The transformation problem in the epistemological and conceptual framework of Marx's object

Marko Kržan

Although Marx's theory of class society and exploitation is no doubt closely related to his economic theory, no widely accepted concept of this connection has ever been established in Marxist tradition. In this paper we examine how this interrelation could be conceived within the existing interpretations of the labour theory of value (LTV) as the key concept of Marxian economic theory.

In section 1 we demonstrate how Marxian LTV is being reduced to three distinct problematics in the hands of historians of economic thought. We emphasize the fact that this interpretative operation fails to establish specific features of Marx's problematic, which distinguish it from the problematic of classical political economy.

In section 2 we demonstrate how these misinterpretations get condensed in the so called transformation problem controversy claiming that the latter cannot be properly resolved without taking into account the theoretical status of the concept of value.

In section 3 we present Gerard Dumenil's discussion of the emergence of the concept of value as a necessary tool of economic analysis in the framework of political economy as such, and its functioning in a form of labour value in the discourse of classical political economy.

We proceed by demonstrating how the concept of value could be further elaborated by taking into account the specific difference of Marx's object. The epistemological aspect of this operation is discussed in section 4 where Marx's missing concept of transformed form is considered in connection to the theory of ideology. The conceptual aspect is elaborated in section 5 where Dumenil's and Foley's mathematical solution of the transformation problem is linked to the basic concepts of historical materialism.

In section 6 we examine how the choice of a certain interpretation of Marx's economic theory determines the development of Marxist social theory.

1. Three aspects of Marx's LTV: reconstruction from the orthodox point of view

Although it might be true that Marxism is a schismatic science (Althusser) this cannot be said of the interpretations of Marx written from the point of view of orthodox economy. This assertion remains valid even in regard to one of its most controversial elements – the LTV. Regardless of the viewpoint historian adopts – be it the history of ideas (Dooley, 2005),

research of the cumulative accumulation of economic knowledge (Blaug, 1986) or the combination of both (Roncaglia, 2007) – the results obtained remain the same. In the complex and often obscured construction of Marx's LTV there are three distinct elements, which have to be isolated in order to validate their significance from the point of view of modern economic and social science. The first instance is, as it were, LTV proper, i.e. mechanism that explains determination of natural prices. This is the original and appropriate economic function of the LTV and a proper setting for its testing and validation.

Theoretical functions of the second and third element are somewhat harder to approach, since their rationality is obscured by metaphysical residuals attached to the LTV, i.e. the notion of the origin of value (Dooley, 2005). When the job of removing the metaphysical cover is done, two distinct aspects emerge: the notion of economic surplus and the notion of institutional (moral, legal) setting of capitalist economy. The problematic of economy producing a surplus of output over input could be viewed as a legitimate framework of classical theories of distribution, fostering a basic idea that technological conditions of production ultimately determine the aggregate of incomes. Unfortunately, in a lack of a better analytical tool, the LTV had to be used in its function as a measure of value, i.e. as a measure of real costs of production that enables economist to identify restrictions laid upon the production and distribution of income by the technological properties of production. However, the imperfections of the LTV in this respect do not necessarily flaw this problematic as a whole. LTV could serve as a first approximation (Ricardo) for approaching it, by the provision that it could later be replaced by more adequate analytical tool. This task has actually been accomplished, some economists might argue, in the form of Piero Sraffa's commodity production models serving at a same time as a formalism of the determination of prices and aggregate surplus.

So far, so good, but, nevertheless, actual history of classical political economy – at least at the time – did not proceed in this manner since the real problem has allegedly become obscured by the projection of the notion of labour as the origin of value upon the problematic of economic surplus. This defect has proven to be a fatal one for the classical political economy, since it has led to non-scientific discussion on whether the labourers are entitled to the whole produce of their work or not which has dominated the discourse of Ricardian socialists and Marxism ever since.

Historians of economic thought agree that the notion of the origin (of value) is purely metaphysical and has no place in (economic) science but they, nonetheless, concur that it 'masks' some of Marx's important insights into the history of institutional setting of

capitalism, such as the analysis of the ownership relations, working process or even the "incompleteness" of the employment contract (Blaug, 1986: 243). When cleansed of the residuals of natural rights theory (such as the notion of the profit as an unearned income), this problematic – representing the rational core of the theory of exploitation – could become a legitimate object of sociology.

Consequently, the three aspects of Marx's LTV are reviled as the theory of determination, measure and origin of value, and thereby relived of their historical burden in order to become the object of price theory, theory of economic surplus and sociology of institutions. Each of the aspects can then be considered on its rational scientific ground, i.e. on the ground consisting of the objects of the above mentioned disciplines.

Although the disciplines concerned were hardly established at the time when Marx has been writing his works, this kind of 'dissolving' of his object is by no means original. In fact, it was Engels who already distinguished what might be called the problematic of surplus product of economy from the problematic of its righteous distribution:

The *existence* of that part of the value of products which we now call surplus-value had been ascertained long before Marx. […] Some – the classical bourgeois economists – investigated at most the proportion in which the product of labour was divided between the labourer and the owner of the means of production. Others – the Socialists – found that this division was unjust and looked for utopian means of abolishing this injustice. (Marx, 1961: 15)

The decisive moment comes in the next step, when Engels clearly states that Marx's object cannot be reduced to the objects of (what shall soon after he has written these words become) economy and sociology:[1]

He [Marx] saw […] that here it was not simply a matter of stating an economic fact or of pointing out the conflict between this fact and eternal justice and true morality, but of explaining a fact which was destined to revolutionise all economics, and which offered to him who knew how to use it the key to an understanding of all capitalist production. (Marx, 1961: 15)

[1] It is inevitable for a discourse of moral rights to resolve itself in some kind of sociology or social science, since it is always-already (usually a comparative) study of social institutions and practices. That, on the other hand, social sciences are bound to be contaminated with 'moral sentiments' at some point is, of course, not a mystery to orthodox economists. Faced with this necessity, they, however, act like Christian theologians in Marx's fable positing that this holds for all social sciences *except* economy, thereby getting rid of the problem by abstracting from 'unspecified institutional data' and 'sociological assumptions'.

Having declared the isolation of the second ('economic surplus') and third ('sociological') component as a flaw claiming that they are to be re-articulated on a basis of Marx's discovery, Engels then approaches the first problematic ('determination of value') in a rather unsatisfactory manner. He fails to see that, even in this new conceptualisation, LTV is not a (proper) theory of the determination of relative prices, and thereby fails to establish the exact relation between the explanative power of the theory (law) of value, on the one hand, and the theory of exchange on the other. He realises, of course, that a connexion of some kind does exist between the two fields, and goes on to formulate it, thereby relapsing into the very line of reasoning he is trying to reject: a view of the LTV as simultaneously a theory of the determination of prices and – *via* the concept of surplus – of the uniform rate of profit. He therefore manages to articulate the problematic of surplus to the problematic of relative prices in capitalism, but only at a price of abandoning Marx's re-articulation of the LTV in favour of the interpretation of the LTV he, just a few lines ago, rejected.

2. Transformation problem

What we are witnessing is, therefore, a sort of overlapping of two problematics, both composed of two elements, in the first case relative prices and surplus and in the second case surplus and exploitation. However, the common element, surplus, is not the same in both cases, since its articulation with other elements of a particular problematic defines its theoretical meaning rather differently. It was the inability to see this that – even in the case of Marx himself – gave rise to the well-known transformation controversy.

When approached from the point of view of the problematic consisting of prices and surplus, the origin of the problem can be traced down to the so-called 'Ricardo effect', i.e. "the fact that measured in money of constant purchasing power, a rise in wages would rise the price of labour-intensive goods relative to capital-intensive goods" (Blaug, 1986: 97). This proves[2] that the LTV cannot be used as an accurate theory of the determination of value. Such a theory has to provide (1) a mechanism of the behaviour of economic agents; (2) mathematical setting that can account for all the determinants of (natural) prices. In capitalist economy,

[2] It should be noted that this effect is only one of the cases where relative prices inevitably come to diverge from the ratio of labour embodied in the given commodities. It is due to the fact of different organic composition of capital. There are, generally speaking, two other features of (capitalist) economy that limit the scope of the 'pure labour-cost theory of value' (Blaug, 1986: 92): different durability of capitals and of machines. We shall leave this point aside, since it is not crucial for our discussion.

capitalists are driven by the search of higher profits – thus unifying the rate of profit, and workers by a search of a higher wage. As far as this two mechanisms cause the prices to diverge from embodied labour ratios significantly, it is rather they that function as regulators of value. In other words, natural (long run, equilibrium) prices at which commodities tend to sell are not proportional to the amount of embodied labour.[3]

However, LTV can be used as a first approximation to establish natural prices, if only one uses it as a 'cost price' theory.[4] Assuming that the main real cost is labour and that the capital costs (profits and interest) are relatively low this theory could clearly be conceived as some sort of price-determining mechanism of economic behaviour. As far as the mathematical setting is concerned, it would also provide a rough approximation of long run prices. Moreover, it would also provide a tool for "valuating the national product independently of its distribution among the participating factors of production" (Blaug, 1986: 98).

What we witness is, therefore, on the one hand, a move from the LTV as a theory of determination of natural prices towards the labour-cost theory of value that can serve as a rough mechanism and approximation of price-determination in capitalism, especially if the costs of capital (profit and interest) are considered to be small in comparison to the costs of labour. On the other hand, it is a shift form the problem of price-determination to the analysis of economic surplus. It was here that Ricardo finally applied the LTV in order to proceed with his "theory about how the surplus is distributed among the social classes" (Roncaglia, 2007: 190).[5]

This was, basically, the point of, as Engels puts it, 'shipwreck of the Ricardian school' and a point of departure for Marx:

According to the Ricardian law of value, two capitals employing equal quantities of equally paid living labour all other conditions being equal, produce commodities of equal value and likewise surplus-value, or profit, of equal quantity in equal periods of time. But if they

[3] It could well be said that only Smith who maintained that in a primal state of society the behaviour of economic agents would have been driven by the embodied labour values, which would thus be identical with 'natural prices', has used the LTV as a genuine regulation-of-prices mechanism.

[4] "I use the term 'cost theory' to include any theory which approaches the problem of the price of commodity from the angle of the 'costs' (including profits) which have to be covered if it is to be worth a producer's while to carry on producing it." (Meek, 1973: 76)

[5] The LTV may have been the only option in a setting where "land was […] regarded […] as a 'free gift of Nature' while capital goods were neither hired nor bought in terms of homogeneous physical units" (Blaug, 1986: 114). Also a broader intellectual milieu should be considered, in which "the idea of natural standard of value should have appeared parallel to the idea of natural standard for physical magnitudes" (Roncaglia, 2007: 192).

employ unequal quantities of living labour, they cannot produce equal surplus-values, or, as the Ricardians say, equal profits. (Marx, 1961: 18)

Faced with this contradiction Marx was supposed to "show in which way an equal average rate of profit can and must come about, not only without a violation of the law of value, but on the very basis of it" (ibid.). In order to answer, Marx came up with his famous transformation of values into prices of production, which is presented in the following numerical example:

Table 1[6]

Industry	Constant capitals, c	Variable capitals, v	Total capitals, c+v	Surplus-values, s=v	Values of commodities produced, a=c+v+s	Profits	Prices of production, (c+v)(1+r)
1	70	30	100	30	130	20	120
2	90	10	100	10	110	20	120
Total economy	160	40	200	40	240	40	240

Marx's idea is simply that the amount of surplus value produced economy as a whole is given independently of the prices, therefore establishing the total amount of profits. The basic premise of transformation is that although an individual capital extracts surplus value in proportion to the living labour (v) deployed, profit is realised in proportion to the whole capital advanced /r(c+v)/. In this case the rate of profit is equal in both sectors and the divergences between prices and values cancel out in economy as a whole.
However, this solution is fundamentally incomplete, since it only transforms values of output leaving the input expressed in original labour terms. This is not acceptable unless one

[6] Taken from (Dumenil, Foley, 2006), with notification modified in order to conform to the general presentation. Illustration is a simplification of Marx's numerical examples that consists only of two sectors, provided that the whole constant capital is being used up (so that the cost price is equal to the sum of total capitals advanced) and that the turnover rates of capital are the same in both sectors.

assumes that the means of production and labour force actually sell at their values, or that no output of the economy enters in production as input. Marx was, of course, aware of this problem. Since, however, he never formalised it we are only left with solutions proposed by his followers (and critics) on the basis of his suggestions. The move from Marx's explicit solution to the framework of the so-called standard one can be formalised as follows:

Table 2[7]

$(c_1+v_1)(1+r)=a_1p_1$	$(c_1p_1+ p_2v_1)(1+r)=a_1p_1$
$(c_2+v_2)(1+r)=a_2p_2$	$(c_2p_1+ p_2v_2)(1+r)=a_2p_2$
$(c_3+v_3)(1+r)=a_3p_3$	$(c_3p_1+ p_2v_3)(1+r)=a_3p_3$

In both cases we are faced with a system of three equations but at the same time we have four unknowns (r, p_1, p_2, p_3). The system is thus undetermined and a fourth equation is needed in order to calculate all the unknowns. As we have seen, Marx decided to apply the equality of surplus value and profit at the level of the economy as a whole: $r[\Sigma(c+v)]= \Sigma s$. In his specific case where the inputs remain untransformed, deviations of prices and values cancel out in a system as a whole: $a_1p_1+a_2p_2+a_3p_3=a_1+a_2+a_3$. However, in case of the solutions where inputs have been transformed as well, the two equalities (sum of values = sum of prices of production; sum of surplus value = sum of profits) generally do not hold simultaneously. This was the case in the first solution, proposed by Bortkiewitz. Instead of applying one of the two equalities directly, Bortkiewitz used a *numeraire*, thereby getting rid of one of the unknowns by postulating that $p_3=1$. This is the same as postulating that one of the departments produces gold, i.e. money commodity, thereby immediately introducing money into the system.
At this point it is crucial not to miss that this detour has brought us at the beginning of this section, since Bortkiewitz's *numeraire* is actually Ricardo's 'invariable standard of value' a 'yeardstick' for measuring the real value of commodities. Ricardo did not, actually, think in terms of divergence of values from prices, since his question was, actually, how much prices vary when profits and wages vary when the quantity of labour embodied remains constant. However, in a framework he used, i.e. the problematic of articulation of relative prices and surplus, the defects of LTV as a theory of regulation of natural prices come out as defects of LTV as a formalism determining the amount of surplus (and the rate of profit):

[7] We use formalisation presented in Meek 1977, 110, 114. The symbols are: r – uniform rate of profit, p – value/price coefficient, a – value of a commodity, i.e. c+v+s, where s is surplus value.

It was Ricardo who was in fact first to ask: Will proportions about the rate of profit laid down in a world where commodities sell at their labour values hold in the real world where commodities sell at normal prices? (Blaug, 1986: 233).

If this assumption were to hold, a proper 'invariable measure of value' (*numeraire*) would have to impose both Marx's equalities. In a framework of the LTV this condition can be met only in a few specific cases. Ricardo first considered gold to be such an 'average commodity', but in this case, as Bortkiewitz has shown, only the sum of surplus values comes out equal to the sum of profits, whereas divergences of prices from values do not cancel out, since "Departement III […] has a relatively low organic composition of capital", as he puts it (Meek, 1977: 114. Both conditions would, however, hold, if Bortkiewitz assumed that one of the departments had an average organic composition of capital.[8] Ricardos's mission would, therefore, be accomplished if such a commodity (or a set of commodities) could actually be instituted, i.e. not unrealistically postulated for a whole department of three-department economy.

Economists following Bortkiewitz's path managed to show that transformation was possible even in a system with *n* sectors and without assuming that the use of every commodity was unambiguously determined by the sector of its origin. In order to make the system determinate, they directly applied one of Marx's equalities, and not the *numeraire*. The result was, of course, that – except in particular cases mentioned – the equalities would not hold simultaneously. It was now up to Marxist economists to figure out, whether this failure would falsify Marx's LTV in general, or, if the answer was negative, which of the two 'invariance postulates', as the equalities became termed, could be sacrificed. It is quite difficult to see the merits of a particular choice in this framework. Some authors argue that the main thing for Marx (and for Ricardo) was to show that the sum (and rate) of profit was predetermined by the sum of surplus values (Meek, 1977: 107). This result could, in general, be achieved only, if one sacrificed the mechanism of (natural) price determination, since the divergences of prices from values would not cancel out at the level of the economy as a whole, as Marx thought.[9] One can determine the size of the surplus but in doing so one constructs a pattern of

[8] This could either be Department III or Department II (production of wage goods), if the latter would have been postulated as a *numeraire* (p_2=1). Cf. Blaug op. cit., 233, Meek 1977, 114, n. 59. There are other two special cases when both equalities hold simultaneously: one where r=0 and one where the organic composition of capital is everywhere the same.

[9] "However, this always resolves itself to one commodity receiving too little of the surplus-value while another receives too much, so that the deviations from the value which are embodied in the prices of production compensate one another. " (Marx, 1962: 159).

reallocation, which does not conform to the actual (natural) price system. The mathematical determination of surplus obtained by the assumption of commodities selling at prices proportional to their values (*Capital I*), would have no actual meaning when imported into the framework of capitalist economy, where natural prices commodities tend to sell at are actually 'prices of production' (*Capital III*).[10]

The same can be said of the other equality (sum of values = sum of prices). In this case, we would have a system of prices in which the divergences of prices from values would indeed cancel out in the economy as a whole. However, the notion of reallocation of surplus value in a form of profit would, obviously, have to be dropped, since the aggregate of what is said to be produced and redistributed (value), is clearly not derived (at least not mathematically) from the aggregate of what is supposed to have been realized as profit when the commodities were sold.[11] In both cases, the true nature of the procedure emerges clearly: the results concerning either the total value or the total surplus value, obtained within the first system of natural prices (i.e., the system, in which commodities tend to sell at prices proportional to values),[12] are imported into the second system (where commodities tend to sell at prices of production). Since, however, this method fails to explain what happens to these two aggregates in the second system it fails to show that this importation is valid.

It is now easy to see why this interpretation of the LTV has been termed Dual-System approach (Foley, 2000), and that it is neither an appropriate theory of natural prices nor an appropriate theory of surplus (i.e. profit rate), at least not in capitalist economy.[13]

Another turn in the debate came in 1960, with Piero Sraffa's book *Production of commodities by means of commodities*, which effectively showed that Ricardo's task of simultaneously determining the rate of profit and prices of production on the basis of a notion of surplus can, in fact, be achieved. Sraffa offered a system of equations quite similar to the one we presented earlier with the exception that he did not use "the *value* of commodities concerned but the *commodities themselves*" (Meek, 1973: xxvii), i.e. physical quantities of commodities instead of quantities already weighted by the application of a set of coefficients. In order to make his system determinate he then postulated the existence of commodity not affected by the changes in wage or profit rate. In the case of, as he called it, standard commodity, he had

[10] I.e., one would be obliged to explain how the surplus disappeared (in the case where $a_1+a_2+a_3>a_1p_1+a_2p_2+a_3p_3$) or emerged (where sum of value < sum of profit) in the process of exchange.

[11] I.e., one would, again, be obliged to explain how the surplus disappeared (in the case where $\Sigma s>r[\Sigma(c+v)]$) or emerged (where $\Sigma s<r[\Sigma(c+v)]$) in the process of exchange.

[12] This system has its name in Marxist tradition – simple commodity production.

[13] "It *is* technically possible to solve the transformation problem but it is not possible to do so while retaining both the labour theory of relative prices and the labour theory of profits." (Blaug, 1986: 233)

actually constructed a commodity, produced under technological conditions 'representative' of the system as a whole, so that p_j=1. Sraffa proved that, in a society with developed division of labour, the amount of surplus can be determined independently of the distribution of incomes by determining simultaneously the set of prices of production and a rate of profit which, under the given technological conditions of production, enable the proprietors of profits to purchase the entire given surplus. Ricardo's notion of a distribution of income as a trade-off between wages and profits, i.e. what appears to be the rational economic core of Marx's theory of exploitation form the viewpoint of orthodox economy, could finally be verified. For some Marxists, this came as a relief:

Sraffa–type sequence of models does essentially the same set of jobs which the Marxian labour theory was designed to do; it starts, as Marx's system did, with a 'prior concrete magnitude' which limits the levels of class incomes; it is based on the same view about the order and direction of determination of the variables […] it contains a built-in solution of the transformation problem. And on the qualitative side […] it reflects the basic idea, which Marx was trying to express in his labour theory – the idea that prices and incomes are ultimately determined by the relations of production – more clearly and effectively than Marx's procedure did" (Meek 1973, xlii).

This, clearly Ricardian tendency, which reduces Marx's LTV to the problematic of relative prices and surplus (rate of profit) determination, could not have been adopted by those who thought that it should rather be related to Marx's re-articulation of the problematic of surplus and exploitation. Whether the ones involved in a debate recognized it or not, it was a question of defining the theoretical status of Marxian values, problem a century old:

[Werner Sombart] investigates the importance of value in the Marxian system, and arrives at the following results. Value is not manifest in the exchange relation of capitalistically produced commodities; it does not live in the consciousness of the agents of capitalist production; it is not an empirical, but a mental, a logical fact. (Engels, 1962: 871)

In the language of modern orthodox economics, this would mean that values are neither observable nor behavioural variables, i.e. that they cannot be "inferred by direct observation nor deduced from the economic behaviour of workers and capitalists" (Blaug, 1986: 234). Let us just recall that Marx defines surplus as a product of unpaid, surplus living labour. He then

goes on to assume that the rate of surplus value (s/v) is uniform in all industries. In this case the labour intensive industries create more surplus value as capital intensive. This statement clearly contradicts the fact of the uniform rate of profit: would it not be more reasonable to contend that it is actually the uneven rate of surplus value, which accounts for the divergences of prices from values? In a way yes, since it would conform with empirically observed fact that "profits per man employed are […] a function of output per man employed, which in turn is greater where capital per man is greater" (Blaug, 1996: 228), i.e. view that the capital has something to do with productivity of labour. But this would in turn mean to give up the notion of living labour as the only value creating substance, the cornerstone of the theory of surplus value as such.

There are only two options left in this case: either to modify LTV so as to rest it on observable variables[14] or to prove that labour values can in fact serve as a concept with legitimate theoretical status, and not only as a metaphysical residuum. We shall continue our discussion in this direction.

3. The concept of value in political economy in general and in classical political economy in particular

Previous section of our discussion has shown that the standard solution of the transformation problem produces even more controversy forcing some of Marxist scholars to abandon Marx's problematic of value in favour of Sraffa's commodity production models. Before we continue to show how an alternative solution can be approached, we shall address the question of what would be lost, if the reference to the concept of (labour) value would have been abolished entirely from the Marxist economic theory.

It has to be noted that the question did not attract much attention among Marxists although it has been raised, in a rather explicit manner, at the beginning of the 'law of value discussion'. Let us recall that Engels – in his Supplement to *Capital* Volume III – discuses the criticism of Italian economist Achille Loria, who tried to demonstrate that the concept of value as distinct from the notion of exchange ratio between two commodities had no place in economic theory. According to Loria, economist may only speak of value as it is actually established in

[14] I.e., make a journey from Ricardo to Sraffa thereby changing one, deficient, measure of the conditions of production – labour time – for a set of other – phisical units as an exact measure of quantity of production inputs and outputs.

exchange so that the concept of value should either be identical with the concept of price (exchange value) or wholly abandoned. For Loria, this is especially true as far as the notion of total value contained in commodities, i.e. the notion that lies at the centre of Marx's reasoning. Loria then even goes on to demonstrate the allegedly illogical character of this notion in a numerical example summarized by Engels. We leave aside the question whether the kind of reasoning exhibited in Loria's example could be of any relevance in the discussion of the concept of value. We would, rather, like to stress that Engels gives no answer whatsoever to the question of this, one might say, technical role of the concept of value in economic analysis. He proceeds, instead, with the well-known interpretation of the law of value as a logical-historical concept giving rise to the so-called historical transformation controversy.

The question of the function of the concept of value in the analytical framework of political economy thus remains opened. We will try to reconstruct its emergence in the discourse of political economy in two steps:[15]

1) We will demonstrate how the concept of value emerges implicitly whenever a certain type of analysis of production and distribution takes place in political economy;

2) We will show how such a concept becomes explicit when articulated upon related concepts of *classical* political economy, thus making a further step in our attempt to show how it could be conceptualised in a strictly *Marxist* manner.

As Dumenil points out, the concept of value emerges in a context when the economic fields of production and distribution are simultaneously discussed. In such a setting, it is inevitable to identify an object (or objects) that is common to both of these social acts. One way of approaching the matter is to define this object as a set of physical commodities, i.e. the possibility discussed above. This setting becomes unsatisfactory, however, whenever one tries to deal with problematic of percentage increase or decrease in production or if one tries to express the share of income of a particular social group by means of a scalar (i.e. quantity that can be expressed by a simple number). Reasoning in terms of physical quantities does not suffice in this context, since the components of the totality of the produced commodities remain heterogeneous.

To deal with the type of questions, mentioned above, one first has to aggregate these heterogeneous quantities in a homogeneous commensurable unity. The way to do this is to

[15] We follow closely the discussion in (Dumenil, 1983). To avoid any misunderstanding possibly arising out of our much-simplified interpretation the reader is instructed to consult the mathematical setting and bibliographic reference in the above-mentioned text.

apply a set of coefficients, usually *prices*, thereby weighting the heterogeneous quantities in order to obtained the aggregate, commonly referred to as their value. However, this kind of procedure would suffice only in a framework of an invariant price system. Since the prices usually vary within the period under examination, one has to impose some kind of equivalence among the possible results of weighting, which is "tantamount to a normalisation in which different sets of prices obtain the same valuation" (Dumenil, 1983: 430). In other words, one must choose between different sets of prices, which have been effective within the given period, i.e. normalise all the sets using the set that has been in force at the beginning or at the end of the period or use the average prices. Regardless of the choice we make it should be noticed, as Dumenil insists, that within a given framework the choice remains arbitrary. We will return to this point in a short while, after we examine all the relevant features of this analytical constellation.

It is quite natural in the given context to proceed by assuming that, when the quantities remain constant, all the changes in distribution are due to the changes in prices. This amounts to saying that while the change in a price system changes the distributional pattern, the aggregate product remains intact. We thus explicitly impose equality between all (possible) sets of prices ('values' in the above sense) of the given set of commodities and, by doing so, "implicitly refer to a social substance that is conserved trough variations in prices" (Dumenil, 1983: 430).

We can then proceed by imposing further mathematical relations between different sets (bundles) of commodities and the amount of this social substance. When a given bundle doubles (triples etc.) in all its components, the amount of the social substance doubles (triples etc.) as well; when a sum (of the components) of a certain bundle is the same as the sum of the components of some other two bundles (i.e. their components), the same is true as far as the social substance is concerned. These interconnected lines of reasoning are the two basic aspects of the concept of value immanent to the project of political economy in general:

In a concept of value one thinks of something beyond prices which cannot be reduced to a mere set of quantities. Anyone who contends that annual production has increased or decreased by a certain percentage exhibits reasoning of this kind. He is using a concept of value which perhaps he will never analyse but which nonetheless he still uses. (Dumenil, 1983: 431)

The same solution could be applied to the second question, raised above. If one is to express an income of some social group as a fraction of the total value, one only has to apply the logic of the concept of value. For instance, in order to determine a real wage one only has to analyse it as a bundle of commodities, which can be obtained by adding-up or summing-up certain amount of basic bundles – e.g. bundles specifically constructed to enable such an analysis. Proceeding in this direction, one can even make a step further and allot corresponding value to unit quantities of any commodity.[16]

We have mentioned above that this demonstration concerns the concept of value, as it is present in political economy in general. We have seen that it emerges when the concept of value and price are mutually articulated or, what amounts to the same, when one tries to articulate the spheres of production and distribution in a same problematic. At this point, however, the concept still deficient since the allotment of value to quantities of goods remains arbitrary. Therefore, further development is needed which cannot be accomplished in this general economic framework. In other words, the articulation between production and distribution remains inadequate as long as one sticks to some general concept of production, and can only progress, if it is based on a particular concept of production.

Such a concept was already available to Marx when he started his work and it was the classical political economy that provided it. It consisted of a non-arbitrary definition of the process of production:

To produce is to bestow a certain amount of human labour on an ensemble of products (themselves previous products of production) in order to obtain another ensemble of products. (Dumenil, 1983: 432)

This is a crucial point of the LTV since two divergent conclusions can be drawn from the fact of the increase, which occurs during the process. First, it might be contended that the new bundle of commodities that emerged is equal to a difference between the output and input

[16] Dumenil makes another important point regarding this matter by indicating that the result, which is obtained when one applies this method of allotting value to unit quantities of commodities (and multiply it by the given quantities of commodities in a bundle), *resemble* a specific set of prices but that it is, however, necessarily to distinguish the values of this type from the individual prices. Marx, who insists that the price is only a form of value, constantly makes this distinction. Unfortunately, his formulation is not free of (quasi) Hegelian opposition between the essence and form, since the concept of the distinction is missing in Marx, who, however, already proposed an outline of solution and its proper name – transformed form (*verwandelte Form*). We will proceed in this direction in the next section, however, it might be useful to point out here that it is the above mentioned *resemblance*, Marx tries to grasp by using Aristotelian notion of the formal substance as a unity of matter and form (Lipietz, 1985, App.).

bundle. This is, of course, exactly the conclusion arrived at by the followers of Piero Sraffa. But, secondly, it is also possible to view this increase first and foremost as an "increase of embodied labour" (ibid, 433). This conclusion again clearly refutes the view that the only true economical purpose of the LTV is to serve as a theory of the regulation of prices, and also falsifies the assertion, steaming from the same line of reasoning, that it is *not immanently connected* with the problem of determination of the surplus, produced by economy. This observation clearly turns the interpretation of the role of the LTV held by the orthodox economists, on its head and shades quite a new light upon a dilemma between "surplus or surplus labour" (Lipietz, 1985: 150), "value of commodities and commodities themselves" (cf. Meek, 1973: xxvii).

This way the question is settled from the 'qualitative' point of view: if what increases in the process of production is in fact labour, it is clear that the social substance in question, termed value, is embodied labour. On the other hand, it makes possible to settle the question from the 'quantitative' ankle as well, since it is precisely what is needed to solve the problem of the allocation of value to given quantities of goods. As we have seen earlier, the choice of the set of prices, which would – by means of normalisation – establish equality between different results of weighting (sets of coefficients) is left indeterminate. It is important to see that it is not the selection of a set of prices that solves the problem but, rather, the choice of the bundle of commodities, to which the value is to be allotted:

If production is analysed as the application of human labour to one basket in order to obtain another basket, it is logically incumbent, from a qualitative point of view, to assimilate this substance to labour and, from a quantitative point of view, to allocate it to a basket of commodities equal to the net output of this productive process. (Dumenil, 1983: 432)[17]

This conclusion has further consequences for the solution of the transformation problem that would avoid the controversies of the standard (double-system) approach. We will return to this matter in section 5.

At this point we might add that this is probably as far as we can go without taking into account another conceptual setting. This quest will take us further down the path of defining the concept of the specific difference of Marx's object (Althusser 2006). From the framework of classical political economy we thus – in the next section – depart in the direction of

[17] This is the only possible way, if one wants the results of allotment of the value of basic basket to every specific basket and to unite quantities of commodities to come out un-arbitrary.

Marxist epistemology, i.e. theory of the 'transformed form', and – in section 5 – in the direction of the articulation of the concept of value upon the basic concepts of historical materialism.

4. 'Transformed form' as the key to the epistemology of Marx's object

To proceed we, therefore, begin where Marx begins in Volume III of Capital when he sets out to "locate and describe the concrete forms which grow out of the *movements of capital as a whole*", i.e. "form which they [various forms of capital] assume on the surface of society, […] in competition, and in the ordinary consciousness of the agents of production themselves" (Marx, 1962: 25). In relation to this task Marx is using the term 'transformed form' (*verwandelte Form*) on many occasions, thereby implying: 1) epistemological notion of the articulation of two heterogeneous series of concepts (values – prices) in which one of the series is said to determine the other; 2) ontological distinction regarding the problem of empirical entities, if any, this different series refer to. It is clear from what Marx says that the concepts of the second series (price, wage, profit) refer to the 'concrete shapes' of capital, which make possible the actions of economic agents.

In order to clarify this point, let us apply Althusser's (1969, 1976) theory of theoretical practice as a process in which 'theoretical raw material' (Generalities I) is transformed by the application of the 'instruments of theoretical labour' (Generalities II) in order to produce 'knowledge' (Generalities III). If we articulate the transformed form within this framework, we notice that the price-series becomes 'doubly inscribed', since it figures as a part of Generalities I at the start of the process (i.e. as either an immediate perception or its ideologically systemised correlate)[18] and ends up, when the 'transformation' is done, as a part of Generalities III (as a concept of corresponding entities). On the other hand, the price-series is 'double inscribed' also as far as the relation between the real object and the object (process) of knowledge is concerned since it is a stand-in of the former in the latter.[19]

To give this conception its precise meaning, let us articulate our epistemology upon a theory of ideology (as non-science). We can use a condensed version of Althusser's (Althusser, 1971) definition of ideology as an imaginarily deformed representation of the imaginary relationship of individuals to their real conditions of existence (relations of production).

[18] Cf., for instance, the notion of 'price of labour' in common language and in a framework of the classical political economy, as Marx analysed it in Ch. 17 of *Capital I*.

[19] "[…] from beginning to end […] transformation […] bears not on the real object but only on its stand-in's, first of all on the perceptions and images, then on the concepts which come out of them." (Althusser, 1976: 192).

Following our preceding elaboration we can say that imaginary relation/representation is also 'double inscribed', since it simultaneously belongs to the real object and to the object of knowledge (Generalities I) thus corresponding closely to what we have called price-series.[20] We are now left to deal with the third element – real relations counter posed to the imaginary relation/representation. It is clear that they correspond to our value-series, and it is obvious that there are two ways to articulate them into the process of knowledge. One could approach this series of concepts similarly as the second one thus conceiving them as a part of Generalities III. In this case, however, the outcome would have been a contradictory one since it would become obvious that these concepts have no empirical 'referents' in the real object. It is impossible to point out empirical, palpable entities that would, in a way, refer to this series of concepts (as Generalities III refer to Generalities I) and there is also no series of determining concepts behind it.

The only non-contradictory way out of this constellation is to define what Althusser calls real relations and what we have termed series of value-concepts as Generalities II, i.e. not as the 'raw material' or the 'product' of the process of knowledge but as an 'instrument of theoretical labour' applied in order to transform the imaginary relation/representation (such as price) into its concept. Our elaboration thus conceptualises Sombart's definition of the concept of value not as an observable or behavioural concept (Generalities III) but as a theoretical instrument, capable of establishing the 'epistemological break'. When orthodox economists criticize Marxian values as non-operational they sense their specific status without, however, being able to grasped it since in their theory the proper place for Generalities II is missing.[21] This terminal inability not only of all orthodox economics but also of numerous Marxist scholars manifests itself, for instance, in their interpretation of the famous assumption, which Marx puts out in Capital I, that the commodities sell at their values. Instead of conceiving it as a rhetorical device which helps the exposition reveal the functioning of the series of value-concepts (Generalities II), they interpret it as if this series of concepts existed in the way price-concepts do, i.e. as Generalities III with direct referents in real object (Generalities I).[22] Every attempt to make Marx's concept of value 'operational' by

[20] We point again to the distinction of the immediate (lived) and systematized raw material of science in the case of the 'price of labour'.

[21] Which is not to say, of course, that there is not a place for is surrogates that enable the paradoxical existence of 'science of conclusions' in absence of real 'science of premises' as Althusser (2006) might have put it in Spinozist terms.

[22] It is 'similarity' (cf. note 16), between the set of values of unit quantities of commodities and their prices which, at the same time, makes Marx's assumption a useful rhetorical device and a conceptual trap since it encourages the reader to assimilate values to prices (i.e. to a particular type of exchange values). The notions of 'simple commodity production' or 'commodity production in general' are, therefore, misleading in a sense that

transforming it into observable or behavioural concept is, therefore, an irreversible step towards abandoning the specific epistemology of his object.

5. The 'New Interpretation' of the LTV and its articulation upon the basic concepts of historical materialism

With the general concept of value and its placing within the epistemology of Marxian object outlined, it is now time to introduce the unambiguous solution to the transformation problem (Dumenil, 1983; Lipietz, 1985; Foley, 2000; Dumenil, Foley, 2006). Since the mathematical details do not concern us here, we shall focus on how this new solution manages to avoid the dead ends of the standard one making both Marxian equalities hold.

As far as the first equality – the sum of values equals the sum of prices – is concerned, it is crucial to acknowledge that this statement refers to the relation between the labour time (value) and its monetary expression (price form). In other words, this equality imposes a certain set of coefficients by means of which the set of heterogeneous commodities is weighted and aggregated. However, this allotment of value remains arbitrary unless one is able to determine the aggregate (set of commodities) to which it is to be applied. As we have seen in section 3, the analysis of production and the articulation of its concept upon the concept of value have enabled classical political economy to determine this aggregate as the net product (the total income) of a given period. To be precise, it is the net product to which the total labour expanded is directly linked or, in other words, the difference between the input and output (net product) consists of the total living labour expended. If, therefore, the first Marxian equation is properly modified (sum of values of net product = sum of prices of net product) the ratio between labour time and a given monetary unit is established.

This solution has numerous advantages when compared to the standard one. First of all, it manages to avoid – at least at this stage – the problem of valuating those components of constant capital that were produced in a previous period (periods). According to Marx these elements, such as obsolete machines, do not transfer as much value to the new product as it has been used-up in their production and, therefore, have to be devaluated so as to correspond to the prevailing productive force of labour.

---

they lead one to miss the specific difference of value-concepts by implying a (theoretically possible) system of economy in which the process of realisation of value (natural-price system) 'resembles' the system of value production so closely that it totally eliminates their *positive* difference with only the 'difference as such' left intact.

Secondly, this solution has no implications regarding the nature of monetary system involved: "whatever the particular monetary system, Marx's theory implies the existence of quantitative equivalence in a particular period between the monetary unit and social labour time." (Foley, 2000: 7)

As far as the second equality – the sum of surplus value equals the sum of profits – is concerned, the implications of the new interpretation seem to be even more profound. In particular, the new solution could not have been mastered without tackling the question of the definition of labour power first. In general, there are two ways of defining it (Dumenil, 1983; Lipietz, 1985; Dumenil, Foley, 2006): either as the value of a bundle of commodities labourers actually buy, or as value – expressed in monetary units – of their wage regardless of how the labourers get to spend. In the framework of the standard solution the question has not really been posed and the notion of a wage-fond of the classical political economy has been automatically adopted. This, in turn, meant, that the impossibility for the two Marxian equalities to hold simultaneously has been build in the solution from the very beginning:

This literature calculates surplus-value by deducting the value of a given bundle of worker's consumption from the worker's labour time. Profits, on the other hand, are calculated by deducting the price of this same bundle at prices of production from the value added (in prices). When prices of production are not proportional to values, these two quantities are not equal, violating the second Marxian equation. (Dumenil, Foley, 2006: 7)

This operation is, therefore, conducted on the premises of the Double-System LTV. The calculation of the value of labour power in this manner is only valid in the first system of natural prices, i.e. in a system where commodities tend to sell at prices proportional to their values. In order to 'calculate' the surplus value, the rate of surplus value must be inferred form observed fact: i.e. the given length of the working day and the given constant money wage.[23] If labourers work eight hours and then buy a bundle of commodities that embody four hours of social labour time the rate of surplus value is equal to unity and surplus value is four hours. This straightforward connection between the value of labour power, length of the working day and surplus value can, however, only be established in three cases: (1) within the first system of natural prices; (2) under the condition that – in a second system where commodities sell at prices of production – the divergences of prices from values cancel-out as

[23] I.e. it is inferred from the rate of surplus labour (unpaid to paid labour), which makes it a sort of observable/behavioural variable in the sense mentioned above.

far as the sector of wage-goods production as a whole is concerned. In all other cases, the amount of surplus value so calculated will happen to diverge from the amount of profits actually earned.[24]

When this line of reasoning is dropped the second solution can be enforced by calculating the value of labour power as value of wage in terms of monetary expression of labour time (MELT). Since this coefficient is itself calculated under the conditions of the system of prices of production, the sum of surplus value happens to be equal to the sum of profits by definition.

In technical terms, the new solution can therefore be described as a move from the gross product to net product and simultaneously as the move from conceiving the value of labour power as 'located' to the concept of labour power as 'unallocated purchasing power' of labourers. However, in the context of our discussion this movement proves to be a displacement of problematic. As we have seen in section 1, historians of economics distinguish three diverse problematics that is condensed in Marx's LTV: problematic of (1) price determination, (2) surplus determination and (3) exploitation. From their point of view, the LTV is properly located within the first problematic being a theory of price determination in an unspecified (but certainly not capitalist) commodity producing economy. Since it was, however, applied in order to explain the price formation in capitalist society the problematic (1) had to be articulated upon the problematic (2). It was precisely its inability to perform the task of simultaneously determining the rate of profit and relative prices that proved to be fatal for the LTV. To re-establish the problematic of rate of profit (surplus) and relative prices determination in the spirit of classical political economy, a new tool had to be constructed: a task – arguably – achieved by Piero Sraffa.

It is now clear that this problematic cannot be confused with Marxian central problematic (i.e. of surplus and exploitation) and, moreover, that the LTV is by no means an external element in this constellation:

The labour theory of value for Marx was a theory of exploitation and of money, not, in the first instance at least, a theory of relative prices. But Marx was aware of the problem of

[24] In other words, when this line of reasoning is applied one is faced with Ricardo's old problem, which we pointed out in the section 2 when discussing the limits of Bortkiewitz's solution. In order to overcome this obstacle one has to assume – as Ricardo sometimes did (cf. Blaug op. cit., 233) that (1) the wage-goods producing department has an average organic composition of capital, and that (2) entire wages are used-up in order to purchase this goods. Or, on the other hand, one has to assume that the structure (in terms of organic composition) of commodities labourers buy is proportional to the structure of the commodities produced in the economy as a whole. The formal validity can, therefore, be achieved only at the cost of positing more and more strong, highly unrealistic assumptions.

reconciling the labour theory of value with the phenomenon of the prices disproportional to embodied labour coefficients, as the first section of Volume III of *Capital* testifies. (Foley, 2000: 8)

On the contrary to what orthodox historians of economics seem to imply, the place of Marxian LTV is the problematic of determining the surplus and exploitation in which the surplus cannot be reduced to physical surplus and exploitation cannot be viewed as a domain – either of moral sentiments or sociology – external to the field of economy. Engels, as we have seen, stated this point decisively. One of the key merits of the New interpretation is that it has defined its relation to the problematic of price determination more satisfactory than Engels has been able by stating clearly that the law of value is not a law of natural prices. It is not its role to determine relative prices or the rate of profit – it only has to *reconcile* with the given law of exchange. In other words, it cannot explain profit rate and price determination but the conclusions it points to remain valid in any given system of commodity exchange. Now that we have established the general relation between the law of value and the law of exchange the only thing left is to demonstrate how this two problematics could be articulated upon the basic concepts of historical materialism, in particularly to the concept of the mode of production. Let us, for this purpose, recall Balibar's analysis of the concept of the mode of production (Balibar, 2000). According to Balibar, there are three distinct factors that can be found in every mode of production: (1) labourer; (2) means of production comprising of (i) object of labour and (ii) means of labour; (3) non-labourer. The factors are linked together by two distinct connections: (A) property connection; (B) real or material appropriation connection. In an attempt to give the notions from the 1859 Preface to *A Contribution to the Critique of Political Economy* their precise conceptual meaning Balibar then suggests that the so-called productive forces are to be defined as real appropriation connection (B), and the relations of production as the property connection (A). The point he is trying to make is that productive forces cannot be reduced to a mere list of things and that relations of production cannot be reduced to (intersubjective) relations between men. Neither of this two types of connections/relations represents "forms of *inter-subjectivity* but relations which assign a necessarily function to *things* as well as to men" (Balibar op. cit., 227).[25]

[25] Another important feature of this conceptualisation is that it distinguishes relations of production i.e. the property connection from the their legal expressions in the form of the law of property. The 'theory and praxis' of self-management socialism in Yugoslavia, for instance, has proved that the inertia of the relations of production cannot be beaten by modifying the legal relations of ownership. Although the firms were transformed in a way that imposed social ownership and self-management of labourers the wider economic setting enabled

It might be recalled that this distinction is immanently present in Marx's discussion of the beginnings of the capitalist mode of production in which Marx distinguishes formal and real subsumption of labour under capital (Balibar, 2006). The formal subsumption refers, roughly, to the fact that the capitalist purchases the means of production (above all the objects of labour) and the consumption goods for the labourer on the market in order to get the process of production started. At the end of the process he collects the products and realises them on the market so as to obtain his profit. The real subsumption, however, refers to the specific unities of factors formed within the productive forces. For instance, in handicraft and manufacturing such a unity is formed among the means of labour and the labourer. When the mechanized industry is being introduced in the process of real subsumption this unity is dissolved and the unity of the object of labour and means of labour is formed, i.e. the split (*Trennung*) between labourer and means of production established. The crucial feature of such articulation between productive forces and relations of production is that the former are 'surrounded' by the latter, in a way 'embedded in them'. This has direct implications to our consideration of the LTV since this relation is exactly the relation between the concepts of value and price. Therefore, it is meaningful to establish a direct connection between, on the one hand, the concept of productive forces and of value and, on the other, between relations of production and the concept of price. As far as epistemology is concerned, it is now clear that, in this perspective, productive forces and relations of production should be viewed as two sides of the 'transformed form' and that the concept of productive forces should be given a status of theoretical, i.e. non-empirical concept. In other words, the concept of productive forces has to embody the specific feature of the concept of value being the theoretical concept of the interrelation of two economical spheres (production–circulation/distribution) without being the empirical concept of production. Such a constellation is, to be precise, a structural feature of any economy based on production of commodities. If it is true that in any "competitive regime, the price-form always corresponds to the same process of the expression of social labour time in the body of another commodity or in a symbol of value" (Dumenil, 1983: 440), the determination of value could never be conducted in the place where it is produced/extracted/appropriated. 'A roundabout way', as Engels puts it (Meek, 1973: 258), is needed in order for the individual labour to become social, i.e. in order for the value to be realized. This notion is inherent to Marx's concept of socially necessary abstract labour time:

---

the logic of the reproduction of individual capitals to prevail, thereby refuting the common opinion of Yugoslav policymakers (such as Kardelj) that this logic is nothing more than the 'ownership tradition of the old society' persisting 'in the heads of the people and everyday economic life'.

it is abstract since "there are specific qualities of individual labour which are disregarded" and "individual discrepancies levelled out"; it is socially necessary since "labour incorporated in unwanted products is not ratified as social labour" (Dumenil, 1983: 440). Regardless of the type of commodity-producing economy and the actual processes in which this homogenisation of labour is established the law of value always includes the concept of the interconnection of extraction and realisation of value. It therefore over-determines the theories of competition between individual labourers, individual commodities and individual capitals. In this respect, and in this respect only, can it be said that there is only one law of value but numerous laws of exchange. The same can be said of the concept of productive forces. The configuration and interrelations of factors may vary with respect to he extent (formal or real subsumption) and forms of direct influence of the above-mentioned types of competition (captured in the concept of the relations of production) to the process of labour; however, the concept of productive forces is always also a concept of the articulation of productive forces and relations of production.[26]

Within the presented framework, numerous important analyses of contemporary Marxist researchers could be readily incorporated into the general epistemological and conceptual framework of Marx's object. For example, the problem of explaining the leading role of circulation related tasks (managerial and clerical) in the sphere of formal subsumption in comparison to production organising tasks within the sphere of real subsumption in an effort to overcome the tendency of the profit rate to fall (Dumenil & Levy, 2005; 2006). Or, to give another example: the problem of explaining how the process of formal subsumption as an expropriation of the social conditions of production and reproduction comes about as an answer to the growing crisis of real subsuption (law of value) in contemporary cognitive capitalism (cf. Vercellone, 2006).

6. What theory of exploitation?

[26] I.e. the two types of connection are two distinct types of articulation of the same elements, one being theoretical and the other empirical and ideological. Marx made it clear that it is circulation – or, to use the proper Marxian concept, relations of production – from which the quasi-ideological representations (imaginary, lived relation, as Althusser would say) stem. It is the processes of circulation in which the process of production is 'embedded' that supply it with its 'economic' ideology. Taken as such, production is only left with 'technological' ideology. It is, therefore, inevitable that the empirical concept of production is a concept of technological conditions of production. This explains the paradox (Mamardashvili, 1970) that perfectly adequate theories of regulation of prices can be established on the basis of such empirical concepts – of technological conditions in case of Sraffa or market behaviour in case of neoclassical economists – without any notion of the transformed nature of price and without attempting to penetrate behind this apparent and superficial relations.

In the section 2 we have quoted a Marxist scholar claiming that Marx's job could be done better by using Sraffa's commodity production theory. If our demonstration is correct, the two 'jobs', in fact, emerge incommensurable. The first 'job' has to do with a framework of the division of labour where a part of the product of a certain sector has to be exchanged in order to purchase its means of production. It can be identified with the problematic of determining the exchange ratio (prices) between the sectors and a rate of profit, which would regulate distribution of the physical surplus in a way that would allow the reproduction of such system. Many Marxist scholars (Meek, 1973; 1977) have viewed Sraffa's system as a proper ground for the construction of the theory of class society, which would finally enable one to speak of exploitation without referring to allegedly metaphysical notion of labour as the substance of value. It has been proposed (Garegnani, 1989) that a proper theory of exploitation could be developed in the framework of the classical theories of distribution. Such a theory would begin by acknowledging the fact that the labourer does not obtain the whole of his product – the fact that is both obvious and confirmed by the Sraffian theory of relative prices and profit. To answer the question whether this fact itself implies the existence of exploitation, however, a general explanation of economic phenomenon would be needed.

This general statement can be fully accepted as long as one is aware that it allows for at least two readings. A trivial reading would suggest that such general theory would explain the real basis of distribution of surplus. It might prove that the surplus product exists simply because the given socio-political system prevents labourers to acquire the whole of the product. In this case, exploitation takes place. On the other hand, however, it could reveal a non-arbitrary economic basis of profit, explaining it as a price of a certain factor of production governed by its scarcity and, therefore, natural psychological tendencies. One way or the other, such reasoning always resolves itself in some sort of civil society–state dualism leaving class struggle no access to the naturalised economic 'sphere of needs'. It is economic efficiency that triumphs in the last instance, as the collapse of real socialism is supposed to have thought us.

In this paper we have opted for another, conceptual reading of Garegnanis conclusion. We have tried to show that it is the epistemological and conceptual framework of Marx's object that provides such a general theory – 'science of premises' – as a necessary scientific basis of the theory of exploitation and class division. That is the true 'job' of Marx's theory of value.

Bibliography

Althusser, L. (1969) 'On the Materialist Dialectic', in L. Althusser *For Marx*, pp. 161–218. London: The Penguin Press.

Althusser, L. (1971) 'Ideology and Ideological State Apparatuses', in L. Althusser *Lenin and Philosophy and other essays*, pp. 121–173. London: NLB.

Althusser, L. (1976) 'Is it Simple to be a Marxist in Philosophy?', in L. Althusser *Essays in self-Criticism*, pp. 163–208. London, NLB.

Althusser, L. (2006) 'The Object of Capital', in L. Althusser, E. Balibar *Reading Capital*, pp. 71–198. London, New York: Verso.

Balibar, E. (2006) 'The Basic Concepts of Historical Materialism', in L. Althusser, E. Balibar *Reading Capital*, pp. 199–308. London, New York: Verso.

Blaug, M. (1986) *Economic Theory in Retrospect*. Cambridge: Cambridge University Press.

Dooley, P. (2005) *The Labour Theory of Value*. London: Routledge.

Dumenil, G. (1983) 'Beyond the Transformation Riddle: A Labour Theory of Value', *Science & Society* XLVII (4): 427–450.

G. Duménil, D. Lévy (2004), 'Production and Management: Marx's Dual Theory of Labor', in R. Westra, A. Zuege, *Value and the World Economy Today. Production, Finance and Globalization*, London: Palgrave (Preliminary version). URL: http://www.jourdan.ens.fr/levy/dle2004f.htm.

Dumenil, G., Levy, D. (2006) 'Unproductive Labour as Profit Rate Maximising Labour', in *Rethinking Marxism* (Forthcoming). URL: http://www.jourdan.ens.fr/levy/dle2006b.htm.

Dumenil, G., Foley, D. (2006) 'The Marxian Transformation Problem', in *The New Palgrave Dictionary of Economics* (Forthcoming). URL: http://www.jourdan.ens.fr/levy/dfo2006b.htm.

Foley, D. (2000) 'Recent Developments in the Labor Theory of Value', *Review of Radical Political Economics* 32(1): 1–39.

Garegnani, P. (1989) 'Teorija radne vrijednosti u Marxa i u marksističkoj tradiciji', in *Naše teme* 33(3). Original release: 'La theorie de la valeur-travail chez Marx et dans la tradition marxiste' in B. Chavance (ed.) *Marx en perspective*, Paris 1985.

Lipietz, A. (1985) The Enchanted World. Inflation, Credit and the World Crisis. London, Verso.

Mamardashvili, M. (1970) 'Prevrashchennye formy'. URL: http://www.philosophy.ru/library/mmk/forms.html

Marx, K. (1961) *Capital.* Volume II. Moscow: Foreign Languages Publishing House.

Marx, K. (1962) *Capital.* Volume III. Moscow: Foreign Languages Publishing House.

Meek, R. L. (1973) *Studies in the Labour Theory of Value*. London: Lawrence & Wishart.

Meek, R. L. (1977) *Smith, Marx and after*, London: Chapman and Hall.

Roncaglia, A. (2007) *The Wealth of Ideas. A History of Economic Thought.* Cambridge: Cambridge UP.

Vercellone, C. (2008) 'The new articulation of wages, rent and profit in cognitive capitalism', Conférencier invité, Queen Mary University, London. URL: http://www.generation-online.org/c/fc_rent2.htm.