlay. Decisions over involvement included considerations about long-term alliances and the need for secure borders, as well as the possibility of profiting from weak borders and economic risk-taking to extract mineral reserves.

\textsuperscript{14} See, for example, Collier 2000.

\textsuperscript{15} On account of the use of violence, control of the means of production, including mining, forestry and agriculture is more significant than ownership in the Congolese context (Schatzberg 1970, p. 25). The lack of a predictably functioning state tends to make formal property rights or labour rights (or organisation) irrelevant.
Just as increases in power are associated with the use of violence for economic gain, disempowerment is associated with neglect by powerful actors (notably the neglect of the material needs of the population in Kinshasa), and the destruction of wealth, trade and systems of production, particularly in the occupied areas in the east of the country. The dilapidation of infrastructure and services led to the political disenchantment and incapacitation of people in Kinshasa and elsewhere. Moreover, as their situation deteriorated, they had less time and fewer resources for engaging with or challenging the institutions of state power. The pillaging of shops and businesses across the country at the beginning of the 1990s weakened the ties between Mobutu and the population, increased poverty, and diminished the capacity for organised political dissent.

Thus, the acquisition of power and the suppression of rivals or rebellion polarise political positions and make way for further forms of violence. The inequality that is evident from all accounts of Congo has not provoked the poorer or weaker to rise up and claim, demand or take their share. On the contrary, violence has been the result of inequality, but in the sense that the differential in power between rulers and ruled has allowed for and, indeed, sanctioned the violence meted out by the powerful on the powerless, and the rich on the poor. From the rule of King Leopold and the colonial era onwards, superior military and administrative organisation enabled the Belgians and then the neocolonialists to plunder Congo. More recently, Rwanda and Uganda have used their superior military power to loot the population of Congo, and the Congolese state has preyed on or neglected the people in Kinshasa at no expense to its own power.

Power has not always been realistically assessed in Congo. Nzongola-Ntalaja claims that, since Independence, Congo has been seen by many external actors as posing a set of technical problems arising from the fact that there is an insufficiently skilled workforce. The imposition of financial austerity through structural adjustment and the more recent aid discourse of good governance similarly position the solutions within national borders, and offer a standardised blueprint for technical and financial success. Excluding Congolese politics and its relationship with regional and international interests justifies particular responses. Fairhead, regarding the role of resources such as diamonds, gold, timber, uranium, copper, cobalt and coltan in the conflict, argues that, to the extent that the war has an environmental component, it must be viewed from an international perspective, as it is foreign countries that provide the market for the resources extracted (and foreign firms often extract them). He concludes that perceiving the war as a national or sub-national resource contest is dangerous, chiefly because it is likely to prompt policies that are unhelpful or counterproductive as they do not address the true nature of the conflict and may exacerbate tensions.16

The tendency to perceive the conflicts in Congo as national and stemming from apolitical problems is not politically neutral. Nzongola-Ntalaja identifies a pattern, as early as the colonial period, whereby political issues in Congo are resolved according to how best to service the demands of the market and, particularly, in favour of Northern countries. The claim that this has been the priority is consistent with the fact that the integration of some elements of the Congolese economy into the world market and the marginalisation of others has been uneven and often violent. The extraction of rubber under King Leopold,

the exploitation of gold and ivory by the Belgians, the lucrative concessions that kept the Mobutu ship afloat and the recent predations of Uganda, Rwanda and their international backers comprise a seamless tale of Congo’s economic significance to external powers.

Understanding the dimensions of power makes the question of resistance all the more profound: can such power be resisted and, if so, how? The message from these three books is dismal. For the most part, Nzongola-Ntalaja is accounting for failure: the independence struggle was successful, but it relied on a continent-wide shift towards independence and a coalition of convenience between classes within Congo. Thereafter, the revolt against the post-colonial state, the resistance to dictatorship from 1969–97 and the contemporary struggle for democracy have all – largely – failed. Trefon and the other contributors, similarly, do not identify ways in which the people of Kinshasa engage with or overcome their oppression or exclusion. Various chapters in Clark’s book identify the Congolese as the greatest losers of the wars, with economic costs from destruction and disruption overlaid with huge loss of life and other long-term impacts.

Will & no way

The aggressors in the wars in Congo have elicited little organised military resistance. Laurent Kabila’s march across the country in 1996/7 that ended Mobutu’s rule faced negligible armed opposition and, indeed, a great deal of support. Whilst there were probably over 100,000 casualties, most were killed in massacres rather than in resisting Kabila’s advance. In seven months Kabila’s army had captured Kinshasa and a passable calm had returned to the country. The second war experienced more resistance. Angola and Zimbabwe came to the assistance of Kabila against the Rwandan army and, in the east, the Maimai movements provided some local obstacles to the invaders. Nonetheless, the Rwandan forces made a determined assault on the capital and, in collaboration with the Ugandan army, imposed an administrative structure on the eastern part of the country.

The story of political opposition is also ambivalent. Nzongola-Ntalaja claims that the legacy of the second independence movement was that of resistance to illegitimate rulers. Conditions for the opposition, though, are complicated by the constant attempts of actors outside Congo to foster conditions for market opportunities, including the removal of leaders who threaten the project and the nurturing of those who promote it. Nzongola-Ntalaja recounts how direct political engagement has failed to move forward, and leaves the reader with the assertion that there has been a shift from hope in the earlier forms of resistance to despair in the second half of the 1990s. Whilst something of a democratic movement continues, its vision has become dimmed by the failures in its own project and the increasingly hostile political environment in which it finds itself. Whatever the will, there has been no way of realising the democratic dream.

17. The Maimais are locally organised militias. The groups are loosely connected to each other, particularly with respect to alliances, but there is little formal command structure. The Maimais supported Kabila’s invasion but fought against the occupation of the Rwandan army and its militias. The Maimais were preceded by similar units in previous struggles, particularly the Simbas, who fought for the ‘second independence’. 
There are, though, smaller and less glorious acts of defiance. Schatzberg, who addresses the era before the wars, finds ways in which people operate at the edges of formal institutions to meet oppression with small – but significant – acts of distortion and prevarication. Trefon’s book, whilst it is concerned chiefly with the informal sector, in some ways reflects this work. The mechanisms identified by which people obtain goods or services are similar in that they enable people to evade the state and thus evade state control. Trefon writes,

People are poor, sick, hungry, unschooled, underinformed and disillusioned by decades of political oppression, economic crisis and war. The toll of marginalization, exclusion and social stratification has been heavy. Outbreaks of violence have reached frightening proportions. (p. 1.)

He argues, though, that the ways that people find to survive amount to a process in which order is re-invented.

The implication of Trefon’s claim is that the abusive neglect by the state led directly to the population’s originality in finding alternative strategies; in doing so, some power is restored to – or more properly re-claimed by – the people. This is a phenomenon explored by Wood in her study of El Salvador, in which she argues that people joined the rebellion even when they were unlikely to succeed, for emotional reasons, such as the sense of agency and playing an active part in one’s future validated the decision to risk one’s life. She writes,

the resolution to the puzzle of collective action depends on emotional processes, moral perceptions, and shifting political culture as well as on the emergence of insurgent social networks and widening political opportunities.

In Congo, too, there may be other returns on evasive or obstructive action, even if responses to power do not always confront it or offer much in the way of opposition. Do these activities constitute resistance?

Scott explores how, conventionally, resistance is defined in terms of being collective and organised, principled, having revolutionary consequences and negating the basis of domination. Using anthropological research from a village in Malaysia, Scott disputes these definitions, arguing that overt rebellion is rare as people need to survive, but that covert acts of rebellion – verbal confrontations, strikes and petty theft – are expressions of a deep-running ideological challenge. Thus, whilst there is outward conformity, he argues that this is calculated by the peasants, rather than being a manifestation of false consciousness or a consequence of hegemony. A battle is fought in thousands of tiny ways, by means of what Scott terms ‘weapons of the weak’.

Within the constraints of the need for inventiveness and the desire for survival, the activities of Congolese people reflect elements of the rebellion in El Salvador and the muted conformity described by Scott. They too fail to comply with conventional definitions, but

are acts of resistance in that they pose ideological challenges. The use of greater military capacity and the ability to exploit resources have, in large part, sealed the physical effectiveness of the violence. Nevertheless, people have avoided being ruled: by operating outside formal structures in Kinshasa, hiding in the eastern part of Congo, or maintaining a resistance movement in contravention to the law. These activities demonstrate a tenacity that influences the historical development of Congo, even whilst there have been numerous individual casualties. The legitimacy of foreign violent rule has been rejected: Mobutu was removed from power and the Rwandan army and RCD were never able to establish themselves fully.

By surviving in conditions that are murderous, by evading forms of control and de-linking from the system, people in Congo ultimately limit the reach of the power imposed on them. They have to a great extent isolated and, to a lesser degree, diminished the leadership of Congo and the power of the invaders. The forms of economic survival challenge authority by depriving the state (or predatory non-state actors) of revenue, whilst maximising the opportunities for survival irrespective of – and in defiance of – the coercion to which people are exposed. The violent régimes in Congo have broken the country as far as they were able, but the fact that have been unable to break it completely attests to the resistance against them. For the powerful, as for the powerless, there may be a will, but there has been no way to achieve it completely.

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References


Immanence

The word ‘immanence’ derives from the Latin in\*manere [remaining within]. Its specific meaning within the Marxist tradition as ‘absolute this-sidedness [absoluter Diesseitigkeitsterrrestri asoluta]’ was developed by Antonio Gramsci, following upon Marx’s Theses on Feuerbach, in a critical confrontation with the speculative concept of immanence of Benedetto Croce and Bukharin’s conception of the philosophical foundation of Marx’s work as a variant of metaphysical materialism. Gramsci attempted to specify a qualitatively new concept of immanence in the philosophy of praxis within the problematic of speculative immanence versus historicist or realistic immanence (Q 10II, §9). Central for the development of these researches was an analysis of the historicity of language and the critique of political economy, and, above all, the translation of and profound meditation upon, Marx’s call in the second thesis on Feuerbach for a practice of thought capable of demonstrating ‘its reality [Wirklichkeit] and power [Macht], its this-sidedness [Diesseitigkeit]’ (MECW 5, 3). Immanence thus comes to mean an absolute ‘being-within-history [Innergeschichtlichkeit] and the mediation of praxis [Praxisüermittelheit], a break with the extremes of objectivism and subjectivism.

1. Although Bukharin’s Historical Materialism: A System of Sociology only indirectly refers to the concept of immanence (in the chapter title ‘Teleology in General and its Critique. Immanent Teleology’ (13–18)), Gramsci’s research for a new concept of immanence was initially provoked by the claim in that work that ‘formulations’ in the works of Marx and Engels ‘which externally appear to correspond to a teleological standpoint’ should be understood as merely a ‘metaphoric’ mode of expression (18). In the early phases of his research, Gramsci argued that Marx gave ‘his own meaning to the term “immanence”’ (Q 4, §11) ‘on the concrete terrain of history’ (Q 4, §17) qualitatively different from the speculative, metaphysical meaning of the pre-Marxian concept. Exceptions are the concepts of immanence of Giordano Bruno, who Gramsci twice – in the early phases of his research, problematically; in the later phases, positively – signalled as a possible indirect source of Marx’s new concept (Q 4, §17; Q 11, §28), and that of Machiavelli (Q 5, §127). In a note written in the same period (1930) in which Gramsci translated Marx’s Theses on Feuerbach, he posited the perspective which motivated his subsequent researches and which he sought to specify: ‘The expression “immanence” has an exact meaning in Marx’s work, and it is necessary to define it: taken exactly, this definition would actually be “theory”’ (Q 4, §17; Cf. Q 11, §28).

Drawing upon his university formation in linguistics (cf. Lo Piparo), Gramsci continually returned to interrogate the linguistic presuppositions of Bukharin’s claim (Q 4, §11, C-text Q 11, §27; Q 4, §17, C-text Q 11, §28; Q 7, §36; Q 8, §171; Q 4, §34; Q 11, §16). Against Bukharin’s dismissive use of the adjective ‘metaphoric’, Gramsci sketched out an historicist theory of language in which the metaphor is read as both a linguistic symptom of historical transformations of the forms of intellectual and social praxis, and, crucially, as a location of class struggle and the practice of hegemony (both between classes within nations and between nations internationally): ‘Language is in fact always metaphorical…. Language changes with the transformation of the entire civilisation, through the emergence of new classes in the culture, through the hegemony exercised by one national language on others etc, and takes up precisely metaphorical words of previous civilisations and cultures… the new “metaphorical” meaning is diffused with the diffusion of the new culture.
which in addition also creates brand-new words or borrows them from other languages with a precise meaning, that is, without the extensive meaning that they had in the original languages (Q 11, §24, A-text Q 7, §36). The old term of ‘immanence’ remained, ‘presupposed as an element in the thought-process from which the new [concept] historically emerged’, but ‘the use is metaphorical’ because it occurs in a new culture and Konstellation of meaning. The new meaning developed by the philosophy of praxis, which remained to be specified and which corresponded to the new practices, ‘lies hidden under the metaphor’ (Q 11, §28).

2. Similar to the emergence of the concept of ‘absolute historicism’ (with which the concept of immanence has an integral connection throughout the research project of the Prison Notebooks, particularly in (Q 8, §204) the first appearance of the term ‘absolute historicism’), Gramsci’s attempt to specify the philosophy of praxis’s new notion of immanence underwent a sharpening of focus when it passed through the medium of his simultaneous critique of the ‘secular Pope’ Benedetto Croce (Q 8, §235; Q 10II, §4). Just as Gramsci rejected Croce’s claim to have produced genuinely ‘historical’ philosophical and historiographical systems (Q 8, §224), so he also considered Croce’s use of the concept of immanence (central to his entire thought, on both historiographical and philosophical terrains) to remain trapped within a problematic of ‘speculation’ which had determined the pre-Marxian concept (cf. Q 11, §53, in which Gramsci defines ‘speculative’ theoretical practice as a function of the consolidation and disintegration of a social class’s hegemony). The ‘immanence’ of Croce’s historiography, according to Gramsci, was contradicted by the notion of a liberal ‘religion of freedom’ that determined modernity, despite all evidence (such as fascist reaction) to the contrary: a speculative ‘ably disguised form of history according to a plan [storia a disegno]’ (Q 10II, §41xvi). His attempted purification of Hegel’s thought of ‘every left-over of theology and metaphysics’ (Q 8, §224) was compromised both by the unbridgeable distinction between the theoretical (art and philosophy) and practical (economic and moral) forms in which Spirit synchronically articulated itself in the Crocean system, and by Croce’s consequent attempt to establish a qualitative distinction between philosophy (understood as a disinterested search for truth) and ideologies (understood as having a merely instrumental value) (Q 10II, §2). In the Crocean Weltanschauung, the categories of thought remained uncompromised by the historical realities they contemplate (Etica e Politica; cf. Frosini 127; Spiegel 43–6).

The weakness and contradictions of Croce’s concept of immanence was further indirectly highlighted by Gramsci’s reflections on ‘one of the greatest weaknesses of the philosophies of immanence’ (Q 11, §12) particularly those of the Renaissance (to whom Croce, in his Olympian reserve, bore a decisive resemblance (Q 10I, §6). ‘They have not understood how to build an ideological unity between the lower and higher orders, between the “simple people” and the intellectuals’ (Q 11, §12). This weakness, particularly noticeable in the failure of previous philosophies of immanence (and in Croce’s own political and pedagogical activity) to articulate an alternative pedagogical programme which could replace the formative role of religious instruction in the education of children (Q 11, §12), was precisely that which the philosophy of praxis’s ‘dialectical-pedagogic’ relation to ‘common sense [senso comune]’, sublation of the speculative notion of immanence and its related redefinition of the notion of theory aimed to overcome.

3. The early months of 1932 witnessed the integration of an important new theme into Gramsci’s researches, particularly in the note ‘Introduction to the study of philosophy. Speculative immanence and historical and realistic immanence’ (Q 10II, §9), which announced the search for a concrete theoretical precursor for the new concept of immanence (cf. Thomas 2008). ‘It is affirmed that the philosophy of praxis was born on the terrain of the highest developments of the culture of the first half of the nineteenth century,
a culture represented by classical German philosophy, by classical “English” economy, and by French Literature and political practice. At the origin of the philosophy of praxis are these three cultural moments. But in which sense must we understand this affirmation? That each of these movements has contributed to the elaboration, respectively, of the philosophy, the economics and the politics of the philosophy of praxis? Or that the philosophy of praxis has synthetically elaborated the three movements, that is, the entire culture of the epoch, and that in the new synthesis, in any of its moments which are examined, theoretical, economic, political moment, one can find as a preparatory “moment” each of these three movements? (Q 10II, §9). Directly contradicting the claim that Gramsci ‘never concerned himself with economic problems’ (Anderson 1976, 75; cf. Haug 2006, 67), he confronted the central theme of Croce’s multi-faceted critique of Marx’s economic theory, and in particular his claim that historical materialism remained an essentially teleological theory of transcendent causes in which the ‘Economy’ functioned as a ‘hidden God [un Dio acceso]’, by positing the moment of classical ‘English’ economy as the source of the ‘unitary synthetic moment’ of the ‘new concept of immanence’. ‘In a certain sense it seems to me possible to say that the philosophy of praxis = Hegel + David Ricardo. The problem is to be presented initially in the following way: the new methodological canons introduced by Ricardo into economic science are to be considered as merely instrumental values (by understanding them as a new chapter of formal logic) or have they had a significance of philosophical innovation?’ (Q 10II, §9). ‘Do they [the Ricardian formulation of concepts of “tendential laws” and “determinate market”] not imply precisely a new “immanence”, a new conception of “necessity” and of freedom etc.? (Q 10II, §9; cf. Frosini 143–9). Gramsci’s tentative proposal for this research project (which the conditions of incarceration did not allow him to conduct in any detailed, scientific form) has been greeted with both affirmation (cf. Boothman 61–4, criticised in Krätke, 76–82) and incomprehension (in particular, from Piero Sraffa, who responded to Gramsci’s question in a letter on 21 June 1932 with the observation that Ricardo was merely a stockbroker of average education who had never considered the historical determinateness of either his own thought or the society in which he lived (Sraffa 74)). Nevertheless, Gramsci believed to have detected the theoretical possibility for the method of concept formation that had allowed Marx to break definitively with the speculative philosophical tradition in the concept of ‘tendential laws’, understood not as “laws” in a naturalistic sense . . . or in that of “speculative determinism”, but in ‘an “historical” sense’ (Q 10II, §9), laws which have validity within determinate and historically limited social formations or determinate markets. “Determinate market” is therefore the same as saying “determinate relation of social forces in a determinate structure of the productive apparatus”, a relation guaranteed (that is, rendered permanent) by a determinate political, moral and juridical superstructure’ (Q 11, §52; cf. Q 8, §128). According to Gramsci, the translation into historical and realistic terms of Ricardo’s ‘mode of thinking and of intuiting’ and the ‘method of ‘assuming that…’ (Q 11, §52; cf. Boothman 62; Krätke 78), permitted Marx to produce concrete abstractions which were immanent to, and able to grasp the specificity of, ‘historical facts’ (Q 11, §52) within determinate ‘historical blocks’, and not, as occurred in the degeneration of the Ricardian determinate market into an ahistorical abstraction (Q 10II, §9) and as Croce asserted, to produce transcendent and ahistorical metaphysical laws.

Whether Marx discusses the opposition immanent to the commodity of use-value and value (MECW 35, 113 et sq.), the ’immanent drive and constant tendency of capital to raise the productivity of labour’ (MECW 35, 325 et sq.; trans. modified), the ’immanent contradiction’ of the application of machinery for the production of surplus-value (MECW 35, 408 et sq.), the determination of the profit rate ’immanent to the capitalist mode of production’ (MECW 37, 355) or the ’immanent fetter and barrier to production’, which the
‘valorisation of capital based on the contradictory character of capitalist production’ (MECW 37, 438; trans. modified) ultimately constitutes – in all cases it is a matter of outlining tendencies, determinations and contradictions that are immanent to a mode of production founded upon capital. Universalising the theoretical presuppositions of what Gramsci understood as Ricardo’s method, ‘by extending them adequately to [take account of] all of history’ (Q 10II, §9) – that is, beyond the terrain of political economy on which they emerged – Marx established the possibility for the working out of a new concept of immanence as the ‘unitary synthetic moment’ which allows the transformation of the three pre-Marxian movements of classical German philosophy, French politics and classical ‘English’ economy into theoretical moments, in relations of continual translation, of the philosophy of praxis (Q 10II, §9).

4. Gramsci’s historical-materialist radicalisation of the concept of immanence leads to the ‘deconstruction’ of the question regarding the relation of consciousness to the external world in a way that takes up again Marx’s central perspective of praxis, in opposition to the chief currents of Marxism at the time. Immanence as active being-in-the-world allows the ‘external world’ standing over against an ‘inner world’ to be comprehended ‘as an historically conditioned thought form … which is historically mediated and suppresses real mediations’ (Haug 1996, 48). If ‘praxis’ is analysed in a way that fragments it, pluralises it, overturns its thought from the inner towards the outer, leaving humans active in the ensemble of social relations and keeping this ensemble of social relations alive in their activities, just as the fire of labour for Marx reanimates and refreshes the “dead labour” in the form of the means of production, then we can come to the following conclusion: ‘Praxis is the alternative to the immanence of consciousness with the transcendence of the external world, in praxis there is an organic connection of thought and being, efficacy [Wirken] and reality [Wirklichkeit]’ (ibid.). Gramsci ascribes the naïve idea of an external world or any idea of an ‘extra-historical and extra-human objectivity’ to sedimented beliefs in divine creation (Q 11, §17). Here the idea of immanence flows into the insight that ‘objective’ ‘always means “humanly objective”, which can be held to correspond exactly to ‘historically subjective’; in other words, objective would mean ‘universal subjective’ (ibid.).

5. The final and most significant element of this research, however, occurred when Gramsci brought the insights gained on the terrain of the critique of political economy into relation with his meditations on the Theses on Feuerbach, returning to his initial equation of the new concept of ‘immanence’ with ‘theory’. Objecting to Croce’s interpretation of the Theses on Feuerbach as a rejection of all forms of philosophy and its replacement with practical activity, Gramsci argued that it was ‘much more the case, in the face of the “scholastic”, purely theoretical or contemplative philosophy, of the revindication of a philosophy that produces a corresponding morality, a realising will and that, in the last instance, identifies itself with these’ – that is, of the revindication of a philosophy of praxis, as urged by Labriola (and which Croce himself had previously admitted was justified (Q 10II, §31)) which would contribute to the working-class movement’s attempt to construct a political hegemony.

The concept of the unity of theory and praxis of the Theses on Feuerbach and the closing line of Ludwig Feuerbach and the End of Classical German philosophy (‘The German working class movement is the inheritor of classical German philosophy’), Gramsci argued, uniting the vocabulary of his economical research with that which he had used to translate the Theses on Feuerbach at the beginning of his incarceration, ‘is nothing other than the affirmation of the historicity of philosophy in the terms of an absolute immanence, of a “terrestrità assoluta”’ (Q 10II, §31). According to this new concept of immanence, theory is no longer to be understood as external to a practice to which it must be applied. Rather, in realistic and historical terms, theory itself is to be understood as a determinate activity alongside other activities with its own specific tasks.
to fulfill, a theoretical ‘moment’ immanent to the social practices from which it emerges, which it seeks to comprehend, and to whose transformation its seeks to contribute: ‘If the problem of producing the identity of theory and praxis is posed, it is posed in this sense: to construct, on the basis of a determinate practice, a theory which, coinciding and identifying itself with the decisive elements of the same practice, may accelerate the historical process taking place, rendering practice more homogenous, coherent, efficient in all of its elements, strengthening it to the maximum; or, given a certain theoretical position, to organise the indispensable practical element for setting it to work. The identity of theory and praxis is a critical act, by means of which practice is demonstrated to be rational and necessary or theory to be realistic and rational’ (Q 15, §22). In this sense, Gramsci’s insights into Marx’s ‘new concept of immanence’ represent only the beginning of a research project that contemporary Marxist theory, after the collapse of the Stalinist mutilation of Marx’s theoretical legacy, must urgently recommence.

Peter Thomas


(absolute) historicism, classical bourgeois economy, classical German philosophy, critique of political economy, dialectics, ensemble of social relations, historical materialism, the here-after/this world, history, idealism/materialism, ideology theory, Theses on Feuerbach, language, law (social), metaphor, metaphysics, objectivism, objectivity, philosophy, philosophy of praxis, political economy, praxis, praxis philosophy, Prison Notebooks, Ricardianism, scholasticism, speculation, Spirit, sublation of philosophy, teleology, tendency/tendency law, theory, theory/praxis, transcendence/immanence.

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