About Waged Labour: From Monetary Subordination to Exploitation

Jean Cartelier
Université Paris-Ouest, EconomiX

Abstract
Disagreements amongst economists are more important about the rate of wage than about commodity prices. These divergent theories of wages reveal a deep disagreement about the status of labour in political economy. They are not only analytical; three more general considerations are implied:

(i) From the point of view of *economic theory*, the question is whether there are or not fundamental *qualitative differences* between a pure market economy (populated by independent producers only) and a capitalist one (populated by entrepreneurs and wage-earners)?
(ii) From the point of view of *economic philosophy*, the question is about *exploitation*, are wage-earners exploited by capitalists?
(iii) From the point of view of *political philosophy*, does it make sense to criticize modern societies as market or as capitalist economies?

The paper addresses the two first issues.

The presence of "labour services" in the commodity-space in mainstream theory is ill-founded; it is the result of a social prejudice – which takes the form of a "natural" assumption – and not of a consistent reasoning. The wage relationship has nothing to do with an exchange rules by equivalence since wage-earners are such as a consequence of their inability to produce for the market. They cannot produce for their own account but for the account of entrepreneurs.

The employment contract is illegitimate as contrary to the fundamental values of the social philosophy inherent in a market economy. Wage-earners are exploited by entrepreneurs not because wages do not respect a norm (a natural price or a marginal productivity) but because wage-earners are a means for entrepreneurs. In the terms of mainstream theory, the exploitation shows off as a difference between the arbitrages open to entrepreneurs and wage-earners: the former compare disutility of the effort with the utility of the reward given by the market; the latter compare the utility of the deviation of the effort imposed by entrepreneurs with the risk of being fired. The first arbitrage refers to the market, the second to the firm. The gap between these respective optimal efforts measures exploitation.

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Wage-earners voluntarily accept to work under the control and for the account of firms run by entrepreneurs[1]; they do not decide what, how and how much they have to produce; wage-earners are not responsible for the consequences of their activities when they comply with entrepreneurs' orders; inside the firms, wage-earners are subordinates. Outside the firms, wage-earners freely choose the way they spend their wages in the markets for commodities and services.

Such is the "stylized fact" which characterizes the wage relationship in our economies. Any theory of the wage relationship should account for that "stylized fact" by deriving it from a consistent set of assumptions and propositions.

Three main propositions are advocated in this paper:

1. Mainstream economists conceived wage as being the price of a commodity ("labour power" or "human labour") determined on a market as for any other commodity and service; as a consequence wage relationship is thought as an exchange relation ruled by equivalence; *this view cannot be derived from the usual basic assumptions without violating the very logic of mainstream theory*; following that logic
    - either the wage relationship should be thought as a relation between human beings having so different conditions that it cannot be interpreted as an exchange ruled by equivalence
    - or "human labour" is not to be found in the commodity space

    In any case, the "stylized fact" mentioned above is not accounted for
2. Wage is the name of the payment entrepreneurs address to other people with the view to make them participate in production under their control and for their account; *wage payment is neither a purchase nor a sale*: it just allows wage-earners to enter the market and to spend for acquiring the commodities they desire
3. Wage-earners are economically speaking a *means* used by entrepreneurs for their own ends; *exploitation* (Fleurbaey's M-exploitation) is inherent in the wage relationship.

Propositions 2 and 3 do not fit general equilibrium theory (inspired by Walras and rationalized by Arrow-Debreu); they do not fit modern mainstream theory either. They have no room in the theory of prices of production (inspired by Ricardo and

[1] "Entrepreneur" here means, following Coase, « *the person or persons who, in a competitive system, take the place of the price mechanism in the direction of resources* » (Coase, p. 388)

rationalized by Sraffa). Moreover they are not compatible with Marx's theory of the labour power. An alternative approach is needed to host them.

Paving the way for that alternative theory requires to show that "human labour" cannot belong to the commodity space *from the very point of view of mainstream theory*; a sharp incompatibility between assumptions and conclusions would follow and justify resorting to an alternative approach. This is our first step. A second step is to effectively resorting to a *monetary analysis*, the alternative approach to real analysis according to Schumpeter in his *History of economic analysis*. In a nutshell, we have to discard the commodity space postulate, and to think of economic relations as *money mediation*. Instead of a commodity space we presuppose money as a unit of account ($) combined with means of payment; instead of a permutation of goods and services by exchange amongst people, economic relations are *payments*; individuals are no longer endowments and preferences but *accounts* into which payments write down quantities of $; *conditions of people may differ according to the form of money circulation*; that view allows dealing with different types of economic relations; for what matters here, *wage relationship appears as a specific form of circulation not reducible to that of exchange*. A final step is to suggest that *exploitation is inherent in the wage relationship*; such exploitation has nothing to do with justice since there is no norm whatsoever for the level of wage; it is also quite different from the exploitation Marx thought he has unveiled; exploitation is simply due to the special situation of wage-earners vis-à-vis of the market, situation which a specific form of circulation makes it clear

1 "Human labour" does not belong to the commodity space if not with human beings who perform it

The starting point of any theory of value is a given commodity space. It is especially clear in modern mainstream theory where the commodity space is the Euclidian space R^l in general equilibrium theory or a continuum [0,1] in search models. People who populate the economy are grasped by reference to the commodity space: initial endowments (points of R^l) and preferences function (defined in R^l). Among the goods belonging to that space, Debreu cites "Number 2 Red Winter Wheat" and "human labour". Many other items could be added as trucks and truck services for example.

Listing all these goods is tantamount to listing all the markets in which they may be traded against each other, depending on the behaviour of individuals who do not belong to the commodity space. To know whether a determinate item is or not to be found there is not an empirical matter. Consider for instance money. What kind of money theory is possible is not an open question as soon as theoreticians have decided that money is a special good being not privately produced and useless for consumption and production. Money being an element of the commodity space under the name of "fiat money", the basic question theory must solve is: does "fiat money" have a positive price at general equilibrium in spite of its special properties? Whatever the solution may be, it is impossible to thought of money in such a context as a set of rules (an institution) but as a commodity (very special indeed).

What is true for money is even more obvious for "human labour". It is only because they conceive the wage relationship as an exchange relation, that mainstream economists find "human labour" in the commodity space. Their basic vision is that individuals endowed with "human labour" supply it in a "market for labour" while individuals needed to produce with the help of "human labour" offer to get it some bundles of commodities (real wage). Assuming that "human labour" belongs to the commodity space is by no means the result of an empirical observation but the by-product of a theoretical stance on the nature of the wage relationship. Is that theoretical stance legitimate and fruitful?

To elucidate the point a clear answer to the following question is in order: what is (are) the condition(s) which make(s) acceptable an inscription of "human labour" in the commodity space?

The answer should be clear to everybody: "truck services" and "human labour" cannot be found in the commodity space but with their respective sources, that is "trucks" and "workers". A "truck service" without a "truck" is no more conceivable than "human labour" without a "worker". The mere fact that it is generally assumed that a choice is open to individuals between buying the "truck" in order to get its services or hiring the "truck" for a given duration confirms their common presence in the commodity space. What is true for "trucks" should be true for "workers" as well.

If so, we should have at least two kinds of human beings: one the one hand, the usual agents who trade commodities in different markets who are not found in the commodity space and, on the other hand, the "workers" who stand there along with 'trucks", "Number 2 Red Winter Wheat" and "human labour". But mainstream economists do not follow that line of reasoning when labour and wage are about although it is the usual one when other commodities are dealt with. Applied to labour, such a reasoning prevents from thinking of the wage relationship as an exchange since:

- Either "workers" are themselves the commodities which are traded in a labour market by the usual agents having them as endowments and as arguments of their utility functions but what is described is not a wage relationship but a slave economy

- Or “workers” are admitted to enter the market to negotiate their “human labour” but “workers” and “usual agents” conditions are so different that no equivalence in exchange could make sense

In other words, mainstream economics normal way of reasoning when applied to labour does not legitimate the vision of the wage relationship as being an exchange rules by equivalence, which is however the expected result of assuming that “human labour” is in the commodity space. In order to restore their prejudice and to theoretically support it, mainstream economists have to be twice untrue to their usual method.

A first infraction consists in forbidding that “workers” could be traded amongst usual agents, which amounts to stating that slave economies should not be dealt with. Such a stance cannot be justified but by a moral argument[2]. Slavery is an abomination but to forbid it does not prevent “workers” to be still in the commodity space along with “human labour”. “Workers” and “human labour” are *physically* related as are “trucks” and “truck services”. While “human labour” is supposed to be in the commodity space, “workers” are also there even if they are not sold. “Workers” and usual agents are still two different kinds of human beings, the condition of the formers being no clearly stated so far. Who and how “human labour” may be traded in that strange environment?

The necessity to remedy that indeterminacy gives the opportunity of a second infraction to the ordinary method of mainstream theory. Mainstream economists not only forbid slavery but they expel “workers” from the commodity space pretending nevertheless to keep “human labour” as an element of it. By virtue of the *physical bind* alluded above, expelling “workers” means expelling “human labour” as well. “Human labour” being no longer in the commodity space, it would be a nonsense to make it a possible item of usual agents endowments and a possible object of trade.

To sum up, once the double infraction is corrected, we are left

- Either with “human labour” being in the commodity space with no possibility to conceive the wage relationship as an exchange since the condition of “workers”, although not well-defined, radically differs from that of usual agents
- Or with “human labour” not being in the commodity space which entails that only pure exchange economy may be dealt with where usual agents share a same condition and trade amongst them according to equivalence; such an economy does not host any wage relationship

[2] Some authors disagree with such an argument (Nozick, for instance).

According to the ordinary logic of mainstream theory, dealing with "human labour" as a commodity requires that "workers" who perform "human labour", on the one hand, and usual agents who use it, on the other, belong to different classes of people. It is what testify agency models widely used in "labour economics". They presuppose that a usual agent (a "Boss" in Simon 1951) concludes a contract with a "worker" without making clear how "bosses" and "workers" show up. Putting the spiny problems under the carpet is not good practice even if it helps to preserve social prejudices.

It is better to renounce dealing with « human labour » as if it were a commodity and to stick to the image of an exchange economy where independent producers (usual agents) are specialized and exchange amongst them the commodities they have freely chosen to produce. No human being can be found in the commodity space. Each producer privately knows the disutility of his/her effort but no effort is to be found in the commodity space: efforts are not common knowledge. Consequently, there is no room for whatever a wage relationship in such an economy.

Accounting for the "stylized fact" characterizing the wage relationship requires to give up reasoning along with value theory and to understand how human beings of different condition may coexist in a market economy.

2 Wage relationship is a monetary subordination; means of payment circulation makes it clear

By its construction, mainstream theory deals only with one type of economic relation: exchange ruled by equivalence. "Stylized fact" above implies that economic theory should be capable to account for two different types of economic relations, at least: *exchange* between people sharing a same condition, *wage relationship* between entrepreneurs and wage-earners. Such theory exists. It is radically different from mainstream but is not new. Schumpeter opposed in his *History of Economic Analysis* the real (value theories) and the monetary approaches and maintains that here is the main cleavage in our discipline. Here, we will follow in Steuart and Keynes footsteps (to name two ancestors of that approach) and we will adopt a starting point radically opposed to mainstream. Instead of presupposing a commodity space, we start from the idea that *economic relations are made of payments*. This requires three postulates: (i) *unit of account* (say, the $), (ii) a definition of individuals as *accounts* in which (iii) payments write down quantities of $. Table below shows how far from mainstream theory leads the idea that *money mediation* is the basic fact of economic relations.

	General equilibrium theory	Monetary approach
Basic postulate	Commodity-space R^l	Nominal unit of account ($)
Active individuals	Preferences defined on R^l	Accounts where quantities of $ are written down
Relations	Generalized exchange: permutation of commodities	Dollars transfers from an account to another for settlements of debts
Condition of relations	Initial endowments ($\in R^l$)	To be eligible to the minting process

Economic relations may be summed up by a *payment matrix* displaying the different payments performed during a given period:

$$M = \begin{pmatrix} 0 & m_{12} & \cdots & m_{1H} \\ m_{21} & 0 & \cdots & m_{2H} \\ \cdots & \cdots & \cdots & \cdots \\ m_{H1} & m_{H2} & \cdots & 0 \end{pmatrix}$$

with m_{hk} being the payment made by individual h to individual k.

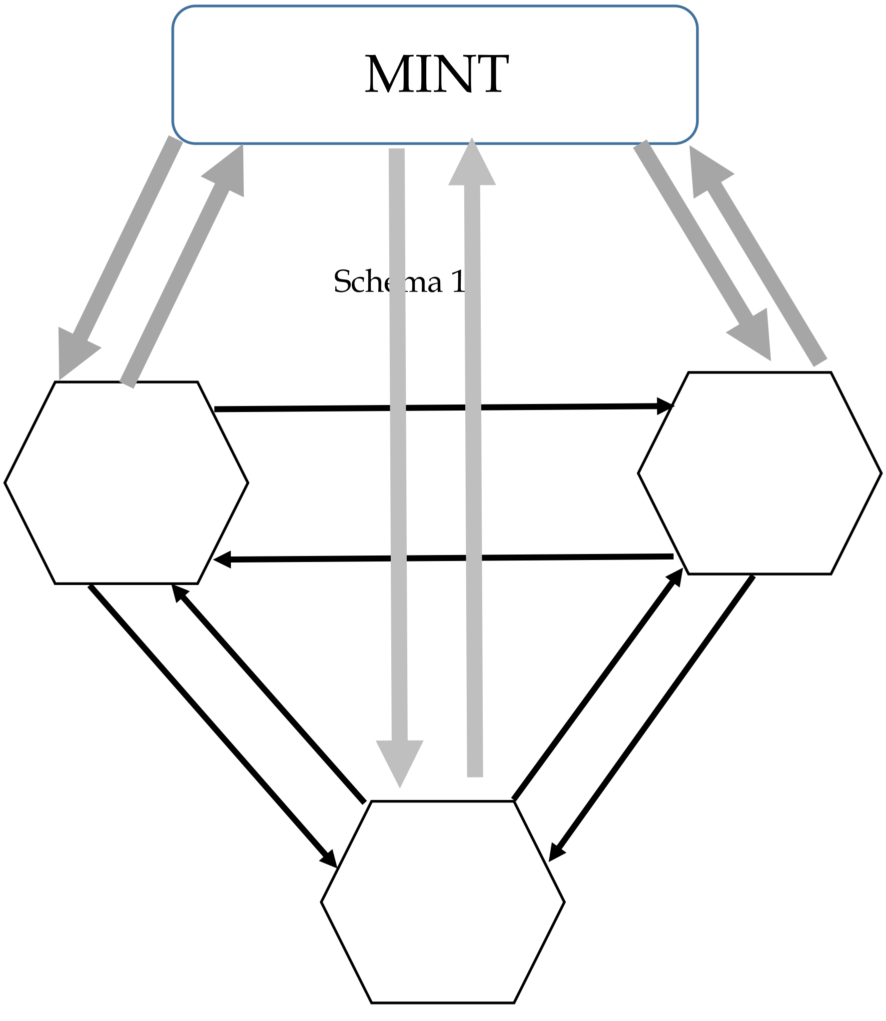
It is not the proper place to detail every aspect of this approach[3]. Two points nevertheless have to be mentioned: (i) prior to any payment amongst people, means of payment have to be available from another source (a monetary authority which cannot be an ordinary individual but an institution); let us call *minting process* the issuance of means of payment (ii) on the basis of the postulates above many forms of circulation can be imagined.

Here is the clue to the plurality of economic relations that a monetary approach can deal with, by contrast with mainstream theory. *The nature of economic relations is entirely determined by the form of money circulation*.

When *all* human beings (accounts) have an access to the minting process, they share a same condition: they are all able to directly intervene in the market (to run a specialized activity according to their free will). They are able to spend independently from each other. Translated in plain language, they are free to decide in which type of activity they specialize (under the constraint of the minting process) – decentralized decisions – payments coming from other people validate or not individual choices, leaving room for balances of payment settlements (note incidentally that disequilibrium is the rule, equilibrium the exception). That form of

[3] See Cartelier Jean, *Money, Market, Capital. The Case for a Monetary Approach*, in preparation

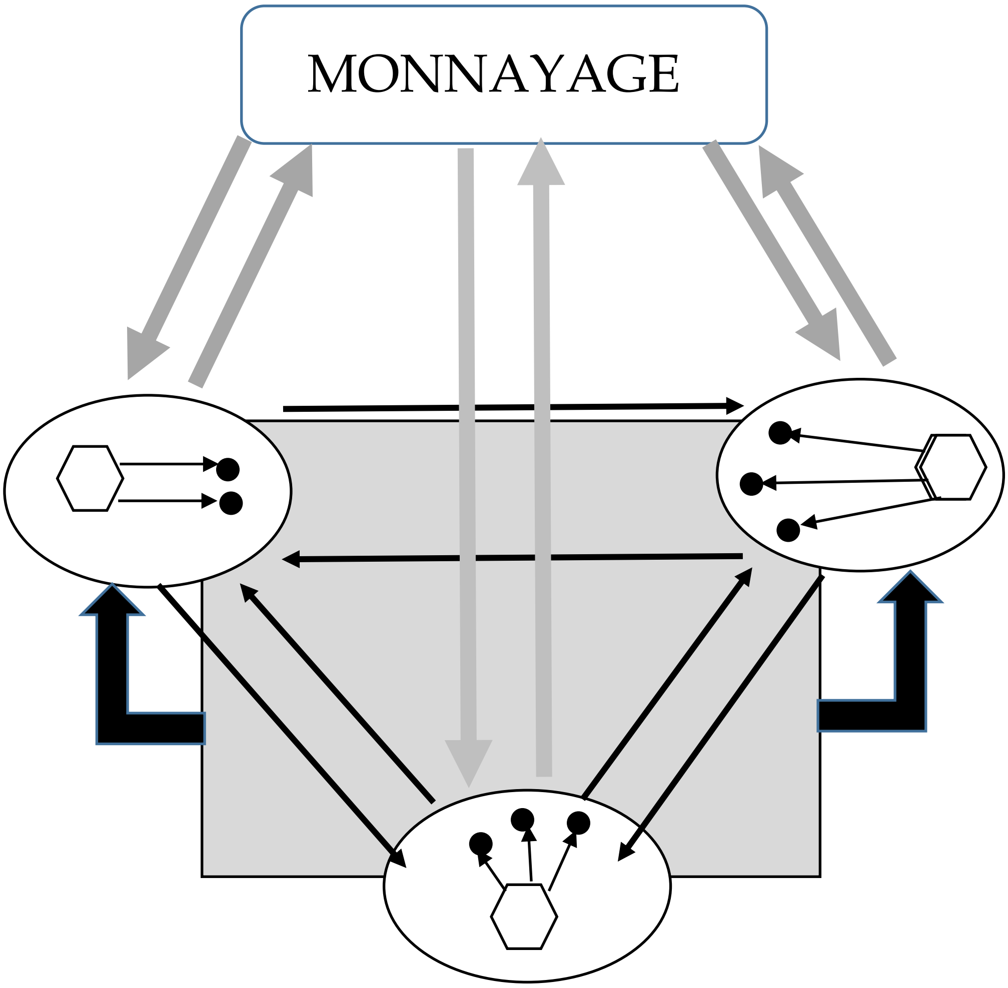
circulation may be said to characterize pure exchange relations. Schema below illustrates the point:



Schema 1

When only a *fraction* of human beings have an access to the minting process (let us call them active human beings), this generates a *difference of condition*. Those people who have not access to the minting process cannot intervene directly in the market, which means that they are not able to run an independent process of specialization. They are even unable to economically exist since they cannot perform any payment.

Their existence as economic agents is entirely conditioned by the payments made to them by the active human beings. These transfers may have different motivations and generate diverse forms of circulation. For what interests us, wage relationship is associated to the form below:



Schema 2

Active human beings (hexagons) make participate some non-active human beings (black circles) in their own market specialization. That process defines firms (ovals encircling both types of human beings), active people being *entrepreneurs* and non-active people *wage-earners*. While the former have the capacity to choose their specialization, the latter have not. Consequently they work for the account of the firm and of the entrepreneur. Wage-earners are not responsible of what firms produce and their relation with the market is not direct but only through entrepreneurs. They are subordinates to them. *Wage payments (black arrows in the oval of the firm) cannot be interpreted as a market relation nor as an exchange*. They are *sui generis* operations shaping a specific relation: the *wage relationship*.

This relation is twofold:

- Inside the firm, wage-earners work for the account of the entrepreneur who is economically responsible for the firm's activity; wage payment is unilateral; it submits wage-earners to the firm
- Outside the firm, wage-earners spend their wage as they please in a way which does not distinguish them from other people; nothing prevents them from having *the same non-economic conditions* as other people (citizenship, property rights, and so on)

The monetary approach of the wage relationship perfectly fits the "stylized fact" reported above, that is a *monetary subordination* inside the firm compatible with a full political citizenship and the freedom to spend wages in the market.

A deeper analysis (see Cartelier 2016) brings the idea that *wages are a cost* for the firms (cost is a meaningless notion in a pure exchange economy) while payments amongst firms (or entrepreneurs) appear as *gross profits*. Internal logic of wage relationship circulation (schema 2) deeply differs from that of exchange (schema 1). The latter validates specializations chosen by active people; the former is centered on the difference between proceeds and costs, that is on profits. This is reminiscent of Marx who opposes in *Capital* $M - A - M'$ (with $M = M'$) and $A - M - A'$ (with $A' > A$). In that line of reasoning it is worth emphasizing that the two legs of wage relationship (respectively wage payment and payments out of wages) join in a unique process; the square in schema 2 encompasses the whole of wage-earners to make clear that wage-earners form a group (a class would say Marx).

That some human beings – wage-earners – appear (and are) a cost for others – firms and entrepreneurs – is the most significative and specific characteristic of a market economy when embedded in a wage relationship. This is probably the essential feature which distinguishes that economy from an exchange one, where everybody is in a symmetric position vis-à-vis anybody else.

In spite of the apparent homogeneity of economic relations, due to money mediation, two very different relationships can be conceived of thanks to a monetary approach. The main "stylized fact" of wage relationship, i.e. the coexistence of a subordination inside the firm and the freedom in the market, is reproduced in our approach, which is impossible to Ricardian and Sraffian theories – which fails to account for freedom – and to mainstream theory – which fails to account for subordination.

The monetary approach also provides an alternative to Coase's theory which makes the co-existence of exchange (in the market) and hierarchy (inside the firm) the result of an arbitrage about relative costs: « *We may sum up (...) the argument by saying that the operation of a market costs something and by forming an organization and allowing some authority (an « entrepreneur ») to direct the resources, certain marketing costs are saved* »

(Coase, p. 392). Coase's view interesting as it is leaves unsettled the question of who and how such an arbitrage is performed.

3 Wage-earners exploitation by entrepreneurs is inherent in wage relationship

Amongst the many stakes of a theory of wage relationship, exploitation is without any doubt the hottest one. Two types of *exploitation (in the economic sense)* are currently discussed.

The first one is very general since it refers to a *norm*. Any economic agent who gets less from the market than the norm is considered as exploited by any other who gets more. For example, if the norm is the marginal productivity, any holder of a production factor would be said exploited if his/her income is less than that norm by those whose income is greater. That notion of exploitation is not specific to wage relationship (wage-earners may exploit entrepreneurs but also land-owners) and has something to do with social justice.

A second interpretation of exploitation is specific of wage relationship. Marx is the main reference. Wage-earners are exploited when the value of the labour power – which is determined by the quantity of social labour embodied into its production, *like for any other commodity* – is less than the quantity of value its utilization provides to the capitalist. That difference is called *surplus value* and may be interpreted as non-paid labour, according to Marx. Here, the exploitation of workers by capitalists relies on the norm, given by the labour value theory.

These notions of exploitation are not acceptable as far as wage relationship is concerned.

The Marxian theory of exploitation relies on two pillars, respectively labour value theory and labour power as a commodity. Both theories are incorrect *from the point of view of Marx's commodity theory*: (i) there is no quantitative determination of labour values respecting Marx's idea of the double character of labour embodied into commodity (ii) labour power is not a commodity since it does not satisfy the condition put forth by Marx "to be privately and independently produced" (see Cartelier 1991).

The normative theory of exploitation may be meaningful when applied to transactions ruled by equivalence (as it is the case in competitive general equilibrium theory). But it cannot apply to wage relationship: "human labour" – which is the name of what Marx called "labour power" – does not belong to the commodity space; they are not commodities. As we have seen above, wage relationship is not mediated by a commodity but exists as a specific form of money circulation.

Exploitation has to be reexamined on that new basis. Wage relationship differs from exchange by the difference of condition between entrepreneurs (or independent producers having access to the minting process) and wage-earners. Elaborating a little further the effects of this difference leads to a relevant notion of exploitation.

An independent producer or entrepreneur freely decides what, how and how much he/she produces. The counterpart of that freedom is that he/she complies with decisions of other independent producers. Freedom and responsibility are the two sides of the same medal. Prices and quantities determined by the market are objective and all independent producers take them as such.

Consequently, any independent producer or entrepreneur decides his/her expenditures (or efforts) taking into consideration his/her expected proceeds (reward). Mainstream theory is crystal-clear on this point: an independent producer maximizes his/her satisfaction which implies that the marginal utility of the reward just compensates for the marginal disutility of the effort (labour). In a monetary approach, the same is true but expressed as the equality between expected proceeds and expenditures (Keynes effective demand theory applied to a microeconomic level)[4].

Very different is the situation of wage-earners. They neither decide what, how nor how much to produce. A clear consequence is that wage-earners do not master their reward nor their efforts. The unique arbitrage open to wage-earners is not to equalize marginal utility of reward and disutility of effort but to equalize disutility of effort and risk of being fired, which depends on the internal organization of the firm, not on the market. In money terms, wage-earners decide their expenditures, not their reward (this is reminiscent of Keynes' refusal of what he called "the second classical postulate"). A straight consequence of the specificity of wage relationship is that wage-earners have only an *indirect* relation with the market through entrepreneurs. Entrepreneurs may go bankrupt if disequilibrium is too large, wage-earners loose their jobs, which is not at all the same thing.

To sum up, two differences in the condition of entrepreneurs and wage-earners are meaningful:

- Entrepreneurs and independent producers master the two legs of their budgetary constraint while wage-earners master only their expenditures (not their reward)

[4] In both cases second-order conditions matter but this "technicality" may be neglected here.

- Entrepreneurs and independent producers determine their efforts through an *arbitrage in the market*, wage-earners determine their efforts through an *arbitrage inside firms*

In this double difference lies exploitation.

If we consider the different types of exploitation enumerated by Fleurbaey, the exploitation inherent in wage relationship is the one he calls *M-exploitation*: is exploited any human being utilized by another human being *as a means* oriented to his/her own ends. This is precisely what characterizes wage relationship. The specific form of money circulation shows clearly the monetary subordination of wage-earners (compatible, as we know, with full citizenship and property rights). We have seen above that wage-earners are a cost for entrepreneurs. It is another way of saying that they are used as a means by entrepreneurs to get profits. Consequently, wage-earners do not master their efforts which are determined by the firm organization.

Modeling the differentiation between entrepreneurs and wage-earners may provide a quantitative expression for the exploitation inherent in the wage relationship (Cartelier 2014). If x is the effort resulting of the arbitrage inside the firm and if y is the effort resulting from the arbitrage in the market, the rate of exploitation may be defined as $\frac{y-x}{x}$.

That notion of exploitation does not depend on the level of wage and, more generally, has no relation with income distribution. It does not concern either any idea of social justice in an economic sense. No economic norm is relevant except that one we have emphasized, that is the difference of relation to the market (direct for entrepreneurs, indirect for wage-earners). The heterogeneity of condition, which prevents from assimilating wage relationship and exchange, also impedes to consider, as Coase seems to believe, that market and hierarchy are just two modes of coordination between which an arbitrage in terms of cost is possible.

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