A celebration of the Labour Theory of Value

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What is this lecture about? Suppose that we consider a class society in which a surplus is produced, a very general specification. And we will also suppose this society is a market economy in which buying and selling is the normal thing to do, so in Marxist jargon it's a generalized commodity-producing economy or a capitalist economy. Accordingly, what this lecture is about is the question of whether we can construct a theoretical account that simultaneously, first of all, demonstrates and explains exploitation, and secondly, understands competition and prices. Or to put the issue a little bit differently, are the Marxian theories of exploitation and competition compatible? Can we combine them? Now this is an important question and for Marx it was important because pre-capitalist modes of production were transparent – it was pretty obvious what the class structure was. It was pretty obvious that there was exploitation, that one class lived off the labour of another. In pre-capitalist societies, this is not difficult to understand, but in capitalism it isn't obvious and Marx, in many respects, saw his purpose as demonstrating just how it was that capitalism was an exploitative mode of production, what its dynamics were, and how it developed through time.

Here is a list of things one can draw from Marx about what he thought the developmental dynamics of capitalism were – about what they embraced and what they included. I'm not going to talk about any of these. I'm not going to talk about any of them but they're all things one can draw from his work, so I will just mention them very quickly.

— The alienation of the worker from the production process and the product.

— The subordination of the worker to technology.

— A very authoritarian and hierarchical division of labour within the firm and a completely anarchic division of labour outside the firm.

— Growth in the size of firms.

— The importance of credit.

— Rising labour productivity as a characteristic feature generated by technical progress.

— A technical progress that is generally labour-saving and means-of-production-using.

— A rising rate of surplus value.

— Unemployment as a regulator of wages.

— The internationalization of trade, of production processes and of finance.

— And most importantly, the alternation of periods of growth and accumulation and periods of crisis.

All of this we can find in Marx's economics, and that's very powerful because that is a description in many ways of how capitalism has developed over the last 100-150 years. But actually since the 1890s, starting with Böhm-Bawerk, a major critique of Marx has been aimed at the economic foundations of his analysis, that is, it has been aimed directly at the labour theory of value. What I want to do in this talk is basically to show you that this classical critique, if you like, this critique of the labour theory of value, is wrong and that Marx's approach should be celebrated rather than condemned. I'm here, it may be said, to defend the Labour Theory of Value against its critics, but to do it in a particular way, and in order to understand this, I'm going to use a historical perspective. I'm going to start with Adam Smith and then say a little bit about David Ricardo before I talk about Marx. So, for those of you who are economists, this, I hope, will be fairly familiar.

Let us start with Adam Smith. First of all, he considers a very primitive economy. There is no private ownership, land is held in common, and there are no non-labour means of production at all: it's just labour. He presumes this labour is mobile – it's not fixed but rather it can move: a perfect labour mobility. Adam Smith's question then is, if we have this sort of economy with perfect labour mobility, at what rate will commodities exchange? And his answer, in 1776, was: "well, commodities will exchange as determined by how difficult it is to produce each commodity", and he thought that measure of difficulty was best expressed by labour-time. Now I'm going to call this a Commodity Law of Exchange. Right through this talk, this is going to be the Commodity Law of Exchange. Commodities exchange according to how difficult it is to produce them, and how difficult it is to produce them depends on their labour-time, the labour-time it takes to produce them. This will be the Commodity Law of Exchange.

Then Adam Smith said, well suppose we now consider a capitalist economy, so there is now private ownership of land, there is private ownership of factories and machines and raw materials and so on, of all the non-labour means of production. And we will also suppose that capital is mobile, perfectly mobile. It can move between different branches of production. Then, in long-run equilibrium, Adam Smith thought that competition must equalize all rates of return, and this is a very simple idea. If I can earn more profit here than there, then I will go here. That's what I will do. In this long-run equilibrium there will be a set of prices at which all rates of return are equalized, and Adam Smith called these long-run equilibrium prices "natural prices". He saw them as centres of gravity around which market prices would fluctuate. And he also made some analysis of these fluctuations. He thought that if there is a difference between market price and natural price, then there will be an invisible-hand process, which would tend through time to eliminate those differences, but at the same time there are always changes in technology and changes in demand, so we may never get there. It's a continual process. It's what in economics we would call a "continual arbitraging process": you've got a continual adjustment towards an equalized rate of profit but at the same time continual displacement – as technology changes, demand changes and so on. Now, I'm going to call this long-run equilibrium, long-run price equilibrium, at which all rates of profit are equalized, "the Capitalist Law of Exchange". So we're going to deal with two laws, a Commodity Law of Exchange and a Capitalist Law of Exchange. Adam Smith quickly realized that, as soon as you've got private ownership, you've got a wedge being driven between what he called "labour-commanded", which we would understand as price, and labour-embodied, which we would understand as cost. That is because the Capitalist Law of Exchange and the Commodity Law of Exchange are different. The Commodity Law of Exchange says prices are labour-value prices. So labour-commanded and labour-embodied are the same thing. But once you get private ownership and the Capitalist Law of Exchange, then labour-commanded (price) and labour-embodied (cost) are different because price has to cover profit and interest as well as wages. Faced with this, what does Adam Smith do? He says, "no more Labour Theory of Value for me, I'm going to have a different theory of price" and he develops his account in a different way. So in terms of the terminology I'm using, Smith abandons the Commodity Law of Exchange. How would we evaluate Adam Smith, what sort of balance sheet would we draw up? Well, Smith shows certain successes and certain achievements. Although I'm clearly oversimplifying, he has a more or less explicit Capitalist Law of Exchange. He understands competition as equal and he tends to equalize the rates of profit; he defines natural price, he distinguishes natural price from market price, and he has this arbitraging process, this process of the invisible hand. All of that is very successful in Smith. In addition, at least in the early pages of *The Wealth of Nations,* he has a very primitive Commodity Law of Exchange and a very crude Labour Theory of

Value. His failure was that he could not combine them both, he couldn't apply his Labour Theory of Value to a capitalist economy.

Now we jump forty years to Ricardo, forty years after Smith, and Ricardo does successfully generalize Smith's Labour Theory of Value. He is able to apply it to a capitalist economy. For Ricardo, prices are determined by both the living labour employed, or the direct labour performed, and the labour that was performed to make the means of production that are now being used, which are sometimes called, if you like, direct labour and indirect labour, or sometimes, very crudely, living labour and dead labour. For Ricardo, both were important in determining price. Ricardo assumes that all the different types of labour and different skills, different intensities of work and so on, can all be reduced to a common standard and he pays no attention as to how this might be done. But we can just leave that on one side. Measuring in this common standard, whatever it is, Ricardo says, "price ratios are indeed labour ratios", that is, embodied labour ratios. Now he comes across a difficulty. His Commodity Law of Exchange says price ratios are embodied labour ratios, that is, you understand the embodied labour now as the sum of the direct and the indirect labour performed to produce a commodity. At the same time, he just adopts Smith's Capitalist Law of Exchange. Prices for Ricardo are Smith's natural prices. Each price is the sum of the costs marked up by an equalized rate of profit. The problem that Ricardo quickly discovers – and Malthus and McCulloch, two of his contemporaries, write him letters that point this out forcefully – is that he has got himself into a logically contradictory position. Why is this? Let us imagine two firms, firm A and firm B, and they each produce the same output. Moreover, they each advance the same amount of capital, let us suppose. Because they produce the same output, the price must be the same for each firm and competition will ensure that. Because they advance the same total amount of capital, their costs will be the same. If they each get the same amount of profit, then their individual rates of profit will be the same. But suppose their technologies of production differ. We are saying, each firm advances the same amount of total capital, but suppose now that firm A employs a lot of labour and not much means of production, and firm B employs very little labour and a lot of means of production. The total amount of capital each firm advances is the same, but it's differently divided between labour and means of production. For Ricardo, that must mean firm A, the more labour-intensive firm, is going to produce a lot of value – lots of labour, lots of value. Firm B does not have much labour and therefore it does not produce much value. So firm A is going to produce a lot of surplus value and firm B only a little surplus value, because firm A has lots of labour and firm B does not have very much labour. Their rates of profit will be different because rates of profit in this very sort of simple example is just profit divided by investment. The total investment we have supposed is the same, but the profit will be different because the labour, the direct labour, is different. That's not how capitalist competition works. On the other hand, if we accept the Capitalist Law of Exchange and profit rate equalization, then there must be some value transfer from firm A to firm B. Because if the rate of profit is equalized, firm A has too much surplus value, firm B too little, and so firm A somehow or other has to transfer surplus value to firm B in order that they may earn the same rate of profit. If that happens it can only happen through the market and how it happens through the market is that firm A sells its product at less than what its value would suggest and firm B at more than what its value would suggest. Then prices do not reflect labour values, so there is a logical contradiction. It seems for Ricardo that either the Capitalist Law of Exchange applies and then the Commodity Law of Exchange does not, or the Commodity Law of Exchange applies and the Capitalist Law of Exchange does not. Ricardo was forced to recognize this, and basically he struggles with it. He can't reconcile the two problems. This was effectively the analytical position by the early 1820s. These two ways of thinking about prices, the Commodity Law of Exchange and the Capitalist Law of Exchange, do not fit together.

Did Ricardo resolve the problem? No. Let us now deal with Ricardo as we did with Smith. What is the balance sheet for Ricardo? He does successfully generalize Smith's Commodity Law of Exchange, and that is good. He insists all the time that both laws apply to a capitalist economy even though Malthus and McCulloch say it's impossible. Ricardo says, "I think it's true". All the time he says, "I think it's true". What were his failures? Well, he never really looked very hard at the labour underlying the Commodity Law of Exchange and he could not resolve his logical difficulties, he simply couldn't. He eventually had to retreat and say, "well, I have a 94% or 93% Labour of Value", but it's a retreat.

Now we jump ahead another forty years or so to Marx. I have emphasized that Ricardo doesn't pay much attention to labour in his Labour Theory of Value. Marx does, Marx pays a lot of attention to it. He regards labour as abstract, as simple, as social and as necessary, and he has quite a lot of discussion of this. What I want to do is basically to jump to the idea that he considers that the production of any commodity requires a certain fraction of society's total labour time. As values, for Marx, commodities differ only in what that fraction is. As used values, of course, they differ in all sorts of ways, but as values they differ only in that fraction of total labour time that their production takes. So this, for Marx, is the substance of value and the form of value as exchange value, and he argues that commodities can be quantitatively compared in terms of homogenous units of money. In terms of the substance of value, we have homogenous units of time. In terms of exchange value, or the form of value, we have homogenous units of money. Notice here, and I'm deliberately spinning this, the argument runs from the total to the individual.

Now, if we let ρ be price and λ be value, then for Ricardo, the Commodity Law of Exchange says a price ratio is equal to an embodied labour ratio for any two commodities i and j. If that is true, then their value-price ratios, if you just cross-multiply, are the same for all commodities. I'm going to let this common value, this common price-value ratio, or value-price ratio, be a price-value ratio, and I'm going to call this common ratio λ with the subscript g. Marx does not work in terms of price ratios and embodied labour ratios. For Marx, price equals value divided by this constant. What does this constant do? Well, it converts hours into money. You can't say three hours equals one pound because you've got hours and money. It's impossible, you can't equate them like that. You need something that converts hours into money and that is what this constant is doing. It has a dimension that is a bit difficult to understand because it's hours per unit of money, and we're going to call it the Value of Money. Why have I used the subscript g? G is gold. For Marx, the price of the commodity is its value divided by the value of money or gold, that is, the value of gold. But we know that, for Ricardo, there are different time structures of embodied labour, different ratios, and different ways in which technologies require units of labour and units of means of production, because Ricardo had discovered that price ratios and embodied labour ratios are not in fact the same. Ricardo does not like this, but he's forced to accept it. Marx, too, finds something similar in using a different language. Marx talks in terms of compositions of capital but again the price of an individual commodity is not its value divided by the value of money. We know that exchange in a capitalist economy is typically unequal exchange. Any individual capitalist will gain or lose value in money terms compared with the money value of the labour embodied. We know that, Ricardo was right. The contradiction Ricardo had discovered is a real contradiction. This means that the Commodity Law of Exchange requires reformulating and I'm going to argue that this is what Marx does, or this is how we should interpret what Marx does. This is a slightly more honest way of putting it, I suppose. Accordingly, Marx derives the homogeneity of commodities as values from the fact that each commodity requires some fraction of total labour. Let us start with this total labour. Then let us say, in any society, in capitalist society, at any time this total labour in hours and what it produces in total in money, are the same thing. They are different expressions of the same thing. That is, total hours worked and total net output in price terms are just different ways of expressing the same thing. We are going to call this a "conservation principle", applying to the whole system. Total value added is performed by labour and conserved in exchange. Capitalist competition, as we know, tendentially anyway, equalizes the rates of profit. We know this can only happen through transfers of value in the exchange process. But our conservation principle says that in the aggregate for value added, these gains and losses will add up to zero. For Marx, the Commodity

Law of Exchange is a macroeconomic law applying to total value added. It doesn't hold at the level of the individual commodity: it holds for the aggregate of commodities making up net output. We can put this slightly more formally. We know what the structure of the Commodity Law of Exchange is: price equals value divided by the value of money. So for total net output, in price, that's just *py* equals value, which is just *H*, the total hours worked, divided by the value of money. Now, in Marx's day you could say that maybe it was reasonable to think of money as gold. I mean, it is debatable, but let us leave it on one side because we certainly cannot think of that today. So let us define the value of money, and now we will leave our little *g* subscript behind and put an *m* for money, so λ subscript *m* is the value of money. We will just define it as the ratio of total hours worked added to the total price of net output. What does the value of money mean? Well, it answers the question of how much labour time on average a unit of money represents. And it's inverse, sometimes the MELT or "monetary equivalent of labour time" answers the question of how much value in units of money one hour of labour time creates. Now, to a reasonable degree of approximation, total value added in money terms is the *net domestic product*. We can find out the total hours worked from input-output tables, so that is straightforward too. The value of money is not a metaphysical concept: it's a ratio of two things we know. It is therefore something that is empirically operational, operationalizable. We can use it. Let's take the USA in 2010, for example. What was the US net domestic product? Well, it was $9,876.4 billion and we get that straight out of the national income and product accounts. Now, that is an approximation to a Marxian concept and it's near enough. We are not going to go very far wrong if we consider what the total hours of labour were, although we have to make some adjustment for productive and unproductive labour. I'm not going to talk about that, however, because it would take me a long way away, so we'll just accept it. Therefore, how many hours of productive labour were there? Well, I have calculated this at 99,329 million hours. So we can answer the question of how much labour time a one dollar bill represents. Which is to say, what was the value of money in 2010? For the ratio *H* over *py*, we have the extra thousand because one is in billions and one is in millions. And the answer is, the value of money was approximately 0.0101. What does that mean? 32.6 seconds per dollar. So a dollar bill represented 32.6 seconds of labour time. Or we can ask the inverse question. How much value in dollars did one hour of labour time create in 2010? We just form the inverse and the answer is about $99.43. Each hour of labour on average created $99.43.

As I have insisted, the Commodity Law of Exchange in Marx expresses an aggregate conservation principle. Here are six questions: is that its only application? First question. Second question: is there any individual commodity to which the Commodity Law of Exchange applies? Third question: is there any individual commodity that is quite unaffected by considerations of different structures of production? Fourth question (and let me point out that these are actually all the same question): is there any individual commodity whose price is proportionate to its value? Fifth question: is there any individual commodity whose exchange for a sum of money is in general an equal or equivalent exchange rather than an unequal or non-equivalent exchange? And last question: is there any individual commodity to which the Capitalist Law of Exchange does not apply? These are all different ways of asking the same question. If there is such a commodity, it's going to be a very peculiar one. Because it's going to have to be outside of capitalist production relations so that the Law of Capitalist Exchange does not apply. But it also has to be a commodity so that the Law of Commodity Exchange does apply. Is there such a commodity? Having asked all these questions, it's obvious I'm going to say, yes there is. There is one such commodity which Marx calls labour-power. The capacity to work. There are several things that are peculiar about labour-power. First of all, it's an aspect of human beings, it's not separable from them, it's part of what it means to be human. In capitalist society, human beings are not bought and sold, human beings are not commodities. They are not somebody's private property. Capitalism is fundamentally different from a slave economy. In a slave economy human beings are people's property, in a capitalist economy they are not. Human beings themselves are reproduced outside of capitalist relations of production. We may want to say there are patriarchal relations of production, but whatever they are, they are not capitalist ones. Human beings are not produced for profit. That means that all those considerations which have to do with the equalization of the rate of profit don't apply, because human beings are not produced for profit. They don't apply. And if they don't apply to human beings, then they don't apply to labour-power. This means that for labour-power, the basic formula of the Commodity Law of Exchange applies: price equals value divided by the value of money. What is the price of labour-power? The wage rate. Price per hour, the wage rate, *w*. What is the value of labour-power? Let us just call it *vlp*, value of labour-power. Just leave it at that, the value of labour-power. Then we know from the Commodity Law of Exchange that the wage rate is equal to the value of labour-power divided by the value of money. But in any economy we know what the average wage rate is and I've just told you what the value of money is for the US economy in 2010. So what is the value of labour-power? Just cross-multiply. It's the wage times the wage rate times the value of money. What would that mean in the United States in 2010? Well, the average wage rate of productive labour is $25.06. So what's the value of labour-power? 25.06 multiplied by 0.0101, which is about equal to 0.25. What does that mean? Well, we can put the value of labour-power slightly differently because, if the value of labour-power is equal to the wage rate times the value of money and we know what the value of money is, it's just *H* over *py*, we can just substitute and find that the value of labour-power is the wage share of productive labour in net output. That is to say, in 2010 in the United States it was 25%. Or, if you prefer, for each dollar of new value created, the worker got 25 cents, the capitalist got 75 cents. So, if you like, the value of labour-power is the proportion of total money value added that the working class, the productive working class, receives in exchange for one hour of collective labour-power. If you put it like that, it is another macroeconomic concept. What determines this proportion? This is a complicated question. It's determined by class struggle over the construction and implementation of social norms about what constitutes an acceptable standard of living. And of course, it's complicated by the fact that human beings live in households, they're not individuals. So, there's a lot of complications here, but at this level of abstraction, we can say it's just about class struggle, about the social norms that determine what an acceptable standard of living is. Net output that is not wages is just a rather general notion of profit that Marx calls surplus value, or the money form of surplus value, and the proportion of net value added that the working class does not receive is due to exploitation.

What shall we do here? The thing that I want you to take from this, and this is the reason for using this example from the United States, is that the Labour Theory of Value in this way of thinking about it is not a metaphysical construct – it's an empirically operationalizable theory – and that seems to me to be extremely important. It also follows that total wages represent total hours of productive labour, total profit represents total surplus value which represents unpaid labour-time, and rate of surplus value is just the money surplus value to wage ratio. So again, for the United States in 2010, what was the rate of surplus value? As we said, the capitalist got 75 cents and workers got 25 cents, so the ratio was 0.75 divided by 0.25, or 300%. What is important about this? Well, according to what I have been talking about for Marx, it doesn't matter what prices are… it just doesn't matter. Prices might be prices of production, they might be market prices, they might be anything you like. In Marx, the theory of exploitation is independent of what prices happen to be. That is really important because, for Marx, the theory of exploitation is more fundamental than the theory of competition. His theory of competition does not have to contradict the theory of exploitation and in this way of thinking about it, it doesn't. Prices can be anything. The theory of exploitation works through what I have called the "aggregate conservation principle" and the peculiarity of labour-power as a commodity. What are prices, how do we understand prices? Well, we know labour is distributed across all sorts of different production processes. We know that prices are the means by which this distribution is affected, so prices do represent labour-time. But, that's all we can say. We can't say how much labour-time. We do know that prices representing labour-time will in general be different from the labour embodied in those production processes. But that's all we can say. We can think of this with a big metaphor, and in fact this is quite a common metaphor. We know that each capitalist firm exploits its own workforce. You can think of it as contributing to a world pool of surplus value. It's a bit like a mountain lake, lots of streams flowing into the lake, lots of streams going into the lake. And each firm's labour-force is a very, very, very small proportion of the world's labour-force. So you might think, for instance, Ford employs a lot of people worldwide, but that's a tiny fraction of the world's working population. It's very, very small. So each firm contributes at most a very, very small proportion of the world's pool of surplus value. Then you can think of each firm drawing from this pool. So there are streams flowing out of this lake going down into the valley. How much do they get from this pool? Well, that depends on their competitive strategy. There may be some of you here who have an iPhone, for example. Apple's competitive strategy so far has been very, very successful. Apple earns a huge amount of profit. That profit is not from Apple's own workforce in value terms. It's due to the success of Apple's competitive strategy, the fact that Apple has persuaded you that it is much better to have an iPhone than any other phone. This metaphor, if you like, explains why a firm's profit might only bear a very distant relation to the exploitation of its own workforce. But it also explains extreme cases. There are firms that draw on this pool but contribute nothing to it. Goldman Sachs, for instance, to take an example at random. Goldman Sachs, KPMG, firms like these. So there are extreme cases of firms that contribute nothing to the pool but take out a lot. Land rents, finance, intellectual property royalties, ICT firms and so on.

All right, let's summarize. If we assume a commodity-producing economy in which capitalists as employers allocate social labour, and labour and capital are perfectly mobile, then labour mobility will establish uniform wage rates for appropriate skill levels, or more generally, uniform rates of exploitation. Then we can generalize this and think about the Commodity Law of Exchange and the theory of exploitation. Capital mobility ensures, tendentially anyway, the equalization of the rate of profit via the formation of "natural prices". This gives us the Capitalist Law of Exchange and the theory of competition. How do the two combine? For Marx, the Capitalist Law of Exchange has no effects on the relation between total hours worked and the price-form of total net value added. That I have called the "fundamental conservation principle". That is how Marx reorients Ricardo's Commodity Law of Exchange. It becomes a macroeconomic theory, not a microeconomic theory. Also, it doesn't apply to the sale of labour-power for a wage because there is no rate of profit to be equalized in the production of labour-power. It just is irrelevant. So, applying the Commodity Law of Exchange gives us a class theory of exploitation in the way that I've described. How did Marx then advance on Smith and Ricardo? We know Ricardo generalizes Smith's theory, but Marx reorients Ricardo's theory. He pays a lot of attention to the nature of labour. He develops the distinction between labour and labour-power. He has a clear idea of class and exploitation and he treats labour and capital generically, providing, in effect, a macroeconomics of their relations. And he has a more developed account of the Capitalist Law of Exchange than either Smith or Ricardo. He sees prices as bearers of social labour. He develops the idea of competition as systematic non-equivalent exchange. He understands that surplus value is produced in locations different from where it's realized. And he provides a theoretical space for the development of notions of productive and unproductive labour. So, why should we celebrate the Labour Theory of Value? Because, according to Marx, the distinction between value and price provides us with a window through which we can understand how the capitalist economy works.

Lourdes Beneria, vocal de la Junta de la Societat Catalana d'Economia, presentant Simon Mohun, a la seva esquerra. A la dreta, Eduard Arruga, president de la Societat Catalana d'Economia.