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Post-structural Logic in Marx's Theory of Value

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1. Introduction

The antipathy with which many post-structuralist theorists regard value theory is based at least in part on the belief that value theory is, by its nature, a modern project. Indeed, what could be more structuralist than value theory – the project of theorizing, among other things, how the prices of commodities in a capitalist economy are regulated by expenditures of labor-time? At the same time, a wholesale rejection of value theory in an effort to avoid essentializing class has its own unfortunate effect – by unmooring class from value, post-Marxist theory encounters difficulty resituating class as an integrated relation. This post-modern criticism of value theory as inherently economistic comes, of course, on the heels of a broad rejection of value theory on the basis of its alleged logical flaws. I submit that it is possible to defend a post-structuralist class analysis, but to do so it is necessary to resituate the value theory that informs it. Specifically, it is necessary to produce an account of Marx’s methodology that will permits us to perceive the logic of value that underlies class concepts in a way that releases them from the structural constraints of modern formulations. It would be helpful, too, if this rendering of Marx’s logic could establish that the claims concerning the logical flaws in Marx’s value theory are misplaced.

To this end, Althusser provides some specific guidance. One of Althusser’s key insights concerns how to characterize the logical development of Marx’s value theory. He argues that the value concepts take their meanings in relation only to the concepts within the boundaries of the text, boundaries that initially exclude contingencies that Marx is not yet ready to consider. In this sense the concepts are defined synchronically. He further argues that their meanings of these concepts are expanded and developed with

the introduction of new concepts at successive stages, or levels of abstraction. As the logical totality expands to include new contingencies, the concepts develop diachronically within the basic synchrony of the text as a whole. This aspect of Marx's method – its synchrony and diachrony – distinguishes his dialectical approach from the non-dialectical logic of model building in which the concepts are defined at one stroke and with reference to terms that may initially not be included within the simplified model. In model building the meanings of the concepts do not change as restrictive assumptions are relaxed and more complex aspects are introduced and there is therefore no need to take into account the stage of the development of the analysis when analyzing their logical interrelationships. If Althusser's characterization of Marx's logic is correct, then it is understandable that theorists who are unaware of this characteristic of Marx's logic would encounter logical difficulties in their attempts to make sense of his value theory. It is understandable, too, that they may overlook the possibility that the structural nature of the logic has the surprising quality of being subject at each new juncture to reconsideration: a logic that is both structural and open-ended.

In this paper I will apply Althusser's insights concerning the logical development of the value concepts in Marx's writing in order to make explicit how the meanings of these concepts change and how they come to both incorporate new contingencies as well as to stand in new relationship to each other as the result of the greater complexity of the logical space that they occupy. I will argue that a failure to recognize the synchronic and diachronic character of Marx's logic results in the positing of spurious logical problems in Marx's theory of value and price. By tracing this logical development, I am able to identify three types of errors that occur in reading Marx's value theory – errors that I term

synchronic error, diachronic error and errors of closure. Synchronic error is the failure to take into account the effect of new contingencies on the meaning of the terms within the logical totality at a given moment or level of abstraction. The transformation problem – perhaps the most famous of Marx’s ‘errors’ – can be seen to result from synchronic error: it results from the failure to reconsider the meanings of the value concepts with the introduction of new contingencies. Diachronic error results from comparing logical claims at two different moments or levels of analysis without taking into account the different meanings and relationships between concepts that apply at each level. The problem of how to integrate demand into the determination of value and exchange-value is an example of diachronic error.

I will also identify a third type of logical error, an error of closure, and use it to navigate between a structural or economic reading of value theory on the one hand and a post-Marxist rejection of value theory on the other. In my view, Marx’s theory of value is both structural and open-ended: by provisionally but systematically closing and reopening the logical boundaries of his analysis Marx illustrates the structural relations between and among existing concepts while providing a means to systematically introduce new contingencies, not as new distinct and separate elements into the theoretic space, but as integrated relations. This insight may help to narrow the distance separating those post-Marxist who now eschew value theory as economic from Marxists who attempt, in various ways, to bridge the gap between the logic of value and its historically contingent effects. The synchrony and diachrony of Marx’s logic, I will argue, provides a means by which the logic of capitalist competition – the ‘law of value’ – can be

integrated with the historically contingent context in which its logic is expressed without privileging the logic or the historical context.

In what follows I will first analyze the synchrony and diachrony of the concepts of value and exchange-value through four successive stages of Marx's analysis in *Capital*. Using this logical development I will illustrate the three types of synchronic/diachronic error that result from the failure to recognize this important aspect of Marx's methodology. I conclude by examining some implications of these insights for further research in Marxian value theory.

2. Synchrony, Diachrony and Value

Althusser argues that the concepts that Marx develops and utilizes in *Capital* are part of a structured hierarchy: they take their meaning as a result of their synchrony – their place or function within this system. He further argues that there exists an order of appearance of these concepts in this hierarchy; an order that results in the diachronic appearance of the concepts in the discourse.

When I say that 'synchrony' thus understood is primary and governs everything, I mean two things: (1) that the system of the hierarchy of concepts in their combination determines the definition of each concept, as a function of its place and function in the system. It is this definition (which) is reflected in the imminent meaning of this concept; (2) that the system of the hierarchy of the concepts determines the 'diachronic order' of their appearance in the discourse of the proof. It is in this sense that Marx speaks of the '*development of the forms*' (of the concept) of value, surplus value, etc.: this 'development of the forms' is the manifestation in the discourse of the scientific proof, of the systematic *dependence* which links the concepts together in the system of the thought-totality.

(Althusser and Balibar, 1970: 68. Emphasis in original.)

Althusser uses the concepts of value and surplus value in this passage to illustrate his claim, however, he does not follow-up with an analysis of the implications of this

reading of Marx's methodology for the development of the meaning of value: he does not, in other words, explain in detail how the meaning of value changes throughout Marx's analysis. I argue that the evolution in the meaning of value, its diachronic development, results in a systematic expansion of its meaning which transforms its relationship to the other key concepts in the thought-totality – in particular its relationship to the concept of exchange-value.

A key to understanding the synchrony and diachrony is to see how Marx integrates contradictory meanings of the two modifiers he uses to describe the labor-time that forms the substance of value. The labor-time that forms the substance of value is labor-time that is both 'socially necessary' and 'abstract'. Both of these modifiers have contradictory aspects built into them. On the one hand, abstract labor is simple homogeneous labor – labor shorn of its particular characteristics (Marx, 1954: 52, 57). On the other hand, abstract labor is labor considered as an aliquot part of the total social labor (Marx, 1954: 194). Similarly, socially necessary labor is, on the one hand, labor expended with the average skill and intensity prevalent at the time; on the other hand, it is labor expended in accordance with existing social need (Marx, 1954: 49, 109; 1959: 185; 1968: 521). The synchrony and diachrony reveal themselves in the following way: only the first aspects of these contradictory meanings are initially present in the text. The second aspects refer to contingencies that have not yet been brought into existence in the text; they lie dormant and become activated with the introduction of new contingencies. At each successive stage in the analysis, contingencies are introduced that previously were outside of the logical totality and thus were irrelevant to the meaning of value at the earlier moments or stages of the logical development of the theory. In this way the

meaning of value – still defined as abstract, socially necessary labor-time – changes as its relationship within the expanded logical totality changes.¹

Each expansion of the logical totality – each move to a new level of abstraction – implies a reconsideration of the meaning of value and its relationship to exchange-value. Failure to recognize this aspect of the methodology results in a misinterpretation of the theory – what I will call a synchronic/diachronic error. To see these errors and how they can be overcome it is necessary to ask at each successive stage of the analysis, what contingencies are present and what affect they have on the meaning of value and its relationship to exchange-value. Here I will illustrate the development of the meaning of value through four stages of diachronic development or four levels of abstraction. These four levels correspond to an evolution in the meaning of value as socially necessary abstract labor time and its relationship to exchange-value. As a result of this logical development, the exchange-value also evolves as it is replaced at each stage by a new, expanded value category adequate to the larger logical totality. The exchange value thus evolves from exchange-value to market-value, price of production and finally market-price of production. In order to trace this evolution I will detail the expansion of the

¹ Several theorists have identified the diachronic development of value and exchange-value. Wolff, Callari and Roberts introduce the concept of the diachronic development of the meaning of value in the following way: “Early in *Capital*, vol. 1, Marx defines the value of a commodity as ‘the [abstract] labor-time socially necessary for its production’...This general definition is consistently maintained across the three volumes of *Capital*, but its precise meaning must be developed with reference to the specific social conditions of production and exchange being considered at each stage of Marx’s argument” (1984: 123; see also Roberts, 1981, Chapter 1). Indart writes: “[C]oncepts -- according to Marx’s dialectical method -- are not defined in one stroke; concepts are developed in a step-by-step manner as the analysis moves from one level of abstraction to another, closer to the concrete-in-thought” (1990: 728). Gerstein describes this aspect of Marx’s method as follows: “In this process of articulation categories established at one level of analysis are ‘transformed’ into new categories, or at least given new meanings...The implicit presence of non-dominant structures in the analysis of dominant structures, even before the non-dominant structures is analyzed (*or can be analyzed*), is characteristic of structural combination, and distinguishes it from model building” (1976:56-7).

logical totality at each of these stages and identify the specific contingencies that are introduced at each stage.

2.1 Value and Exchange-value

Marx begins his analysis by considering value in the context of a single productive enterprise.² In this context, what is the initial meaning of value and how is it related to exchange value? Initially the meaning of value is circumscribed by the restricted logical totality of the single productive capital. Abstract labor, in this context, is labor assumed to be homogeneous, shorn of its particular characteristics.³ The second aspect of abstract labor – labor considered as an aliquot part of the total social labor – cannot be introduced since the larger context in which the single capital operates lies outside the logical totality. The labor expended within the enterprise defines the logical totality and the meaning of abstract labor is thus initially circumscribed by this limited context.

Similarly, only the first aspect of socially necessary is considered – labor expended with average skill and intensity.⁴ Because no other examples of production exist for comparison, this average nature of the labor must be introduced as an assumption, not derived as the result of averaging labor intensities as in the next stage of the analysis. The second aspect of socially necessary labor-time – labor-time expended in accordance with existing social need – also cannot be considered. Again the context for situating the activity of this productive capital *vis a vis* the total social labor is simply

² Rosdolsky characterizes this stage as the analysis of ‘capital in general’ (1977, pp. 41-50).

³ “[O]nly in so far as abstraction is made from their special qualities, only in so far as both possess the same quality of being human labor, do tailoring and weaving form the substance of the values of the same articles” (1954: 52).

⁴ Socially necessary labor-time is initially defined as “that required to produce an article under the normal conditions of production, and with the average skill and intensity prevalent at the time” (Marx 1954: 47).

missing; it is absent by design, absent in order to focus attention on aspects of the analysis of capital that do not require their consideration (Wolff, Callari and Roberts, 1984: 124).

With this schematic representation of value, Marx is able initially to make the logical connections among the key concepts – commodity, value, exchange-value, money, surplus-value – connections which can be specified without reference to the existence of many capitals in competition. What then is the relationship between value and exchange-value at this high level of abstraction?

Value is the socially necessary abstract labor-time required to produce the commodity where only the first aspects of the meanings of the two modifiers apply. Abstract labor is considered to be simple homogeneous labor; socially necessary labor is considered to be labor expended with average skill and intensity. Neither of these modifiers refers to conditions of competition which do not yet exist within the logical totality. Exchange-value is the quantity of abstract socially-necessary labor-time that the commodity represents in equivalent exchange. Value thus refers to the requirements of production, how much socially necessary abstract labor is required to produce the commodity; exchange-value refers to the requirements governing exchange, how much socially necessary abstract labor the commodity is worth or is equivalent to when it enters exchange and is compared to other commodities (Roberts, 1996: 2005). In the absence of competing capitals, the magnitudes of value and exchange-value are assumed to be equal; they are conceptually distinct but initially assumed to be equivalent in magnitude. This initial assumption of equal magnitudes allows Marx to develop a surprising number of

key relations among the concepts existing within the circumscribed logical totality – to elaborate their meanings by examining how they are interrelated.

At this initial stage, Marx develops the concept of the money commodity and in so doing provides the basis for a number of further insights. He provides a theoretic framework for understanding how money measures and stores value and how it acts in the specific context of commodity exchange to validate privately expended labor as social labor. Marx also argues that money by introducing an interval of time between purchases and sales creates the potential for crises, the possibility that demand will be insufficient to validate the labor expended. The specific ways in which crises manifest, however, must be await the further theoretical development of competition. Further, by analyzing the money commodity, Marx introduces the concept of commodity fetishism, read here as the claim that the manifestation of exchange-value as a price obscures an alternative measure of value as abstract, socially necessary labor. Commodity exchange in this view can be thus seen to mystify the social relations in capitalism; value becomes a social hieroglyphic and one purpose of Marx's value theory is to provide particular sight-lines that make these social relations visible.⁵

With this abstract analysis of commodities, money, value and exchange-value Marx provides a remarkably extensive analysis of capitalist production and exchange. He is able to define the value of labor-power and surplus value, to define capital as self-expanding value and to analyze the means by which surplus-value is produced and

⁵ This reading rejects the essentialism inherent in traditional interpretations of fetishism – the idea that commodity exchange creates a false appearance to subjects that hides the real underlying relations. Amariglio and Callari (1989) argue that in order for the exchange of unequal magnitudes of labor-time to be understood by participants as equivalent exchange, particular political, cultural and economic conditions must be present. In this way commodity exchange overdetermines a particular notion of subjectivity. See also Callari and Ruccio, 1996.

expanded via the extension and intensification of work hours, to distinguish constant and variable capital and use them to define the technical, value and organic compositions of capital and to analyze the effect of their changes on the rate of profit, and to explore the history of primitive accumulation as a means of undermining the moral legitimacy of capitalist class relations.

This analysis of class struggle is carried out on the basis of a highly circumscribed logical space. In order to consider the effects of competition on value and exchange value and their implications of class struggle, Marx systematically introduces new contingencies – first at the level of the industry, then at the level of the entire productive sector and finally, with the introduction of unproductive finance and commercial capital, at the level of the economy as a whole. At each successive stage new contingencies are introduced and the relationship of value to exchange-value and its meaning within the enlarged totality evolves as it becomes correspondingly richer and more complex.

2.2 Value and Market-value

In the second level of analysis, Marx introduces competition among producers within a single industry. The definition of value remains the same but its meaning changes as its relation to the existing concepts changes with the introduction of new contingencies. As a result, the relationship between value and exchange-value must be reconsidered.

With the introduction of intra-industry competition, the meaning of socially necessary labor-time is expanded to include consideration of multiple techniques of production. The initial assumption that labor is expended with average skill and intensity

is further developed by analyzing the effect on socially necessary labor-time of multiple techniques of production for a given commodity. Here, Marx reconsiders the effect of an increase in the organic composition of capital (the ratio of constant to variable capital) on the value of a commodity that he introduced in the context of a single productive capital. With the introduction of competing enterprises, Marx is able further to specify the meaning of socially necessary labor-time by examining how alternative techniques of production affect the determination of value and exchange-value. How, in other words, the meaning of “average skill and intensity” is altered by the introduction of competing capitals.⁶

Marx explores the determination of value when the production of a single commodity is undertaken by several producers, each with a different technique of production (Marx, 1959: 180). In order to determine the socially necessary labor-time in this new circumstance Marx categorizes producers into three groups according to whether their productivity is above, below or equal to the average (Marx, 1968: 204). He then explores the determination of value according to whether one group predominates over the others in terms of its contribution to total output. Throughout his initial examination, the second aspect of socially necessary labor-time, labor expended in accordance with existing social need, continues to be held at bay: total demand is assumed to be just equal to total supply. Marx argues that the value of the commodity is determined by the average of the entire industry and thus value need not be equal to the individual value of any of the three groups of producers or any of the individual producers. The individual value of the producers thus varies systematically from the average or social value of the

⁶ Amariglio and Callari (1989) note that in order for the exchange of unequal magnitudes of labor-time to be understood by participants as equivalent exchange particular political, cultural and economic conditions must be present. In this way commodity exchange reinforces a particular notion of subjectivity.

commodity and value is redistributed among the producers according to their individual productivities determined, in part, by their relative organic compositions of capital. Value is conserved at the level of the industry, but not at the level of the individual producers who gain or lose value according to their compositions of capital and hence their productivities relative to the industry average (Rosdolsky, 1977: 91; Roberts, 2004: 128).

Exchange-value is likewise altered by the introduction of competing capitals. The market-value replaces the exchange-value at this level of abstraction but the assumption that value and market-value are equal in magnitude is not affected. The market-value now represents the socially necessary abstract labor-time the commodity represents in equivalent exchange. The individual value of each category of producer varies from this market-value which is determined by the industry average. In this way, Marx introduces the concept of the super-profit, a concept that is used to theorize the intra-industry redistribution of value from less efficient to more efficient producers that occurs as a result of competition within the industry (Horverak, 1988; Indart, 1990: 728-9). The expansion of the logical space thus allows Marx to elaborate the meaning of socially necessary labor-time and to develop the relationship between value and exchange-value in order to theorize how value is distributed within industries as a result of competition.

2.3 Value and Price of Production

By introducing competing industries, Marx expands the logical boundary of his analysis yet again and requires a further elaboration of the meaning of socially necessary abstract labor-time and the relationship between value and exchange-value. The price of production is the elaborated form of the exchange value at this level of the

analysis (Marx, 1959: 180). It is used to theorize a redistribution of value that is effected through the equalization of profit rates among productive industries.

With the introduction of competing industries, the second aspect of abstract labor – labor considered as an ‘aliquot part’ of the total social labor – is brought into play. This integration occurs as the result of the need to consider how various concrete labors used in the production of a number of different commodities are reduced, through the process of exchange, to a price – a monetary representation of a quantity of homogeneous labor. Rather than simply continuing to assume labor to be homogeneous, rather than simply abstracting in thought from the particular characteristics of concrete labors, Marx is now able to ask how exchange acts to commensurate these different concrete labors in order to express them as values, as determinant magnitudes of abstract labor. In the process of exchange, different commodities produced by different types of concrete labors are exchanged and in this exchange the different concrete expenditures of labor are equalized. Marx argues that in this process it is as if these concrete labors are amalgamated, or gathered together, and then allocated to each capital.⁷ Each capital within each industry thus captures a part of the total social labor expended, not according to how much it has contributed but according to how much it is able to capture in exchange – according to its aliquot share allocated to it according to the quantity and composition of the capital it has advanced (Roberts 2005; 148). Abstract labor continues to be homogeneous labor, but it also takes on the second aspect Marx has given it but has

⁷ “The effect is the same as if the different individuals had amalgamated their labor-time and allocated different portions of the labor-time at their joint disposal to the various use-values” (Marx 1970: 32). See also Marx 1971: 112-3.

not yet been able to elaborate – labor as an aliquot part of the total social labor.⁸ With the introduction of competing industries, the meaning of value thus expands to include – to call into play – this latent aspect of its meaning. Abstract labor, at this level of abstraction, retains the characteristic initially attributed to it: it is still homogeneous labor, shorn of its particular characteristics. Now, however, it takes on a further designation as the result of the expansion of the logical space; it becomes homogeneous labor that represents an aliquot part of the total social labor. It achieves this characteristic as the result of the commensuration of different concrete labors in exchange.⁹ The evolution of the meaning of abstract labor has important implications for the relationship between value and exchange value, implications that until quite recently have been overlooked with the unfortunate result that the explanatory power of Marx’s theory of value has been greatly underestimated.

Exchange value is defined, as before, as the quantity of socially necessary abstract labor-time that a commodity represents in equivalent exchange. With the introduction of new contingencies – the existence of competing industries – the conditions for equivalent exchange are altered and the exchange-value is no longer adequately represented by the market-value. Exchange at market-value implies unequal rates of profit on capital advanced and in the context of exchange among competing industries, equivalent exchange is that which provides equal rates of profit to capital advanced. The price of

⁸ “Each commodity is not only the product of its own industry specific conditions (as such it is a value), it is also, as a bearer of exchange-value, simply the product of a specific aliquot share of the aggregate means of production and concrete labor employed. And as such...it represents a particular magnitude of abstract labor, the simple sum of the concrete labors it contains, *not* as itself but as a *part of the whole*” (Roberts 2004: 129, emphasis in original).

⁹ “...[C]ommodities are not exchanged simply as commodities, but as products of capitals, *which claim participation in the total amount of surplus value, proportional to their magnitude*, or equally if they are of equal magnitude” (Marx 1959: emphasis added).

production is the concept that replaces the market-value once the contingencies associated with inter-industry competition are introduced into the analysis. It defines what represents an equivalent exchange at this level of abstraction, this more expanded logical totality.

The expanded meaning of exchange-value in turn affects the meaning of value – an implication that, until recently, has been overlooked in the literature. With the introduction of competing capitals, the constant capital used up in production must be acquired through exchange. Since exchange now takes place on the basis of prices of production, the value of this constant capital must be determined by its price of production – the labor required to obtain it through exchange. Prior to this stage of the analysis, the value of a commodity could be determined by the labor required to produce the constant capital used up in production plus the new labor expended, but this determination of value no longer applies to the expanded logical totality of inter-industry competition. The constant capital is not, in general, produced by the industry in which it is used, nor is it exchanged at its value.¹⁰ The level of inter-industry competition is the first level at which the magnitude of the exchange-value systematically differs from the magnitude of value. Continuing to define the constant capital component of a commodity values according to the value of these inputs results in inconsistencies in interpreting the relationship between value and exchange-value, inconsistencies that have led to the conclusion that Marx’s analysis is logically flawed. This conclusion results from a

¹⁰ “Since Marx’s object here is a social situation in which circulation processes are effective pre-conditions for production, the relevant magnitude must be the *price of production* of the consumed means of production and *not* the abstract labor-time physically embodied in them” (Wolff, Callari and Roberts, 1984: 126).

failure to recognize the synchronic and diachronic nature of Marx's logical method and to consider the implications for the meaning of value and its relationship to exchange-value.

The difference in magnitude between a commodity's value and its exchange value at this stage of the analysis allows Marx consistently to define the gain or loss of value experienced by the industry in equivalent exchange. It can therefore be used to analyze how conditions of production and exchange act together to redistribute value, both within and across industries, as a result of competition. In this way, Marx is further able to specify the ways in which commodity exchange mystifies social relationships while provided a means to make these social relations visible through the concepts of the commodity, money, value and exchange-value.

2.4 Value and Market-price of Production

Marx takes one more step in the elaboration of the meanings of value and exchange-value when he considers the effect of changes in demand for commodities on the socially necessary abstract labor-time. This next step brings into play the second aspect of socially necessary labor-time – production in accordance with existing social need. It implies a further evolution in exchange-value, the market-price of production, a category that defines equivalent exchange when demand conditions vary across industries and profit rates are not equalized. It results in a theory of how conditions of demand and supply act together to distribute socially necessary abstract labor-time within and across industries.¹¹

¹¹ Marx refers to the effect of demand on the value of commodities in several places throughout *Capital and Theories of Surplus Value*. His only sustained analysis, however, is in the second half of Chapter 10 of Volume 3 where he analyzes the effect of changes in demand on the determination of market-value. Following this analysis he states that his argument applies, with the appropriate modifications, to the determination of prices of production and results in a new category of exchange-value – the market-price of production (1959: 198). In Kristjanson-Gural, 2003, I carry through the appropriate changes to theorize the

Demand affects the determination of value by affecting the quantity of labor-time that is required for the satisfaction of the existing social need. In spite of the fact that no more labor-time than is technically required for producing the commodity is used, labor-time can be socially unnecessary in this second sense. The introduction of the possibility of discrepancies between supply and demand, which until this point in the analysis has been assumed, forces the reconsideration of what value means by bringing the second aspect of socially necessary labor-time into play.

If too much labor is expended in the production of a particular commodity, a portion of society's labor devoted to that production is not socially necessary in this second sense. Likewise, if less labor is devoted to this commodity than society "needs" (understanding the specifically capitalist definition and expression of "needs") more labor is socially necessary than the amount that was expended.¹² The value and exchange-value of commodities must now be reconsidered in order to take into account the further contingencies implied by the introduction of demand.

When Marx introduces demand into the analysis, he must reconsider the relationship between value and price of production. The price of production no longer adequately reflects the socially necessary abstract labor-time each commodity represents in equivalent exchange. Variations in demand alter the social necessity of the labor expended by the private producers such that commodities produced under conditions of

determination of the market-price of production and use it to analyze how changes in demand redistribute value between industries.

¹² "Just as it is a condition for the sale of commodities at their value that they contain only the socially necessary labor-time, so it is for an entire sphere of production of capital, that only the necessary part of the total labor-time of society is used in the particular sphere, only the labor-time which is required for the satisfaction of social need (demand). If more is used, then, even if each individual commodity only contains the necessary labor-time, the total contains more than the socially necessary labor-time; in the same way, although the individual commodity has use-value, the total sum of commodities loses some of its use-value under the conditions assumed" (Marx, 1968: 521). For Marx's reference to the socially specific expression of need in capitalism see (1959: 189).

excess supply represent less socially necessary labor in exchange and those produced in conditions of excess demand represent more socially necessary labor-time.¹³ The conditions defining exchange equivalence must now take into account a further contingency, a contingency that until this point in the analysis did not exist. The market-price of production is the new category of exchange value that captures the effect of demand on the determination of socially-necessary labor-time (Kristjanson-Gural, 1999; 2003).

Marx analyzes the effect of change in demand on the determination of market-value, but more than once he indicates that what applies to the determination of market-value applies to the price of production with the appropriate modifications (1959: 179, 198). In his analysis of market-value, he argues that variations in demand imply that the market-value is no longer determined by the average of all the conditions of production in the industry. Instead the market-value rises above the industry average in the case of excess demand and falls below the industry average in the case of excess supply.¹⁴ The

¹³ “For instance, let us assume that proportionally too much cotton goods have been produced, although only the labor-time necessary under the prevailing conditions is incorporated in this total cloth production. But in general too much social labor has been expended in this particular line; in other words, a portion of this product is useless. It is therefore sold solely as if it had been produced in the necessary proportion. This quantitative limit to the quota of social labor-time available for the various particular spheres of production is but *a more developed expression of the law of value in general, although the necessary labor-time assumes a different meaning here*. Only just so much of it is required for the satisfaction of social needs. The limitation occurring here is due to the use-value. Society can use only so much of its total labor-time for this particular kind of product under prevailing conditions of production” (Marx, 1959: 636, emphasis added).

¹⁴ “Should [the quantity produced] be smaller or greater, however, than the demand for them, there will be deviations of the market-price from the market-value. And the first deviation is that if the supply is too small, that market-value is always regulated by the commodities produced under the least favorable circumstances and, if the supply is too large, always by the commodities produced under the most favorable conditions; that therefore *it is one of the extremes which determines the market-value*, in spite of the fact that in accordance with the mere proportion of the commodity masses produced under different conditions, a different result should obtain. If the difference between demand and the available quantity of the product is more considerable, the market-price will likewise be considerably above or below the market-value” (Marx, 1959: 185-6, emphasis added).

movement of the market-value with variation in the level of demand is limited, however, by the individual values of the least and most efficient techniques of production. If excess demand or supply persists when market-values are defined by these extreme techniques of production, there will be a deviation of market-price from market-value.¹⁵ In this way the techniques of production define the range within which the market-value can fluctuate; the level of demand determines the magnitude of the market-value from within this range according to the expressed social “need” for the commodity – the effective demand.

Applying this reasoning to the case of competition among producers across industries is conceptually straightforward. The market-price of production is determined by first using the techniques of production in each industry to determine the range within which the market-price of production can fluctuate. These limits are determined by the exchange-value that would give the least and most efficient techniques of production a rate of profit equal to the general or average rate of profit for the economy as a whole. The magnitude of the market-price of production can then be determined by taking the total money demand for each commodity and converting it into labor units using the monetary expression of labor-time. This magnitude represents the total abstract labor considered to be “socially necessary” in the sense of being expended in accordance with existing social need. The market-price of production of each commodity is found by dividing this total “socially necessary” labor-time by the number of units produced; it represents the abstract socially necessary labor-time each commodity receives in

¹⁵ “For according to Marx’s conception, market-value can only move within the limits set by the conditions of production (and consequently the individual value) of one of the three categories of producers” (Rosdolsky, 1977: 92).

equivalent exchange where socially necessary labor-time now incorporates the second aspect previously only latent in its definition.

The difference between the market-price of production and the value captures the redistribution of value that occurs among industries as a result of competitive exchange when profit rates are not assumed to be equalized. Demand conditions and supply conditions act together to redistribute value both within and across industries. The market-price of production is the more developed and more general value category that captures these effects.

A careful specification of the synchronic nature of the relationship between value and exchange-value combined with the systematic diachronic development of this relationship results in a consistent integration of the dual aspects of socially necessary labor and abstract labor. It provides, also, a consistent theory of how capitalist commodity exchange creates and distributes value across the productive sector of the economy. Next I will show how a failure to recognize these characteristics of Marx's value theory results in error and how these errors can be categorized according to the aspects of the synchronic/diachronic method they fail to incorporate.

3. Synchronic/Diachronic Error in Value Theory

Three types of synchronic/diachronic errors can be identified through this reading of Marx's method. A synchronic error results from fixing or freezing the meaning of a concept at a particular stage of the analysis and thus failing to take into account the effects on its meaning of new contingencies that are introduced into the analysis. A diachronic error results from comparing logical claims at two stages of the analysis

without considering the changes in meanings that have occurred as a result of the introduction of new contingencies. An error of closure results from failing either to open or to close the system in order to examine the logical relationships among the terms. Here I will illustrate each type of error in order to demonstrate the importance of attending to this aspect of Marx's methodology.

3.1 Synchronic Error

To illustrate the concept of synchronic error, I want to focus on one aspect of the transformation problem – the claim that Marx failed to transform the value of constant capital inputs in his calculation of prices of production. Marx's critics argue that once the inputs into production are properly transformed into prices of production, the dual equalities of total value/total price and total surplus-value/total profit only hold under very restrictive conditions (Seton, 1957). Marx's value theory does not provide the basis for a logically coherent theory of price formation; instead it reduces to the modest claim that the rate of profit is positive only if the rate of surplus value is positive (Morishima, 1970). This argument is used to dismiss Marx's theory of value as logically inconsistent. It is further argued that labor values are in any case redundant to the determination of competitive prices since these can be solved for with reference to physical quantities and the real wage without recourse to labor values (Steedman, 1977).

The present analysis suggests that this argument is characterized by synchronic error. The error results from failing to reconsider the meaning of value at the level of analysis in which inter-industry competition is introduced. Instead, it fixes or freezes the meaning of value at the level of analysis of the single capital. Specifically, it calculates

the value of the constant capital entering production according to the value of these means of production, the labor required to produce them. However, in the context of inter-industry competition, these inputs must be acquired through exchange and the value these means of production transfer is therefore determined by the socially necessary abstract labor-time they represent in equivalent exchange – a magnitude of labor-time defined by their prices of production not their values. Continuing to count the elements constant capital that enter into the determination of commodity values by their value rather than their exchange-value represents a synchronic error – a failure to transform the meaning of value as new contingencies are introduced and therefore a failure correctly to specify the relationship between value and exchange-value at this stage of the analysis.

By carrying through the re-evaluation of the meaning of value at this new level of abstraction, Wolff, Callari and Roberts (1984) establish that the aggregate equalities hold – total value equals total price/ total surplus value equals total profit. These equalities are not, however, the derived results of a transformation of embodied labor values into competitive prices, but they are the transformed meanings of value – the socially necessary abstract labor-time required to produce a commodity – and exchange-value – the socially necessary abstract labor-time the commodity represents in equivalent exchange. They take these meanings in the context of the expanded logical space that incorporates inter-industry competition and therefore incorporates the second aspect of abstract labor – labor considered as an aliquot part of the total social labor.

3.2 Diachronic Error

Diachronic error results from comparing logical claims at two different levels of abstraction without taking into consideration the implication of the change in meanings

from one level to the next. The attempt to theorize the affect of demand on the determination of value illustrates this type of logical error in interpreting Marx's value theory.

Traditionally Marxists have rejected the idea that demand directly affects the magnitude of commodity values because attributing a direct role to demand contradicts the important claim that labor is the sole source of value. Demand, according to this view, only indirectly affects value by affecting market prices and altering relative rates of profit which leads to changes in production conditions and hence changes in value (Rubin, 1973; Shaikh, 1981). On the other hand, some theorists have pointed to the monetary character of commodity exchange and the important role demand plays in validating independent privately undertaken labor as part of the social division of labor (Colletti, 1973). Further, since value only ever appears in money form, some have argued that the magnitude of value is fully determined by demand (DeVroey, 1981). By appealing to different aspects of Marx's value theory the following contradiction arises: in order for labor to be considered the sole source of value, demand *cannot* directly determine the value of a commodity, but in order for money to validate independently undertaken private labor demand *must* directly determine the value of a commodity. By recognizing the existence of a diachronic error, this apparent contradiction is resolved.

The claim that demand cannot directly affect the magnitude of value is true at the initial stages of the analysis corresponding to a single producer and to a single industry. Prior to the introduction of competing industries the distribution of demand among industries lies outside the logical scope of the analysis; the level of demand is simply assumed to correspond to the existing supply at the commodity's exchange-value.

However, with the introduction of competing industries, variations in demand can be introduced and in so doing it is possible to analyze the effects of demand on the quantity of labor-time considered to be socially necessary in the sense of being in accordance with the existing social need. At this stage in the analysis variations in demand lead to changes in commodity values and exchange-values. At the same time demand does not represent an independent source of value; it merely distributes value among different industries according to the level of effective demand for each commodity. In so doing demand directly affects the value and exchange value of each commodity – the amount of socially necessary labor-time each commodity requires for its production and represents in equivalent exchange. The diachronic error results from the failure to recognize that these two contradictory claims – that demand both cannot and must directly affect the value of commodities – belong to distinct stages in the expansion of the logical totality.

3.3 Errors of Closure

Failure to open or failure to close the logical totality results in an error of closure. Althusser's critique of the economism of classical Marxism is implicitly a critique based upon an error of closure: the law of value is analyzed without systematically opening the logical totality to include new contingencies. Responses to this economism demonstrate another error of closure – a failure to close the system in order to analyze the logical relations between the terms. Laclau and Mouffe's post-Marxism, rejects the economism of classical Marxism – its tendency to treat class relations as elements isolating them from the non-class contingencies that comprise the social totality. But by failing to close the system, post-Marxism falls prey to an error of closure; the system is left open and therefore lacks the logical order necessary to carefully distinguish how each relation is

defined. By identifying the synchronic and diachronic character of Marx's value theory it is possible to avoid errors of closure and to open the analysis systematically to include further contingencies while allowing the meanings to be affected by the new relations that are created within the expanded logical totality. In this way both the economism of classical Marxism and the abandonment of class characteristic of post-Marxism are avoided and a means of integrating logic and history presents itself. Here I will offer two examples of errors of closure, the post-Marxism of Laclau and Mouffe will be used to demonstrate the failure to close the logical totality and the new dialectics of Albritton and Sekine will be used to demonstrate a failed attempt to open the system.

Laclau and Mouffe (1985) argue that any attempt to theorize the logic of the economic or class aspect of the social totality unjustifiably privileges that aspect. It treats the economic aspects of the social totality as elements rather than as relations; it sees the economic laws as being constituted without reference to the political and cultural context in which they are inescapably embedded. In order to overcome this economism, it is necessary to decenter the analysis of the social totality but in so doing the logical relations that form the basis of Marx's critique of capitalism are lost. In their place, Laclau and Mouffe offer a view of the social totality in which the economic retains only vestiges of the logic of competition or accumulation and which takes a place alongside any number of aspects of the social totality that do not exhibit any particular logical relation but instead are related contingently.

The error of closure lies in their argument that any attempt to circumscribe the logical space of the analysis results in treating concepts as elements and not relations. With a synchronic and diachronic method the key concepts are not considered to be

elements since the expansion of the logical totality involves re-evaluating the relations of these concepts with both new and existing concepts. By rejecting any closure Laclau and Mouffe are unable to situate class concepts by examining their logical interrelations and they end up treating them as elements – exactly the problem their critique is intended to ward off (Diskin and Sandler, 1993: 43).

Albritton (1993; 1999) attempts to integrate historical contingency while, at the same time, maintaining the logic of the law of value.¹⁶ He argues that it is necessary first to analyze the logic of competition in its pure form – by abstracting from the historically contingent manifestation of the logic and treating agents simply as bearers of class relations. Once the “deep” logic is theorized, the next step is to show how that logic expresses itself differently according to the specific historical contingencies through which it is expressed. These contingencies are introduced in two stages. The first stage includes the broad cultural and political characteristics of the historical era; the second includes the specific historical institutional manifestation of those characteristics. By systematically theorizing the deep logic of capital while also analyzing how the logic is ‘refracted’ by historical contingency, the theory permits an analysis of economic laws of motion without maintaining that they are dominant in any particular historical juncture.

Albritton’s interpretation of the relation of logic and history retains some elements in common with synchronic and diachronic logic, insisting initially that the logic be analyzed in a simplified setting which is then systematically enriched with further contingencies. However, it commits an error of closure by failing to re-evaluating the meanings of the terms it uses to describe the deep logic when new contingencies are introduced. The opening of the system is only partial in that the value concepts

¹⁶ Albritton draws upon the work of Sekine, 1997.

describing class relations remain as elements related only to themselves in terms of their meanings when new contingencies are introduced. It is in this sense that the logic is ‘refracted’: the logic retains its essential core but it manifests itself in various ways depending upon the cultural and institutional context within which it is embedded. Albritton’s deep logic represents the imposition of an essentialist rationalism which it then imposes on the reading of history to develop its integration.¹⁷ The solution instead is to systematically re-evaluate the logical relations that give meaning to the terms used to describe this logic as each new stage of analysis is encountered. In this way the logic gives up its privilege without rendering itself powerless to effect an explanation.

The economism of classical Marxism to which Althusser draws attention and that both of these approaches attempt to resolve can itself be seen as an error of closure – a failure to open the system to integrate new contingencies and therefore to treat value and the class relation it describes as elements rather than as synchronic/diachronic relations. Laclau and Mouffe’s response is to reject the closure necessary to define the concepts of value and class; Albritton’s response is to open the system to cultural/historical contingency but without considering how these contingencies affect the meanings of the value concepts he uses to describe the logic of capital. Value and class thus remain elements even within a framework that is systematically opened to include contingency. Recognition of the synchronic and diachronic aspects of the methodology allows for the introduction of cultural/historical contingency while retaining the logic by re-evaluating the meanings of the concepts at each stage. The concepts are therefore treated as

¹⁷ Albritton argues that the logic of capital exhibits a reality that is distinct from the reality exhibited by historical events (1993: 30).

relations, not as elements, and the theory is able to integrate a logical analysis of capital with its historically uneven manifestation.

4. Implications

I have argued that there is a synchronic and diachronic development to Marx's analysis in *Capital*. The terms in the analysis take their meaning synchronically from their relation only to the existing concepts in the theory; the meanings of the terms develop diachronically as they assume new relations both to the existing concepts and to new concepts that are systematically entered into the analysis as new contingencies are introduced. I illustrated the use of this synchronic/diachronic method in Marx's development of the concepts of value and exchange-value in *Capital*, how the meaning of value and its relation to exchange-value evolves through the consideration of competition first at the level of the single productive capital, then at the level of the industry and productive sector and finally with the introduction of variations in demand among industries. While the definition of value remains constant the meanings of socially necessary labor and abstract labor systematically evolve and the concept of exchange-value is replaced, at each successive stage of the analysis, first by the market-value, then by the price of production and finally the market-price of production.

I then demonstrated the usefulness of this aspect of Marx's methodology for identifying and classifying different types of synchronic/diachronic error. The transformation problem was shown to result from synchronic error – a failure to reconsider the meaning of value and its relationship to exchange-value at a higher level of abstraction in which inter-industry competition is considered. Diachronic error was seen to be the source of the failure consistently to integrate demand by comparing logical

claims at two distinct levels of analysis without taking into account the change in the logical relation among terms. The claim that demand does not affect the magnitude of value was reconciled with the claim that demand must affect the magnitude of value by taking into consideration how the meanings of value and exchange-value evolve. Finally, the problem of integrating the logic of capital with its historically uneven manifestation was seen to result from errors of closure – either failing to open the logical totality and allow the meanings of the terms systematically to evolve or failing to close the logical totality and rendering the concepts of value and class devoid of the ability to analyze the effects of value and class on the social totality.

This analysis of the synchronic/diachronic aspects of Marx's methodology is not meant to be exhaustive, nor is it meant to imply that this methodology provides access to objective truth. Value and exchange-value are key concepts in the development of Marx's analysis that provide a basis for understanding class relations but there are other key concepts that ought to be analyzed and further expansions of the logical totality that need to be theorized. Capital for example becomes differentiated into industrial, financial and commercial capital further integrating unproductive sectors of the economy – the effect of these contingencies on the meanings of the existing value concepts needs to be explored. Furthermore, the integration of non-class aspects of the social totality into a value analysis does not preclude the important work of generating non-class frameworks for analyzing the social totality. Because each expansion of the conceptual totality remains centered on the class aspects of society, it makes these aspects visible at the expense of other equally important social aspects. This approach does not seek to encompass other approaches; only to provide a means of integrating cultural and political

dimensions of social struggle into a class analysis in order to be able to provide one point of view of the social totality, a point of view that is admittedly one-sided and partial but which nonetheless attempts systematically to shed light on one important aspect of social totality. It is able to make visible class relations based upon the capitalist organization of paid labor. While these class relations do not determine social outcomes, they do play their part and a theory that is able systematically to bring the class aspect of our social relations to light is surely worth our efforts to elaborate and to defend.

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