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Marx's Dialectical-Empirical Method of Explanation

El método de explicación dialéctico-empírico de Marx

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ABSTRACT

This paper explores Marx's mature method of dialectical explanation. Drawing from Marx's formulations, the paper proceeds to philosophically elaborate what this method involves. It discloses that: a) all explanatory factors come from prior empirical inquiry; b) this method moves in stages from more abstract levels to more and more concrete levels of explanation; c) the laws figuring in Marx's explanations must be interpreted as dialectical tendencies; d) this method is a sort of dialectical synthesis of the "covering law" and "genetic" models of explanation; and e) that it employs the concrete universal and internal relations as fundamental canons of interpretation.

Key words: Concrete-in-thought, concrete-real, concrete universal, dialectical movement, internal relations.

RESUMEN

Este artículo explora la madurez de la explicación dialéctica del método de Marx. Valiéndonos de las formulaciones del pensador alemán, elaboraremos de modo filosófico las implicaciones de este método. Se revela que: a) todo factor explicativo viene de una pregunta empírica previa; b) este método se desarrolla en etapas desde niveles más abstractos hacia niveles más y más concretos de explicación; c) las leyes que figuran en las explicaciones de Marx deben ser interpretadas como tendencias dialécticas; d) este método es una especie de síntesis dialéctica de la "ley que abarca" y los modelos "genéticos" de explicación: v e) emplea lo concreto universal v las relaciones internas como cánones fundamentales de su interpretación.

Palabras clave: Concreto-de-pensamiento, lo concreto-real, lo concreto universal, movimiento dialéctico, relaciones internas.

This paper presents a methodological exploration that brings out the interrelated dimensions of Marx's dialectical-empirical method of explanation, and also provides some philosophical warrant for the viability of this method.¹ It sets out from the vantage point of the central core of Marx's own formulation on method that appears in his Introduction to the *Grundrisse*. Marx writes:

[T]he method of rising from the abstract to the concrete is only the way in which thought appropriates the concrete, reproduces it as the concrete in mind. But this is by no means the process by which the concrete itself comes into being... The concrete is concrete because it is the concentration of many determinations, hence unity of the diverse. It appears in the process of thinking, therefore, as a process of concentration, as a result, not as a point of departure, even though it is the point of departure in reality and hence also the point of departure for observation and conception.²

Our central concern in what follows will be the exploration of just what is involved in this movement from the abstract to the concrete. A proper understanding of this method requires a clear comprehension of the following points: a) A distinction must be made between the concrete-in-thought and the concrete-real. b) The movement from abstract to concrete does not purport to be generative of the concrete-real. c) Neither is the movement from the abstract to the concrete a movement in which the concrete-in-thought can be deductively inferred from the abstract. d) This movement is undertaken within a framework of internal relations. e) The internal relations at play in Marx's thought must be interpreted in terms of the notion of the concrete universal. f) The movement from abstract to concrete aims at the construction of the concrete-in-thought, which is constituted as a complex of interconnected factors whose pattern of interconnection represents in thought the dynamic structures of the concrete-real. g) The movement proceeds in stages from more abstract to more concrete levels of analysis. h) The laws that figure in Marx's explanations have to be interpreted as dialectical tendencies. i) Marx's model of scientific explanation is a synthesis of the "covering law" model and the genetic model. We proceed now to develop each of these points.

THE CONCRETE-REAL, THE CONCRETE-IN-THOUGHT, AND THE GENERAL NATURE OF THE DIALECTICAL MOVEMENT

The distinction that Marx makes between the "concrete in mind" and the "concrete itself," in the above-quoted passage, must be clearly drawn if Marx's formulations on method are not to be subjected to systematic distortion –and even mystification. Louis Althusser, for one, has clearly underscored this distinction in his essay "On the Materialist

¹ This paper is adapted from BRIEN, KM. (2006): "The Dialectical Movement from the Abstract to the Concrete", in: Marx, *Reason, and the Art of Freedom*, 2nd Ed. Humanity Books, Amherst, NY, pp. 17-44. For more fully elaborated notes concerning this paper consult the original text. I gratefully acknowledge the kind permission of the Editors of Humanity Books to adapt material from a chapter of this book for use in this paper.

² MARX, K (1973). Grundrisse. Trans. and with a Foreword by Martin Nicolaus. Penguin Books. Middlesex, England, p. 101.

Dialectic" in *For Marx*, and we shall adopt some of his comments here. In relation to Marx's suggestion that "the correct scientific method' is to start with the abstract to produce the concrete in thought," Althusser explains that care must be taken "if we are not to believe that the *abstract* designates theory itself (science) while the *concrete* designates the real." He points out that there are "*two different concretes:* the *concrete-in-thought* which is a knowledge, and the *concrete-reality* which is its object." ³

However, the movement from abstract to concrete as understood by Marx, in contradistinction to Hegel, simply does not fall into the position of maintaining that the concrete-real is itself generated out of thought, thinking, or the abstract. It is important to note here that Marx explicitly distinguishes himself from Hegel who, in Marx's view, "fell into the illusion of conceiving the real as the product of thought concentrating itself, probing its own depths, and unfolding itself out of itself." ⁴ Marx makes this distinction in the very context in which he speaks of his own method as "the method of rising from the abstract to the concrete." Along these same lines Althusser points out that the movement "whereby the 'abstract' becomes the 'concrete,' only involves the process of theoretical practice, that is, it all takes place 'within knowledge."³ The movement from the abstract to the concrete is a theoretical movement from the abstract to the concrete-in-thought, not to the concrete-real, although to be sure the objective is always the comprehension in thought of the concrete-real. We note here, and shall explain more fully later, that "the abstract" connotes a more general theoretical characterization of a given ontological domain in the concrete-real, whereas "the concrete" connotes a more specific theoretical characterization of the same domain.

It is equally important to note that the movement from the abstract to the concrete-in-thought is not a movement in which the concrete-in-thought is deductively derived from the abstract. As Marx points out, the concrete-in-thought is "not in any way a product of the concept which thinks and generates itself outside or above observation and conception; [the concrete-in-thought is] a product, rather, of the working-up of observation and conception into concepts." ⁶ This means that the conceptual elaborations presented in the movement from abstract to concrete are not established by the movement itself. Rather, the movement from the abstract to the concrete-in-thought is a movement that systematically reconstructs conceptual interconnections that have been disclosed via prior dialectical-empirical inquiry preceding the explanatory movement itself.⁷ Such systematic presentation proceeds from more abstract levels of analysis that provide a more general comprehension of the ontological structures of a given domain, to more and more concrete levels of analysis that provide more specific comprehension of the given ontological domain. It is definitely not an attempt to give an *a priori* elaboration of what is the case. It is rather a method

- 5 ALTHUSSER, L (1973). Op. cit., p. 185.
- 6 MARX, K (1973). Op. cit., p. 101.

³ ALTHUSSER, L (1970). For Marx. Trans. Ben Brewster. Vintage Books, New York, p. 186.

⁴ MARX, K (1973). Op. cit., p. 101.

⁷ For some good explanation of the contrast between dialectical and non-dialectical modes of empirical research, see ENGELS, F (1966). Anti-Dühring. Trans. Emile Burns, and ed. C. P. Dutt. International Publishers, New York, pp. 27ff.

of explanation that arranges the material gathered in research into a coherent whole in which diverse phenomena can be explained in their interconnectedness. Through all phases of the movement from the abstract to the concrete-in-thought, the particular content of the particular relations that are introduced into this movement *as* factors is a content that derives from the findings of prior dialectical-empirical research. ⁸ The research preceding the explanatory movement is of course undertaken and interpreted within a framework that comprehends reality as a developing process of internally related aspects.

PRELIMINARIES ON INTERNAL RELATIONS AND THE CONCRETE UNIVERSAL

As we turn now to the theme of internal relations in Marx, we note first that V. I. Lenin and, before him, Engels have already brought out the central importance of internal relations in Marx's thinking –as well as the intellectual debt that Marx owed to Hegel in this regard. ⁹ Hegel's own view of internal relations is summarily indicated in this striking formulation that Lenin quotes in his *Philosophical Notebooks*, in the long section dealing with Hegel's *Science of Logic* –a work which had a powerful influence on Marx, even as he was writing *Capital*. (No suggestion, though, that Marx followed Hegel all the way on this theme.) Hegel maintains:

A determinate or finite Being is such as refers itself to another; it is a content which stands in a relation of necessity with other content or with the whole world. In view of the mutually determinant connection of the whole, metaphysics could make the assertion –which is really a tautology– that if the least grain of dust were destroyed the whole universe must collapse.¹⁰

More recently, Bertell Ollman has addressed the issue of internal relations in Marx in his fine book *Alienation: Marx's Conception of Man in Capitalist Society*. Ollman brings out that all Marx's social factors have to be understood in terms of internal relations. He writes:

According to the common sense view, a social factor is taken to be logically independent of other social factors to which it is related. The ties between them are contingent, rather than necessary.... One can logically conceive, so the argument goes, of any social factor existing without its relations to others. In Marx's view, such relations are internal to each factor (they are ontological relations), so that when an important one alters, the factor itself alters; it becomes something else.¹¹

⁸ Marx even projects the economic categories which figure in his analysis as forms of existence of the concrete-real under investigation. See MARX, K (1970). Op. cit., p. 106.

⁹ See, e.g., ENGELS, F (1941). "Dialectical Materialism", in: Ludwig Feuerbach and the Outcome of Classical German Philosophy. Ed. C. P. Dutt, International Publishers, New York, pp. 42-61.

¹⁰ Hegel, quoted by LENIN, V. I. (1961): *Philosophical Notebooks*, Vol. 38 in Collected Works. Trans. Clemens Dutt, and ed. Stewart Smith. Foreign Languages Publishing House, Moscow, p. 106.

¹¹ OLLMAN, B (1971). Alienation: Marx's Conception of Man in Capitalist Society. Cambridge University Press, Cambridge, p. 15.

In bringing out the critical importance of internal relations in getting at Marx's dialectical method of inquiry, Ollman writes that "the dialectical method of inquiry is best described as research into the manifold ways in which entities are internally related." ¹² However, Ollman's view of Marx's "method of inquiry" has an important lacuna, which ramifies in such a way that his treatment of Marx's "method of explanation" becomes deficient in important ways. We speak here of the notion of the concrete universal. Ollman gives no attention to this. But, as will emerge in the text ahead, the notion of the concrete universal is just as important for understanding Marx's dialectical method of analysis as is the notion of internal relations. Indeed, the two are conceptually interwoven in Marx's thinking. (In this connection we cite Lenin's excited comment made in relation to one of Hegel's formulations concerning the concrete universal. He writes in his *Philosophical Notebooks:* "A beautiful formula: 'Not merely an abstract universal, but a universal which comprises in itself the wealth of the particular, the individual, the single' (all the wealth of the particular and single!)!! Très Bien!" ¹³

INTERNAL RELATIONS, CRITICAL APPROPRIATIONS, AND INDIVIDUATION

Since it is the special concern of this paper to bring into clear focus the structure of Marx's mature method of scientific explanation, we must provide formulations of a theory of internal relations and of the concrete universal that will be in keeping with this objective. In developing such formulations we will deliberately avoid the thickets of Hegel, and instead take recourse outside Hegelian and even Marxist circles to Brand Blanshard's work *The Nature of Thought*. ¹⁴ However, we shall present a critical appropriation of Blanshard's analysis. We do this because of the clarity of his analysis of internal relations and the concrete universal; because he understands the conceptual interconnection between internal relations and the concrete universal;¹⁵ and because Blanshard gives his formulations at a level of abstraction that will be extremely helpful in our task of bringing Marx's method of scientific explanation into clear focus. We deal first with the analysis of internal relations, and then later with the analysis of the concrete universal. Blanshard's view of the theory of internal relations is indicated by the following three theses which hold:

(1) [t]hat every term, i.e., every possible object of thought, is what it is in virtue of relations to what is other than itself; (2) that its nature is affected thus not by some of its relations only, but in differing degrees by all of them, no matter how external they may seem; (3) that in consequence of (2) and of the further obvious fact that everything is related in some way to everything else, no knowledge will reveal

15 BLANSHARD explains that "it is evident that just as the abstract universal and external relations are natural allies, so are the concrete universal and internal relations." *Ibid.*, Vol. 2, pp. 459-60.

¹² Ibid., p. 62.

¹³ LENIN, V.1 (1961). Op. cit., p. 99.

¹⁴ BLANSHARD, B (1939). The Nature of Thought, 2 Vols. Allen & Unwin, London.

completely the nature of any term until it has exhausted that term's relations to everything else. $^{16}\,$

In developing our critical appropriation of Blanshard's formulation, it is important to indicate first that Blanshard's analysis of internal relations is cast within the framework of a philosophical idealism. Thus we cannot simply adopt his analysis just as it stands, but will instead work toward a critical appropriation that will serve our main objective of bringing Marx's method of scientific explanation into clear focus.

As we proceed to do this, we note next that Blanshard intends to project his view of internal relations as having *linguistic* and *ontological* dimensions.¹⁷ We mention this distinction in emphasis, in view of the frequent attempt to discharge the theory of internal relations, on the basis of linguistic conventions that operate within a universe of discourse already committed to an ontology of *external* relations.¹⁸ The formulation of internal relations that we present below is intended to have an ontological emphasis, but the formulation is cast within a universe of discourse in which linguistic conventions suitable to an adequate understanding of an ontology of internal relations are already operative. And it points in the direction of what language and thought must do if they are to comprehend the concrete-real as understood by Marx.

To bring out what is involved in our critical departure from Blanshard, let us focus attention on the third thesis of his formulation. As we bear in mind the reference to terms in the concrete that Blanshard intends to make with his usage of "the nature of any term", ¹⁹ we recognize that his third thesis raises the question of the degree to which reality can be regarded as intelligible. Is reality intelligible through and through, or only to a degree? Is it possible in principle for thought to achieve an exhaustive grasp of the internal relations that obtain in the concrete? Is exhaustive knowledge of the concrete theoretically possible?

If we go beyond Blanshard's formulation of the theory of internal relations to the wider conceptual framework within which it functions, it seems clear that Blanshard's view of the relation between thought and reality, together with his view of coherence as the nature of truth, involves a commitment to the view that reality *is* intelligible through and through. ²⁰ Blanshard certainly does not mean to suggest that exhaustive knowledge of the concrete is required in order to have any knowledge at all. ²¹ Yet the main thrust of his thought seems to rest on the theoretical possibility of a unique coherent system-in-thought, which would articulate without residue all the infinitely complex internal relations that ob-

- 17 See *ibid.*, pp. 453, 484, and 488.
- 18 See BRIEN, KM (2006). *Op. cit.*, p. 269, for a critique of Ernst Nagel's well known attempt to dismiss Blanshard's understanding of internal relations.
- 19 A later passage makes this clear. BLANSHARDwrites: "The terms we are discussing are not abstractions, but terms in the concrete". BLANSHARD, B (1939). Op. cit., Vol. 2, p. 484.
- 20 For some passages that disclose the conceptual setting within which Blanshard's formulation of the theory of internal relations functions, see BLANSHARD, B (1939). *Op. cit.*, Vol. 1, pp. 632-33 & Vol. 2, pp. 260-64, 276, and 449.
- 21 Ibid., Vol. 1, pp. 488-89.

¹⁶ Ibid., p. 452.

tain in the concrete. ²² As against Blanshard's position, the formulation of the theory of internal relations that we shall develop explicitly rules out the possibility of exhaustive knowledge of the concrete. Moreover, our formulation indicates a direction in which it is possible to understand how there can be partial knowledge of the concrete-real in a framework of internal relations. The key element in understanding this possibility is the introduction of the notion of structure into the very meaning of the theory of internal relations. This is another critical departure from Blanshard's formulation of internal relations.

One key thinker who has done much to develop an understanding of the kind of structure at play in Marx's conception of "concrete totality" is Louis Althusser.²³ In *For Marx* Althusser speaks about the projection by Marx of "the ever-pre-givenness of a structured complex unity."²⁴ He says that for Marx "the complex whole has the unity of a structure articulated in dominance." ²⁵ Now Althusser does not himself explicitly associate what he says about structure with a philosophy of internal relations. Yet it seems clear that he all along presupposes a framework of internal relations in his discussions about structure, so that "each essential articulation of the structure" is internally related to the other articulations of the structure. ²⁶ In any case, the formulation of internal relations we shall present is further differentiated from Blanshard's by the explicit introduction of the notion of structure into the theory of internal relations.

In Althusser's treatment of Marx, structure is emphasized, whereas internal relations are left more or less implicit. This contrasts with Ollman's treatment where internal relations are emphasized and structure is more or less implicit –although Ollman himself does not want to use the term "structure". However, although Althusser's analysis of the structures in Marx's conception of "concrete totality" is quite important as far as it goes, there is also a significant lacuna in his treatment too, inasmuch as Althusser fails to address explicitly the notion of the concrete universal. He does not give an account of the level-by-level development of integrated dialectical structures leading from the abstract to the concrete –a cognitive process that characterizes Marx's mature dialectical method of explanation. Moreover, without taking explicit account of concrete universals, together with an explicit account of internal relations and structure, he cannot do so. The methodological result is that Althusser winds up getting stuck on one level of abstraction that blocks his view of a *more concrete* "concrete totality" than the one he presents –and which blinds him to the recognition of the central importance of alienation for the mature Marx, and to the possibility of taking account of alienation on the more concrete levels of analysis.²⁷

- 22 One might interpret BLANSHARD to be advancing the weaker thesis that "nothing is unknowable," rather than the thesis that "everything could be known at once"–in principle at least.
- 23 On the theme of structure, see ALTHUSSER, "On the Materialist Dialectic", in: For Marx, pp. 163-218.
- 24 Ibid., p. 199.
- 25 Ibid., p. 202.
- 26 The phrase "each essential articulation of the structure" recurs throughout Althusser's analysis.
- 27 In this context, let me say a few words concerning the way in which Althusser's failure to take account of the difference between the abstract universal and the concrete universal constitutes a major flaw, which (apart from the evidence of the *Grundrisse*, and other mature works of Marx) undermines an argument he gives in *For Marx*. He claims that Marx "radically broke" with the positions that he had taken in his early works on alienation, humanism, etc. According to Althusser, Marx supposedly adopted a "theoretical antihumanism" in 1845, with what he calls the "works of the break," *The German Ideology*, and "The Theses on Feuerbach"

We return now to the theme of internal relations. Remember that our formulation of the theory of internal relations is intended to have an ontological emphasis. Although this formulation very clearly abstracts from much specific content, it is projected with an eye on the concrete-real, and thus with an eye on the diversity and differentiation that obtain therein. Care must be taken that an emphasis on interconnection and integration within the concrete-real –a proper emphasis considering the current predominance of the theory of external relations– be balanced by due attention to differentiation and diversity within the concrete-real. The theory of internal relations does not view things as interconnected in a way that obliterates differentiation. Rather, the concrete-real is viewed as a field of differentiation-in-integration. And knowledge of the concrete-real is possible to the extent that the internal relations obtaining in the concrete field of differentiation-in-integration establish themselves in articulable structures.

We stress that the structures to which reference is made here cannot be conceived as structures that are ontologically independent of the internally related concrete field of differentiation-in-integration. The structures referred to are structures embedded right within the concrete field, and thus share the relational quality of the concrete field itself. This means not only that the structures arising within the concrete field are internally related to the concrete field, but also that the various articulations of the structure of the concrete field are articulations that themselves bear *internal* relations to one another. With this critical discussion of Blanshard behind us, we formulate the theory of internal relations in Marx by the following six theses:

- 1. If the very being (i.e., the ontological structures) of two entities in the concrete-real is constituted to be what it is by the interconnections that the entities have with one another, we shall say the entities and internally related.
- 2. If the very being of two entities in the concrete-real is not constituted to be what it is by the interconnections that the entities might have with one another, we shall say that the entities are externally related.
- 3. Every concrete-real is constituted to be what it is through the internal relations it has with some other entities.
- 4. The nature of every concrete-real is constituted to be what it is not by some of its internal relations only, but in differing degrees by all of them.
- 5. Complete knowledge of any concrete-real would require an exhaustive comprehension of the relation of that concrete-real to everything else with which it is internally related directly and indirectly; and since this is not possible, complete knowledge of the concrete-real is not possible.

⁽see For Marx, pp. 34 and 229). In these works, Althusser rightly sees Marx as theoretically pitted against philosophical positions which hold that there is a "universal essence of man," such that "this essence is the attribute of *each single individual*"-that is, against philosophical positions which hold that "it is essential that each carries in himself the whole human essence, if not in fact, at least in principle" (see For Marx, p. 228). In these formulations we have the *abstract universal* in play. Although it is true that with *The German Ideology* Marx wanted to dissociate himself from the language of essences, so as to prevent misunderstanding of his own position, his own early humanism was never committed to abstract essences of the traditional sort. Contrary to the assumption at play in Althusser's claims about a "radical break" between the early and late Marx, Marx's *early and later* humanism, and the notion of essence associated with it, was always projected in terms of the concrete universal and not in terms of the abstract universal.

6. Even so, some knowledge of the structure of the concrete-real is possible to the extent that the infinitely complex internal relations that obtain among concrete-reals establish patterns of concrete differentiation-in-integration whose broader structures can be grasped in thought.

(A comparison of our formulation with Blanshard's will reveal that our third and fourth theses are adopted from the first two theses of Blanshard's, but with minor changes in terminology that serve to underscore the ontological emphasis of our own formulation. However, the fifth thesis of our formulation constitutes a departure from Blanshard, a departure which is further developed in our sixth thesis. The *first* two theses we give round out the formulation.)

All this, especially the concept of structure that is at play in the framework of internal relations, will become clearer as we go on with our explanation of the remaining points in our treatment of Marx's method of moving from the abstract to the concrete. But prior to further development along these lines, some indication of how individuation is possible within a framework of internal relations is in order. We shall draw from Ollman's explorations of this issue, which were undertaken in *Alienation*. Linking his own discussion of individuation back to the work of Joseph Dietzgen, Ollman explains:

According to Dietzgen... the whole is revealed in certain standard parts (in which some thinkers have sought to re-establish the relations of the whole), because these *are* the parts in which human beings through conceptualization have actually fragmented the whole. The theoretical problem of individuation is successfully resolved by people in their daily practice. The fact that they do not see what they are doing as individuating parts from an interconnected whole is, of course, another question and one with which Dietzgen does not concern himself.²⁸

The central thesis of this passage is that individuation is a function of everyday practical activity lifting into conceptual relief some particular aspect of the concrete field of differentiation-in-integration. Carrying this theme further forward we cite Karel Kosik's great work on *Dialectics of the Concrete*, and we adopt his resolution to the problem.

> [He writes that reality stands out to man primarily] as the realm of his sensory-practical activity, which forms the basis for immediate practical intuition of reality... Immediate utilitarian praxis and corresponding routine thinking... allow people to find their way about in the world, to feel familiar with things and to manipulate them, but it does not provide them with a *comprehension* of things and of reality... The collection of [individuated] phenomena that crowd the everyday environment and the routine atmosphere of human life, and which penetrate the consciousness of acting individuals with a regularity, immediacy, and self evidence that lend them a semblance of autonomy and naturalness constitutes the world of the *pseudoconcrete*...What lends these [individuated] phenomena a pseudoconcrete character is not their existence as such but the apparent autonomy

of their existence. In destroying the pseudoconcrete, dialectical thinking does not deny the existence or the objective character of these phenomena, but rather abolishes their fictitious independence by demonstrating their mediated-ness, and counters their claim to autonomy with proving their derivative character.²⁹

A particular aspect of the concrete-real is individuated on the basis of practical activity that differentiates it from other aspects. However, dialectical cognition can proceed to make explicit the internal connections that obtain between the given aspect and other aspects which have been individuated in the same way, that is, internal relations that are masked in everyday practical activity. Thus it is through dialectical cognition that individuated phenomena, which have become solidified into the pseudoconcrete on the basis of everyday practical activity, find their adequate comprehension in an appropriately structured complex of internal relations.

THE DIALECTIC AS PRESENTATION VERSUS THE DIALECTIC AS INQUIRY

Now let us consider the objective toward which the movement from the abstract to the concrete is oriented. In general terms, perhaps the most significant thing is that the movement from the abstract to the concrete aims at knowledge of the concrete-real, where such knowledge is rendered in terms of a comprehension of the structures of some domain of the concrete-real. (In view of the frequent equation of knowledge with "certain knowledge" in the Western philosophical tradition, care should be taken here to note that "knowledge" as understood in this context carries with it no pretensions as to certainty.)

The concrete-in-thought is essentially a complex hypothesis concerning the structure of some domain of the concrete-real. It constitutes the structure of the concrete-real as grasped in thought. The "grasping in thought and language" of some domain of the concrete-real is rendered through the comprehension of a complex of internally related factors. Their pattern of interconnection in thought constitutes the conceptual model for comprehending the broader structures of the concrete-real. Indeed, the structure of the concrete-in-thought can be regarded as the conceptual reflection of the structure of the concrete-real, but a reflection that is deliberately constructed. ³⁰ All the internally related factors, whose pattern of interconnection constitutes the concrete-in-thought, have been selected with a view toward revealing the structure of some domain of the concrete-real. Thus it is not simply that the concrete-in-thought reflects the structure of the concrete-real, but that it is intentionally constructed with a view toward revealing that structure. The construction of the concrete-in-thought proceeds with continual ontological reference to the concrete-real itself.

Each of the internally related factors –whose pattern of interconnection constitutes the concrete-in-thought for a given domain of the concrete-real– describes and refers to some aspect of the concrete field. A given aspect is projected as an essential articulation of the structure of the given domain of the concrete-real. Each aspect is then lifted into con-

²⁹ KOSIK, K (1976): Dialectics of the Concrete. Trans. Karel Kovanda with James Schmidt, and ed. by Robert S. Cohen and Marx Wartofsky. D. Reidel Publishing Co., Dordrecht, pp. 1-6.

³⁰ On the theme of "reflection," consult LENIN, L (1961). Op. cit., p. 182.

ceptual relief and brought into developed conceptual interconnection with other factors, which have themselves been projected as the conceptual grasping of other essential articulations of the structure of the concrete-real.

Next we consider the problem of the relation between "the abstract" and "the concrete" in Marx's thought. Melvin Rader has a very interesting chapter on "The Abstract and the Concrete" in his outstanding work on *Marx's Interpretation of History*. Therein, Rader explains:

The word "abstract" is derived from the Latin verb *abstrahere*, "to draw away," meaning to withdraw or separate in thought or in objective matter of fact. In thought, abstracting is the focusing of attention on some part or aspect of an object, usually for the purpose of contemplation or understanding.... Sometimes the verb "to abstract" means not simply to focus but objectively to separate. Hegel, for example, says that to amputate an arm is to abstract it from the human body. Marx likewise uses "abstract" to designate severance from a larger whole The term "concrete" is derived from the past participle of the Latin verb *concrescere*, meaning to grow together. As used by Hegel and Marx, the concrete is that which has organically grown together and remains unfragmented. It is the whole in its integrity. If we think of an object *as a whole*, we are thinking of it concretely. "Concrete" means taken all together – "abstract" means taken piecemeal. ³¹

Rader goes on to bring out that, whereas Marx uses abstraction as a device to isolate and bring into conceptual relief some aspect of a concrete whole for purposes of investigation, he always "rebinds the parts thus dissected, and he objects to substitution of an abstraction in place of the concrete totality." ³² Rader proceeds to explain the various ways in which Marx inveighs against uses of abstraction which do not thus rebind the isolated aspect with some relevant concrete totality. Such uses of abstraction include the reification of abstract essences; the treatment of some isolated dimension of consciousness, such as reason, passion, volition, and the like as if it were the whole person; and the treatment of economic facts in isolation from the specific organic whole within the context of which they come to be what they are.

Now this kind of concern about "the abstract" and "the concrete" permeates all Marx's thinking. However, there is another kind of relation between "the abstract" and "the concrete" that we must explore if we are to appreciate Marx's distinctive method of scientific explanation. And to do this we must recognize the distinction between the "dialectic as inquiry" and the "dialectic as presentation." Here we cite Marx's own formulation in his Preface to *Capital* where he writes:

Of course the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyze its different forms of development, to trace out their inner connection. Only after this work is done, can the actual movement be adequately described. If this is done successfully, if the

³¹ RADER, M (1979). Marx's Interpretation of History. Oxford University Press, New York, pp. 150-51.

³² Ibid., p. 159.

life of the subject-matter is ideally reflected as in a mirror, then it may *appear* as if we had before us *a mere a priori* construction. (Emphasis added)³³

Ollman picks up on this distinction in his chapter on "Dialectic as Inquiry and Exposition," where he rightly brings out that "the dialectical method of inquiry is best described as research into the manifold ways in which entities are internally related." ³⁴ And Ollman further indicates that in investigating the ways in which entities are interrelated, Marx "began with each part in turn, continuously altering the perspective in which their union was viewed," ³⁵ all with the objective of trying to get at the "essential connections" of phenomena –the "hidden substratum."

But when we come to Ollman's account of the "dialectic as presentation," the situation is not much different. On this theme Ollman says: "The two outstanding features of Marx's use of the dialectic for presentation are, first, that each subject is dealt with from many different vantage points, and second, that each subject is followed out of and into the particular forms it assumes at different times." ³⁶ The first feature already characterizes Marx's "dialectic as inquiry" on Ollman's own account; the second feature that Ollman mentions also characterizes Marx's own procedure in the "dialectic as inquiry." Thus, if we follow Ollman, the "dialectic as presentation" collapses into the "dialectic as inquiry."

And although Ollman does make passing reference to Paul Sweezy's characterization of Marx's method of explanation as a method of "successive approximations," Ollman gives no mention of Sweezy's position that such successive approximations are rendered in terms of successive "levels of abstraction." ³⁷ We return to Sweezy's formulation in a few paragraphs. But let us first consider some further problems with Ollman's characterization of Marx's method of explanation.

Perhaps the most significant lacuna in Ollman's treatment is the failure to take up the problem of the concrete universal. This problem is one that goes hand in hand with the problem of internal relations not only in Marx, but in Hegel before him. In addition, Ollman shows no appreciation for the crucial importance that Marx attached to finding the proper beginning for the "dialectic as presentation." ³⁸ Indeed, for Ollman the beginning seems to be completely arbitrary. In a revealing footnote he writes:

On my view, in attempting to reconstruct the whole from each major vantage point, Marx is erecting –if we insist on this expression– as many structures of the whole as there are major units in his analysis.... The difference in where we begin

- 34 OLLMAN, B (1971). Op. cit., p. 62.
- 35 Ibid., p. 64.
- 36 Ibid., pp. 67-68.
- 37 Ibid., p. 68.

38 For developed analysis of what constitutes the "proper beginning" for the dialectic of presentation (including a critique of misleading suggestions on this issue by Martin NICOLAUS in the Foreword of his translation of the *Grundrisse*), see BRIEN, KM (2006). Op. cit., pp. 41-44.

³³ MARX, K (1967). Capital, Vol. 1. Trans. Samuel Moore and Edward AVELING, and ed. Frederick Engels. International Publishers, New York, p. 19.

leads to a difference in perspective, in the size and importance of the other factors, and in the relevance of the various ties between them.³⁹

Furthermore, although Ollman gives due attention to the theme of complexity in Marx's thinking, he does not see structure in this complexity. He even chides Althusser on this account, writing that "Althusser has in fact confused structure with complexity.... The transition, apparently slight but possessing serious ramifications, from the idea of complexity to that of structure, has no basis in Marx's text." ⁴⁰ In response we say that although it is true that Marx mostly speaks about an "organic system," an "organic totality," a "feudal system," or a "system of production," Marx is concerned to *analyze* the complexities of these systems and totalities. And what is this, if not to bring out their structures? Perhaps Ollman is reacting against the static connotation that the term "structure" has for many of the French structuralists. However, in Athusser's case we have a dialectical structuralism, albeit a truncated dialectical structuralism –not a static one. Finally, we indicate that, taken all together, the various shortcomings in Ollman's view of Marx's method of explanation ramify in such a way that Ollman sees the meanings of Marx's terms to be much more ambiguous and fluid than they really are. ⁴¹

These criticisms made, we next turn to Paul Sweezy's formulation in *The Theory of Capitalist Development*, where he describes Marx's method of analysis as a "method of 'successive approximations,' which consists in moving from the more abstract to the more concrete in a step-by-step fashion, removing simplifying assumptions at successive stages of the investigation so that theory may take account of and explain an ever wider range of actual phenomena." ⁴² Referring to *Capital*, Sweezy goes on to explain that:

Volume I begins and remains on a high level of abstraction.... [T]he results achieved in Volume I have a provisional character. In many cases, though not necessarily in all, they undergo a more or less extensive modification on a lower level of abstraction, that is to say, when more aspects of reality are taken into account.... [T]he intent of Volumes II and III was to take into account factors which were consciously left out of Volume I, that is to say, to bring the analysis to progressively lower levels of abstraction.⁴³

But not only are there successive stages in the movement from abstract to concrete as Sweezy brings out; it is also necessary to recognize that the conceptual elaboration of each more concrete stage is undertaken *within the broader structural framework* of the more abstract stage. This must be clearly grasped if the full explanatory power of Marx's method of analysis is to be understood.

39 OLLMAN, B (1971). Op. cit., p. 266.

⁴⁰ Ibid., p. 267.

⁴¹ On Ollman's view of Marx's use of language, and of the meaning of his terms, see his chapter "With Words That Appear Like Bats", in: (1971). *Op. cit.*, pp. 3-11.

⁴² SWEEZY, PM. (1970). The Theory of Capitalist Development. Monthly Review Press, New York, p. 11.

⁴³ Ibid., pp. 18-19.

We have seen that the movement from the abstract to the concrete aims at the construction of the concrete-in-thought, which in turn is projected as representing through its structure the structure of some domain of the concrete field. The movement from abstract to concrete can be thought of as the gradual elaboration of a *conceptual field* of differentiation-in-integration, the final result of which is the concrete-in-thought. The elaboration of the conceptual field begins with less complex patterns of differentiation-in-integration, namely, those abstract relations that constitute the first broad strokes in the conceptual field. As the elaboration of the conceptual field continues, more complex patterns of differentiation-in-integration are developed within the dialectical framework of the less complex patterns of differentiation-in-integration, and so on. In the course of this gradual elaboration of the conceptual field, the structure of the concrete-in-thought comes more and more fully, as well as more clearly, into view.

THE CONCRETE UNIVERSAL VERSUS THE ABSTRACT UNIVERSAL

To further develop an appropriate understanding of how the more abstract level of analysis constitutes a dialectical framework for the more concrete levels of analysis, it is necessary now to take up the theme of the concrete universal. This is so because all the universal terms that would point to specific factors introduced at the various levels of analysis have got to be interpreted in terms of the concrete universal, not the abstract universal of traditional Western philosophy. As we explain the concrete of the concrete universal, we shall see that the theory of the concrete universal provides a key for understanding Marx's method of moving from the abstract to the concrete. Since the concrete universal, we need to look first at the abstract universal.

Drawing once more on Blanshard's help, we single out these passages from *The Nature of Thought* with a view toward getting clear about the abstract universal. Concerning the general idea as interpreted by traditional formal logic, Blanshard writes:

Such an idea is the thought of a class, and a class is a set of objects with one or more attributes in common. To think the idea "horse" is to refer at once to the set of attributes in virtue of which we identify an animal as a horse, and to all the Dobbins, Black Beautys, and Man-o'-Wars that possess those attributes. The set of common attributes is called the *intension* of the class name, the individuals in which they occur its *extension*. Of these two sides of the idea's meaning, the intension is more interesting. For it is the intension that gives what is distinctive and characteristic; when we think of anything whatever, we do so through thinking of its character. Now what is the character we think of when we use a general idea? Formal logic answers with its doctrine of the "abstract universal." It answers that what is before us is the logical intension, that when we think of horses in general, we refer, so far as we refer to character at all, merely to the set of attributes which all horses possess in common.

Suppose that the object of my general idea is an abstract universal in the sense defined; to reach the thought of its species, I shall then keep this as a nucleus and add features from the outside. "From the outside" is important. For the species are not now conceived as forms that the genus must take in order to be at all. The relation is purely casual; you may add to the nucleus any characters whatever, provided only that they are not incompatible, and get a species of a genus.⁴⁵

This view of the universal that interprets the universal as an abstract essence, which inheres unmodified in its species, is quite foreign to the universe of discourse that Marx has adopted for his understanding of reality. ⁴⁶ In commenting on the theory of the abstract universal Blanshard points out –and Marx would have agreed– that "in spite of its attractive simplicity, this view of the universal is false.... Its error lies in misconceiving the relation between the universal and what falls under it, in supposing that genus and species are so externally related that, in thought if not in fact, they may be cut apart without damage to either." ⁴⁷

In attempting now to provide an understanding of the concrete universal suitable to Marx's universe of discourse, we again draw from Blanshard's highly valuable discussion of the concrete versus the abstract universal in *The Nature of Thought.*⁴⁸ We note in passing, though, that Blanshard's discussion of these issues is cast within the framework of a metaphysical idealism, and therefore could not be taken over whole cloth into Marx's universe of discourse. Blanshard's discussion would have to be "critically appropriated." One vitally important consideration that would guide such a critical appropriation is the distinction marked above between the concrete-in-thought and the concrete-real –a distinction that for present purposes must be seen as involving a distinction between the "species in thought" and the "species in the concrete real." We shall see that the primary focus for understanding the concrete universal is the relation between the universal and the "species in thought."

With the above caution concerning the critical appropriation of the whole range of Blanshard's discussion of the concrete universal, we cite a particular passage in which Blanshard points to the nerve of the theory of the concrete universal –a passage which as it stands could have been cast within Marx's own universe of discourse. The passage reads:

[A] genuine grasp of the universal carries a grasp of the species with it. Where such a grasp is really present, the bringing to light of the species is not a random running over of attributes with which the nuclear ones have been associated... It is rather the making explicit and detailed of what was germinally present already, the evolution of the undeveloped; not the enumeration of associates... The universal is not an extract from its species. It is *the undeveloped schema of its species*,

⁴⁵ Ibid., p. 585.

⁴⁶ In this context consider also the way in which Wittgenstein dissociates himself from the traditional view of the abstract essence that supposedly inheres in, and is common to, its various species. See WITTGENSTEIN, Ludwig (1965): *Philosophical Investigations*. Trans. G. E. M. ANSCOMBE. Macmillan, New York, especially sections 65-77 and 139-41.

⁴⁷ BLANSHARD, B (1939). Op. cit., Vol. 1, pp. 583-84.

⁴⁸ See Ibid., especially pp. 581-627.

which is neither their lowest common denominator nor their explicitly set out sum, but that which *contains them within itself as its alternate possibilities*. (Emphasis added) ⁴⁹

Let us examine this passage *as if* it actually had been cast within Marx's universe of discourse; we hope that a clear understanding of the concrete universal as it functions in Marx's universe of discourse will emerge as we go on. First, concerning the relation between the universal and "species in thought," we stress that the relation is an internal one. It is not the case that the universal obtains independently of its concrete elaborations in thought. Instead, the universal is to be understood as a schema projected toward its concrete elaborations, and implicitly contains them within itself by virtue of the fact that it means them. Thus the concrete universal is itself a movement from abstract to concrete. This will seem less puzzling if the explicit articulation of the schema is viewed as having been developed against the background of an implicitly understood sense of the more concrete elaborations *so as to be* the schema that in its projection embraces them as its concrete elaborations.

Second, we distinguish a particular type of schema which, although not characteristic of the theory of the concrete universal, can nevertheless be brought compatibly within its framework. This is important because it indicates how the abstract universal can be "converted" into the concrete universal. Consider the set of features that in traditional logic constitutes the class intension which defines a given abstract universal. Drop off from this set of features the interpretation which they receive in the theory of the abstract universal, and reinterpret this set of features as a schema projected toward its concrete elaborations in thought. Under this interpretation the different concrete elaborations could emphasize different features to different degrees and in different ways. Moreover, the concrete elaborations could even fail altogether to represent some feature (or even features) of the schema. This stands in sharp contrast to the theory of the abstract universal according to which the abstract universal supposedly inheres unmodified in the species, thus having all its features fully realized in the species.

However, the type of schema most naturally associated with the theory of the concrete universal is a relational schema that is explicitly cast as a conceptual pattern of differentiation-in-integration. (The "abstract determinations" with which Marx's explanatory movement begins are of this type, as are all the categories of Marx's analysis.) The different concrete elaborations toward which the schema is projected can emphasize different features of the schema to different degrees, and in such a way that the different concrete elaborations manifest wide differences with respect to the relations that predominate in them and characterize them as concrete elaborations of one particular sort rather than another.

Third, just as the concrete universal is a schema projected toward its concrete elaborations, so too the concrete elaborations in thought can themselves be thought of as potential schemata projected toward still more concrete elaborations in thought. For the "species in thought" does not function like a more concrete *abstract* universal; it functions as a more concrete *concrete* universal –projected, potentially at least, toward its own more concrete

elaborations. Thus the "species in thought" is itself a schema which, in principle, can be indefinitely elaborated in more and more concrete ways so as to more and more fully grasp in thought the detail of the "species in the concrete real." However, the "species in thought" is not able to specify that detail in an exhaustive way. It *cannot become* the "species in the concrete real." But ostensive definition serves in practice to bridge the gap between the "species in thought" and the "species in the concrete real." The "species in thought" at some degree of elaboration or other is projected ostensively toward the "species in the concrete real" as a schema circumscribing in thought the broad features of the concrete-real within whose scope all its finer details would be found to lie.

THE DIALECTICAL NESTING OF LEVELS

We have described the movement from abstract to concrete as the gradual elaboration of a conceptual field wherein the more concrete stages of the movement are developed within the dialectical framework of the more abstract stages. Here we are in a position to more fully explain this. Just as the commodity is the economic cell in the analysis of capitalist society,⁵⁰ so the concrete universal is the conceptual cell in the movement from abstract to concrete, and is itself to be understood as a movement from abstract to concrete.

The elaboration of the conceptual field is the development of a concatenation of interconnected concrete universals arranged in a dialectical hierarchy. Each of the relations at the various levels in the development of the dialectical hierarchy is a schema projected toward its more concrete elaborations in thought. And the relations at a given level taken as an interconnected whole constitute a complex structured schema projected toward its more concrete elaborations in thought. The projection of the structured schema from a given level in the dialectical hierarchy circumscribes in the conceptual field the broad structures within which a range of possible more concrete elaborations in thought could be developed without, however, selecting from among them. The particular concrete elaboration –out of the range of possible concrete elaborations that is actually articulated as the next stage in the movement from the abstract to the concrete– is developed within the more abstract schema in accordance with the findings of the prior dialectic of inquiry.

In turn this more concrete elaboration functions as a still more complexly structured schema projected toward its own more concrete elaborations. And it circumscribes in the conceptual field, but in a closer and more fine-textured way than was the case with the more abstract schema, those broad structures within whose scope the next more concrete stage of elaboration comes to be developed in accordance with the findings of the dialectic of inquiry. ⁵¹

⁵⁰ In the Preface to Capital, Marx writes: "In the analysis of economic forms, moreover, neither microscopes nor chemical reagents are of use. The force of abstraction must replace both. But in bourgeois society the commodity- form of the product of labor-or the value-form of the commodity-is the economic cell form." MARX, K (1967). Op. cit., Vol. 1, p. 8; emphasis added.

⁵¹ In dialectical cognition, as LENIN puts it in his *Philosophical Notebooks*, p. 253, "[h]uman thought goes endlessly deeper from appearance to essence, from essence of the first order, as it were, to essence of the second order, and so on *without end*" (Lenin's emphasis). Here, of course, Lenin is speaking about "essence" as interpreted in terms of the concrete universal and not in terms of the abstract universal of traditional Western philosophy. "Essence of the first order" is the first approximation to the essential structures of the concrete totality; and "essence of the second order" is the more concretely developed version of the essential structures developed within the projected structures of the first approximation, etc.

Thus the dialectical hierarchy is such that there is a dialectical nesting of more complexly structured schemata projected from within the projected structures of less complexly structured schemata. However, in this dialectical nesting it should be emphasized that *the more concrete elaboration provides the warrant for the more abstract elaboration*. The more concrete elaboration does not get its warrant deductively from the more abstract elaboration. Rather, the more abstract elaboration gets its warrant from below, that is, from the success with which the more abstract elaboration functions as a dialectical framework for the more concrete elaboration. Note again that the movement from the abstract to the concrete is essentially an explanatory device for arranging the results of prior inquiry in systematic fashion so as to bring into fuller and fuller view the concrete-in-thought, which is then projected as a hypothesis concerning the structure of some domain of the concrete-real. This hypothesis gets its warrant, as does any other hypothesis, through the success with which it organizes and explains the total available relevant evidence.

TENDENCIES, COMPLICATING FACTORS, AND THE VERTICAL AND LATERAL DIALECTICAL PROJECTIONS

Other features of Marx's method of explanation are crucial for understanding how he extends the explanatory movement from the abstract to the concrete so as to constitute his distinctive method of scientific explanation. First, we explore Marx's conception of a law as a tendency. In doing so we shall focus on the particular example of the "tendency of the falling rate of profit," which Marx presents in the third volume of *Capital* (but only after the preparatory analysis of all the factors involved has been given in the preceding two volumes). Marx writes:

This [capitalist] mode of production produces a progressive relative decrease of the variable capital as compared to the constant capital, and consequently a continuously rising organic composition of the total capital. The immediate result of this is that the rate of surplus-value, at the same, or even a rising, degree of labour exploitation, is represented by a continually falling general rate of profit... The progressive tendency of the general rate of profit to fall, is therefore, just *an expression peculiar to the capitalist mode of production* of the progressive development of the social productivity of labour. This does not mean to say that the rate of profit may not fall temporarily for other reasons. But proceeding from the nature of the capitalist mode of production, it is thereby proved a logical necessity that in its development the general average rate of surplus-value must express itself in a falling general rate of profit.

The tendency that Marx singles out here is not a tendency which is projected independently of initial conditions. It is not a tendency in a vacuum. Rather, the tendency toward the falling rate of profit is projected as arising out of the capitalist mode of production. It is the complex of interconnected social relations of capitalism that constitutes the "initial conditions" for the tendency. Moreover, development within the social relations of capitalism constitutes the developing dynamic basis for the tendency of the rate of profit to fall. To be sure, the passage quoted does not *show* that this tendency does indeed proceed from the nature of the capitalist mode of production. But this passage has behind it the whole previous analysis of *Capital*. And it is this previous analysis which does show that the capitalist mode of production does indeed give rise to this tendency; and it is this previous analysis which must inform the interpretation of the passage quoted.

Now, to comprehend what Marx is doing methodologically with all the tendencies he distinguishes in *Capital*, we have to see how these tendencies are situated in the conceptual field as the dialectical movement from the abstract to the concrete proceeds. We have already seen that the dialectical movement takes place in stages. Any given level in the elaboration of the conceptual field is constituted by a complex of internally related factors. This complex of internally related factors stands as a structured schema projected toward its more concrete elaboration in thought, and thus as a dialectical framework within which the more concrete elaboration is undertaken. Thus if we think of the projection of such a structured schema toward its more concrete elaborations as a *vertical* dialectical projection, we can go on to distinguish the concept of a *lateral* dialectical projection that will help to comprehend what is going on methodologically in all Marx's discussion about tendencies.

The lateral dialectical projection is constituted by the projection of a complex of internally related factors in their dynamic interplay over time. Instead of going from one level of analysis to a more concrete level, as happens with the vertical dialectical projection, the lateral dialectical projection of a given complex of factors is undertaken at the same level of analysis. And at any given level of analysis, the lateral dialectical projection is a projection of the dynamic interplay of the complex of factors distinguished at that level, as this dynamic interplay affects these factors themselves over time, or as this dynamic interplay gives rise to some other related consequence. This means that a given level of analysis must be understood not only in terms of the complex of interconnected factors distinguished at that level, but also in terms of the lateral dialectical projection of this complex of factors.

With the concept of the lateral dialectical projection one has a ready instrument for understanding what is going on methodologically in the dialectical laws that figure so importantly in Marx's thought. For these laws describe tendencies of social development –tendencies which arise out of a complex of interconnected factors. And although such laws are not usually formulated by Marx in terms of universal conditional statements, they can nonetheless be easily rendered in such terms. When these laws are expressly formulated in conditional terms, the antecedent of the conditional points to, or specifies, some complex of interconnected factors, while the consequent of the conditional statement specifies some contemplated result of the projected dynamic interplay of that complex of factors. So, for example, the broad structure of the tendency of the rate of profit to fall can be indicated by some such universal conditional as the following: "If a complex of capitalist social relations obtains, then as the development of the forces of production takes place within the framework of these social relations there will be a tendency for the general rate of profit to fall." It simply is not the case that Marx projects tendencies in a way that is unconditional. For Marx, tendencies are unquestionably conditional, and the laws that figure in Marx's thought are laws describing such conditional tendencies (This stands in sharp contrast to the influential but misleading interpretation of Marx on the theme of tendencies which was advanced by Karl Popper in various writings.⁵³)

The laws that Marx distinguishes are initially presented at a level of analysis which abstracts from other factors that might come into play, on more concrete levels of analysis, in a way that would run counter to the laterally projected dynamic interplay of the complex of factors as viewed on the more abstract level. However, Marx goes on to indicate that the general law "is modified in its working by many circumstances." ⁵⁴ Elsewhere he notes that there are "counteracting influences at work which cross and annul the effect of the general law, and which give it merely the characteristic of a tendency." ⁵⁵ Thus, for example, Marx follows the chapter in which he presents the law of the tendency of the rate of profit to fall with a chapter on "Counteracting Influences," which details what he sees as the "most general counterbalancing forces" to this tendency.

To understand what is going on methodologically here, we must explain how the lateral dialectical projection works in connection with the vertical dialectical projection. We saw that the *vertical* dialectical projection is to be understood as a structured schema of interconnected factors projected from a given level of analysis toward its more concrete elaboration. In explaining the *lateral* dialectical projection we saw that a complex of interconnected factors distinguished at a given level of analysis was to be understood as being laterally projected in the conceptual field so as to represent the dynamic interplay of the given complex of factors over time.

Now consider that a given dialectical law would articulate some tendency at a level of analysis that abstracts from complicating factors. At this level the dialectical law would bring into thematic focus only the most essential aspects which, in their dynamic interplay over time, delineate the broad structure of the tendency. The complex of interconnected essential factors (from whose matrix the lateral dialectical projection is made) is also to be regarded as a schema vertically projected toward more concrete levels of analysis that could be elaborated within its framework. As the actual elaboration of the more concrete levels proceeds, additional complicating factors would be brought into thematic focus at each successive level. And when the lateral dialectical projection is undertaken at each of the more concrete levels, the result would be more and more concretely elaborated and fine-textured versions of the tendency. Assuming that the original hypothesis concerning the essential broad structure of the tendency was sound, the more concrete elaborations of the tendency would integrate wider and wider ranges of diverse phenomena into a coherent whole.

⁵³ For a developed critique of Popper's distorted interpretation of Marx on the theme of tendencies, see BRIEN, KM (2006). Op. cit., pp. 56-60 & 276.

⁵⁴ MARX, K (1967). Op. cit., Vol. 1, p. 707.

⁵⁵ Ibid., Vol. 3, p. 232.

⁵⁶ See Capital, Vol. 3, pp. 232-40. The factors that Marx explores here are as follows: "Increasing Intensity of Exploitation," "Depression of Wages Below the Value of Labour-Power," "Relative Over-Population," "Foreign Trade," "The Increase of Stock Capital," and "The Cheapening of Elements of Constant Capital." It is important to note here that, as capitalism develops, additional factors that Marx does not point to may also come into play and serve to counteract the tendency of the rate of profit to fall, e.g., the "market replacing" functions of the state in the monopoly phase of capitalism.

Thus far in speaking about complicating factors in this context, we have had in mind complicating factors that do not function to counteract the given tendency. However, we must also consider counteracting factors. When complicating factors that counteract a given tendency are introduced into the dialectical movement at a given level of analysis, we would expect the lateral dialectical projection of the whole complex of factors distinguished at that level to be modified thereby. But the degree and kind of modification is methodologically indeterminate. It is all contingent on the specific factors that might be involved –both those additional complicating factors introduced in the more concrete elaborations of the given tendency, and any counteracting factors that might be introduced. A clear implication of these considerations is that there is *no methodological warrant for claims concerning the absolute inevitability of the outcome of a given tendency*.

Whether counteracting factors in the concrete-real corresponding to those introduced on a given level of analysis will turn out to have sufficient strength to effectively counteract the tendency so as to block its projected outcome is methodologically indeterminate. It all depends on the actual situation. In some situations it might be possible to specify limiting conditions with respect to some counteracting factors. This kind of specification might permit one to maintain that certain particular counteracting factors will not be able to indefinitely block the development of the tendency. Even so it is logically possible for new counteracting factors to come into play, in the course of the ongoing development of the concrete-real, which would continue to thwart the development of the tendency and effectively block its projected outcome in the concrete-real. But this is not to say that it would be practically possible for such factors to come into play in some actual situation. All this is meant to bring out the conditional nature of assertions about projected outcomes. And whenever there is talk about inevitable outcomes, the term "inevitable" should be taken to mean "inevitable *as long as* certain specified conditions hold and develop, and *unless* certain other possible conditions obtrude."

THE DIALECTICAL-EMPIRICAL AND THE DEDUCTIVE-NOMOLOGICAL MODELS OF EXPLANATION

Having given the preceding account of the vertical and lateral dialectical projections, in what sense can we say that these notions constitute the basis for a scientific method of explanation? In order to bring this out let us try to imagine some features of the conceptual space within which the currently dominant model of scientific explanation usually functions. We refer to the deductive-nomological model of explanation. ⁵⁷ On this model the explanation of an event consists in the deduction of a statement describing the event to be explained, from the conjunction of appropriate existential assertions concerning initial conditions, together with an appropriate scientific law (or laws) formulated as a universal conditional statement. We note that on this model there is a sharp separation between the *conditional* status of the law and the *existential* status of the initial conditions. We note also that the factors designated by the antecedent and the consequent of the universal conditional are externally related.

⁵⁷ For some now classic formulations of the deductive-nomological model of explanation, see HEMPEL, C (1965): Aspects of Scientific Explanation: And Other Essays. Free Press, New York.

If we try to imagine the conceptual space of the deductive-nomological model, we can discern a block-like laving out of the universal conditional at some level of abstraction with, of course, an accompanying block-like separation of antecedent and consequent. And then we can discern a block-like laying out of the existential assertion of initial conditions, but on a relatively less abstract level of analysis than the universal conditional statement, which represents some particular instantiation of the universal form indicated in the antecedent of the conditional. The explanation is consummated by the logical inference in conceptual space -and according to the rules of formal logic- from these conceptual blocks to still another conceptual block, which represents the event to be explained. This conceptual block represents in conceptual space a particular existential instantiation of the form denoted by the consequent of the universal conditional. As with the existential assertion of initial conditions, it is projected in conceptual space on a more concrete level of abstraction than the universal conditional statement. Thus we note that even in the deductive-nomological model there is a sort of explanatory movement from abstract to concretebut of course a nondialectical explanatory movement appropriate to a universe of discourse committed to the notion of the abstract universal and to the doctrine of external relations.

We suggest, however, that the plausibility of the deductive-nomological model really rests on an implicitly assumed network of background conditions and other presuppositions, which are never brought into thematic focus. Nonetheless, they function surreptitiously in the implicitly understood theoretical web within the context of which specific explanations of events in terms of the deductive model are actually given. ⁵⁸ Of special importance in this theoretical web are certain philosophical commitments to the doctrine of external relations and to the abstract universal as *fundamental canons of interpretation*. These commitments operate to obscure awareness of the implicitly assumed network at play in the deductive-nomological model.

Against this background we submit that in the dialectical-empirical model of explanation (as we refer to Marx's distinctive method of scientific explanation) an event is explained through the presentation of an intricately elaborated explanatory web, which level by level systematically discloses the concrete structural dynamics of the situation. In doing so it *shows* how the event to be explained issues naturally out of the structural dynamics of a developing complex of internally related factors. Here it is essential to remember how the conceptual space of the dialectical-empirical method of explanation is shaped by the interplay of the lateral and vertical dialectical projections that were analyzed earlier.

The explanatory web projects an appropriate dialectical conditional law as a "covering law" in relation to which a given event is to be explained. This dialectical "covering law" abstracts from some relevant factors and brings into focus those factors that are the most essential for disclosing the broad structural tendency in relation to which the event to be explained is to be articulated. And although the internal relations obtaining among the various factors distinguished in the antecedent of the dialectical conditional may not be apparent initially, and the internal relations obtaining between the antecedent and the conse-

⁵⁸ Marx Wartofsky brings out that "the deductive model of explanation is incomplete as an account of scientific explanation," because it leaves out of account the conceptual framework within the context of which specific laws are projected. See WARTOFSKY, M (1968): Conceptual Foundations of Scientific Thought. Macmillan, New York, pp. 278ff.

quent of the dialectical conditional may also not be apparent at first, all these internal relations become clear in the level-by-level elaboration of the explanatory web.

In the level-by-level elaboration, additional complicating factors relevant for explaining the event are explicitly brought into focus within the broad structural framework disclosed by the dialectical law. Moreover, this level-by-level elaboration includes the existential assertion of concrete conditions. These represent some particular existential instantiation of the universal form indicated in the antecedent of the dialectical conditional and more concretely elaborated in the dialectical hierarchy of nested structures. This elaboration ideally goes on until the explanatory web is developed concretely enough to represent, in thought, the structural configuration in the concrete-real from out of the matrix of which the event to be explained dynamically arises.

The distinction made by the dialectical-empirical method between the existential and the conditional status of statements in scientific explanations has been obscured, because the intricacy of Marx's analysis in the three volumes of *Capital* is such that most people do not get a clear glimpse of the wood of his position because of the trees of his long-spun-out analysis. Those statements, referring to the factors at play in Marx's explanations, have a conditional status when the factors are understood to function as antecedent conditions of some conditionally projected dialectical law; other such statements have an existential status when the factors are understood to function as existential assertions. And in general, just as in the deductive-nomological method, the existentially asserted initial conditions constitute particular instantiations of the universal form indicated by the antecedent of the "covering law," so do we find it in the dialectical-empirical method. Only here the "covering law" is a dialectical law, conditionally asserting a broad structural tendency of some sort or other, in which a complex of internally related factors is conditionally projected in its dynamic interplay over time.

The explanation is achieved not only by an appropriate deductive inference according to formal rules of a statement describing the event to be explained. Consummation of the explanation also requires an active comprehension of the level-by-level development, which systematically ties specific existential conditions together with a dialectical law. This must be done in a way that brings out the structural enmeshment of events with one another, and makes the concrete event to be explained appear to be all but inevitable when seen in the light of the complicated interplay of factors operating in the actual situation in the concrete-real. All these factors are brought into thematic focus in the nested hierarchy of dialectical structures constituted in the dialectical movement from the abstract to the concrete.

In such a dialectical movement an explanatory web is presented that *shows how the event to be explained emerges out of the concrete structural tendencies* disclosed in the elaboration of the dialectical hierarchy of nested structures and conceptually developed within the broad structural framework of the dialectical law. Thus the dialectical-empirical method of explanation is a kind of synthesis of the "covering law model" of explanation on the one hand, and the "genetic model" of explanation on the other –but, importantly, a synthesis in which all the factors at play in the explanation are understood in accordance with *internal relations and the concrete universal as fundamental canons of interpretation*.

EPILOGUE

As I bring this paper to a close let me remind my readers about what I set out to do here. I have presented a methodological exploration that brings out the interrelated dimensions of Marx's dialectical-empirical method of explanation, and provides some philosophical warrant for the viability of this method. However, my exploration was not made in an intellectual vacuum; rather it has behind it many decades of careful probing through the full spectrum of Marx's life work. My presentation began with the all-too-brief characterization of his method that Marx gave us in the *Grundrisse*. But in developing this presentation I was ever mindful of Marx's theoretical praxis throughout the three volumes of *Capital*. To be sure I have given an articulation of his method of explanation that goes significantly beyond the explicit articulation of it that he gave us. But I have done so with an ever-watchful eye on his actual theoretical praxis throughout *Capital*, and have tried to give a faithful articulation of the method at play in his own praxis therein.⁵⁹

As a test case for the faithfulness of my methodological exploration to Marx's actual praxis in *Capital*, and also as a test case for its fruitfulness beyond *Capital* itself, I refer readers to my book on Marx. Therein I offer a philosophical reconstruction of Marx's thought centering on the problem of human freedom, and drawing from the full chronological spectrum of his writings. From beginning to end my analysis is structured in keeping with Marx's artful level-by-level method of dialectical explanation. As one reviewer says, the book "has demonstrated, in a way that is at once inventive and textually scrupulous, the unity of Marx's methodological conception in terms of a sustained reflection on Marx's account of human freedom."⁶⁰

⁵⁹ In this connection consider Nietzsche's famous statement about methods: "The most valuable insights are arrived at last, but the most valuable insights are *methods*." NIETZSCHE, F (1968). *The Will to Power*. Trans. Walter Kaufmann & R. J. Hollingdale. Vintage Books: New York, p. 261.

⁶⁰ MARGOLIS, J (2006). From back cover of Brien, KM (2006): Op. cit.