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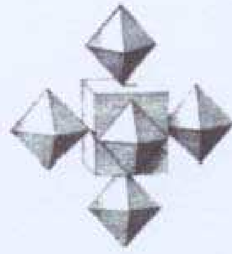

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A NEW LOOK AT MARX'S REFUTATION OF RICARDO'S REFUTATION OF THE LABOR THEORY OF VALUE

by

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ABSTRACT

In this paper, I would like to bring back to light the forgotten critique of Marx to the widely accepted view that Ricardo succeeded in refuting the universal validity of the labor theory of value in "*Principles*", chapter 1, sections IV and V. By the hand of Marx, I contend that the arguments of Ricardo are unsuccessful. Nothing of what Ricardo says in his "*Principles*" implies anything for the question as to whether or not value consists in objectified labor. The problem that Ricardo faces in "*Principles*", chapter 1 sections IV and V, without being aware of it, is all about the distribution of profit and, consequently, about the distribution of an already created value through a system of competitive money prices, but not a problem about the creation or the nature of value, which are the themes of the *labor* (and not *wages*) theory of value.

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Key words: labor theory of value, Ricardo, Marx

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Introduction

In this paper I intend to critically examine Ricardo's argument against the universal validity of the labor theory of value as it is laid down in "*Principles*", chapter 1, sections IV and V. The main contention of this paper is that Marx correctly realized and explained why Ricardo the refutation of the labor theory of value that Ricardo presents in that place is invalid. In order to this, I intend to present the basic ideas of the critique of Marx to Ricardo. I also argue that the standard literature on the subject is, on the main, faithful to Ricardo. I will quote a few but significant instances of the standard literature in which it is accepted that Ricardo correctly discovered that the labor theory of value holds good only if the composition and the turnover period of all capitals in the economy is the same. According to Ricardo, if either condition is not met, then the relative prices of commodities will not be in proportion to their labor content. This means that if any of the two aforementioned conditions is not met, labor is not the only determining cause of value, which in turn shows that exchange value does not consist in labor alone.

I agree with the standard literature that the conclusion that Ricardo drew from his premises is that the labor theory of value is not universally valid. However, I disagree with the standard view that Ricardo drew a right inference from his premises; my contention, in agreement with Marx, is that he did not. In my opinion, Ricardo's premises do not permit to conclude that value does not consist in labor alone. I am going to argue that Ricardo was wrong in believing that he had found out something against the thesis that value consists in labor. Let me note before proceeding any farther that, to the best of my understanding, he neither found out anything *in favor* of this thesis: for all I see, in Ricardo's texts, there is no attempt to lay down any foundation for a labor theory of value. What Ricardo actually found out in the famous passages of sections IV and V of the first chapter of his "*Principles*" is that competition leads to prices different from those which would prevail in its absence; to put it in Marxian terms, that competition leads to a particular objectification of labor as money price in which, as the profit rate must be uniform, objectified value is distributed among capitals by means of money prices that diverge from the money prices that would prevail in the absence of competition and, thus, of a uniform profit rate.

What Ricardo discovered and mistakenly took to be a refutation of the labor theory of value is that competitive pricing and what we might call "monopoly" pricing involve two different distributions of profit among the capitals of the economy and, thereby, different systems of prices. He failed to see that this means nothing as to whether the profit distributed consist in surplus labor, in surplus utility or in surplus anything else. This is the core of the criticism of Marx to Ricardo, a criticism that, as I am going to argue, is right. According to the idea of Marx, the same value can be objectified in a system of competitive prices or in systems of non-competitive prices, but this is all about the distribution of value already created, not about the creation (or determination) of the value which is being distributed among he capitals that make up the economy. If prices are determined under competitive conditions, the profit rate must be uniform; in the contrary case, such requirement does not prevail. The point is, however, that whether or not the profit rate is uniform has nothing to do with the determination or nature of value, but with the distribution of a value already determined. As I see it, the main problem of the theory of value is why things have value at all, not why things have this or that particular value.

In sections IV and V of chapter 1 of his "*Principles*" after having defended the labor theory of value from Smith, Ricardo turns against it with a new argument. Now, in opposition to what he argued against Smith, Ricardo claims that changes in wages *may* alter price and, therefore, value. It is interesting too se that now, in contrast to sections I to III of chapter 1 of the "*Principles*", as a matter of fact Ricardo ceases to distinguish between *price* and *value*. Changes in wages have an effect upon value, says Ricardo, when the composition or the turnover period of the capitals that make up the economy are not equal. If the proportion of fixed to circulating capital is the same and the turnover periods of all capitals were equal, then changes in wages would not have any effect upon value; if, on the contrary, any of these two conditions is not met, they do. This implies, says Ricardo, that labor alone is not the only determining cause of value. Therefore, the labor theory of value is not universally valid: Smith was right, but for the wrong reason

It would be difficult to exaggerate the importance of Ricardo's refutation of the labor theory of value for the development of value theory. I am going to argue by te hand of Marx that, however, Ricardo's famous refutation is invalid. Marx' criticism of Ricardo can be found in "*Theorien über der Mehrwert*". According to Marx, Ricardo's argument is not valid. The labor theory of value is left intact by Ricardo, just like it had been left intact by Smith. My contention is that Marx is right, so we should critically revise our current approval of Ricardo's argument.

It is curious to see how successful Ricardo has been up to the present day. It is also surprising to see that, though Ricardo's refutation was criticized by such a well known figure as Marx more than a hundred years ago, the criticism of Marx remains unknown in the standard literature. In this paper, I would like to let the profession know of Marx' criticism of Ricardo's refutation of the labor theory of value and at restoring it to the place that it deserves in the literature on Ricardo and in the development of the theory of value.

Ricardo makes his case by means of three examples. The third one is just a repetition of the first, and, thus, we need not invest time in it. Of the remaining two, the first is the most significant. The second is a reformulation of the first with some added features that are interesting, but not relevant to the refutation of the labor theory of value. Accordingly, I will defend my thesis by dissecting the first example.

The structure of the paper is very simple. It is divided into three sections. In the first one, I critically analyze with as much detail as possible the first and main argument of Ricardo against the universal validity of the labor theory of value as it is laid down in chapter 1, section IV of his "*Principles*". This is the central section of the paper. In a second section, I briefly review the standard literature. The third and final section is devoted to conclusions.

1. Ricardo's Refutation of the Labor Theory of Value in "*Principles*", chapter 1, sections IV and V

After having defended the labor theory of value from the criticism that Smith directed against it in "*Wealth of Nations*", book I, chapter 6, paragraph 7, Ricardo turns against the labor theory of value in chapter 1, section IV of his "*Principles*" and announces the reader that he has an argument to prove that things other than labor create value: at the end of the day, Smith was right, but for the wrong reason:

"Although commodities produced under similar circumstances would not vary with respect to each other from any cause but an addition or diminution of the quantity of labour necessary to produce one or other of them, yet, compared with others not produced with the same proportionate quantity of fixed capital, they would vary from the other cause also which I have before mentioned, namely a rise in the value of labor, although neither more nor less labour were employed in the production of either of them." (Ricardo, 1821 [1965], 20)

Let us therefore see how changes in wages when the composition of capitals is different undermine the labor theory of value. Ricardo's famous text deserves to be quoted in full:

"Suppose two men employ one hundred men each for a year in the construction of two machines, and another man employs the same number of men in cultivating corn, each of the machines at the end of the year will be of the same value as the corn, for they will each be produced by the same quantity of labour. Suppose one of the owners of one of the machines to employ it, with the assistance of one hundred men, the following year in making cloth, and the owner of the other machine to employ his also, with the assistance likewise of one hundred men, in making cotton goods, while the farmer continues to employ one hundred men as before in the cultivation of corn. During the second year they will all have employed the same quantity of labour, but the goods and machine together of the clothier, and also of the cotton manufacturer, will be the result of the labour of two hundred men, employed for a year; or, rather, of the labour of one hundred men for two years; whereas the corn will be produced by the labour of one hundred men for one year, consequently if the corn be of the value of 500*l*. the machine and cloth of the clothier together, ought to be of the value of 1,000*l*. and the machine and cotton goods of the cotton manufacturer ought to be also of twice the value of the corn. But they will be of more than twice the value of the corn, for the profit on the clothier's and cotton manufacturer's capital for the first year has been added to their capitals, while that of the farmer has been expended and enjoyed. On account then of the different degrees of durability of their capitals, or, which is the same thing, on account of the time which must elapse before one set of commodities can be brought to market, they will be valuable, not exactly in proportion to the quantity of labour bestowed on them, -they will not be as two to one, but something more, to compensate for the greater length of time which must elapse before the most valuable can be brought to market.

Suppose that for the labour of each workman 50*l*. per annum were paid, or that 5,000*l*. capital were employed and profits were 10 per cent, the value of each of the machines as well as of the corn, at the end of the first year, would be 5,500*l*. The second year the manufacturers and farmer will again employ 5,000*l*. each in the support of labour, and will therefore again sell their goods for 5,500*l*., but the men using the machines, to be on a par with the farmer, must not only obtain 5,500*l*., for the equal capitals of 5,000*l*. employed on labour, but they must obtain a further sum of 550*l*.; for the profit on 5,500*l*. which they have invested in machinery, and consequently their goods must sell for 6,050*l*. Here then are capitalists employing precisely the same quantity of labour annually on the production of their commodities, and yet the goods they produce differ in value on account of the different quantities of fixed capital, or accumulated labour, employed by each respectively. The cloth and cotton goods are of the same value, because they are the produce of equal quantities of labour, and equal quantities of fixed capital; but corn is not of the same value as these commodities, because it is produced, as far as regards fixed capital, under different circumstances." (Ricardo, 1821 [1965], 20-1).

Let us analyze Ricardo's example.

The first thing we should note is that there are no changes in wages at all in Ricardo's story; despite what he announced, his story does not prove that changes in wages with capitals of different composition rule out the determination of value by labor, as there is no change in wages at all in the story. The only thing that distinguishes the capital of the farmer from those of the manufacturers is composition, so Ricardo should have concluded from his story that the money prices of goods produced by the same amount of labor but by capitals of different composition do not coincide with the relative amount of labor contained in the goods.

It is very important to note that Ricardo assumes, from the outset, that there is a uniform profit rate of 10% per annum, regardless of the different composition of the capitals involved. This is a key and baseless assumption which undermines the whole argument of Ricardo, as I will explain below. Having noted this, let us look into Ricardo's story. There is, first, a farmer who invests his whole capital of 5,000 pounds in producing corn. The farmer gets his harvest within a year and sells his wheat for 5,500 *l.*; as the profit rate is 10% per annum and the investment which is to be amortized and on which profit is to be computed is 5,000 *l.*, the farmer must sell his wheat for 5,500 *l.* This way he makes a 10% profit per annum on an investment of 5,000 *l.* Note that the whole capital of the farmer is invested in labor power, which means that he produces wheat without seeds or without any agricultural implement, just with labor and nothing else. For the sake of the argument, let us concede that wheat can be produced in this unusual way.

It is also interesting to note that Ricardo's farmer is a strange capitalist who spends his full profit in consumption goods and saves none of it for the increase of his capital. Indeed, to call him a capitalist would not be very adequate because he is not engaged in capital accumulation. For the sake of the argument, let us again concede to Ricardo. In the second year, Ricardo's farmer invests the same capital as in the previous year, that is, 5,000 *l.*, all of it in labor again. The story goes the same way as before and, thus, at the end of the second year, the farmer sells his wheat for 5,500 l. , which, as before represents a represents a profit of 10% per annum on a capital of 5,000 *l.*. This money is again fully spent on consumption goods.

The cotton manufacturer and the clothier are in a different situation than. They are not endowed with the supernatural powers of the farmer and are thus unable to produce cotton and cloth without machines. They might purchase the machines they need, but Ricardo assumes that they build them themselves. If they purchased them in the open market the result would be exactly the same, so let us stick to Ricardo's story. In the first year, the manufacturers invest their whole capital of 5,000 pounds only in labor, just like the farmer. Though they cannot manage to produce cloth without machines, they have another supernatural power which enables them to produce machines without iron, that is, with labor only. Once again, let us also concede this to Ricardo for the sake of the argument. At the end of the first year of business, the two manufacturers have a machine each, which, being the produce of an investment of 5,000 pounds and being the yearly profit rate of 10% must sell for 5,500 *l.*

On the first day of the second year, each manufacturer hires again the 100 men crew in order to operate the machines built in the first year. Whence do the manufacturers get the money to undertake the investment of 5,000 pounds on wages in the second year, Ricardo does not tell. For the sake of the argument, however, let us again concede to Ricardo. At the beginning of the second year, the manufacturers give employment to a machine the value of which is 5,500 *l.* and to 100 men, the value of whose labor is of 5,000 *l.*. At the end of the second year, the manufacturers have clothing and cotton goods which they sell for 6,050 pounds. In doing so, they are "on a par" with the farmer, says Ricardo. That they are "on a par" means that *they make profit at the same yearly rate*; in other words, that competition prevails and that the profit rate per annum is the same for all the capitals of the economy, regardless of their different composition labor/non-labor.

According to Ricardo, this story shows that something else than labor causes value. If the labor theory of value were true, the farmer and the manufacturers should sell their goods at the same money price, namely, 5,500 *l*. The reason is that all the goods in the example are the product of the same amount of labor, namely, of the work of 100 men for one year; thus, if the labor theory of value were true, the farmer and his two fellow manufacturers should sell their goods for the same amount of money because, as they embody the same quantity of labor, their value should be the same. But, and this is the point, if all the goods were sold at the same money price, the manufacturers would not be "on a par" with the farmer, that is, they would not make profit at the same yearly rate. If the manufacturers sold their goods at the same price as the farmer, they would not be making a 10% yearly profit on their capital, but less than that, because they would not get any profit on the profit that their capitals yielded during the first year of business. Therefore, though labor may be a determining cause of value, it is not the only one, contrary to what the labor theory of value contends:

> "Here then are capitalists employing precisely the same quantity of labour annually on the production of their commodities, and yet the goods they produce differ in value on account of the different quantities of fixed capital, or accumulated labour, employed by each respectively. The cloth and cotton goods are of the same value, because they are the produce of equal quantities of labour, and equal quantities of fixed capital; but corn is not of the same value as these commodities, because it is produced, as far as regards fixed capital, under different circumstances." (Ricardo, 1821 [1965], 21).

Note that, contrary to what Ricardo claims, the three goods in his story are not "the produce of equal quantities of labor". As Marx rightly noted, it is not the case that the three capitalists employ the same quantity of labor *annually*. The farmer employs the labor of one hundred men each year, but the manufacturers employ the labor of a hundred men *plus the past labor of another hundred men* objectified in a machine. Therefore, during the second year the three investors have not employed the same amount of labor. They have employed the same amount of *living* labor, true, but not the same total amount of *labor*, as Ricardo mistakenly claims. Therefore, Ricardo cannot conclude that commodities which are the produce of the same quantity of labor differ in money price, for the commodities considered are *not* the produce of the same quantity of labor. They are the produce of the same quantity of *living* labor, but this is not the theory of value at issue.

Though Marx' observation suffices to rule out Ricardo's argument, he did not stop at kept on looking into Ricardo's argument, as he thought that Ricardo was onto something of truly importance without being aware of it. Accordingly, let us stay with Ricardo in order to find out what that important point is. When introducing his story, Ricardo says that:

> "During the second year they (KMO: the farmer and the manufacturers) will all have employed the same quantity of labour, but the goods and machine together of the clothier, and also of the cotton manufacturer, will be the result of the labour of two hundred men employed for a year; or, rather, of the labour of one hundred men for two years (KMO: here Ricardo presents his case in a better way); whereas the corn will be produced by the labour of one hundred men for one year, consequently if the corn be of the value of 500*l*. the machine and cloth of the clothier together, ought to be of the value of 1,000*l*. and the machine and cotton goods of the cotton manufacturer ought to be also of twice the value of the corn. But they will be of more than twice the value of the corn, for the profit on the clothier's and cotton manufacturer's capital for the first year has been added to their capitals, while that of the farmer has been expended and enjoyed." (Ricardo, 1821[1965], 20)

As Ricardo says in the concluding statement, the example shows that the labor theory of value is not universally valid because the manufactured goods are sold at a

price which is more than twice the price of corn; that is to say, not at two times 500, but two times 500 plus something more. The figures that he supplies right afterwards, however, are not consistent with this. He claims that his story shows that something else than labor creates value because the price of corn is 5,500 *l.* and the price of manufactured goods is 6,050 *l.*; note: not 5,500 x 2, but 5,500 x 2 plus something more. First, the labor theory does not work because the price of manufactured goods fails to be *twice as high* as the price of corn; some lines further down, the labor theory of value does not work because the price of manufactured goods fails to be *equal* to that of corn. This naturally raises the question: what exactly are the figures that Ricardo wants us to compare?

To answer this question, we may look at the example from another standpoint.

5,500 is equal to 5,000(1+0.1); 6,050 is equal to $5{,}000(1+0.1)^2$. Suppose that you invest 5,000 pounds at 10% per annum for one year. At the end of the year, you get 5,500 pounds. At the beginning of the second year, you repeat the operation: you invest again 5,000 pounds at 10% per annum. At the end of the second year you get 5,500 pounds. By investing two times 5,000 pounds for one year at a 10% yearly interest you get a total interest payment of 500+500=1,000 pounds. This is what the farmer does. After two years, by investing twice a capital of 5,000 pounds at a 10% per annum rate, gets 5,000+500+500=6,000 pounds, of which 1,000 represent profit and 5,000 capital.

Let us suppose that, instead of investing your money for one year and repeating the operation the next year, you keep your money invested for two years at 10% yearly interest: this is what the manufacturers do. If, at the end of the second year, you are paid 1,000 as interest, you are not getting 10% per annum on your capital, but less. If you keep your capital of 5,000 pounds invested for two years at an interest of 10% per annum, you have the right to be paid $5{,}000(1+0.1)^2=6{,}050$ pounds at the end of the second year. The total interest you get in two years is not 1,000 pounds, but 1,050 pounds, that is, 6,050-5,000=1,050. If you were paid 1,000 pounds as interest on an investment of 5,000 pounds for two years, you would not be getting 10% interest per annum on your capital, but less. To be *on a par* with the one who invests 5,000 each year, you have to be paid more than 1,000 pounds as interest on your investment, because the interest that your capital yielded during the first year becomes capital for you, and you must be paid interest on this additional capital during the second year. Interest on interest: compound interest. If you are a manufacturer, to get interest at the same rate per annum as the farmer, you have to be paid interest on interest, that is, 10% per annum on the 500 pounds that your 5,000 pounds yielded during the first year, which amounts to 50 pounds. Thus, to be “on a par” with the farmer, the manufacturers must get an interest of 1,050 pounds at the end of the second year, not of 1,000. Otherwise, the manufacturers would not get profit at the same rate as the farmer.

The manufacturers sell their goods for 6,050 pounds and not for 11,050 because Ricardo is actually viewing the operations of the farmer and the manufacturers as *financial* operations, in which the farmer lends out 5,000 pounds at 10% per annum for one year and the manufacturers lend out the same sum but for two years. This is why the problem as to the source of the further 5,000 pounds that the manufacturers would invest at the beginning of the second year is not even mentioned and also the reason for the tacit assumption of Ricardo that that the amortization cost of the machine is zero, that is, that the duration of the machine is infinitely long –if the initial investment in the machine were to be amortized at the end of the period considered, that is, at the end of

the second year, the manufacturers would have to sell their goods not for 6,050 pounds, but for 6,050 + 5,000 = 11,050; otherwise they would be unable to amortize the capital of 5,000 pounds that they invested in machinery at the beginning of the first year plus the capital of 5,000 pounds that they invested in wages at the beginning of the second year, which would be 5,000 + 5,000 = 10,000. 11,050 – 10,000 = 1,050, which represents a 10% profit per annum on a capital of 5,000 pounds, not of 10,000 pounds.

Interest is to be compounded to put the farmer and the manufacturers "on a par", says Ricardo, that is, to grant them profit at the same rate, despite the difference in the composition of their respective capitals. But this leads us to the core of the question: why should capitals of different composition get profit at the same rate if the proportional amount of labor that they set in motion is not the same? The conclusion that Ricardo should have drawn from his story is that capitals of a different composition cannot get profit at the same rate because they do not set in motion the same proportional amount of labor; Marx correctly makes this point against Ricardo:

> "The man who, for instance, lays out only $^{1}/_{5}$ of his capital in variable capital -provided wages and the rate of surplus-labour are constant- can only produce [a surplus-value of] 4 on 100, if the rate of surplus-value is 20 per cent. On the other hand, another man, who lays out $^{4}/_{5}$ in variable capital would produce a surplus-value of 16 [on 100]. For in the first example the capital laid out in wages is $^{100}/_{5} = 20$ and $^{1}/_{5}$ of 20 or 20 per cent is 4. And in the second example, the capital laid out in wages equals $^{4}/_{5} \times 100 = 80$. And $^{1}/_{5}$ of 80 or 20 per cent = 16. In the first example the profit would be 4, in the second 16. The average profit for both would be $^{(16+4)}/_{2}$ or $^{20}/_{2} = 10$ per cent. This is actually the case to which Ricardo refers. Thus if they both sold at cost-prices -and this Ricardo *assumes*- then they would each sell their commodity at 110." (Marx, 1863 [1968], 179)

If capitals of a different composition are to make profit at the same rate, then a process of balancing is required; a process whereby the capitals that set more labor in motion transfer some of the surplus value they produce to the capitals that, in proportional terms, set in motion less labor. This means that money prices under competition will differ from the values of commodities. Of course, with Ricardo and Marx, I am arguing on the premise that labor is equally productive in all industries:

> "Ricardo is mistaken when he thinks that it is only [through] the three cases he examines that he discovers the "variations" in the "relative values" that occur independently of the labour-time contained in the commodities, that is in fact the difference between the cost-prices and the values of the commodities. He has already *assumed* this *difference*, in postulating a *general rate of profit*, thus presupposing that despite the varying ratios of the organic component parts of capitals, these yield a profit proportional to their *size*, whereas the surplus-value they yield is determined absolutely by the quantity of unpaid labour-time they absorb, and with a given wage this is entirely dependent on the volume of that part of capital which is laid out in wages, and not on the absolute size of the capital.
>
> What he does in fact examine is this: supposing that cost-prices *differ* from the values of commodities -and the assumption of a *general rate of profit* presupposes this difference- how in turn are these cost-prices (which are now, for a change, called "relative values") themselves reciprocally modified, proportionately modified by the rise or fall of wages, taking also into account the varying proportions of the organic component parts of capital? If Ricardo had gone into this more deeply, he would have found that (…) the mere existence of a *general rate of profit* necessitates *cost-prices* that differ from *values*." (Marx, 1863 [1968], 174-5)

Indeed, if Ricardo had been coherent with his criticism of Smith's refutation of the determination of value by labor in the first three sections of chapter 1 of his "*Principles*", he would have arrived at the conclusion stated by Marx. Indeed, there is a dramatic break in Ricardo's inquiry into value in chapter 1 of his "*Principles*". He begins by defending the labor theory of value against the refutation of it that Smith believed to have found in "*Wealth of Nations*", book I, chapter 6. There Smith holds

that the labor theory of value in a capitalistic economy is not universally valid because the presence of profit implies that something else than labor is causing value:

> "In this state of things, the whole produce of labour does not always belong to the labourer. He must in most cases share it with the owner of the stock which employs him. Neither is the quantity of labour commonly employed in acquiring or producing any commodity, the only circumstance which can regulate the quantity which it ought commonly to purchase, command, or exchange for. An additional quantity, it is evident, must be due for the profits of the stock which advanced the wages and furnished the materials of that labour." (Smith, 1776 [2003], 70; Book I, chapter 6, paragraph 7)

Against this argument of Smith, Ricardo claims that the division of the labor materialized in commodities into wages and profits does not mean anything for the determination of value. Ricardo answers to Smith that the effect of a change in wages (and/or, by implication, in the profit rate) does not involve any change in the value of commodities, but a change in the distribution of that value between labor and capital:

> "No alteration in the wages of labour could produce any alteration in the relative value of these commodities; for suppose them to rise, no greater quantity of labour would be required in any of these occupations, but it would be paid for at a higher price, and the same reasons which should make the hunter and fisherman endeavour to raise the value of their game and fish, would cause the owner of the mine to raise the value of his gold. This inducement acting with the same force on all these three occupations, and the relative situation of those engaged in them being the same before and after the rise of wages, the relative value of game, fish, and gold, would continue unaltered. Wages might rise twenty per cent, and profits consequently fall in a greater or less proportion, without occasioning the least alteration in the relative value of these commodities." (Ricardo, 1821 [1965], 17)

But *even if wages (or the profit rates) did not equally rise in the different industries of the economy and, therefore, relative money prices changed in accordance to the uneven changes in money wages and/or profit rates, the thesis of Ricardo remains equally valid*. Therefore, changes in wages and/or in profit rates, no matter whether or not uniform, do not have any effect in the value of commodities: if, by hypothesis, that is, without any rational foundation, as Ricardo does, we start from the assumption that value consists in labor, we do not need to modify this assumption however much wages or profit rates might vary: therefore, wages as well as profits consist in shares in the labor objectified in commodities, independently of how this value might get distributed among labor and capital as wages and profit.

We can illustrate this idea by means of the effects on money prices of indirect taxes. Suppose the government levies a tax on tobacco. As standard Microeconomics tells us, the elasticities of supply and demand will determine the extent to which the price of tobacco will rise and the share of the burden of the tax between sellers and purchasers. Suppose also, just for the sake of simplicity, that money consists in silver coins. As a consequence of the tax on tobacco, the price of tobacco rises; in other words: the amount of silver that the buyer has to give out in exchange for tobacco rises. However, has anything changed in silver or in tobacco? Has the government lowered the value of silver or raised that of tobacco with its decree? As government decrees are not a determining cause of value, we should conclude that what the government has changed with its decree is the *distribution* of an already existing value determined apart from government tax decrees. Despite the change in *money prices* induced, the government has not changed the value of anything with its decree. The change in money prices resulting from the tax, which does not have any effect on the value of commodities, just creates a share for the government in the social produce where previously there was none. This is the implication of the criticism of Smith by Ricardo that we have just seen. Indeed, and make the matter clearer, Smith had explained the

"profits of stock" as the part of the labor materialized in the commodity that is not needed to replace the maintenance of the laborers, that is, as a share in the already created value of commodities, not as a value creating cause:

> "As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or by what their labour adds to the value of the materials. In exchanging the complete manufacture either for money, for labour, or for other goods, over and above what may be sufficient to pay the price of the materials, and the wages of the workmen, something must be given for the profits of the undertaker of the work who hazards his stock in this adventure. The value which the workmen add to the materials, therefore, resolves itself in this case into two parts, of which the one pays their wages, the other the profits of their employer upon the whole stock of materials and wages which he advanced." (Smith, 1776 [2003], 68; Book I, chapter 6, paragraph 5)

It follows that changes in the wage rate or in the profit rate are in realm which is not that of the determination or creation of value, but that of the distribution of value already created. Hence the famous Ricardian proposition of the inverse relationship between the wage and the profit rates.

Therefore, as things stand at the end of section III, Ricardo's view is that Smith has established nothing against the thesis that labor determines exchange value. It is in sections IV and V that Ricardo switches to the contrary view with the argument that we are examining now. Before proceeding any further, it would be convenient to briefly sum up Ricardo's refutation of Smith's refutation, as this would provide us with valuable insights to understand the shortcomings of Ricardo's own refutation of the labor theory of value.

According to Ricardo, Smith fails to establish that labor ceases to be the only determining cause of the relative value of commodities when we transit from a society without capital to a society with capital. According to Ricardo, all that Smith demonstrates is that, in a capitalist society, *relative wages* need not coincide with the *value* of commodities. Ricardo is thus drawing a clear distinction between the labor theory of value and what we might call the "*wages* theory of value", and he is claiming that Smith's argument against the former is actually a valid argument against the latter. The point is, however, that the theory that is at stake is not the wages, but the labor theory of value, so Smith has missed the point. Smith has not shown that *labor* does not determine value, but that the *value of labor* does not determine the value of the products of labor. Ricardo accuses Smith of confusing two concepts that he himself had distinguished in book I, chapter 6 of "*The Wealth of Nations*". There, in order to account for profit, Smith distinguished between the "amount of labor" embodied in commodities and the "*value* of that amount of labor" -which is but *wages*. There, profit is the excess of the labor embodied in the commodity over the *value of that labor* (wages) and, therefore, the presence of profit does not show that something else than labor is creating value:

> "Adam Smith, who so accurately defined the original source of exchangeable value, and who was bound in consistency to maintain that all things became more or less valuable in proportion as more or less labour was bestowed on their production, has himself erected another standard measure of value, and speaks of things being more or less valuable in proportion as they will exchange for more or less of this standard measure. Sometimes he speaks of corn, at other times of labour, as a standard measure; not the quantity of labour bestowed on the production of any object, but the quantity which it can command in the market: as if these were two equivalent expressions, and as if, because a man's labour had become doubly efficient, and he could therefore produce twice the quantity of a commodity, he would necessarily receive twice the former quantity in exchange for it.

If this indeed were true, if the reward of the labourer were always in proportion to what he produced, the quantity of labour bestowed on a commodity, and the quantity of labour which that commodity would purchase, would be equal, and either might accurately measure the variations of other things; but they are not equal; the first is under many circumstances an invariable standard, indicating correctly the variations of other things; the latter is subject to as many fluctuations as the commodities compared with it. Adam Smith, after most ably showing the insufficiency of a variable medium, such as gold and silver, for the purpose of determining the varying value of other things, has himself, by fixing on corn or labour, chosen a medium no less variable." (Ricardo, 1821 [1965], 7)

And again:

"It cannot then be correct to say with Adam Smith, "that as labour may sometimes *-purchase* a greater and sometimes a smaller quantity of goods, it is their value which varies, not that of the labour which purchases them," and therefore, "that labour, *alone never varying in its own value,* is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared," -but it is correct to say, as Adam Smith had previously said, "that the proportion between the quantities of labour necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them for one another; "or in other words that it is the comparative quantity of commodities which labour will produce that determines their present or past relative value, and not the comparative quantities of commodities which are given to the labourer in exchange for his labour." (Ricardo, 1821 [1965], 9)

To put it briefly: what Smith has correctly perceived according to Ricardo is that, in a capitalistic society where profit is the end of production and labor is bought and sold in order to make profits, "labor" cannot be used as a synonym for "wages", so that the labor embodied in commodities must be greater than the value of that labor (wages). According to what Ricardo says in the first three sections of chapter 1 of his "*Principles*", changes in wages cause changes in the *distribution* of a given value between labor and capital, but do not create any value however much they may alter money prices. Accordingly, a rise in wages, even if it leads to a general rise in *prices*, does not imply in any way a rise in the *value* of commodities, but a larger *share* for labor in the value of commodities and, therefore, a fall in the profit rate. Hence his famous thesis that a rise in wages implies a fall in profits and "*vice versa*" (a thesis that I deem false for reasons that fall beyond the scope of this paper).

According to Ricardo's "*Principles*", chapter 1, sections I to III, in book I, chapter 6 of his "*Wealth of Nations*", Smith did not refute the thesis that the exchange value of commodities is determined by the *labor* objectified in them; the thesis that he actually refuted, without being aware of it, is that the value of commodities is determined by the relative *value of the labor* embodied in commodities, that is, by relative *wages*. We can say that this, far from being the labor theory of value, is but a "*petitio principii*", for if the value of the commodities other than labor is said to be determined by the value of labor, the question immediately arises as to what determines the value of labor, and if one is coherent, one should answer that the value of labor is determined by the value of labor, which is but a "*petitio principii*". Thus, in his criticism to Smith, Ricardo is implicitly drawing a distinction between value and the objective manifestation of value as price –as money price. The changes in the money prices of commodities brought about by changes in money wages (or, by the same reasoning, in the profit rate) are totally unrelated to their value. With this distinction, Ricardo had the key to avoid getting confused by the difficulty posed by capitals of different composition that because of competition must however yield profit at the same rate.

This is the real difficulty, of which Ricardo is not quite aware: that the farmer and the manufacturers, who are not "on a par" in so far as the proportional employment

of *labor* is concerned, must however be “on a par” in so far as proportional *profit* is concerned. The farmer’s capital is more productive of surplus labor than the manufacturers’ capitals because it is fully invested in labor, whereas only about half the capital of the manufacturers is invested in labor. Thus, the farmer’s capital is about twice as productive of surplus labor as the manufacturers’ capital. Since the problem is that competition requires a uniform profit rate regardless of the composition of capitals, then the solution does not lie in the realm of the creation of value, but in that of its distribution: the solution is a set of money prices such that there is a compensating transfer from the farmer’s profit to the manufacturers’ profit, which implies not any further creation of value, but an objectification of value in money prices such that the profit rate is uniform. All this is a problem about the distribution of an already created value, not about the creation of the value that is being distributed.

Ricardo is somehow aware of this, though too vaguely to be able to see that he has gone astray:

> “the men using the machines, to be on a par with the farmer, must not only obtain 5,500*l*., for the equal capitals of 5,000*l*. employed on labour, but they must obtain a further sum of 550*l*.; for the profit on 5,500*l*. which they have invested in machinery, and consequently their goods must sell for 6,050*l*.” (Ricardo, 1962, 34)

Here Ricardo can be understood to have some awareness of the fact that the seeming creation of value by compound interest is not actually such, but a distributive phenomenon; however, as just explained, he goes astray and ends up claiming that the value of 50 pounds that puts the farmer and the manufacturers “on a par” is created by something else than labor.

The main error in Ricardo’s refutation of the labor theory of value in sections IV and of his “Principles” is his failure to realize the connection between the uniform profit rate and the composition of capitals. The further factor that he mentions, namely, changes in wages, cannot receive a correct treatment if that basic connection is ignored. This is why Ricardo fails to understand the significance of his story and deduces from his premises the wrong conclusion. Should have he proceeded in accordance with the theory the validity of which he intended to check, Ricardo would have never started by putting as a premise a uniform profit rate; this cannot be a premise in any inquiry into the nature of value; all the contrary: any theory of value must show how heterogeneous capitals can yield profit at the same rate. The equalization of the yearly profit rate is a distributional process, and presupposes that value is already determined. It does not show that labor does not determine value, but that surplus labor must be redistributed among all the capitals that contributed to its production so as to equalize the productivity of capitals which are not equally productive.

The farmer earns 5,000+500+500=6,000 in two turnovers of his capital; the manufacturer earns 5,000+500+550=6,050 in two turnovers. But both of them have employed the same number of workers, says Ricardo (which, as we saw, is true only in the second year) and, therefore, the amount of labor embodied in the wheat and in the manufactured goods is the same, namely, the annual labor of one hundred men. Ricardo mistakenly thinks that the labor theory of value implies that the money prices of wheat and cotton goods must stand to each other in the same ratio as 100 to 100. He fails to see that the labor theory of value does *not* imply this. The labor theory of value implies nothing as to the uniformity of the profit rate, and the uniformity of the profit rate

implies nothing as to the nature of exchange value. The labor theory of value is the theory that claims that value consists in objectified labor.

Therefore, the labor theory of value does not imply any particular system of money prices. The labor theory of value is a theory about the *nature*, not about the *magnitude* of value. Value must certainly exist as a particular value of a particular magnitude, as magnitude is a necessary accidental determination of value. To put it otherwise: value must necessarily get objectified as price. However, the aim of the labor theory of value is to understand the nature of value, not to predict any particular set of money prices. To put it otherwise: the theme of the labor theory of value (and I dare say, of any theory of value) is to explain why goods have value, not to explain why goods have this or that particular value or price.

Ricardo claims that his example provides an instance where the labor theory of value fails because the price of manufactures and wheat do not stand to each other in the same ratio as that in which the amounts of labor embodied in manufactures and wheat stand to each other: 6,050 to 5,500 but 100 to 100. I would like to turn around this argument of Ricardo and claim that, even if the manufacturers sold their goods for the same price as the farmer, this would not provide any evidence *in favor of* the labor theory of value. Indeed, Ricardo confines his inquiry to the quantitative manifestation of value, and, therefore, misses the main point.

All we can say if manufactures are sold for 5,500 pounds instead of 6,050 is that the manufacturers' capital is not making profit at the same *yearly rate* as the farmer's capital. By adding compound interest and selling their goods for 6,050 pounds, the manufacturers become *on a par* with the farmer, but whether they are or not on a par with the farmer is totally irrelevant for the validity of the thesis that exchange value consists in labor. The thesis that exchange value consists in labor does not imply that manufactured goods are to be sold for any other particular money price. Whether capitalism does or does not require that manufactures are sold for 6,050 pounds instead of for 5,500 is a problem of *price* theory, but not of *value* theory.

Since the proportional amount of labor set in motion by the farmer's and the manufacturers' capitals are different, these two capitals cannot make profit at the same rate. But competition implies that they must. Then it occurs to Ricardo that the manufacturers meet this requirement by inflating a bit the price of their goods in relation to the price of wheat. He rightly notes that this surcharge is not the result of any new labor applied to the manufactured goods, but of the process of equalizing the productivity of two capitals which are not equally productive. As Ricardo sees it, the result of the equalization of productivity is that the manufacturers get 50 pounds in excess of what the labor theory of value supposedly assigns to them. Instead of concluding that there has been a process of equalization in the formation of money prices (and, therefore, of re-distribution of already created value), Ricardo takes the wrong way and jumps to the baseless conclusion that the value represented by these extra 50 pounds cannot have been created by labor.

Had he been coherent with his criticism of Smith, however, Ricardo had all he needed to realize that the manufacturer is not getting anything in excess of what the labor theory of value assigns to him. The fact is, however, that the labor theory of value does not assign any particular price to anything. The only thing that the labor theory of value assigns is *labor in general*, labor as such, not any *particular amount of money*. The only contention of the labor theory of value is that the extra 50 pounds that the

manufacturer gets represent objectified labor, just like any other part of the price of commodities –by the way, a view that we already found in Smith above, in the passage where he claims that profit consists of the labor added by the workmen which is not required to replace their wages.

Why did Ricardo think that the 50 pounds rule out the labor theory of value? Because it looks upon this money as showing a *revaluation* of cotton *over* the value that it has in virtue of the labor embodied in it. In my opinion, it is incoherent to make this claim right after having said that this surcharge puts the two capitals *on a par*. If the surcharge sets the two capitals on a par, it follows that it does not involve any revaluation, any *creation* of value, but a *redistribution* of already existing value. If the whole point of the "inflation" of the price of manufactures is to equalize the productivity of two capitals that set in motion different amounts of labor, it is nonsense to claim that the value of the manufactured goods *rises over the amount of labor embodied in them* because of this process of equalization. A process of equalization of gains does not create any new gain.

After having said that the inflation of the price of manufactures is the objective manifestation of a *transfer* from the farmer to the manufacturer which involves no new value, Ricardo contradicts himself and claims that the said inflation reveals an increment of value in excess of labor value. Thus, says Ricardo, there is something else than labor that is giving value to the manufactured goods, that is, something that is creating value in addition to labor. Therefore, concludes Ricardo, labor is not the only determining cause of value. In my opinion, this conclusion is baseless, as Marx correctly noted.

Ricardo starts chapter 1 of his "*Principles*" from the premise that labor determines value. Note, however, that he does not establish any necessary logical connection between the concepts of "value" and "labor". He does not produce any argument to show that value must consist in labor anymore than in utility or water or oil; he does not even ask such a question. For this, we have to turn to thinkers such as Hegel or Marx. On this score, Ricardo's theory of value is as poor as Smith's, that is, it does not take up the fundamental problem of value theory, which is the nature of value.

A look at other passages of Ricardo's "*Principles*" strongly suggests that Ricardo never understood what it exactly was that he had found out about labor and value. In fact, it is revealing to see how, in crucial passages, he clings to the labor theory of value after having refuted it; for instance, at the very beginning of chapter 2, where he formulates the problem of rent, he writes:

> "It remains however to be considered, whether the appropriation of land, and the consequent creation of rent, will occasion any variation in the relative value of commodities, independently of the quantity of labour necessary to production." (Ricardo, 1821 [1965], 33).

Labor is taken to be the only cause of value. Some paragraphs later, Ricardo declares:

> "The exchangeable value of all commodities, whether they be manufactured, or the produce of the mines, or the produce of land, is always regulated, not by the less quantity of labour that will suffice for their production under circumstances highly favorable, and exclusively enjoyed by those who have peculiar facilities of production; but by the greater quantity of labour necessarily bestowed on their production by those who have no such facilities." (Ricardo, 1821 [1965], 37)

Again, exchange value is said to consist in labor. Many other instances can be found. As we can see, Ricardo does not seem to know very well what is what he has found out against the determination of value by labor in sections IV and V of chapter 1 of his "*Principles*", to the extent that, even after refuting the determination of value by labor, he keeps on clinging to it all along his book.

Summing up: the right of the manufacturers to sell their goods for 6,050 pounds instead of 5,500 has nothing to do with the question as to whether or not value consists in labor. It certainly rules out the thesis that relative prices are determined by wages, but this thesis is totally different from the labor theory of value. The fact that the equalization of the profit rate causes the prices of wheat and clothing not to stand in a one-to-one relation, despite the fact that wages do, has nothing to do with the labor theory of value.

For the labor theory of value, wages, profit, interest or any other part of price are but objective manifestations of the same thing, which is objectified human labor: this is the basic tenet of the labor theory of value, no matter how interest or wages are regulated quantitatively. The quantitative determination of wages and interest, even of relative prices, is a question about an *accident* of value, namely, about the quantity of value, not about the *nature* of value. The labor theory of value is a theory about the nature of political or social relationships. On this ground, it can make qualitative predictions about the behavior of economic variables, but it does not aim in any way at such a thing as explaining a vector of relative prices as a linear transformation of a vector of wages.

2. Ricardo's Refutation of the Labor Theory of Value in the Standard Literature

The thesis of Ricardo that the requirement of a uniform profit rate under competition shows that value consists in labor but also in something else than labor is accepted by the standard textbook as well as by the professional literature. To start by the professional literature, let us look at Samuelson's version of Ricardo's refutation of the labor theory of value as it can be found in a famous article published in 1959:

> "FAILURE OF THE LABOR THEORY. 33. The simplest model to show that relative exchange values cannot be predicted from the labor theory of value alone is the following. Let there be two goods as before, y_1 and y_2. Let each require a_1 and a_2 of labor per unit; and let the land requirements b_1 and b_2 be neglectable because land is so abundant as to be free. But now assume, as Jevons later was to do, that inputs in the two industries produce their outputs exactly θ_1 and θ_2 periods later, respectively. Then if *i* is the interest rate per period, the steady-state cost of production equations for prices become
>
> (17) $p_1 = wa_1(1 + i)^{\theta 1}$ $p_2 = wa_2(1 + i)^{\theta 2}$,
>
> with
>
> (18) $p_2/p_1 = a_1/a_2\ (1+i)^{\theta 1 - \theta 2}$
>
> From the embodied labor coefficients a_i, alone, we can no longer predict unchanging relative prices -except in the singular cases where the time intensities of the industries are exactly equal, $\theta_1 = \theta_2$; or where the interest rate *i* is literally zero." (Samuelson, 1959b, 221)

As an example of the textbook literature we can check Blaug's otherwise excellent "*Economic Theory in Retrospect*", where Blaug reproduces the argument of Ricardo in Samuelson's version:

"When the rate of profit is positive, the price of a commodity is influenced not merely by the amount of labour required to produce it but also by the length of time for which that labour is embodied in production. The price of a product in the long run is equal to its wage cost plus a profit margin on the capital advanced. If one worker produces one bushel of wheat in *one* year and two workers one yard of cloth in *one* year, the relative price of the two goods is equal to the ratio of the amounts of labour required to produce each of them: cloth will be twice as expensive as wheat. At any given *rate* of profit, the *amount* of profits earned on cloth are always just twice the amount earned on wheat and no change in the rate of profit will alter this result. But if one worker can produce a bushel of wheat in *one* year while it requires two workers *two* years to produce a yard of cloth, the profits earned on the wages of the first year will themselves have to earn profits for the second year; instead of cloth now being four times as expensive as wheat -two workers for two years as against one worker for one year- its relative price in terms of wheat will in fact be greater than four. And a change in the rate of profit will now affect relative prices even though the relative quantities of labour required to produce the two goods remain the same as before. To put it more tersely if X_1 and X_2 are produced in unequal periods of time t_1, and t_2, with $t_1>t_2$, then if *r* is the rate of profit per period, the cost-of-production equations for long-run prices are

$p_1 = wa_1(1 + i)^{t_1}$ $\quad$ $p_2 = wa_2(1 + i)^{t_2}$,

with

$p_2/p_1 = a_1/a_2\ (1+i)^{t1 - t2}$

It follows that we can no longer predict relative prices from the labour coefficients alone unless $t_1 = t_2$. In short, the labour theory of value cannot account for relative prices when capital as well as labour is involved in the productive process; note that this is true even if capital is only working capital. The presence of fixed capital could of course create further deviations from an explanation in terms of labour time." (Blaug, 1998, 91-2)

In Samuleson as well as in Blaug, what rules out the labor theory of value is the difference in the time span over which interest is to be compounded. Blaug's wording suggests that the difference in interest that kills the labor theory of value is created by "capital"; presumably, what he has in mind is money *capital* lent at compound interest. As we can see, these texts are faithful to Ricardo's original and reproduce his error. I have already explained why I think with Marx that such way of reasoning is defective. There is, however, an interesting feature in both texts that I would like to point out, namely, that the labor objectified in the commodities is implicitly viewed as an object, as a quantity denoted by a_i of a certain stuff called labor, in such a way that there is no qualitative difference between price and value. We have to remember with Marx that the labor referred to by the labor theory of value is not any stuff, or any particular kind of labor, such as the labor of the carpenter or the builder, but labor in general abstract labor, labor as such.

Puzzled by the conclusion of his example, Ricardo tried to play down the relevance of time or composition and said that, in practice, the causes of value other than labor do not usually account for more than 7% of prices. Stigler was right to make fun of such an apology saying that the Ricardian theory of value was a "93% labor theory of value".

Conclusions

From the discussion contained in the body of this paper, we can draw the following conclusions:

1. Ricardo's argument against the validity of the labor theory of value in Section IV, chapter 1 of his "*Principles*" is invalid because it mistakes a distributive problem for a problem about the creation of value. First, Ricardo's example is set up in such a way that it contains a "*petitio principii*" and, secondly, Ricardo fails to

adequately handle adequately the valuable material that he has and draws the wrong conclusion from it. The further arguments that Ricardo presents in sections IV and V are substantially the same as the one discussed in the body of this paper and, therefore, our criticism of it applies to them as well. Nothing of what Ricardo says refutes the thesis that value consists in labor, or implies that it is valid under restrictive assumptions only.

2. The standard literature is faithful to Ricardo's original argument and so it inherits its defective logic. Therefore, the treatment of Ricardo's position on the labor theory of value in the standard literature needs to be re-elaborated in the light of the critique of Marx, the fundamental bases of which I have tried to explain in the body of this paper.

3. Nothing of what Ricardo says in chapter 1, sections IV and V of his "*Principles*" implies anything against the thesis that value consist in objectified labor, but, and this is more important, nothing implies anything in favor of this thesis either. To put it crudely: Ricardo misses the point and fails to tackle the central problem of the labor theory of value, which is why should value consist in labor. Thus, the fundamental question as to the nature of value is absent from Ricardo's inquiry. Any discussion of the labor theory of value must explain at least, two concepts: first, that of objectification; secondly, that of *labor*. The concept of objectification, having a Hegelian origin, can be dismissed if one does not want to play the Hegelian card and thus, it is not essential for a definition of the labor theory of value. The exactly opposite is the case for the concept of labor: unless we have a clear understanding of the nature of labor, there is no way we can say anything significant about the labor theory of value. This is the question that the author of this paper purports to examine in the Hegelian tradition, in which such question is the central one. At the time of the writing of this paper, the famous football *player* Cristiano Ronaldo is regarded by Spanish law as a *laborer*. In view of this, are we really in a position to claim that we have the conceptual categories required to discuss the relation between *labor* and value?

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