

Rethinking the relationship between Marx's *Capital* and Hegel's *Science of Logic*: The tradition of creative Soviet Marxism

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Abstract

This article sheds light on the little known and poorly understood extensive discussion on the relationship between Marx's *Capital* and Hegel's *Science of Logic* in the tradition of creative Soviet Marxism. The exploration of the mechanism of ascending from the abstract to the concrete and its relation to the movement of thought from the concrete to the abstract was one of the key points of this discussion. The ascending from the abstract to the concrete is a crucial issue of the dialectical logic developed in German Classical Philosophy, especially in Hegel's *Science of Logic*. Marx implemented the method of ascent from the abstract to the concrete to investigate a historically concrete object (the capitalist mode of production) as an organic whole.

Keywords

abstract, concrete, dialectics, Hegel, logic, Marx

Introduction

'To conjoin . . . the names Hegel and Marx . . . is not so much to express a relationship as to raise a problem – one of the most challenging problems in the history of thought' (Hook 1958: 15). The examination of the connection between the logic of Marx's *Capital* and Hegel's *Science of Logic*, two of the leading works of these thinkers, is the key to reflecting on and solving this problem. The 'New Dialectics' as an intellectual

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movement associated with the works of Chris Arthur (2004), Tony Smith (1990), Geert Reuten, and Roberto Fineschi, contributed to the discussion of this controversial issue. The 'New Dialectics' has been formed as a confrontation with the Diamat that is identified with the 'Old Dialectics'. The emphasis on the 'systematic dialectic' is a common orientation of the 'New Dialectics' while the 'Old Dialectic' is focused on Hegel's contribution to the formulation of Marx's theory of history (Moseley & Smith 2014). The adherents of the 'systematic dialectic' detect 'a striking homology between the structure of Hegel's Logic and Marx's Capital' (Arthur 2004: 7).

However, an entire creative theoretical tradition of the investigation of the logic of Marx's 'Capital' in relation to Hegelian logic in the Union of Soviet Socialist Republics (USSR) remains unknown in contemporary discussion on systematic dialectic. This creative theoretical tradition was developed 'on the margins and in opposition to official Diamat' (Levant 2012: 125). Usually, Ilyenkov's (2008) book *The Dialectics of the Abstract and the Concrete in Marx's 'Capital'* is examined as the only form of creative Soviet Marxism. However, the view on Ilyenkov as a lonely genius that breaks down completely with dogmatic Soviet Marxism is one-dimensional. Ilyenkov's important contribution to philosophy can be fully understood only in the context of the wider debate on the logic in Marx's *Capital* in the USSR.

This article provides an overview of the research and discussion about the relationship between the logic of Marx's *Capital* and Hegel's *Science of Logic* in the tradition of creative Soviet Marxism. The article focuses mainly on ascending from the abstract to the concrete that was developed by Hegel in his fundamental work 'Science of Logic'. Hegel (2010) argued that logical reason 'holds together all the abstract determinations and constitutes their proper, absolutely concrete, unity' (p. 28). Based on the idea of the concrete universal, Hegel built a 'self-moving' system of interconnected and subordinated categories. Rethinking Hegel's dialectical method as a crucial part of a systematic investigation of the political economy of capitalism Marx, in the introduction to the Grundrisse, pointed out that 'The concrete is concrete because it is a synthesis of many determinations, thus a unity of the diverse' (Marx 1986: 38).

The ascent from the abstract to the concrete has been the subject of heated debate regarding the relationship between Hegel's dialectic as developed in the *Science of Logic*, and Marx's dialectic as presented in *Capital* in the USSR. A broad range of questions raised in this debate includes the following: What are the possibilities and limitations of ascending from the abstract to the concrete? What is the internal mechanism of the method of ascent from the abstract to the concrete? Under what conditions can this method be employed and developed? When is the simplest relation of an organic whole, dubbed as 'germ cell', the starting point of ascending from the abstract to the concrete?

The beginning of the investigation of Marx's logic

In the late-19th century, many philosophers and scientists considered Hegel's philosophy to be *outdated* and irrelevant. In Marx's (2010) terms, Hegel was treated as a 'dead dog' (p. 19). The publication of Lenin's *Philosophical Notebooks* in 1929–1930 provoked a discussion on the relation of Marx's dialectical method to Hegel's Logic in the USSR.

Calling into question the dominant-negative attitude toward Hegel, Lenin (1976) argued that

It is impossible completely to understand Marx's *Capital*, and especially its first chapter, without having thoroughly studied and understood the whole of Hegel's *Logic*. Consequently, half a century later none of the Marxists understood Marx!! (p. 180)

Lenin's words were addressed to all Marxists in that time, including himself. Lenin was unable to solve the problem posed by him due to its complexity and urgent practical tasks taking up his time. The interest in the study of dialectics cannot be fully understood if detached from the specific historical issues raised during that historical period. It is proper to mention that Hegel's dialectics was labeled by Herzen (1986) as 'algebra of revolution' (p. 195). Challenging a static mode of thought based on fixed divisions and dualistic conceptualizations, dialectics attempts to grasp complex, dynamic, contradictory reality in terms of change and transformations. In addition, the growing interest in dialectics was connected not only to the process of social transformation in the USSR but also with the challenges that scientific disciplines are facing. More specifically, the issue of the transition from the empirical to the theoretical stage of their development and the elaboration of the conceptual–categorical apparatus was raised in several disciplines.

Deborin (1930), 'the real founder of Diamat and a pupil of Plekhanov' (Oittinen 2020), addressed the problem of the materialist reconsideration of the Hegelian dialectic. For Deborin, dialectics is the theory of development that occurs where opposites and contradictions exist. In contrast to Hegel, focused on the self-development of the idea, Marxism is based on the view of the self-development of the material world. He examined dialectics as a universal theory of development. 'The dialectical method reproduces the course of development of the object' (Deborin 1930: 2).

Deborin was criticized for accepting 'ontologism', connected with '... the rejection of the Kantian Copernican turn in philosophy and the idea of the primacy of gnoseology it implies' (Oittinen 2020). The tension between ontology and gnoseology and the perspective of its dialectical transcendence became one of the central topics of this discussion in Soviet philosophy. Lenin's idea that the traditional opposition between ontology and gnoseology can be overcome, acquired particular importance for the participants of the discussion on Marx's *Capital*:

In 'Capital', Marx applied to a single science logic, dialectics and the theory of knowledge of materialism [three words are not needed: it is one and the same thing] which has taken everything valuable in Hegel and developed it further. (Lenin 1976: 317)

A significant shortcoming of Deborin's interpretation of Diamat is that he did not consider the heterogeneity and complexity of the material world. Deborin (1929) examined dialectics as a universal and broad method, as 'the science of the general laws and forms of movement in nature, in society, and in thought' (p. 59), regardless of the specificity of the particular object that it studies. It is difficult to find in Deborin's writings a clear answer to the question of how a particular object affects the method of its

investigation. He was far from understanding the particular object that Marx investigated in 'Capital' and the dialectical method as developed by him.

The discussion on the method of Marx's *Capital* in the USSR was begun in the late 1920s and the early 1930s. Kuschin (1929) wrote the first book on the dialectical method in Marx's *Capital* with an introduction of Rubin (1928). According to Tipukhin (1961), the absolutization of the triadic scheme in the analysis of economic categories is the main shortcoming of this book. Kuschin (1929) was engaged in the examination of the triadic principle of movement of economic categories, considering the third category as a synthesis of the first two. The exposition of economic categories in Kuschin's book gives the impression of formal, scholastic construction.

It is necessary to mention Rubin's (1928) book on value theory and the articles by Rozental (1933) and Rozenblum (1933) on Marx's *Capital*. Rubin (1928) proposed an account of Marx's value theory and its place in the structure of Marx's *Capital*. The dialectical method in Marx's *Capital* was examined as the movement from simple forms to increasingly complex forms. Rubin (1928) presented the dialectical method as a synonym of the 'genetical' method. For Rubin (1928), the value-form as the product of labor serves as the starting point of the structure of Marx's *Capital*. He examined the value-form as the characteristic social form of the capitalist mode of production. Rubin's theory of value has had some influence on the formation of Ilyenkov's (2008) approach to the method of Marx's *Capital*, while his analysis of commodity fetishism had an impact on Mamardashvili's (2017) works on converted forms.

Rozental (1933) noted that the category of essence is the theoretical expression of the internal relations of the objective world (in the concrete case, the capitalist formation). The essence has diverse forms of manifestation, but none of these forms is identical to the essence. Moreover, Rozental (1933) argued that in Marx's *Capital* commodity is the 'germ cell', the embryonic state of the contradictions of the capitalist mode of production. A crucial methodological question was raised: What is the particular starting point of the system of categories in Marx's *Capital* (the category of value or the category of the commodity)? However, the debate on this issue, as well as other serious methodological issues of Marx's *Capital*, ended abruptly as a result of the wider political and ideological changes that took place during this period.

The dialectical method was reduced in Stalin's *Dialectical and Historical Materialism* to a linear series of independent universal features: the connection with the surrounding conditions, continuous motion, quantitative change leads to qualitative change and internal contradictions. The law of the negation of negation was omitted. Hegel's philosophy was characterized as just 'an aristocratic reaction to French materialism and the French Revolution' (Planty-Bonjour 1967: 10). 'The "rational kernel" of the dialectic is cleansed of the Hegelian taint' (Planty-Bonjour 1967: 3). The condemnation of Deborin and his school of thought led him to drop the issue of the materialist reconsideration of the Hegelian dialectic posed by him.

In this context, it was difficult to promote research and discussion on the relationship between Marx's *Capital* and Hegel's *Science of Logic*. Serious public discussion on the dialectical method in Marx's *Capital* ceased from the second-half of the 1930s until the mid 1950s. Philosophy turned into an obedient servant of official politics. However,

freedom of scientific research is an important condition for developing new innovative, creative ideas.

Re-opening the path to an investigation of the logic of K. Marx's *Capital*

It was only in the mid 1950s that favorable conditions emerged to promote research and dialogue on dialectics. Rozental's (1955) book *Questions of Dialectic in K. Marx's "Capital"* became the starting point of a new cycle of the discussion. Rozental served as the connecting link between the Soviet researchers, who had begun studying dialectics in Marx's *Capital* during the 1920s and 1930s, and those who systematically focused on the dialectical logic in the 1950s. He distinguished certain aspects of the logic of Marx's *Capital* (essence and appearance, analysis and synthesis, historical and logical approaches, etc.). He labeled the method of Marx's *Capital* as analytical and logical. The analytical method is connected with the movement of thought from the particular diversity of phenomena to the distinction of some general, abstract, definitions. Then through ascending from the abstract to the concrete leads to the reproduction of reality in all its fullness. In other words, Rozental examined ascending from the abstract to the concrete as a part of the analytical method (Pavlidis 2018).

It is possible to identify a contradiction in Rozental's views. On one hand, Rozental claimed that ascending from the abstract to the concrete is the method of Marx's *Capital*, on the other hand, he found that the movement of thought from the concrete to the abstract is also encountered in some places. In our view, this contradiction in Rozental's understanding reproduces the contradictory, dialectical nature of the cognitive process in Marx's *Capital* that contains both the movement of thinking from the concrete to the abstract and ascending from the abstract to the concrete. As Vaziulin (1986) noted, the ascent from the abstract to the concrete dominates, but it includes as one of its moments the movement of thinking from the concrete to the abstract. In other words, *the knowledge process can be examined as a dialectical unity of opposites*.

By focusing on the analytical method, Rozental underestimated the synthetic character of the construction of Marx's *Capital* and the complexity of ascending from the abstract to the concrete. He did not go beyond some fragmentary remarks about general structure of Marx's *Capital*. Moreover, Rozental was far away from the systematic study of the relationship between Marx's *Capital* and Hegel's *Science of Logic*.

Two directions in the investigation of the logic of Marx's *Capital*

During the 1960s, the School of Philosophy in Lomonosov Moscow State University became the center of heated debates on the logic of Marx's *Capital*. Two doctoral dissertations defended at this School of Philosophy gave impetus to the beginning of this discussion: Ilyenkov's dissertation 'Some issues of materialist dialectics in Marx's "A contribution to the critique of political economy"' and Zinov'ev's dissertation 'The ascent from the abstract to the concrete with reference to Karl Marx's *Capital*'. These disserta-

tions paved the path for developing two traditions or directions in the field of the methodology of science.

A. Zinov'ev (2002) proposed a way to investigate Marx's *Capital* based on the formal logical analysis. The logic of Marx's *Capital* was reduced to the sum of the illustrations of some universal formal logical methods and ways of thinking. In contrast to Marx, Zinov'ev (2002) was interested in the logic itself rather than the logic of the particular object. The detachment of thought from the peculiar object and its examination in terms of a group of logical operations is a feature of formal logic. Zinov'ev examined the contradictions as purely logical entities rather than contradictions of the object itself. In this light, Zinov'ev's approach draws on Popper's view that there are only logical contradictions, but not contradictions in the real material world (Popper 1940). Zinov'ev emphasized the logic itself rather than the logic of the concrete object (the capitalist mode of production). He focused on the elaboration of formal logic that deals with the forms of thought rather than a real-world object. From Zinov'ev's perspective, the real object is examined to illustrate some logical techniques. Zinov'ev's ideas served as the starting point for the development of the Moscow methodological circle (G. Shchedrovitsky, B. Grushin, I. Ladenko, etc.) and early Mamardashvili's works on converted forms and consciousness in Marx's *Capital* (Dafermos 2018; Mamardashvili 2017).

From the standpoint of formal logic, Bakradze (1950, 1974) called into question the existence of contradictions between concepts. For Bakradze (1950, 1974), Aristotelian logic with its laws (identity, non-contradiction and excluded middle) is the only possible logic. The logical development of thought was identified with correct reasoning based on the laws of formal logic (Planty-Bonjour 1967). For Bakradze (1950, 1974), dialectical logic is a general methodology of knowledge.

Challenging the formal logical account of thought, Rozental, Sitkovskij, and Narskij claimed that the dialectical logic is internally connected with dialectics as 'the science on the most general laws of the development of nature, society and human thought' (Bogomolov et al. 1975: 93). The idea of unity (or confidence) of dialectics, logic and theory of knowledge and its realization in Marx's *Capital* became a heated debate topic in Soviet philosophy (Ilyenkov 2020; Orudzhev 1968). Criticizing the formal classification of the categories and laws of dialectics in the textbooks of Diamat, Orudzhev (1968) stressed that Marx developed dialectics in particular science, the political economy of capitalism.

The most fruitful direction of the dialectical logic in the USSR was connected with the investigation of the internal structure of Marx's *Capital*. Bringing into question Zinov'ev's idea that contradictions are purely logical entities, Ilyenkov demonstrated that Marx investigated the real contradictions of the capitalistic mode of production. For Ilyenkov (1977), the contradiction was that the concrete unity of mutually exclusive opposites was the core of dialectics. He disagreed with the reduction of the internal contradiction of an object to a contradiction 'in different relations or at a different time'. In contrast to the empirical sciences that strive to avoid contradictions, dialectics attempts to explore them and shed light on strategies for resolving them. For Ilyenkov (1977), it is foolish to blame the dialectic, which deals with contradictions in the same way that it is irrational to think that the disease is caused by the doctor who came to cure it.

Ilyenkov criticized the dominant understanding of the concepts 'abstract' and 'concrete' based on Locke's empiricism. The followers of the empiricist tradition tend to identify concrete with sensible concrete and abstract thinking with traditional formal logic. Both the traditional formal logic and sensualistic empiricism have a similar epistemological foundation (Ilyenkov 2008).

Ilyenkov (2008) was involved in the critique of positivism that gained wide popularity not only in various scientific disciplines but also in philosophy. The absolutization of the analytical method and the movement of thinking from the sensory concrete to the abstract is one of the peculiarities of positivism. He highlighted the importance of ascending from the abstract to the concrete, which even today remains a 'terra incognita' for positivists. However, precisely because of his engagement in the critique of positivism, it is possible to find an inherent tendency toward a one-dimensional emphasis on ascending from the abstract to the concrete in Ilyenkov's interpretation of the logic of Marx's *Capital*:

It would be wrong to take the view that each science has to go through a stage of one-sided analytical attitude to the world, a stage of purely inductive reduction of the concrete to the abstract, and that only later, when this work is fully accomplished, can it proceed to link up the abstractions thus obtained in a system, to ascend from the abstract to the concrete. (Ilyenkov 2008: 140)

The underestimation of the analytical process of thought and the relative autonomy of the movement of thought, from the sensually concrete to the abstract, is a shortcoming of this interpretation of the dialectical method (Pavlidis 2018). However, the dialectical method is not reduced to ascending from the abstract to the concrete in Marx's *Capital*. The ascending from the abstract to the concrete is necessary to present the results of long-term research. The logic of the presentation of categories, to some extent, corresponds to the historical logic of the development of research. However, the historical development of research does not fully coincide with the logic of the exhibition or presentation of its results. The complete reduction of the historical course of an investigation to the logic of the presentation of its results leads to the underestimation of the relative autonomy of the early stages of the historical development of concrete disciplines and especially the movement of thought from the sensory concrete to the abstract (Vaziulin 1968).¹ This position was labeled by Nissen (2012: 29) as 'anti-empiricist scientism' or 'theorism'. From our perspective, Ilyenkov's 'anti-empiricism' is internally connected with his interpretation of Marx's *Capital*. Ilyenkov proposed that value-form is 'the universal basis for all the other categories of capitalist economy' (Ilyenkov 2008: 79). Value was presented as 'the real form of economic relations that is the universal and elementary form of the being of capital' (Ilyenkov 2008: 223). Ilyenkov's understanding of value as a concrete universal was formed under the influence of Rubin's conceptualization of value-form as the characteristic social form of the capitalist mode of production.

According to Ilyenkov, Marx's (2010) *Capital* begins 'with the analysis of a commodity' (p. 45). Commodity serves as the simplest relation of capital. Marx moved from the examination of the use-value of a commodity to an analysis of its value. In other words, Marx moved from the surface to the essence of the commodity. Ilyenkov failed to define

the position of the category of use-value in the logical structure of Marx's *Capital*. Ilyenkov underestimated the movement of thinking from the surface to the essence that was included as one of the moments of ascending from the abstract to the concrete in Marx's *Capital*. In other words, ascending from the abstract to the concrete in Marx's *Capital* contains the opposite movement of thinking in itself as its moment (Vaziulin 1986).

The debate about the logic of Marx's *Capital* in the USSR was mainly focused on the starting point ('germ cell') from which it is possible to extract all the categories by ascending from the abstract to the concrete (Davydov 1990; Ilyenkov 2008; Tsagolov 2017; Zinov'ev 2002). Several philosophers and scientists claim that the dialectical logic of Marx's *Capital* can be extracted and applied in other scientific disciplines such as psychology, pedagogy, and the political economy of socialism. According to Davydov (1990), the ascent from the abstract to the concrete (especially the 'germ cell' as its core concept) is a powerful epistemological principle in studies of learning and instruction (Dafermos 2019). Accepting a similar methodological position, Tsagolov (2017) proposed to build a system of categories and laws of the political economy of socialism through the application of the method of ascent from the abstract to the concrete. For Tsagolov (2017), the category of the planned economy is the 'germ cell' for building a system of laws of the political economy of socialism. It is possible to detect the tendency of extrapolation and the application of the method of ascent from the abstract to the specific in various scientific disciplines. However, the conditions and prerequisites for the application of the method of ascent, from the abstract to the concrete in scientific disciplines, have not been analyzed. In addition, the discussion centered mainly on the 'germ cell', while the internal mechanism of ascent from the abstract to the concrete remained insufficiently explored.

Continuing Ilyenkov's analysis of ascending from the abstract to the concrete Tipukhin (1961) provided a slightly different interpretation. For Tipukhin (1961), ascending from the abstract to the concrete is the method of reconstruction of an organic whole through a system of multiple, interconnected definitions. Hegel profoundly developed this method of thinking. However, in Hegel's philosophy, the process of thinking is examined as an independent subject, the creator of the world, rather than a reflection of the objective reality.

Tipukhin (1961) argued that from immediate sensory concreteness as a chaotic representation of the whole, cognition through analytical division moves to the presentation of its results, ending with the differentiation of the most abstract and simplest definitions. The movement from sensory concrete to the abstract is not only epistemologically but also historically the first movement of thought. From the sensory concrete, the chaotic perception of the whole, knowledge moves through the analysis of categories to the differentiation of the simplest relation of the particular whole. Theoretical research cannot begin from the essence, because the essence is not something immediate. The essence is a mediated entity that can be discovered only in the process of theoretical research (Tipukhin 1961). The subsequent categories reproduce the previous, more abstract in an enriched and significantly modified form in the spiral of the presentation of the results of the research process. The dialectical movement from the essence to appearance

(phenomenon) ceases to be immediate and becomes mediated by the essence and unfolds as an essential relation (Tipukhin 1961).

Calling into question the reduction of the method of Marx's *Capital* to analytical method or the deduction to categories from the 'germ cell', Orudzhev (1964) demonstrated the complexity of ascending from the abstract to the concrete. According to Orudzhev (1964), the method of ascent from the abstract to the concrete can be examined as a form of resolving conflicts between analysis and synthesis, induction and production, and so on. The internal connection between analysis and synthesis, induction and production as moments of the method of the ascent from the abstract concrete in Marx's *Capital* is connected with the systematic investigation of a particular object (the capitalist mode of production). From this perspective, materialistic dialectics as it was developed in Marx's *Capital* is the more advanced and developed form in relation to Hegel's idealistic dialectics (Orudzhev 1964).

Mankovsky (1962) made the first serious attempt to reveal the internal structure of the logic of Marx's *Capital*. He proposed that Marx employed Hegel's categories 'being', 'essence', 'appearance', and 'actuality' for the theoretical reconstruction of the capitalist mode of production. The commodity is the being of capital. The process of capitalist production is the essence of capital. The process of circulation of capital is the appearance of capital. The unity of the production process and the circulation process is the actuality of capital. In other words, the ascent from the abstract to the concrete in Marx's *Capital* has essential similarities with Hegel's *Science of Logic*.

Mankovsky (1962) demonstrated the shortcomings of the widespread view that ascending from the abstract to the concrete consists of the movement from the 'essence' to the 'appearance'. Mankovsky (1962) proposed that ascending from the abstract to the concrete involves the movement from the being to the essence, from the essence to the appearance (phenomenon), and finally from the appearance to actuality (reality) as the unity and interpenetration of the essence and the appearance. For Mankovsky (1962), formalism and idealism of Hegel's *Science of Logic* find its expression in the recognition of the self-development of categories and thought's self-determination. In Marx's *Capital*, the transition from one category to others depends on the actual level of the real, objective relations, which these categories reflect. However, Mankovsky's book failed to highlight the transition from one economic category to another. This attempt to discover the method of ascent from the abstract to the concrete in Marx's *Capital* remained incomplete.

A systematic investigation of the logic of Marx's *Capital*

Vaziulin's (1968) book *The Logic of K. Marx's Capital* is an important milestone in the investigation of the dialectical logic in the USSR. This book is based on Vaziulin's doctoral dissertation defended at the Faculty of Philosophy in Lomonosov Moscow State University. At first glance, Vaziulin² followed Ilyenkov's tradition in the investigation of Marx's dialectical method. However, an in-depth study reveals the significant differences between Vaziulin's and Ilyenkov's interpretations of the logic of Marx's *Capital*. Ilyenkov

(2008) has explored the logic of K. Marx's *Capital*, mainly based on the Introduction to the Grundrisse ('Economic manuscripts of 1857-1958'; Marx 1986). Vaziulin (1968) has provided a systematic, thorough investigation of the logic of Marx's *Capital* in connection with the examination of Hegel's *Science of Logic*.

Vaziulin (1968) examined the dialectical logic as a system of subordinated categories that covers *Capital* as an organic whole rather than as a sum of Marx's statements about his method or a sum of illustrations as it is examined in *Diamat*. Vaziulin (1968) argued that the rational kernel of the Hegelian dialectic is deeper and more substantial than previously considered. He accepted and developed further Mankovsky's view on the mechanism of ascent from the abstract to the concrete. Mankovsky was a precursor of Vaziulin's understanding of the logic of Marx's *Capital*. More concretely, Vaziulin proposed that the structure of Hegel's *Science of Logic* was reproduced specifically in Marx's *Capital* (Vaziulin 1968). He provided a categorical reconstruction of the logic of Marx's *Capital* in its internal connection with the Hegelian logic. According to Vaziulin, the mechanism of ascent from the abstract to the concrete has the following logical structure:

1. Capitalist wealth appears on the surface as 'an immense accumulation of commodities' (Marx 2010: 45). The logic of Marx's *Capital* begins from the surface, or being. It is not an absolute and indefinite being as in Hegel's *Science of Logic*, but the being of a particular, developing object (the capitalist formation). Being refers to immediacy, the simplest relation to the reconstruction of a particular object in thought.
2. The production of surplus-value is the essence of the capitalist mode of production.
3. The circulation of the capital is examined in the second volume. Marx was not interested in the examination of commodity and money themselves, but how capital is manifested in the circulation of commodities and money. In other words, the second volume deals with the appearance of capital. The appearance (or phenomenon) is the manifestation of the essence of capital.
4. The subject matter of the third volume is the unity of the processes of the production and circulation of capital. In other words, the third volume examines the actuality of capital (conversion of surplus-value into profit). Actuality (or reality) is the unity of being, essence, and appearance (Vaziulin 1968, 1986).

Simultaneously, Vaziulin highlighted the qualitative difference between the logic of Marx's *Capital* and Hegel's *Science of Logic*. Hegel investigated the object in general, while Marx examined a particular, developing object at the concrete stage of its development. This particular object (the capitalist formation) is studied at the mature stage of its development when its sides appear in their internal connection. Complete knowledge of this object presupposes a systematic, consistent examination of the totality of its sides in their interconnection (Vaziulin 1968, 1986). Blakeley (1976) appreciated Vaziulin's contribution to the investigation of the relationship between Marx's *Capital* and Hegel's *Science of Logic*:

Vazjulin has a clear perception of what Hegel's Science of Logic is all about. We might parenthetically note that such a perception is almost non-existent among Soviet philosophers and relatively rare in the rest of the world . . . Philosophers in the rest of the world are seldom able to take a clear view of this epoch-making book because of the prevailing philosophical prejudices existentialist, phenomenological, analytic which hide the fundamentally ontological import of it. It is to Vazjulin's credit, therefore, that he is genuinely interested in both the identities and the differences between the two works. (Blakeley 1976: 283)

Moreover, Vaziulin (1986) addressed the crucial issue of the prerequisites for the implementation of the method of ascent from the abstract to the concrete. Vaziulin (1986) focused on the following three important points:

1. The ascent from the abstract to the concrete is not the product of pure thought but a reflection of a real organic whole. The real existence of an organic whole is a necessary prerequisite for the application of the method of ascent from the abstract to the concrete. The application of this method is possible insofar as the internal relationships of an organic whole have been sufficiently developed. It occurs, ' . . . at the stage of development where it reaches its full maturity, its classical form' (Engels 1977: 225).
2. The correct application of the method of ascent from the abstract to the concrete presupposes the preliminary movement of knowledge from the sensual concrete to the abstract. The system of the categories for the theoretical reconstruction of concrete organic whole should be fully articulated before the implementation of the method of ascent from the abstract to the concrete. As Tony Smith (1990) notes, 'one can hardly present a categorical reconstruction without having first appropriated what is to be reconstructed' (p. 20). The development of the system of interconnected categories is a result of a long research process that includes as one of its moments the movement of thinking from the sensory concrete to the abstract. Calling into question absolutizing ascending from the abstract to the concrete, Vaziulin (1986) argued that the concrete disciplines (in this particular case, the political economy of capitalism) in their history cannot avoid the movement from the sensory concrete to the abstract. Moreover, the knowing subject should be sufficiently developed so that the method of ascent from the abstract to the concrete can become dominant in his investigation of the organic whole.
3. 'both movements of cognition – from the sensual concrete to the abstract and from the abstract to the concrete – should be constantly taken in their contradictory unity' (Vaziulin 1986: 196). However, one or other of the forms of the movement of thinking becomes dominant at different stages of the development of knowledge. The application of the method of ascent from the abstract to the concrete is possible insofar as the internal relationships of a developmental process have acquired mature form (Vaziulin 1986).

Vaziulin (1968) employed the triple helix model for theorizing the logic of Marx's *Capital* which are as follows:

1. The first helix of the logic of Marx's *Capital* includes the past of the capitalist mode of production in its relation to its present state. The commodity is the simplest relation for the analysis of the capitalist mode of production. Marx examined commodity production as it is reproduced in the capitalist mode of production.
2. The second helix of the logic of Marx's *Capital* represents the present of the capitalist mode of production based on the production of surplus-value.
3. The third helix of the logic of Marx's *Capital* refers to the future in its relation to the present. It is important to clarify that Marx did not provide a systematic analysis of the future socialist society. However, Marx analyzed the movement of capitalism toward its self-negation and the creation of conditions for the future unified humanity.

The decline of interest in the logic of Marx's *Capital*

During the 1970s, the tendency of repetition and summarization of the results of the investigation of the logic of Marx's *Capital* that had been achieved in the previous period became prevalent. This tendency is expressed in the collective volume 'A history of Marxist dialectics' in which Rozental, Ilyenkov, Mankovsky, Orudzhev, and other philosophers participated (Rozental 1971). The emphasis on the historicity of the dialectics was the most important contribution of this collective volume. Calling into question Althusser's (1990) theory of an 'epistemological break' (p. 13) between the young Marx and mature Marx, the participants of this collective volume examine dialectics in terms of a developmental process that includes both continuity and discontinuity. From this perspective, it is also important to mention that Vaziulin's (1975) book *The becoming of the method of scientific investigation of K. Marx* focused on the systematic study of the early stages of the development of Marx's research methodology. This book demonstrates that the logic of Marx's *Capital* did not arise from parthenogenesis due to an 'epistemological break', such as when Athena leapt out of Zeus' head, fully grown, dressed, and armed, but because of a long and contradictory developmental process (Meimaris & Patelis 2020). Moreover, it is argued that the ascent from the abstract to the concrete can be sufficiently understood in its contradictory unity with the movement of thinking from the sensory concrete to the abstract, as well as the logical method is internally connected with the historical method.

Gradually, the interest in the study of the logic of Marx's *Capital* was reduced and many Soviet philosophers turned in other theoretical directions. Zinov'ev was involved in the elaboration of a non-classical logic. Mamardashvili moved from the study of the problems of logic, methodology, and the theory of knowledge to the study of the problems of consciousness using the ideas of phenomenology and existentialism. Ilyenkov's tragic death demonstrated the contradictory situation in Soviet philosophy in 1970, his pessimism regarding dialectics in new conditions (Mareeva et al. 2016).

During perestroika, the theoretical repudiation of Marxism became a central direction of the official ideology. Yakovlev (1993), one of the main ideologists and the

'architect' of perestroika declared that 'Critics of Marxism are basically correct when they say there is nothing serious or scientific in this system . . .' (p. 37). Rejecting Marx's analysis of contradictions in *Capital*, Yakovlev (1993) claims that private property is 'the most effective, productive, and dynamic system in the sense of self-development, self-improvement, and self-expression' (p. 26). The rejection of contradictions of the capitalist mode of production was made from the perspective of the private property examined as a part of eternal and unchanging 'human nature'. During perestroika, the discreditation of Marxism became a dominant policy and a serious discussion on the logic of Marx's *Capital* was impossible.

Instead of an epilog: the relevance of the logic of Marx's *Capital*

Rethinking the Hegel–Marx relationship and especially their works *Science of Logic* and *Capital* provides the opportunity to address crucial philosophical and methodological problems such as the interrelation between empirical and theoretical thinking and building a system of categories in a particular discipline. The fruitful investigation of the relationship between the logic of Marx's *Capital* and Hegel's *Science of Logic* in the tradition of creative Soviet Marxism can enrich the contemporary discussion on systematic dialectics. In contrast to the prevailing lifeless, formalist attempts to create categories and laws of dialectics within Diamat, the theoretical tradition of the investigation of the logic of Marx's *Capital* is fruitful because it is connected with a critical, systematic reflection on a particular scientific discipline (the political economy of capitalism).

The peculiarity of the first attempts to study the logic of Marx's *Capital* in the USSR lies in their fragmentary, 'partial' nature. The unsuccessful attempts to solve this problem are connected with its exceptional complexity. The investigation of the inner logic of the development of scientific knowledge is a difficult task that requires high theoretical preparation, scrupulous work, patience, and courage to ascend the precipitous paths of science. The investigation of the logic of Marx's *Capital* in its internal connection with Hegel's *Science of Logic* requires the development of creative thinking, capable of deepening, following unknown fields and trajectories, discovering the internal relations of a developing object and the relationship between the essence and its appearance. The reconstruction of a particular, developing object in thought provides a thoughtful perspective on categorical apparatus of science and the process of the development of scientific knowledge. This creative movement of thought is conducted according to the laws of beauty and recreates its object as 'an artistic whole' (Kosik 1976: 107).

Considering important contributions of Rozental, Ilyenkov, Orudzhev, Tipukhin, and Mankovsky, Vaziulin (1968) offered a systematic, detailed, categorical account of Marx's *Capital* in its internal relation to Hegel's *Science of Logic*. This comparative examination enabled him to explore the logic and methodology of the investigation of an organic whole and the conditions of its application in concrete disciplines. The theoretical reconstruction of the capitalist mode of production as an organic whole has provided a creative alternative to the formalism of Diamat that turned out to be isolated from the logic of the development of particular sciences.

Dialectical logic in Marx's *Capital* in its internal connection with Hegel's *Science of Logic* becomes especially important in the 'information age'. Nowadays, it becomes difficult to establish an adequate connection between massive amounts of unstructured data. Information overload may reduce people's creative potential and their ability to think critically. Dialectical logic provides a creative way of transforming the chaotic flow of information into a system of adequate knowledge about the complex and contradictory world in the process of its development and supports practical transformative activity of the people (Vinogradov 2003). Moreover, dialectic logic offers an original perspective to go beyond 'Big Data Capitalism' based on instrumentalism, positivism, reductionism, and mechanical determinism (Fuchs 2019).

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Notes

1. The relationship between the logical and historical methods in Marx's *Capital* was one of the key issues that arose in the discussion on the logic of Marx's *Capital* in the Soviet Union, especially in relation to Engels's review *Karl Marx. A Contribution to the Critique of Political Economy*. However, the examination of this issue is beyond the scope of this article.
2. Victor Alekseevich Vaziulin (30 August 1932 to 08 January 2012) was a professor of the Philosophical Faculty of Moscow State University. His research focused on the logic of K. Marx's *Capital* and, more broadly, on Marxism and its history. Based on the systematic examination of K. Marx's *Capital* in its relation to Hegel's *Science of Logic*, he shed light on the methodology of investigation of an object as an organic whole. This methodology consists of the dialectical unity of the ascent from the abstract to the concrete and the movement of thinking from the concrete to the abstract, as well as in the dialectical unity of the logical and the historical methods. Vaziulin proposed that the logical-historical methodology could be applied and developed substantially in the context of the investigation of society and its history as an organic whole. Vaziulin's book *The Logic of History* is an attempt toward a theoretical reconstruction of the structure of society as a multi-level and subordinated system of interconnected relations and processes (Patelis 2011; Vaziulin 1988). The pupils and followers of Vaziulin founded the International Logical-Historical School (2021).

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