

# AFTER THE “NEW MARX READING”

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## **ABSTRACT**

Michael Heinrich’s book *The Science of Value* marks a second generation of a reading of *Capital* known as the “New Marx Reading,” which began in West Germany in the late 1960s in the context of the student movement. This “new” reading is now 60 years old, and M. Heinrich’s book over 30 years old. The following comments are to be understood as an immanent critique that seeks to confront this reading with its implications, and seeks to make explicit its consequences, ones which the author has drawn elsewhere and explained in greater detail. The comments mainly concern the fixation on commodity exchange and money as a means of exchange. The necessity of a *unity of money and value*, on the other hand, can be understood through the technique of measure and measurement; in this way the capitalist determination of this unity can also be understood.

## **KEYWORDS**

Money; New Marx Reading; Technique of Measurement; Economy of Time; Quantum Mechanics

Michael Heinrich’s book *The Science of Value* [*Die Wissenschaft vom Wert*] marks a second generation of a reading of *Capital* known as the “New Marx Reading” [*Neue Marx-Lektüre*], which began in West Germany in the late 1960s in the context of the student movement. This “new” reading is now 60 years old, and M. Heinrich’s book is over 30 years old. The following comments are to be understood as an immanent critique that seeks to confront this reading with its implications, and seeks to make explicit its consequences, ones which the author has drawn elsewhere and explained in greater detail.<sup>1</sup>

<sup>1</sup> In his doctoral dissertation, the present author has, on the one hand, undertaken a critique of the commodity form as examined by Georg Lukács, Theodor W. Adorno and Alfred Sohn-Rethel, alongside the logical-categorical reading of the *Neue Marx-Lektüre* (New Marx Reading, from now on: NMR), and has worked out the “blind spot” of money; on the other hand, he provided a reappraisal of the NMR and the value-theoretical discussion in Germany on the methodological significance of money as a technique of measurement. See Engster, Frank: *Das Geld als Maß, Mittel und Methode. Das Rechnen mit der Identität der Zeit*. Berlin 2014.

## ***THE SCIENCE OF VALUE* ON RICCARDO BELLOFIORE'S INTRODUCTION TO THE ITALIAN EDITION**

The introduction to the Italian edition of Michael Heinrich's *The Science of Value* is more than just an introduction. It is probably the best interpretation of the book and of M. Heinrich's interpretation of Marx in general. It discusses the book's main points:

- Marx's *starting point* to the problems he inherited from classical political economy, and his work on the dead-ends and inconsistencies of the classics.
- But also the *ambivalences*, inconsistencies and ruptures in Marx's work itself, even at the height of *Capital* (M. Heinrich elaborates and emphasises the discontinuities in Marx's "life and work" in his biography of Marx).
- The *fourfold critique* that Heinrich emphasises for Marx's critique of the method of classical economic theory: critique of "anthropologism, a-social individualism, a-historicism, empiricism."
- The development of a *new economic object* of research and science.
- Marx's *scientific breakthrough* in the field of political economy, which makes a new scientific object possible.
- The need for a *reconstruction* of Marx's critique of political economy. (M. Heinrich also uses the term "reconstruction", because the phase of interpretations of Marx that began in the wake of the student movement in West Germany, but also partly in the GDR, was called the "reconstruction phase of the *critique of political economy*". "Reconstruction" was a quasi-established and accepted term which, as Bellofiore explains, is to be understood more broadly than interpretation, analysis, etc.).

Bellofiore also traces M. Heinrich's critique of Marx, which mainly concerns unresolved problems and ambivalences in the concepts of abstract labour, value and the substance of value, and money:

- M. Heinrich's critique of Marx's inaccurate and tendentious reception of Smith and Ricardo.
- M. Heinrich's critique of a left-Ricardian labour theory of value, as still can be found in Marx's concept of value and the value-substance "abstract labour".
- M. Heinrich's rejection of the concept of the "money commodity".

Finally, Bellofiore acknowledges M. Heinrich’s original contribution, the “monetary theory of value”.

Despite these insights, Bellofiore’s introduction does not do enough justice to the most important feature, or rather the basic characteristic of Heinrich’s book: the logical-categorical, form-analytical and value-theoretical reading of Marx’s critique of political economy, through which M. Heinrich follows the readings of *Capital* from especially the so-called New Marx Reading of Helmut Reichelt, Hans-Georg Backhaus, Alfred Schmidt, Hans-Jürgen Krahl and others. This New Marx Reading (NMR), for which M. Heinrich represents a kind of second generation, not only criticised the method of both the bourgeois classics of political economy and its opponent, classical Marxism, but also developed an independent reading, referred to as the above-mentioned “logical-categorical” or “form-analytical” reading. The inconspicuous term “reading”, however, is to be understood as a proper *method of critique and representation/exposition*, or rather a “critique through representation/exposition” and vice versa, as Marx himself said in a letter to Lassalle about his *Critique of Political Economy* (CoPE).<sup>2</sup> This reading and its methodological aspect are somewhat neglected in Bellofiore’s introduction, since they are what unifies the points he so aptly elaborates. Marx’s scientific breakthrough, his insights into economic theory, the “quadruple critique” and the immanent and explicit critique of the classics of political economy, the ambivalences in Marx himself, as well as the demarcations and distinctions from the dominant readings of *Capital* in classical Marxism: all this is a consequence of the logical-categorical or formal-analytical reading, or rather the *methodological* aspect of this reading.

This reading emerged above all from discussions about the appropriate interpretation of Marx’s value-form analysis, which was seen as almost decisive and exemplary for the reconstruction of *Capital* as a whole. There was a sharp debate about whether the analysis should be interpreted logically-*systematically* or logically-*historically*, further a critique of positivist, sociological and practice-theoretical truncated interpretations of the genesis of money, and there were fruitful discussions about the status of the commodity and money-commodity and, above all, about the relationship between the form and the substance of value.

Vittorio Morfino and Stefano Breda have identified two further issues that are already apparent in the points identified by Bellofiore, but which he does not explicitly mention. Firstly, with Morfino, it cannot be emphasised enough that M. Heinrich does not come from a Marxist tradition committed to Hegelian philosophy and dialectics, influenced by the young Lukács and the first generation of Critical Theory, as was “usual” in the reconstruction phase of the critique of political economy and especially in the NMR. He comes, as Morfino rightly points out, from Althusser. Even if M. Heinrich does not explicitly reveal this influence,

<sup>2</sup> Marx, Karl. “Letter to Lassalle,” February 22, 1858. In MECW vol. 40, pp. 268–71 (p. 270).

and even if he is not an “Althusserian”, a number of the decisive insights (such as some of the above mentioned) were already made by Althusser (and the circle around Althusser) in the “structuralist” and “symptomatology” reading of Marx and *Capital*. This, in turn, is related to the point drawn by Stefano Breda<sup>3</sup>: at crucial points in the interpretation of Marx, a dialectical approach is missing. Like Althusser, Heinrich is not interested in a reconstruction and reading of *Capital* on the basis of Hegel’s dialectic, even if, unlike Althusser, Heinrich does not pave the way for a post-dialectical or even anti-dialectical reading in an attempt to reformulate dialectical contradictions.

### ALTHUSSER’S STRUCTURAL GAP AND THE “PLACE” OF A SCIENTIFIC BREAKTHROUGH

To summarize, there are the two strands that M. Heinrich combines in his book: on the one hand, the economic theory of Marx and the classics, the research on *Capital* as well as the discussion of the reconstruction phase of the critique of political economy, and here in particular the NMR. On the other hand, Althusser’s awareness of the problem and his understanding of the subject and method of *Capital*.

This combination, however, results in an originality of M. Heinrich, both in relation to the NMR (especially in relation to Reichelt and Backhaus and their interpretation of the value-form analysis) and in relation to Althusser and the “scientific breakthrough” Althusser claims for Marx.

Like Backhaus and Reichelt, M. Heinrich takes as his starting point the awareness of the problem and the understanding of the object that characterises Marx vis-à-vis the classics, and which Marx had absorbed above all from Hegel. However, M. Heinrich also refers to Marx’s new understanding of the object, as stated by Althusser, as well as to the “scientific breakthrough” in the “field of political economy” which, according to Althusser, Marx had achieved. But here we find an interesting, significant gap that Althusser opened up with his conception of this scientific breakthrough, since Althusser left behind the structural gap or lacuna in which M. Heinrich was able to situate his independent and alternative version. How is this to be understood?

Althusser had based Marx’s scientific breakthrough in the field of political economy primarily on the concept of *surplus* value, not on the concept of value and explicitly *not* on value-form analysis. On the contrary, Althusser read out of the value-form analysis a Hegelian essential-logical “germ cell dialectic” and the “anthropological” Marx of the early writings. He therefore recommended without

<sup>3</sup> Breda, Stefano. “The Science of Disenchantment. Michael Heinrich as a Theorist and as a Reader of Marx”, Historical Materialism Twentieth Annual Conference, London 2023.

further ado to “bracket the entire first section and begin with the second chapter”. M. Heinrich, on the other hand, attributes the scientific breakthrough that Althusser claims for Marx to the very analysis of the value-form that Althusser recommends skipping, that is, to the concept of *value* and not just *surplus* value. Where, according to Althusser, Marx had not yet broken with his early writings and his anthropological understanding of labour and species-being, and had remained attached to his engagement with the philosophy of Hegel and Feuerbach, M. Heinrich ironically notes the scientific breakthrough in the field of political economy – as the title “The Science of Value” suggests. And in direct contrast to Althusser’s reading of the value-form analysis and of value, M. Heinrich claims for Marx an explicitly *non*-empirical, namely *monetary* concept of value, and he sees in this monetary concept of value not only the scientific breakthrough, but also the break with his own earlier – anthropological, historicist, etc. – writings. According to M. Heinrich, Marx succeeds in overcoming his earlier, still problematic understanding of labour and value through a *monetary* concept of value that purifies value from anthropological, historicising and Hegelian assumptions as well as from labour. However, M. Heinrich concedes that Marx remained ambivalent in his concept of value and abstract labour, and that the scientific breakthrough did not occur as a clear break that left behind all the problems of the bourgeois classics and Marx’s own earlier writings.

Althusser, who in his writings always drew attention to structural gaps, ideological lacunas and their filling and investment as well as to conjunctures and effects in the field of theory formation and knowledge production, would have appreciated the irony that his structuralist-symptomatology reading was subsequently proven to be true about himself. Also, Althusser’s conception of a “structural causality”, which aims at an “absent” cause because it is only present in its effects, has prepared the ground for understanding value as a non-empirical social relation, which only appears in relation to money as the property or effect of a thing – a commodity.

### **MICHAEL HEINRICH AS THE SECOND GENERATION OF THE NEW MARX READING: “CRITIQUE OF PRE-MONETARY THEORIES OF VALUE” VS. “MONETARY THEORY OF VALUE” AND “NEGATIVE CRITIQUE” VS. “SCIENCE OF VALUE”**

M. Heinrich follows not only Althusser but also, as mentioned above, the “phase of reconstruction of the critique of political economy” in Germany (and to some extent in the GDR) in the 1960s and 1970s, and here especially the logical-categorical reading of Reichelt, Backhaus, and others, which has since become known as the New Marx Reading and has emerged as a particularly prominent and notable strand from this phase of reconstruction. But M. Heinrich not only belongs

to a *second* generation of this new reading of Marx, he also differs from it in a very fundamental way.

The first difference concerns the theoretical-historical connections and the methodological orientation. While the logical-categorical reading of Backhaus and Reichelt in the 1970s was oriented towards the philosophy of German idealism, Hegel's dialectic and the concept of critique of the first generation of Critical Theory, M. Heinrich's reading is more closely oriented towards (classical) economic theory on the one hand and Althusser on the other.

The second difference concerns the central insight of the logical-categorical reading of value-form analysis. This crucial insight was virtually a Copernican turn in the theory of value: that the genesis of money cannot be derived from a simple exchange of commodities or a simple production of commodities, neither historically-logically, as had already been the idea of Engels and then orthodox Marxism, nor purely logically-categorically, as had been assumed for money in capitalist society. The NMR justifies money almost in reverse and in a negative way, namely from the *failure* of a direct, non-money-mediated exchange of commodities. According to this, the different forms of value Marx exposes catch up with the logical presupposition for the status of things as commodities and for the constitution of a value relation: money. Money is thus already the secret of the simple form "x commodity A = y commodity B". Money is not only presupposed for that form but is already contained in the quantitative relation of the commodities, in the "x = y", as it were, speculatively, and the analysis catches up with the fact that the commodities are *set* in this quantitative relation by money. This is why Reichelt and Backhaus insist that the analysis is to be understood as a *critique*, namely as a critique of *pre-monetary theories of value* and a *pre-valorised commodity* – and not as a kind of positive theory of the genesis of money.<sup>4</sup>

The intention of *The Science of Value*, on the other hand, is comparatively scientific-theoretical. According to M. Heinrich, Marx achieves the "scientific breakthrough" through a "monetary theory of value", which becomes adequate to the non-empirical status of value. M. Heinrich thus emphasises that value must first be purged of all essentialist-substantialist notions of value, but also of all humanist-anthropological and praxeological readings of the value-form analysis, so that the non-empirical nature of value as such comes to the fore. Or rather, it is necessary to demonstrate that value as such a relation is brought to bear *monetarily*, through money, because for M. Heinrich value is a representational reflection that arises through the exchange of commodities for money, and indeed explicitly *only* through this exchange. Value and abstract labour are therefore an expression of the

<sup>4</sup> However, it should be noted that Backhaus and Reichelt differ in their conceptions here. In his early writings, Reichelt defines money as a form that necessarily arises from the internal contradiction of the commodity; in his later writings, he then seeks a logical or rather validity-logical ("geltungslogische") justification for the necessity of the unity of value and money; Backhaus focuses on money as an excluded third of commodities.

socialisation of labour and production *ex post*, since, according to Heinrich, the social character of labour and production as well as of commodities, or rather of use-values, are only realised in the exchange for money, only when the products of labour are recognised as socially valid in the form of the exchange of commodities for money.<sup>5</sup> Even if commodities are already produced for exchange and as exchange-values, this socialisation *ex post* is a relation of reflection that is, as it were, subsequent to production and external to it, which takes place in the form of the exchange of commodities through money and produces the objective appearance of commodity value. Only then does the commodity acquire its specific value, because only then do all the individual private labours and the commodity-producing capitals, as well as the produced commodities, enter into a common relation, from which in turn the average magnitudes of value result. Consequently, money is introduced as a *medium of exchange* and is also justified active-theoretically, with the necessity of a general equivalent that makes commodities comparable and exchangeable as values and expresses their value.<sup>6</sup> M. Heinrich also does not attribute the “popularization” of the (dialectical) method of exposition, which Backhaus and Reichelt accuse Marx of doing in the analysis of value-forms and the categories at the beginning of *Capital*, to the peculiarity of the economic object and its inaccessibility to a coherent science (and thus to the necessity of a dialectical representation). Rather, Marx was guided by external reasons and considerations in favour of a change of representation.

Backhaus and Reichelt have accused M. Heinrich’s concept of *ex post* objective reflection (and other critics have gone in a similar direction) of amounting to a two-world doctrine in which labour and exchange, production and circulation, the building of value and its realisation fall apart and the substance of value and the form of value ultimately remain without internal mediation.<sup>7</sup> In general, the main point of contention in the dispute between M. Heinrich and his critics was whether abstract labour is already formed in production and through concrete labour, or whether, as M. Heinrich emphasises, concrete labour and use-values are only reduced to abstract labour in exchange, and thus abstract labour is formed

<sup>5</sup> This interpretation also appears in his two introductions to Marx’s CoPE; see Heinrich, Michael: *An Introduction to the three Volumes of Karl Marx’s Capital* New York 2004, and Heinrich, Michael: *How to read Marx’s Capital?*, New York 2021.

<sup>6</sup> Heinrich, Michael: *La scienza del valore. La critica marxiana dell’economia politica tra rivoluzione scientifica e tradizione classica*. Riccardo Bellofiore e Stefano Breda (Ed.), Milano 2023, pp. 236ff. and 240ff.

<sup>7</sup> Backhaus, Hans-Georg/Reichelt, Helmut: „Wie ist der Wertbegriff in der Ökonomie zu konzipieren? Zu Michael Heinrich: ‚Die Wissenschaft vom Wert‘“. In: Beiträge zur Marx-Engels-Forschung/ Neue Folge 1995, pp. 60–94. Barbara Lietz and Winfried Schwarz also criticise a negation of circulation in relation to its precondition – human labour and production – and a separation of production and circulation: “Value, Exchange and Heinrich’s ‘New Reading of Marx’: Remarks on Marx’s Theory of Value, 1867–72”, in *Historical Materialism* 2023, pp. 1–29; similar criticisms have also been made by the authors of the German journal *Krisis*.

monetarily, that is, only through money – not already formed in production through concrete labour and is already quasi-present in commodities, however indeterminate or latent.

The more fundamental difference, however, lies in the *status* of critique. Backhaus and Reichelt understand the analysis of the value-form, and of Marx's *Capital* as a whole, as a *negative critique*, with recourse to Hegelian dialectics and first generation of Critical Theory. According to Reichelt and Backhaus, what is needed is not a positive science, nor a critical science, but a critique *of* science. "Critique of science" means more than just a critique of Marx's bourgeois predecessors, whether in the camp of bourgeois economists (A. Smith, D. Ricardo) or in the camp of socialists (Proudhon). It rather means a critique of science itself. Backhaus has tirelessly demonstrated that bourgeois economics does not understand its own subject matter: money and value. But this is not due to mere scientific incompetence, nor is a definitive, scientifically coherent theory of value and money to be found in Marx. Rather, the very ambivalences and contradictions in Marx's concept of value and abstract labour, and his decades-long attempts at a consistent elaboration, point to the ambivalences in 'the thing itself', to the peculiar constitution of the economic object, indeed to its 'monstrosity'. The problems of exposition are thus transferred by Backhaus towards an epistemological-critical direction: science, but also political practice, is oriented towards an unavailability that is rooted in the negative, value-based nature of capitalist socialisation itself. Value cannot be treated without contradiction by any theory; rather, Marx's understanding of the economic object and his awareness of the problem are radically different from those of bourgeois economic theory. This is why the concept of value leads via money: the critique of money demands a development for how money realises and objectifies, determines and 'understands' value in an unconsciously primordial and supra-individual way.

Like Backhaus, M. Heinrich emphasises this difference between Marx's and bourgeois economic theory. However, while Backhaus attributes the ambivalences in Marx's critique of the economy to the peculiar constitution of its economic object, M. Heinrich's *The Science of Value*, with reference to Althusser, explicitly emphasises the "scientific breakthrough" in the field of political economy. And like Althusser, he locates the ambivalences, as much as they may be due to the peculiarity of the economic object, on the side of the scientific appropriation of the object of knowledge and its processing through the means of science and theory formation (here Althusser's distinction between "object of knowledge" and "real object" comes into play). For even if Marx succeeded in achieving a scientific revolution in the field of political economy through his concept of value, this, according to M. Heinrich, did not take place as a smooth break that would have overcome all the problems of the classics (A. Smith, D. Ricardo, S. Bailey) in one lasting fell swoop. For M. Heinrich, the ambivalences in the concept of value and

abstract labour point to remnants of earlier writings, further to Marx’s attachment to the economic classics and, above all, to Marx’s problems of theoretical and conceptual appropriation, processing and elaboration. This is evident in the fact that Marx wrestled with different versions of the analysis of the form of value and the genesis of money and did not leave behind a finished theory; in general, *Capital* remained a huge “torso”. The “popularization” and reduction of dialectical exposition that, according to Reichelt and Backhaus, Marx undertook in the course of the elaboration of the analysis of the value-form and in relation to the version of *Capital* in its first edition and to the *Grundrisse* are, in M. Heinrich’s view, based mainly on reasons of expositional logic.

### **CRITIQUE OF THE NEW MARX-READING AND OF M. HEINRICH’S CONCEPTION: 60/30 YEARS AFTER THE ‘NEW’ MARX-READING**

I have explained my critique of the NMR in more detail elsewhere<sup>8</sup> and will only present key points below. I understand the critique as an *immanent* critique; “immanent” because it draws consequences from the NMR and its logical-categorical reading of *Capital* and attempts a radicalisation in the determination of the relation between money and value. This radicalisation is ‘first’ demanded by the matter itself, by the connection between value and money and ultimately by the capitalist mode of production; and at the same time it is a consequence of the critique of pre-monetary value theory and the necessity of the unity of money and value: it is necessary to catch up with the *capitalist* determination of this unity and thus to develop a critique of *pre-capitalist* value and of a *pre-capitalist* money theory.

#### *Radical break with the exchange paradigm: money as a technique of quantification qua measurement*

The central insight of the NMR is that the value-form analysis does not derive money from an exchange of commodities, neither historically-logically nor purely logically-systematically. The genesis of money is to be developed via the necessity of the unity of money and value, and this development ultimately requires, on the one hand, developing money via its individual functions into the form of capital and, on the other, developing the valorisation of value through the forms of labour and capital. This is what Marx ultimately does in *Capital*. The development of the unity of money and value simply requires to develop nothing less than the entire

<sup>8</sup> See Engster, Frank: “Money, measurement and quantification”. In: Bellofiore, Riccardo/ Riva, Tommaso Redolfi: *Marx: Key Concepts (New Directions in Modern Economics)*, Cheltenham 2024, S. 108–127; Engster, Frank: “The Place of Capitalist Self-Critique”. In: *Identities*, Vol. 19 No. 1–2 (2022), pp. 8–26

capitalist mode of production. The point already lies in the entry into this unity, and this starting point comes into play in the NMR's interpretation of Marx's analysis of the value-form: it reveals the genesis of money in a *negative* way, in the *failure* of a pre-monetary exchange of commodities.

Nevertheless, the problem remains that the NMR did not radically break with the myth of commodity exchange and money as a means of exchange. The NMR shares this problem not only with followers of Marx and especially of Critical Theory, but also with his bourgeois critics, as well as with Marx himself, who remained ambivalent about the widely pursued paradigm of exchange, just as he remained ambivalent about his concept of value and his concept of abstract labour.

It is the present author's contention that money must be justified by the logic of *quantification*. This quantification must be developed not through the logic of exchange, abstraction, negation, equation, etc., but through the logic, or more precisely the *technique*, of measure and measurement. In the simple form of value "x commodity A = y commodity B", there is no exchange relation to analyse. What is being analysed, regardless of Marx's own intention, is a relation that has already been *quantified*, and the question - and secret - is how such a quantification of social relations is possible. The condition of quantification that is reconstructed through the analysis is money: money is the "secret" of the simple form of value; a secret that has already been solved and dissolved in "x" and "y", that is, a *social* relation that has already been set in a *pure quantitative* one. Thus, the secret of the form of value is at the same time the notorious money riddle: how can money quantify social relations?

Money, following the NMR, is the logical primacy of value and the status of things as commodities, as well as requisite for the constitution of the "objectivity of value" ("Wertgegenständlichkeit", a term used by Marx himself and which, as has often been pointed out, cannot be accurately translated into English). Money is therefore a condition for the self-objectification of society - but *not*, as the NMR still claims, money as a general equivalent and medium of exchange. Rather, through the *exclusion* of a "money commodity" and the *fixation* of an ideal unit of value, a *measure of value* is 'given', and with the measure, the entire technique or logic of quantification is provided. Both the way in which society is given a measure qua exclusion - that is, the genesis of the validity of money, which Marx emphasises qua analysis of the form of value - and the technique of quantification, correspond more to measure and quantification found in modern, quantifying natural sciences than to a logic of quantification qua abstraction from use-values and from any sensuous-material quality of commodities through exchange. For even in the natural sciences, the crucial and 'first' question is the way in which a measure is 'given' and at the same time the object of objectification is constituted by quantification and measurement. The 'trick' of science is to hold nature to its own measure: science 'takes' its measures from nature, which in turn becomes the object of measurement

through its own measures. Just as society is given a standardised measure by means of an excluded commodity and its fixation of a value unit through which all commodities can be set in a uniformed social relation in the first place, so too the relations of nature are held to their own, but separated and fixed measures and thus first become an object of objectification for the natural sciences. In both cases, then, the technique of measurement consists in turning a pure relation, and thus a negative being, into positive relations by means of the quantitative magnitudes measured and by objectifying them as, on the one hand, relations of nature and, on the other, the relations of society. The quantified relations of nature appear as properties of a *first*, external nature, identified by the quantities of value; the quantified relations of society form a *second*, purely social nature; it is as if society not only objectifies its own relations quantitatively through money but as if this objectivity is also identified with or *in* money. In both cases, measurement and quantification not only make relations objectifiable and identifiable, but they also seem to naturalise them. Yet while in the case of science, nature appears as a given, external object that is subjected to a kind of self-reflection through measurement, in the case of society, in contrast, the relations that become the object of money through commodities only occur and are realised through quantification and measurement in the first place – akin to an unconscious, supra-individual self-reflection. (In the natural sciences, however, an entanglement between measurement and the measured occurs at the level of quantum physics).

In the case of society, money's measurement falls under its functions as a means of exchange and circulation and takes on the form of social mediation C-M-C. The fixed ideal unit of value is thus redeemed through all realised commodity values. By this form of mediation, however, the values are not measured as if they were quasi-finished through concrete labour and actual labour-time, and as if value is, as a quasi-similar property, essentially present in the commodities; value is also not yet quantitatively determined. Here M. Heinrich's critique of corresponding ideas is justified. Measurement means that the commodities are related to a common measure through money, and thus enter into a common relation, and it is from this relation that the values of the individual commodities are coming out; they share the same unit of value in money, which they sublate in their values. But what is actually put into relation by money, and at the same time broken down into quantities as in a measurement, is not the relation of commodities, but the relations in their *production*, that is, the relation of labour-power and its means of production. Money is the measure of value because it is the measure of the *valorisation* of value by labour and capital.

The capitalist 'punch line' is that money measures in commodities a relation of production and valorisation into the components of which money itself has been externalized (and into which the realised values via money will be transformed again). Money thus reveals in the determined values of commodities what its own

alienation into the components of its production has been worth. In philosophical terms, money measures and brings to appearance its own *essence* as capital in the *being* of commodities.

*Breaking with the problem awareness and understanding the object of a classical physical worldview*

However, recourse to the logic of measurement and the analogy with natural science also shows the differences between the modern constitution of a first, external nature and a second, purely social nature. Yet, the same technique of quantification and measurement opens up the *opposition* between society and nature. This opposition is crucial for placing both in a productive relation. For the quantification of first nature can be inscribed, through the capitalist means of production (e.g. the machine) and through the organization of labour and the worker, in a scientific process of work and production that is itself determined by quantitative magnitudes and becomes the second nature of society. Quantitatively identified natural properties are thus translated into quantified components of production, enabling a systematic, methodically guided increase in the productive power of their “organic composition” (Marx) and unleashing a tremendous historical dynamic.

This relation between first and second nature is not at issue here. The technique of quantification qua measure and measurement is merely intended to show how the unity of the critique of value and money could be radicalised in order, as Bellofiore calls for in his introduction, on the one hand to ‘go beyond Marx with Marx’, and, on the other hand, to look for such a possibility of radicalisation *outside* of Marx. ‘Beyond Marx’, however, does not mean including and doing justice to other economists and their theories. Rather, such a radicalisation is possible, on the one hand, with the understanding of the methods of the natural sciences, and here again especially with that of quantum physics, because here too the peculiar situation arises that the measurement is entangled with the measured ‘object’. On the other hand, we could draw on the problem awareness and methodological understanding of Hegelian philosophy, psychoanalysis and linguistics, all of which also have to struggle in an analogous entanglement and cannot treat their ‘object’ as an external, ready-made object by means of a positive theory.

Such a radicalisation is necessary simply because Marx was still attached to Newton’s view of the world and also developed the relation between money and value, and the economic process in general, in terms of classical concepts of space, time and matter. In particular, in the relation between labour and time, Marx sometimes works with positive quantities, as if social processes could be calculated more thoroughly than the attempts of bourgeois economic theory; and it is as if they could be calculated like a natural physical process and formulated using a kind positive value theory. The physical world view of Marx’s time would have to be

updated with the scientific revolutions that have taken place in the natural sciences and especially in physics. At the level of the relativistic concept of space-time and quantum mechanics in particular, the entanglement of money and value, as well as the superimposition of different states in which society finds itself through the various monetary functions, could be determined more precisely. Taken together, the functions of capitalist money would result in a measurement situation in which the individual money functions correspond to different states of value, and these different states are each entangled with money's functions.

Firstly, as far as the individual functions of money are concerned:

- In its function as a measure, money brings society into a state of measureability and quantifiability of its own social relations. Marx demonstrates this in his analysis of the form of value, in which an ideal, authoritative unit of value is permanently fixed by excluding and signaling out a "money commodity" and society is 'given' a uniform, even universal measure.
- Through money's functions as a medium of exchange and circulation, it subjects commodity production to measurement in the form of the realisation of its results as values. This measurement takes on the form of the circulation of commodities: C-M-C, and redeems the ideal unit of value through decisive quantities of value. Marx demonstrates this following the value-form analysis in the process of exchange and circulation.
- The point, however, is that money measures in commodities the productive power of the relations into which it has itself entered through its transformation into the components of production and into which the realised values are again externalised. Marx, after the analysis of the value-form and after the exchange and circulation process, then develops this self-reference of money as capital, on the one hand, and the valorization of value through labour-power and the means of production, on the other, in detail, expressed in the formula M-C-M'.

The measuring function of money thus only becomes practically effective through the function of means of exchange and circulation. Yet these two functions also conclude the self-reference of money as capital. The various monetary functions are each intertwined with a different state of value, that is, the relation in which society finds itself and which is realised and at the same time mediated by money:

1. As a measure, money stands for a still indeterminate, ideal unit of value; this unit of value is the measure that sets all commodities in a relation as quantitative values. However, money is a measure of value because it is a

measure of the *valorisation* of value by the components of the production of commodities.

2. This ideal unit of value, which money fixes as a measure and keeps identical, is realised through all the commodity values that money realises as a means of exchange and circulation; this realisation takes on the form of simple circulation: C-M-C. The ideal unit therefore always already exists and is redeemed as if dispersed in all the commodity values.
3. These values are in turn decisive (average) magnitudes that result from the two components of valorisation. These decisive values are constantly transformed (back) into these components of valorisation through the capital form of money. Therefore, the ideal unit of value is not only dispersed in all the commodity values, but these commodity values are rather a false but necessary semblance on the surface appearance of circulation, and Marx makes this semblance transparent by tracing the commodity values back to the valorisation process of labour and capital. The magnitudes of value are decisive for the same valorisation process of labour and capital into whose forms the magnitudes are transformed. The unit of value thus only exists split and self-alienated because money must be transformed into the components of production in order to be transformed back again through the realisation of the produced commodities. Thus, the invested values return back as increased, just as Marx formalised in M-C-M'.

Therefore, the unit of value processes three different states, each of which corresponds to one of the main functions of money, as Marx develops them in *Capital* Vol. I:

1. As a measure, the unit of value is ideal, but is permanently fixed by the money commodity.
2. This unit of value is always already dispersed and reified in all the commodity values that are realised and transmitted through money as a medium of exchange; the unit thus takes the form of simple circulation C-M-C. These commodity values, however, are a semblance, because the commodity values are average magnitudes resulting from the relation between labour and capital.
3. Therefore, the ideal unit of value exists only as divided and materialised into the forms of labour-power and capitalist means of production, and the movement of capital and the metamorphosis of money M-C-M' is both the division and materialisation of the unit of value and a self-referential form.

Taken together, the functions of money and its movement of capital, on the one hand, and the valorisation of value through the forms of labour and capital on the

other, are to be interpreted as a *valorisation process that measures itself in money*. The necessity of the unity of money and value would have to be developed accordingly as an entanglement of measure and measured. This would also maintain the separation into labour and production, on the one hand, and commodity exchange and circulation on the other. But the dualism of the substance and form of value and the nominalism of money, of which Heinrich is accused, would have to be transformed into this relation or this situation of measurement, in which money, in the form of the realisation of commodities, measures its own alienation into the components of their production and builds the substance of value through the magnitudes coming out of this self-measurement. M. Heinrich's insistence that the substance "abstract labour" and value quantitatively do not already exist qua concrete labour and not already in production - but are only formed and quantitatively determined in exchange for money - would have to be transferred into this process of quantification qua measurement. Value is still in a state of indeterminacy before its measurement, that is, before its realisation in the form of the social mediation of commodities, which money takes over; the social relation is still quantitatively *indeterminate*, although it is precisely a processual relation: a processing in the forms of labour and of capital which Marx develops qualitatively and categorially. Only when commodities are quantitatively realised through money is value also quantitatively determined and fixed as the property of a commodity, and accordingly the previously quantitatively indeterminate social (production) relation suddenly appears reified. Related through money to a measure, the social relation of production appears as a property of a thing and has to be reflected accordingly by the subject and its consciousness - but it is money that 'first' accomplishes in its measurement a kind of unconscious reflection for capitalist society and its relations of production. In the realised magnitudes, money makes the measured relations disappear, while making them objectively valid and appear in a purely quantitative way, as if in these magnitudes the relations of production appear reflected. Even if the elements of production are already commodified and enter into their relation as specific quantities of value, their value and valorisation 'before' measurement, that is, before the realisation of their results through money and before monetisation, behaves like a wave or a field, analogous to quantum physics, or as a blurred relation in the status of being processed. It is only in relation to money, and thus 'monetised', that it must appear as if the valorisation has been measured and as if values correspond to the productive power of those relations that have produced the corresponding commodity. The relation of production and its productive power appears as the property of a particle or thing - a commodity. The whole social process of production and valorisation is perpetuated through the magnitudes coming out of the same commodity production for which they in turn become decisive.

*The common third party to the form and substance of value: the magnitude of value as the result of measurement*

If money and value are developed as a process of valorisation that measures itself through money's functions and as a movement of capital, then the common third party to the form and substance of value, to commodity and labour, now can be determined.

The accordance and correspondence of substance and form of value is its *magnitude*. The magnitude of value cannot be derived directly and quasi-mathematically from concrete labour and labour-time, nor is it the result of an abstraction in the exchange of commodities or a comparison of commodities and an exchange of equivalents. The magnitude of value arises by relating, through money, the forms of labour and capital through their products to an authoritative unit of value and by placing them in a common relation, and, at the same time, 'breaking' them up into necessary average quantities, as in a measurement. Thus, the average is not an arithmetical calculation that averages quantitative values. The average is the result of a measurement that money primordially and automatically carries out through its functions and in the form of social mediation, behind the backs of those involved, albeit not without consciousness and actions. This mediation seems to fall within the process of exchange and circulation and within the function of money as a medium of exchange. But this is only a necessary semblance since money, through its function as a medium of exchange and circulation, holds commodities to their decisive unit of value: what seems to be an exchange is actually the function of *measurement* becoming practical. That commodities are 'held' to their measure in the form of their realisation and mediation as values means that they are related by money to the common unit for which money stands, and thus enter into the same overall relation to which they contribute *and* in which they quantitatively participate.

Therefore, whether value is formed by labour in production (as M. Heinrich's critics claim), or whether it is only in exchange that labour is given relations for which average values are formed (as M. Heinrich claims), is a pseudo-problem, since what money ultimately puts into relation is the relation of the commodity labour-power to the forms of capital. It cannot be emphasized enough with Marx that living, concrete labour *creates* value, but that it *has no value*. Only the *commodity labour-power* is given value; it alone enters into a relation of production with the dead labour-time that is accumulated and objectified on the side of capital, while also entering into the relation of necessary and surplus labour-time. Quantities of value arise from these relations at the outset, insofar as money, through its functions and its movement of capital, relates labour and capital in such a way that a total labour-time, total capital and rate of profit are formed alongside average quantities of commodity values and profits.

The magnitude of value is thus not only the third and ‘place’ of agreement between form and substance, but it is also Marx’s concept of *concrete totality*. The conceptual monster “currently socially necessary average labour-time” is his concept of concrete totality: here the ‘socialisation’ of value through the functions of money and its movement as capital, on the one hand, and the valorization of labour and capital, on the other, is brought to the concept.

The substance of value, “abstract labour”, is accordingly formed through the processing of these magnitudes. On the one hand, the substance of value processes the (material) forms of labour and capital while, on the other, it processes *purely quantitatively* through decisive average magnitudes. However, the transfer and transformation of these quantities into these forms is only possible through money; only money can both realise and transfer values, as well as dissolve them back into economic relations, and only through the overarching capitalist self-reference of money can these forms and their relations be subjected to valorisation. This, then, should be the object or critical content of a “monetary theory of value”: only money can quantify relations and their forms while quantitatively preserving productive relations, as well as transform these quantitative values back into the forms of the capitalist economy. In addition, only money can determine decisive average magnitudes for the productive use of precisely those components of production from which these magnitudes are derived – and thus for the productive valorisation of money itself, which is transformed into these components. (Not to mention that only money can exploit and literally put out a quantitative surplus, a quantitative surplus that ultimately exploits additional labour time.)

### *Overcoming methodological individualism*

Marx remained ambivalent not only about the concept of value and abstract labour, but also about the concept of the money commodity, as M. Heinrich has rightly pointed out. He remained ambivalent because of a certain methodological individualism he shared with bourgeois economic theory while nevertheless criticising it, even attempting to overcome it in his own method of examining political economy.

As far as Marx’s own methodological individualism is concerned, of course there is no presumed *homo economicus* or Robinsonade of individual economic subjects and actors, nor anything resembling today’s basic assumptions of model theory. Marx sharply criticised such ideas of bourgeois economics, and M. Heinrich echoes this criticism. Nevertheless, there is a methodological individualism in Marx when he relates individual labour-time and working hours, as well as individual capital and commodities. It is an individualism exacerbated when he relates labour, as determined quantities, to calculate value quantities and value cycles. Marx’s concept of labour and value becomes thus mathematically and methodologically

individualistic. Even if he used it for illustrative and didactic purposes, he promoted an objective labour theory of value and a positive science of economics. His value-price transformation has caused particular problems here, which Heinrich has criticised, among other things, for suggesting a transformation as if quantitatively already determined values from production were only converted in the exchange and circulation process into quantitative prices, and average values determined as such.

As far as Marx's *critique* of methodological individualism is concerned, it understands value and its magnitude as a social relation from the outset, namely as a relation of capitalist society as a whole or a totality. This means that value must be determined on the basis of the formation of an aggregate, even a total capital, a total labour-time and a general rate of profit. The average values of commodities and profits result from this overarching relation – and not from individual labour and labour-times. It is therefore not a matter of a mathematical calculation that simply adds up individual, quantitatively given values and draws the average.

Marx remained ambivalent on the question of the constitution of values and the relation between values and prices, but here too the ambivalence indicates a genuine methodological embarrassment, since conventional quantifying procedures reached their limits and a critique of the quantifying sciences would be apt. It is therefore necessary neither to start from price-determined goods and factors of production, as is the case for today's economic science (which therefore no longer distinguishes between value and price), nor to try to reconstruct prices from individual labour quotas or working hours, as is the case in the objective labour theory of value. The first and real question must be how the *quantification* of social relations is possible *at all*, that is, the quality of a quantitative, through which the dual character of labour and the commodity as well as the unity of the material labour and production process and the abstract process of valorisation occur. This quantification is also decisive for the distinction between value and price in the literal sense: the supposed transformation would have to be interpreted as a logic or technique of measurement that distinguishes two *states* by deciding whether a value is monetised. Before money realises something as a value, the value is not yet monetised and not yet quantitatively decided and determined; the value relation of a commodity as such is still quantitatively undetermined and blurred. It is only through monetisation that the status changes abruptly and value as a pure social relation appears as the quantitatively determined price of an individual commodity. In short, the supposed "transformation" of value-price is not to be interpreted as a spatio-temporal process, but as a *change in the status* of value.

All these critical distinctions that Marx makes in the dual character of labour, the commodity, the process of production and valorisation, and between value and price, are not purely analytical distinctions on the part of science or critique alone. Rather, Marx demonstrates that it is money that has to make these distinctions for

the economy and for the economic process of valorisation, and these distinctions (which also distinguishes between two states in which society finds itself), are made through the technique of measure and measurement, not through a logic of exchange and abstraction.

*The capitalist concept of value and money*

The necessity of the “unity of the critique of value and money” (Backhaus and Reichelt) and a “monetary theory of value” (M. Heinrich) must therefore, firstly, be based on the technique of quantification qua measurement, and secondly, starting from this measurement, it must be based on the formation of a total labour-time, a total capital and a general rate of profit, understood as the formation of average values. This has yet to be theoretically fleshed out. The “critique of pre-monetary theories of value” and the demand for a “monetary theory of value” require in subsequent steps a critique of *pre-capitalist* theories of value, or a “*capitalist* theory of value and money”. To this end, money as a measure and technique of measurement, on the one hand, and the valorisation of value by labour and capital, on the other, must be developed (what Hegel would call a “speculative identity”).

The capitalist determination of value and money is also already inherent in the NMR, and is at the same time demanded by the thing itself. However, the capitalist concept of money and value is not only meant to cohere with the capitalist form of money, on the one hand, and the realisation of value through labour and capital, on the other, as the precondition and actual definition of money and value. Rather, both the capital form of money and the realisation of value through labour and capital are to be understood in terms of credit money and the financial, fictitious and speculative forms of capital (i.e. the creation of credit money and the credit system, the central bank system, capital shares, government bonds, derivatives trading, etc.). These forms are logically and chronologically presupposed even before the production of commodities and the movement of capital begin, but also before they are put into effect at all. The valorisation and movement of capital are both anticipated and enacted by these financial forms of capital in order to bring about the very valorisation and profits which retroactively compensate for this anticipation. To put it simply, M-M', the “perverted form” (Marx), logically precedes the capital form M-C-M', but also in practice, when abstract wealth is increased through the creation of credit money, central bank money and fictitious capital, without and before valorisation through commodity production and labour. But that is precisely why this valorisation – and therein lies Marx’s materialism and orthodoxy – is still pending; the increase of quantitative wealth can ultimately only take place through the productive valorisation and exploitation of labour-power and must fall within the economic (re-)production cycles conceptually developed by him.

Society cannot make itself rich by creating (credit) money and multiplying fictitious capital. But it can anticipate the same future valorisation that it has to attract and mobilise by this anticipation. The economy is thus from the outset in disequilibrium and out of sync with itself. It is always disproportionately indebted to itself and by itself, temporarily indebted to an anticipated productive valorisation that is still pending – or crisis-like processes of devaluation and capital destruction occur that forcibly restore the relation between money and value, or rather, capital and valorisation.

*The unity of social and epistemological critique*

To summarise: the critique of pre-monetary concepts of value, the justification of the necessity of a unity of the critique of money and value via the technique of quantification qua measurement, the capital concept of money and value, etc., all this is not to be understood in the sense of a positive science. The point is not to perfect bourgeois economics or a ‘science of value’. The point is to understand quantification through money as a critique of bourgeois economic theory’s understanding of science and the economic objects. The development of the unity of value and money is first and foremost a critique of the idea that the economy can be quantitatively modeled and is calculable, quasi analogous to relations of the natural sciences.

The understanding of Marx’s *Capital* as a *critique* of such ideas was the great merit of the NMR. This critique can be seen, among other things, in the critique of the objective labour theory of value and the naïve ideas of a value-price transformation, as well as in the critique of the great anathema of bourgeois and Marxist economic theory, the constitutive significance of money for an economy that mediates itself through values, and that limits itself *and* produces a quantitative surplus out of itself. However, this epistemological-critical dimension would have to be radicalised and transformed into a critique of science as such. The method of exposition and critique must aim at the methodological in the mode of production, and this methodological is to be sought ‘first’ in a quantification of social relations that has nothing to do with (real) abstraction, reduction, equation, etc.; nothing to do with a logic of exchange and synthesis, nor with a chronological, linear and quasi-causal derivation of commodity values from labour and production. For money, social relations become the object of quantification in commodities, so that it is not science that ‘first’ realises and objectifies social relations through theory and science, but money. Therefore, the detours via the critique of money and value, or more precisely, the detours via the *problems* that money and value exhibit in their scientific determination, in particular their inner connection or their speculative identity – this detour via the problems and the notorious “money riddle” is the actual, direct path to the determination of both money and value as well as the capitalist mode of production.

*Dissolution of labour, money and value into an "economy of time"*

For such a critique of science, the economic relation between labour, value and money must be liberated more radically from all methodological individualism and from all substantialism and essentialism than was already confronted by the NMR and its critique of the labour theory of value. It is *social relations*, and not commodities nor labour, which are quantified by the technique of money. What is quantified, are the relations of commodities, but also the relations of labour and capital in their production, and what comes through this quantification of the relations of labour and capital, are *temporal* relations. With the necessity of the unity of money and value – or more precisely, with the capitalist self-reference of money and the valorisation of value through the forms of labour and capital – an “economy of time” (Marx) comes into force. Quantification and measurement are therefore not only a translation of social into quantitative relations and vice versa, but also, as a third element or dimension, an “economy of time” emerges.

Marx justifies this economy of time by interpreting the relation between labour and capital as two *temporal* relations. The first is the relation between “dead” and “living labour” time, objectified and accumulated (or embodied and subjectivised) in the forms of capital and labour. This relation in turn sets in motion the second temporal relation on the part of commodity labour-power, namely that of “necessary” and “surplus” labour-time. The use-value of the commodity labour-power is temporal since it can produce more value than is needed for its own reproduction and is received in a wage equivalent. It is a “special commodity” because it is, as it were, an *ecstasy* in time because of this difference and, with the additional labour-time that is quantitatively exploited as surplus value and profit, introduces an *excess* moment into the economy that leads to the “extended reproduction of capital”. Marx also shows that value in its quantitative relations ultimately corresponds to these temporal relations: the value quantities of commodities are ultimately decisive (average) quantities of “necessary labour time”, profits result from (average) quantities of “surplus labour time” and the formation of a “general rate of profit”.

For this economy of time to come into power and remain in power, money must ‘step in’ for time by quantitatively realising, transferring and transforming values through its functions and its movement as capital. In doing so, it enacts the same economy of time that it simultaneously masters, namely by forming a correspondence between quantitative and temporal relations.

In order to liberate the concept of value and money from all substantialism and to identify it as a social and at the same time historically specific capitalist relation, as the logical-categorical reading claims, both money and value therefore have to be transferred, in a final theoretical radicalization, into a common “economy of time”. Or rather, following the development of the individual monetary functions, on the

one hand, and the temporal relation between the living and the dead as well as necessary and surplus labour time, on the other, it should be shown that money *is* this transfer of value into a capitalist economy of time. The materialism of money consists in enacting an economy of time through the quantification of social relations and their productive components, and this economy remains in force because money transfers time quantitatively and transforms it into those forms of economy that carry out these temporal relations in a spatialised way.

The materialism of social forms – commodity, money, value and capital – remains in Marx inseparable from that – one could say *unconditional* – materialism which, unfortunately, can be interpreted as an objective labour theory of value. However, if the substance of value is to be purified and liberated from all substantialism and from all notions of physical labour, it must also be dissolved and redeemed in the temporal relations of dead and living or past and present as well as of necessary and surplus labour-time, even if not in the sense of a positive theory or science of value. The finite-quantitative determination of both value and money – in simplified terms, the *content* of the forms of money and value – can only take place through the productive relations of labour-power and capital. Labour and capital become the “variable” or “constant” value components of this valorisation, and it is this relation of valorisation which ‘gives’ quantitatively specific value to commodities and money; those quantities which are processed in all the qualitative forms of capitalist society and are purely quantitative in force therein. Both the qualitative forms and their purely quantitative quantities carry out, in the last instance, the *temporal self-relation of society*.

However, it is into money that this resolution and redemption in the last instance must fall! Only in money can time quantitatively redeem and realise, quantitatively transfer, mediate and transform, thus becoming the temporal overarching as well as the self-referential form for social relations and their reproduction. Ultimately, money itself, like value, is quantitatively specified by these temporal relations. Value is quantitatively specified by the relevant quantities that money determines from the temporal relations in production and transfers back into its components; thus money becomes a *specifying quantum*. Money therefore performs an actual de-substantiation when it not only places and mediates material-substantial relations in a productive relation of valorisation through pure quanta, but also enacts *temporal* relations, establishing a correspondence between quantified *social* and quantified *temporal* relations, thus ultimately establishing the temporal self-relation of society as a whole.

*The ‘other side’ of value and money: the valorisation and exploitation of the commodity labour-power*

It was the great achievement of the NMR, following Lukács, Rubin, Rosdolsky and the first generation of Critical Theory and its milieu, to work out the materialism

of the social forms of value and money. This went hand in hand with a rejection of the objective labour theory of value, which had already been rejected in the 1920s through the critique of the commodity form, but only received a systematic justification through the NMR. For only its logical-categorical reading made it clear that both labour and commodity presuppose money to become the substance and form of value. This primacy of money, which de-substantialised and undermined the objective labour theory of value, also had, at least implicitly, undermined the political consequences that Marxism and the socialist movement drew from it, in particular politics and class struggle in the 'name of labour', right up to a state-socialist economy.

However, the NMR's critique of the economy became one-sided and indeterminate in relation to its actual object: value that exists only through the nature of valorisation, on the one hand, and the capital form of money on the other, and whose existence is based on its accumulation. Only from this process arises the real necessity of the unity of the critique of value and money, and with this necessity the capitalist determination of this unity. The rejection of the objective labour theory of value and the logical primacy of money, whether in the sense of a "critique of pre-monetary theories of value" or in the sense of a "monetary theory of value", can therefore only be half the truth. The 'other half of the truth' is that money not only sets the commodities in value, but, 'first', the components of their production: the producers and the means of production, which are commodified in capitalism and, as quantitative values, enter into a productive relation that gives quantitative determination to both the commodities produced and money. In order to justify the necessity of the unity of value and money and their capitalist determination, the commodification and valorisation of the two components of production would have to be developed. And for these components, it cannot be emphasised enough that Marx's critical distinction in the concept of labour and value is not only the distinction between concrete and abstract labour, but also the distinction between labour and labour-power: labour builds and creates value, but it has no value; it is only the *commodity labour-power* that is set in value. Thus, to develop the genesis of the unity of value and money requires the development of the negativity that is historically and logically opened up by the separation of the producers from the means of production in the course of the processes of "originary" or "primary" accumulation, a process that at the same time enacts the temporal self-relation carried out in dead and living labour-time. With originary accumulation, it is therefore necessary to include the 'counterpart' to the value-form analysis, with which Marx actually concludes the first volume of *Capital*. This would make it possible to combine Marx's logical-categorical beginning with the unity of value and money and with the dual character of labour and the commodity, and the logical-*historical* beginning that Marx establishes at the end of *Capital* Vol. I through the processes of separation of the producers from the means of production.

More precisely, what needs to be developed is the productive force of this negativity that is released by the separation and valorisation of labour and capital. For only when producers and the means of production enter into a relation as quantitative components and acquire the status of labour-power and capital, and only when they are thus exposed to the necessity of their reproduction qua joint and mutual valorisation, is that immense temporal self-relation released which is externalised and endowed in commodities and which accumulates purely quantitatively as abstract wealth. And it is money which, through quantification and measurement and through its functions and its movement as capital, opens up the productive power of this negativity and its temporal dimension, and thereby also acquires its own quantitative value. (Not to mention the fact that only via money surplus labour time can be exploited, giving this time in form of profit an independent quantitative existence.)