CORRELATING MARX AND THE EARLY MARGINALISTS: A SPECULATIVE REALIST READING

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Abstract:

The article aims to show that, despite all the differences crystallized in the history of economic thought (section 2), marginalists and Marx share a common philosophical problematic in modern philosophy -- that of correlationism. In other words, they have to solve the problem of how to correlate subject and object (section 3). If our analysis is convincing, the differences we identified in section 2 can be explained by the fact that they start from different poles of the correlationist circle: Marx begins with the objective commodity and the marginalists with the subjective marginal utility (section 4).

Introduction:

There was a period at the end of the nineteenth century – roughly between 1870 and 1890 – when one can say that the economic thought both of Marx and the first marginalists were at the margins of what could be considered the mainstream economic thought of the time. Both in Britain and in Germany, Karl Marx and the first marginalists – W. S. Jevons, Carl Menger and Léon Walras – did not partake either of the millian or the german historical traditions in economic thought, which were the most important of the time¹. It is not imprecise to say that it was only around 1890 that, through Alfred Marshall's influence, marginalist ideas came to slowly conquer the mainstream of economics, leaving Marx and most of his followers at the margins of the mainstream until now.

The fact that both Marx and the first marginalists stood at the side of the mainstream at that time does not make their ideas similar in any degree, at least in appearance. Quite the contrary, in fact: since the publication of *Das Kapital* and the first

¹ The french school of the engineers of the *École de Mines* and the italian tradition of civil happiness are also important, but are not part of our account, since their impact in modern economics is limited.

books by the marginalists² there has been a huge amount of academic work devoted to pointing the many differences between them. It is not uncommon to portray these differences as fundamental at an ontological level, so as to prevent any major dialogue between these traditions. However, Marx and the marginalists were contemporaries and experienced – from different perspectives, of course – the same sort of political and economic events that swept Western Europe in the second half of the nineteenth century ³. In other words, they had both academic and practical interests in political economy and were well-informed about what was going on in Western Europe in terms of politics and economics. Most of Marx's mature intellectual life was lived in London, where the Reading Room of the British Museum is testimony to the long hours he spent studying British economic thought. Despite the fact that Marx himself never really engaged with or addressed the marginalists, the discussions among these traditions appeared already in the 1880s, with the jevonian criticism of Das Kapital by Phillip Wicksteed. In the 1890's, the famous article by Böhm-Bawerk on the closing of Marx's system continued the discussion, followed by a reply by Hilferding at the beginning of the twentieth century.

The mapping of the many differences between the marginalists and the Marxian tradition is a well-known enterprise, and cataloguing these dissimilarities would add little to both Marxian and marginalist scholarship. However, the hypothesis that both Marx and the marginalists might have some common basic ontological similarity seems an almost unexplored venture. So, this article has as objective to show that there is indeed a similar *essential* component in both Marx and the first marginalists. More specifically, this article will put forth the proposition that the theories of value of both Marx and the marginalists share one common essential characteristic: *they are each based on a specific correlation between humans as (economic) subjects and the objective commodities these subjects produce, consume, buy and sell -- and which*

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² The books are Walras's *Élements*; Jevons's *Theory of Political Economy* and Menger's *Grundsätze*, all published between 1871 and 1874. There were forerunners like Gossen and von Thünen in the 1850's and 1860's (and even the engineers of the *École de Mines* before), but they did not have the impact the writers of the 1870's had.

³ Marx, Walras, Jevons and Menger were all born in the first decades of the nineteenth century and died in the last decades of the twentieth century or the beginning of the twentieth (Menger is the younger of them -- he was born in 1840 and died in 1921).. They all took part in public debates, wrote in newspapers or worked for the government.

comprise the objective economy.

The idea that the correlation between humans and world is *the* privileged site for philosophical thinking in modern philosophy since Kant has been recently raised by speculative realist philosophers.⁴ In a way, then, this paper tries to work out the conundrums faced by modern European philosophy since the first decades of the 17th century as it privileges human subject (and his or her reason and senses) as the privileged site for obtaining knowledge about an objective world lying outside them.⁵ This article will then deploy, as a methodological device, a modified concept of *correlationism* (Meillassoux 2006) to investigate if it is possible to find a common ground between Marx and the marginalists. What we intend to show is that Marx and the early marginalists start from different sides of the *correlationist circle*.

To carry out the objective of this paper, we will break it into five sections, including this introduction and a conclusion. The second section will briefly point out the many stylized differences that *appear* in the works of Marx and the marginalists. The third section will go from appearance to essence, explaining the conundrums of the relation between subject and object in modernity and the correlationist circle identified by Quentin Meillassoux in 2006. The fourth section will revisit the second one, rereading the differences in Marx and the marginalists in light of correlationism, demonstrating how their different takes on the correlationist circle impact their apparent differences. A fifth and last section concludes the paper.

2. What appears in Marx and the marginalists: differences

As we said in the Introduction, since the 1880's a debate between the Marxian and marginalist traditions has appeared, showing that they apparently had different takes on political and economic issues. As time went by in the twentieth century, scholars could pinpoint with more clarity the differences between their works.

From a historical and social point of view, one can say that the Marxian and the

⁴ This philosophical movement began in 2007 in London and aimed at reviving realism in continental thought, criticizing post-Kantian philosophy. More on this on section 3 of the paper.

⁵ Economists associated with post-modernism like McCloskey, Jack Amariglio and Don Lavoie all criticized this distinction between subject and object before. However, none of them did it with an explicit realist stance.

marginalist lines of research crystallized certain differences that empirically appear in their texts. That is, groups of researchers sift through the vast textual material associated with both Marx and the marginalists so as to sort out and present clearer, more stylized differences between these traditions for future investigations. Of course, this historical and social process of crystallization of differences can be studied with many degrees of precision: one can study a very specific difference between Marx's or the marginalist's theories (e.g., the notion of capital that appears in chapter 4 of the first volume of Das Kapital compared to the "true conception of capital" put forth by Böhm-Bawerk in the chapter 4 of his Positive Theory of Capital) or one can study their differences within a broader framework. The latter approach is the more adequate for this paper – only within a broader framework can we try to find a possible common essence which tentatively explains the multiplicity of differences we find between these authors. Therefore, we are not studying any *specific* idea or proposition of the theories of Marx or the marginalists; rather, we are trying to present the differences between them in a stylized way, as these differences became clearer in time with the development of these traditions.

The table below presents some of these differences in a schematic way. Needless to say, there are many more differences that could be stressed, depending on the interest of the researcher. Besides that, these differences can be further refined in any direction necessary for a more detailed study of any aspect of the relationship between Marx and the marginalists. Our point in making this table is to show in an organized the many crystallized differences that appeared in time in these different traditions.

Table 1: Some schematic differences between Marx and the marginalist traditions of economic thought

Marx	Marginalists
1. Theory of labor-value (abstract labor as essence producing value/concrete labor as appearance producing use-values and exchange values).	1. Theory of marginal utility (even though in different guises between the first marginalists). Ideally it should be capable of explaining how exchange values appear in markets satisfying the needs of economic agents.
2. Emphasis on production and reproduction (despite	2.Emphasis on exchange and consumption (production and distribution

considering the process of can be understood from the theory of production marginal utility), which begins from as a moving, individual behavior. ongoing social totality, involving exchange and distribution) 3. Historical, processual time 3. Newtonian. mechanical time (for based first, on the evolution of Jevons and Walras); subjective, different modes of production processual time (for Menger and the (primitive, slavery, asian etc.), Austrian tradition); cycles are also studied and secondly, on "reproduction by Jevons in a sunspot theory (Walras and Menger only hint at the problem of schemes" of production and circulation of goods. cycles). 4. Economic laws of pure economics are 4. Economic categories and laws are historical and subject to general and universal - they do not changes in the mode change with time (though in applied or production where they are used. social economics they might). relational 5.In pure economics, the individual is 5. Socialized, seen as an atom of pleasure and pain individuals always belong to a (Jevons); s/he is moved by "natural force" social class (the conflict of historically formed social of desire (Walras); s/he has needs that can classes is stressed); markets be ordered according to their marginal where capitalist relations of utility (Menger); "natural" environment exploitation take place are not of the economic agent in pure economics "natural", but historical. is the market; when perfect, the market does not allow for exploitation. 6. Capitalist mode of production 6.Harmonious relations class in contemporary (CMP) is historical and market economies attainable with the help of government characterized by conflitct (note that the first marginalists usually do between two main social classes: workers and capitalists; not talk about "mode of production" and absence of explicit violence is emphasize the possibility of harmony maintained by state coercion between classes rather than their (objectively) and alienation inevitable conflict - which, however, is (subjectively). not ruled out). 7. The critique of political 7. Political Economy as a science can and economy should work in three should separate political and ethical considerations from economic ones - it correlated ways: 1. as a critique should drop the "political" and be a of current theories economics; 2. as an analysis of proper science called "economics" (see the workings of tendency laws Jevons, for example). in actual capitalist economies: and 3. as sort a of pratico-theoretical method of analysis for workers to help

overcome capitalism.	
There are tendency laws that	8.The supposed economic laws derived
characterize the CMP; CMP	from the principle of marginal utility are
may disappear in the future by	not confined to capitalism; there is not an
means of a revolution (unless	internal tendency for a revolution;
impeded by countervailing,	existing market economies can be
conservative forces).	reformed so as to mend failures they

might have.

8.

We believe these differences are pretty much established among historians of economic thought – so they should be by and large uncontroversial. As we said before, the point in elaborating this non-exhaustive (even didactic) table is to summarize some of the *main differences* between the Marxian and marginalist traditions. In section 4 we will come back to this table to see how it changes once we identify Marx and the marginalists as poles of different modes of correlating humans subjects and the objective world. All differences are important, but we believe that numbers 1, 2 and 3 can be considered central, for they condition most of other differences one might find. Let us elaborate a bit further these first three differences.

Difference number one can be considered of great significance, at least as far as we can gather from what appears in the texts of our authors: while Marx is affiliated with a historical, Hegel-tinged version of the labor-theory of value initially developed by English political economists, the marginalists insist on detaching themselves from this theory, emphasizing the subjective character of value in the form of marginal utility. One can say that, *from their own point of view*, that is a fundamental, ontological difference: Marx begins *Das Kapital* with the investigation of the commodity, which is, in principle, a material *object*. A consequent Marxian analysis should therefore start with how these material objects – commodities -- are produced by means of labour, and are then distributed and exchanged in a historically-specific mode of production. Because their study begins with material *objects*, researchers of Marxian extraction can claim to engage in *objective* research. Because they claim that it is possible to identify, in principle, the historical tendencies (and countertendencies) operating in different modes of production (primitive, asiatic, burgeois etc.), they can claim to be scientific. In

other words, they produce knowledge which is objective and whose changes can be coherently explained throughout history, even if *post festum*.

The marginalists, on the other hand, mostly present in the first chapters of their main books doctrines (Lehre) or theories of how human subjects experience objects and perform actions which satisfy needs, desires, or cause pleasures and pains in them.⁶ Their strategy seems to be the reverse of that of Marx: whereas Marx begins his study of the CMP with an object (the commodity) which is produced by a human subject (the worker) by means of capital (which is also a commodity made by human labor), the marginalists begin with the pleasure/pain/needs/desires of human subjects. These pleasure/pain/needs/desires of human subjects can, in turn, be satisfied by means of scarce objects, be they commodities or not. This is how the marginalists try to build a science of economics which is truly general and universal: their strategy is to veer away from whatever historical specificity different economies might have, since real economies change in time. However, all humans at all times experience needs, desires, pleasures and pains. This means that, according to the marginalists' point of view, a possible universal science of economics might be built – that is, as long as they can find adequate proxies for assessing these subjective pains, pleasures, needs and/or desires in an objective way.

It is noteworthy that Marx and the marginalists are tackling the same problem – the relation between economic objects and human subjects -- in an inverted way: the former begins with commodities (which can be understood as objects in a proper traditional philosophical – that is, general and universal -- way), while the latter begin with feelings and the capacity of rational cost-benefit calculations which can be universally attributed to human subjects. In the next section we will investigate in more detail this interplay between the subjective and objective poles in the theories of Marx and the marginalists. For now, it is enough to show how this initial difference makes their approaches to the study of the economy different in appearance.

In fact, if for Marx the origin of value in modern capitalist economies lies in

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⁶ We should add that there are many differences between Jevons, Menger and Walras -- Jaffé's 1976 paper shows them in more detail. However, because we are adopting a philosophical (and not simply economic or even epistemological) perspective on them, these differences can be accommodated in our argument.

abstract, general human labor, it makes sense to emphasize the production (and reproduction) of commodities and social relations in the CMP. It is specifically in this mode of production that general human labor gets incarnated in commodities – and it is also in the "secret laboratory" of capitalist production that the exploitation of labor power by capital occurs. It is in production that workers are robbed not only of their physical power, but also of their subjectivity – which fuels the alienated and ever-growing production of commodities. Of course, because Marx thinks in terms of an interrelated, social totality, this essential (in Marx's conception) moment of production must function together with the concrete exchange of labor power for wages (and of wages for subsistence goods) in the market, so that capital can actually actualize profits, reproducing the whole system.

The marginalists, on the other hand, can be said to emphasize the study of exchange and consumption. If people have different initial endowments of goods and different tastes, value appears when people trade different goods and consume them. Production comes as a consequence of a certain type of exchange, because it is only a matter of how people allocate their time between labor (roughly understood as unpleasant activities) and leisure. Production can be also seen as the activity of producing higher order goods – means of production -- in Menger's parlance. In either case, productive activity happens as a matter of individual decisions between what is more or less necessary, pleasurable or painful. From this individualistic point of view, it is possible to build whole economies which deal not only with exchange but also production and distribution. This means that we could also say that the marginalists can think of the economy as a totality, albeit a different totality than the one envisaged by Marx. The marginalists' emphasis does not fall upon historically constituted (and tense) class relations, but is built upon a supposedly natural order that would emerge from individuals' behavior within a market economy.

As we can see, Marx and the early marginalists seem to fall squarely into different sides of two main lines of research of modern economics – the production line and the exchange line (Baranzini and Scazzieri 1986). This also leads them to very

⁷ This is a simplification of the theory Jevons presents in chapter 5 of this book Theory of Political Economy. However, as we said before, it does not compromise our argument, due to the scope of the analysis we are making.

different conceptions of time as well. Following O'Driscoll and Rizzo (1996, chapter 4), a newtonian conception of time -- as that adopted by Jevons and Walras -- involves homogeneity (which makes all moments in time identical), mathematical continuity (which means that time is perfectly divisible) and causal inertness (all changes must be set in advance in the initial conditions of the economic system). This is different from the Mengerian conception of time: for him, "the idea of causality is (...) inseparable from the idea of time. A process of change involves a beginning and a becoming, and these are only conceivable as processes in time" (2007 [1871], p. 67). Mengerian time is subjective, which means that it cannot be seen as homogeneous, continuous and causally inert. Each economic agent would possibly experience time in a different way, being prone to biases, errors and ignorance in their ongoing evaluation of economic variables. This means that, as time goes by, agents might change their course of action.

Though Marx could in principle agree with Menger's dynamic, processual notion of time, he would most likely chastise him for not paying attention to the objective nature of time in different modes of production. It is not a matter of denying the existence of subjective time, but of understanding how it turns up when different productive forces align with different relations of production in a political order producing an ideology that, only then, constrains the experience of time in individuals. Menger, for his turn, might agree that different conceptions of time emerge from different social contexts, but would probably leave this sort of research for historians, not for *wirtschaftswissenschaftler* -- economic scientists. Once again, one can see how the subjective versus objective notions of time play out in Marx and at least one central early marginalist.

From this short analysis of the first items in our table, one can derive most of the other differences between Marx and the early marginalists: starting from the changing material conditions of production and reproduction of socioeconomic life, Marx would say that a series of equally changing juridical, economic and political institutions and concepts would emerge in order to organize and control social relations. In the particular case of capitalism, as its forces of production develop, they clash both with the type of old feudal social relations that sustained them and with the whole assemblage of political, juridical and supposedly scientific economic concepts and

institutions that supported old social relations.

There is no other role for the true social scientist than to identify the underlying new historical tendential forces that drive the overcoming of the old social relations *and* to criticize the inadequate juridical, political and economic categories which ideologically curb the development of these new forces of production. At the same time, the social scientist should provide workers with theoretical-practical methods of analysis so as to take them out of their subjectively alienated situation and help them get through to a new, freer and less alienated society. As we can see, beginning from an objective analysis of a commodity-churning society, one is led to understand the alienated subjectivity which is part and parcel with it.

The marginalists begin their explanation of economic phenomena the other way around: starting from some basic characteristics of human subjectivity -- pleasures, pains, desires -- one is led to explain how a market order is possible (at least ideally, in pure economics). In a simplified way, beginning from marginal utilities, one should be able to explain how relative prices are formed first in an ideal, perfect market. What a marxian could see as a distorted (or downright false) abstraction, is just the beginning of analysis for the early marginalists: they would of course recognize that individuals are socially embedded; their point is just that this is not what the *science* of economics should study. So, their long journey to explain how social, political and juridical forces shape individual behavior would forcefully go through other social sciences (sciences of history, for Menger; the science of the evolution of social relations, for Jevons; applied and social economics for Walras).

However, their positions is that, first, we must begin with general and universal human characteristics, so we could to find categories of analysis which would also encompass general and universal phenomena. It is this search for universality which the marginalists hoped would give them the label of proper scientists. Only after that, we could slowly show how the "coarse clay of the bulk humankind" (as Adam Smith would have it) is modified and crystallized in different historical modes of production -- in particular, in capitalism. From the perspective we are adopting here, this means that, from a given set of human subjective characteristics one could first understand how an

ideal market should work. In order to reach objective markets, however, one should pay attention to how these subjective characteristics are molded historically in different social settings. This might give us the way to understand how real markets operate, influenced by all sorts of social institutions and using different economic, political and juridical categories when analyzed from a practical point of view.

One tradition of economic thought starts with the human subject and then tries to reach the phenomena of the objective economy; the other inverts the order of investigation. What does this mean from the point of view of modern philosophy?

3. Correlationism and Speculative Realism - a brief Introduction

If so far our argument sounds strange -- we purported to point out some basic essential characteristics common to Marx and the early marginalists and presented nothing but apparently stark oppositions -- it is because we did not yet detail the philosophical and methodological position we are adopting.

What we now call the speculative realist "movement" -- it is imprecise to call it a movement since the group disbanded in the following years after only two meetings -- began in April, 2007, in a conference at Goldsmiths College, in London. A group of four young philosophers -- Graham Harman (then at the American University of Cairo, in Egypt), Ray Brassier (University of Lebanon), Iain Hamilton Grant (University of West England, in Bristol) and Quentin Meillassoux (École Nationale Supérieure, in Paris) got together in order to discuss the deadlocks of post-kantian philosophy. Despite their many differences and the fact that each author can be associated with different lines of philosophical inquiry (Object-oriented philosophy, speculative materialism, neovitalism etc.), they partake of some common premises.

First, they share a cohort of influences which identify problems in the foundation of modern metaphysics and try to propose different perspectives and solutions to it: Deleuze, Whitehead, Heidegger and Latour are among their favorites. Second, and more precisely, they all opened fire on two characteristics of modern continental philosophy: its idealism and the kantian *interdit* on our possibility of getting to objectively know things-in-themselves (as isolated from human reason and senses).

For our purposes, it is the second characteristic that is interesting -- we will try to show that both Marx and the marginalists take part, in different ways, in the modern predicament involving the limitation of the human knowledge about the real world.

Up until now we have been using the terms "subject" and "object" quite loosely. This section is meant to clarify the philosophical meaning of these terms and try to apply them to our object of study.

3.1 Subject and Object in Modern Philosophy

One can say that modern philosophy commences at the beginning of 17th century with a general problem that stems from the decadence of scholasticism and the rise of the modern and mathematical science of Galileo and Kepler. The question of the fundament of a world which is not seen as created by God but as having internal, natural laws of motion which could be mathematically described is of utmost importance. This importance is inseparable of the social legitimacy of the new sciences as more than just a new technique or fiction capable of explaining natural phenomena in a different -- perhaps more efficient -- but not more fundamental way than traditional scholastic philosophy (Stengers 2000).

In Western Europe, with God coming out of the picture, dogmatic rationalists and empiricists tried to ground this new science in human reason and senses. As is well known, the debate between the extent to which our knowledge is dependent on our senses or on innate ideas was all the rage during the 17th and 18th centuries. The cartesian *ego cogito* might be the *fundamentum inconcussum* on which the evidence of the senses might be analysed, synthesized and ordered in a machine-like system, but at the cost of depending on a God which guarantees that no evil genius is deceiving us into believing in a machine-like world that does not in fact exist. On the other side of the English Channel, the situation was not any better: millenar categories of aristotelian tradition had their meaning altered or even discarded: this is the case of the category of "matter" for Bishop Berkeley (who adopted a radical idealism, defending the idea that being is being perceived by the senses), of "cause" for Hume (as an internal sense that identifies constant conjunction of events) and of "substance" with Locke (as a general

substratum for qualities of objects).

To cut a long story short, the modern revolution in the sciences and philosophy risked either leading us into solipsism (this is the case of Descartes or Berkeley) or to reducing the world to what is empirically observable by the senses, logic and mathematics (Hume or Locke).

Though not definitely solved, this situation found a partial solution neither in the Continent nor in the British Islands, but in East Prussia: Immanuel Kant's *Critique of Pure Reason* (1787 [1781]) aimed to show that, even though the human mind could not know the world in itself, God, the soul or a transcendent realm, it could legitimately lay claim to knowing the world *as composed of objective beings*. By *objectivity*, we follow Carneiro Leão (2002) in describing it as the result of a self-correcting research procedure which unveils beings of and in the world as universal, functional and systematic — in other words, as objective. Note that it is not necessary (though it be desirable) to mathematize beings. What is central is to understand beings as functional parts of a system. Of course, the operation of this system must be universalizable (that is, independent of contexts) in order to be objective.

Some examples may help clarify what we mean in the aforementioned paragraph: the cosmological investigations which were carried out since the 16th century could show just that: we have planets (parts) which form a machine-like system (a solar system, for example) and whose movements could be universally understood by means of mathematical equations. The idea of the scientific laboratory (and of controlled spaces with scientists who try to find universal characteristics of minerals, plants, animals) takes their modern shape in the 17th and 18th centuries across Western Europe. The idea that the economy could also be studied as a system formed of functional parts (such as social classes, firms, workers, governments etc.) which have universal characteristics would follow suit from the revolution in the sciences of the early 17th century.

The main point for Kant, however, is not about the results of modern science (which he really thinks are sound): how is it possible that we arrive at all this undoubtedly objective knowledge? What are the conditions that limit and thwart the

human understanding in search for this knowledge? In other words, how is it possible to correctly categorize the manifold of sense data that arrive at our senses (that is, to filter the external data received so as to actually *construct* objective, true knowledge and not just imaginative fictions)? In order to found and complement the advance of the objective discoveries of modern sciences, Kant invented the concept of the *transcendental*. With a view to guaranteeing that we do not fall prey to any radical idealism of the Berkeleyan type or the idea that all we passively experience are "bundles of sensations" (as in the human tradition), Kant is keen on showing the operations of the twelve categories of pure understanding which lead us to the possibility of an objective experience of the world. The transcendental is exactly this field within which human reason can legitimately judge, regulate and unify the concepts and propositions created by the active labor of our understanding.

Because it is going to be important to the argument in the next section, it is important to stress that the transcendental subject (limited only by the proper pure functioning of reason and the categories of understanding) is *not* the empirical subject. The latter is full of passions, social and economic influences that would later be studied by empirical psychology and sociology (and were formerly studied by moral and political philosophy). This observation is relevant because the form that correlationism will assume in Marx and the early marginalists will be related to the possibility of access human reason has to the objective facts of the world. This is why post-Kantian philosophy is sometimes called *philosophy of access*. As we will presently see, sociology and empirical psychology (and later in the 20th century neurobiology) will investigate the hurdles closing the access our reason has to the objective facts of the world.

Meillassoux's point, however, is that the *correlation* Kant builds between objective facts of the world and the operation of reason in a transcendental subject makes every objective truth we find in the world a truth *for our human reason*. It is important to stress this point and separate Kant from a Berkeleyan idealism (which he explicitly condemns): he definitely believes there is a world in itself; his point is that the things we effectively (i.e, objectively) know in this world do not exhaust it: only if we were not the limited creatures we are could we attain the knowledge of the world as it is

in itself.

This is then the correlationist circle we hinted at in the Introduction of the paper: in order to arrive at an objective X, it must already be given to a subject. As Meillassoux (2008) puts it: "No X without givenness of X, and no theory about X without a positing of X. (...) 'X is' means: 'X is the correlate of thinking' in a Cartesian sense."

Although Meillassoux did not specify the forms correlationism could assume in philosophical discourse, we follow Bryant (2015) in believing that "correlationism probably comes in a variety of forms, and is therefore not restricted to theories focussed on the relation between mind and being". We also assume this can be true for both Marx and the early marginalists.

4. Correlationism in Marx and the early marginalists

As modern thinkers, both Marx and the early marginalists have a craving for reaching scientific (i.e, objective) knowledge of the modern economy and society. If the hypothesis raised in this paper makes sense, they are both part of the same intellectual milieu which tried to get rid of the problems associated with correlationism. This makes sense, because for all authors studied here, economics was just part of their interests. Philosophical, epistemological and methodological subjects played an important part in all their researches. If we confine ourselves to a notion of economics as application of constrained optimization methods or as "the science of choice", we are sure to miss the point of the role of economics in *all* our authors' systems of thought. Despite the marginalists' emphasis on separating economic from other social sciences, it should not follow from this fact that they thought that pure economics was the only important enterprise to pursue. In other words, one should always keep in mind that the economic theories developed by our authors are all tinted with more philosophical overtones.

Let's then try to find some evidence that Marx and the marginalists are both caught in the correlationist circle identified in Table 1 in section 2.

4.1 Marx: from objective commodities to alienated subjects

The first and arguably most important difference is between the theories of value

of Marx and the early marginalists. Detaching himself from his English predecessors, Marx's theory of labor can be interpreted as a socio-historical, Hegelian variation of previous theories. Value would be a historical form posited in capitalism and which would be overthrown as the CMP is overcome (Prado 2013). Because it begins with the existence of *produced commodities*, we can understand the emphasis given by Marx to production (and not exchange) in his analysis. Our point here, however, is to show that, for Marx, "there is no value without givenness of value; no theory of value without positing value". Of course, we will have to adopt here a modified version of correlationism, since Marx is definitely not interested in positing a Cartesian or Kantian subject as the ground of his theory of value.

If *Das Kapital* begins with the atom of value of capitalist societies -- the commodity and exchange value -- this should be our given, our posited object of study. It will be easy to show that, for Marx, this object "pre-sup-poses" (that is, that previously posits under) a given subject -- not, as we just said, a Cartesian or Kantian one -- but a subject who brings this object to existence and, at the same time, is socially limited in objectively knowing this process of production. This should show the correlationist circle operating in Marx. If Marx really overcomes the philosophy of his time, it is mainly by the original use he makes of concepts (praxis, the social, fetishism, ideology) with the intention to close the circle. Let's detail how.

First, Marx remarks, right at the beginning of *Das Kapital*, that it is general human labor -- "productive expense of brain, muscles, nerves, human hands" -- which lies behind the concrete labor of a tailor or a weaver. It is by means of this concrete work that value gets crystallized in commodities such as a suit or a piece of fabric. If it were just a matter of incorporating a given quantity of joules of energy into commodities, then the problem of relating (abstract) value to exchange value could be solved, in principle: there should be a matrix of transformation of joules of (subjective human) energy spent in the production of commodities into measurable (objective) prices (= exchange values). However, the problem is not that simple for three reasons: in the first place, we are sure to find difficulties measuring the energy expended by human brain and nerves. Secondly, we have known since at least Smith, that it is the capacity to cooperate, dividing the labor, which creates wealth. That is, the quantity and

efficiency of energy expenditure in joules is invariably related to the extent to which people are able to cooperate. These first two reasons make it difficult for the human mind to capture the objectivity of the actual conditions of the production of commodities in capitalist societies, since there is no straightforward proxy to objectivize intellectual labor and social cooperation. Finally, the division of labor is positively related to the extent to which machines are used in production (something Marx tried to cope with by means of the concept of organic composition of capital). The correlationist circle between objective commodity production and the subjective conditions that allow it is not closed.

Points 3 (concept of time), 4 (categories of political economy) and 5 (concept of individual) of our Table 1 can be understood as necessary ingredients to create a scientific science of society -- as it was Marx's and Engels' explicit intention. At a more fundamental level notwithstanding, these points also help to bridge the gap between the posited abstract human labor and the objective commodities with their exchange values. The historical time of modes of production can show us, first, how changes in the mode of production of ancient societies took us from "proto-value" to abstract labor as the source of "value" in capitalist societies (Prado 2013). Once we have reached the capitalist stage, we should also understand how the categories of political economy (capital, labor, interest, profit, wages etc.) emerged from the conjunction of forces and relations of the CMP (this is point 4 in our Table 1). At the same time, once we are in capitalism, we have to understand how value disguised as capital becomes a universal mediator between the production of goods capable of maintaining and reproducing human societies and the satisfaction of human needs. Note how capital can mediate subjective needs and objective production of commodities, and how this can only be understood in a historically situated mode of production. The analysis of the production of capital (Book I) and its actualization and reproduction by the operations of buying and selling in markets is then studied (Book II).

As a cooperative, social individual who produces value both with his or her hands and brains, the process by which workers can properly comprehend the functioning of the system in which they are the central parts is blocked. As we saw in the previous paragraph, it is blocked both by the fact that mid-to-late 19th century

categories of political economy emphasize the individual (and not his or her social relations) and there is no simple way to objectivize intellectual and physical social labor. As a consequence, the return from the objectivity of commodity to the conscience of the worker is stymied by the ideological categories of the supposed "science" of political economy. As a consequence, the worker is not only alienated from the relations she or he effectively has with others, but also with the products he or she turns out and, finally, with him or her own self.

Points 6 (class conflict), 7 (social science as critique) and 8 (tendency laws and revolution) can be understood as deadlocks that obstruct workers' transparent comprehension of their objective condition as producers of commodities. Class conflict exists, as is well known, because the existence of capital as a universal mediator implies that some labor power is actually stolen in the process between the production of use-values and their consumption. In between production and consumption capitalism uses the market mechanism to transform values into exchange-values so as to create a surplus, and it is in this hidden process that exploitation occurs. The objective of a critique of political economy should then be to clarify to the worker's conscience the objective social nature of the process of capitalist production, so that they could fight it and do away with capital as a mediator between what workers produce and what they consume. The tendency laws that govern the CMP point to a revolution in the future, and this should only happen when workers' consciences can transparently see the objective exploitation they are a victim of. When this time arrives, no counter forces should be able to stop the revolutionary process.

4.2 The marginalists: from subjective utility to objective relative prices

If the problem Marx faces is returning from the objective production of commodities to the conscience of an alienated subject, the problem the marginalists face is exactly to opposite: how, starting from the particularities of the human mind we could arrive at objective relative prices. Again, in order to solve their problems, the marginalists will use a set of concepts wholly different from those of Marx. One of their intentions, however, can be said to be the same: to close the correlationist circle, which means to explain how (subjective) mind and (objective) world co-constitute each other.

In order to understand the marginalists' position, it is important not to describe their position in a caricatural way. Of course, Jevons and Walras would find it useful if we could just measure actual marginal utilities in people's minds and verify that the ratio of marginal utilities between any two goods is equivalent to their relative prices. The same can be said of Marx, if we could just objectively measure the abstract labor that goes into the production of each commodity. One problem that pestered the first marginalists (with the exception of Menger) is to bridge the gap between the objective prices they could see in markets and the possibility of evaluating the mental states of economic agents. Their interest in consumption and exchange also comes from the fact that they begin their investigation with the impact external goods (which are not necessarily commodities) have on people's mental states. Within this perspective, to exchange means to get closer to some good and distant oneself from another good, so as to alter one's state of mind. To produce something can be understood as a special exchange between the good "time" and the utility one can acquire from productively spending this time.

If, as we say in point 3 of our Table, Jevons and Walras chose a notion of mechanical time (and models associated with mid-19th century physics) it is because they wanted to simplify their approach first, so that they could have a clear grasp of (what they imagined to be) the economic problem. If we only take heed of the pure aspect of their theories, their ambitions to link unobservable marginal utilities to observable prices may sound ridiculous.

Yet, as we pointed out in Table 1, their pure theories are only part of their researches, and their ambitions went well beyond pure economics and into philosophy of science and epistemology: Jolink (1996) has pointed out how Walras's general equilibrium theory should be understood as scientific *and* normative scheme⁸, all within an evolutionist, not mechanical framework; Jevons, as we put it in section 2, found it necessary to study the evolution of social relations in relation to concrete economic factors (which also points to a non-mechanical notion of time); and Menger's famous *Streit* with Schmoller did not stop him from considering the study of economic history beside pure economics in his 1883 book on the methodology of the social sciences.

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⁸ This is known as the "Walras's Paradox" (Walker 1984).

These are the reasons we suggest that the marginalists' project in pure economics consisted first in finding universal (or at least prevalent) characteristics of human subjectivity which could be understood by means of universal categories. Only then could we try to understand how we, in practice, arrive at concrete price relations.

This is the reason for the apparent contradiction between defining the agent in pure economics as an atom of pleasure and pain (this is point 5 in Table 1) and, at the same time, recognize that individuals have class interests, as Jevons does, for example⁹. Yet, this apparent paradox is just a matter of different subfields of economics: one more general (and supposedly scientific field) tell us the final (or equilibrium) state resulting from a set of external goods to be allocated among individuals who are like "pleasure machines". The other (more applied field) would deal with how concrete institutions (like firms or governments) affect the supply and demand of specific external objects that could give utility to individuals¹⁰. It could also study the influence of social relations on the amount of utility people get in their exchanges -- this was the case of Marshall and his disciple Pigou, for example. As one can see, the marginalists' analyses do not immediately link subjective marginal utilities to objective prices -- it is necessary a long detour into more applied areas in order to find how, exactly, marginal utilities could relate to prices in real markets. The marginalists' correlationist circle can only be closed when empirical psychology and sociology are factored into the problem (as we said in section 3): then we will actually know how concrete external objects produce pleasure or pain on people's minds.

The problem Marx sees as one of consciousness and transparency of social relations can be translated as one of how the individual's psychology and social relations can alter his level of utility for the marginalists. For Marx (as for Hegel), the passage of historical time could expand the limits of human consciousness so as to possibly clear away ideological and fetishistic symptoms of our capitalist society. For

⁹ In his "State in Relation to Labor" (1866). The same can be said of Walras's attempt to bridge "individualism" and "collectivism", and Menger's qualification of the "dogma of self-interest" and the necessity of study other motivations in human behavior in 1883.

¹⁰ For example, Jevons studied the effect of nationalization of railways in Russia and Great Britain, as well as the benefits of the nationalization of postal services; Walras studied the effects of the nationalization of all land as a matter of distributive justice. It must be noted that Walras's notion of justice is not the same as the old welfare economics of England.

the marginalists, the transparency to be attained is different: one finds oneself between the maximum utility one can get given scarce resources and limitations of psychological and institutional (one may say sociological) factors. One can thus say that Kant's problem of human finitude finds different (but analogous) guises in Marx and the early marginalists.

Points 6 (harmonious class relations and government), 7 (separation of economics from politics and ethics) and 8 (universality of economic laws and reformism) follow from what we just said in the previous paragraph. Having the pure competitive market as a benchmark -- because total transparency and equality of conditions of agents are presupposed by it -- marginalists could, in principle, explore the role of government and the institutional setting in increasing or decreasing the utility of different segments of society. So, contrary to what one is used to hearing, the marginalists were not pure *laissez-faire* proponents, but were pathbreakers in the study of how the government could tinker with markets so as to improve their efficiency (Medema 2009). Even if social unrest is not inevitable in a class society, it is controllable by government discretion. It is then possible to reform markets and institutions in order to get closer to the ideal of the maximum utility provided by what we now call the perfectly competitive market.

This marks another difference with the tradition initiated by Marx: whereas it is possible for a marginalist to be a socialist (and Walras identified himself as a "scientific socialist"), they were reformers rather than revolutionaries. This practical political debate may seem out of touch with the whole philosophical argument we are developing. It is not so, though: because Marx believes he identified the tendency laws of capitalism, he can identify the ideological parts of economic theories and the obstacles that capital throws in the path towards socialism. One of these obstacles is exactly the idea that the State should mediate class conflicts and pacify social tensions. As Araújo (2014) stresses, the way to communism should also abolish the State. It is possible to say that because Marx can envisage a society of free, self-organizing and conscious men living together without the mediation of capital.

The marginalists, for their turn, have their own ideal of a free, self-organizing

and sensuous men living together in the ideal of pure competitive market. Because they have no specific concept of "emancipated man", they ask themselves not how conscious men could live transparently together. They instead try to contrive institutions that allow people to increase their utilities so as to get closer to the ideal of the perfect market. In Marx's correlationist circle the passage of time bridges the gap between the conscious subject and his or her material conditions of living, eliminating capital and, with it, ideology, alienation and the State. In the marginalists' correlationist circle the passage of time would bridge the gap between the ideal market and the maximization of people's utility, eliminating institutions which block the functioning of the market. Looking from this perspective, both Marx and the marginalists could be said to share also a linear conception of time.

5. Concluding Remarks

We tried to show that, despite all the differences crystallized in the history of economic thought (section 2), marginalists and Marx share a common philosophical problematic in modern philosophy -- that of correlationism. In other words, they have to solve the problem of how to correlate subject and object (section 3). If our analysis is convincing, the differences we identified in section 2 can be explained by the fact that they start from different poles of the correlationist circle: Marx begins with the objective commodity and the marginalists with the subjective marginal utility (section 4). The fact that they use different concepts and have different policy prescriptions can be in part attributed to the way they travel the correlationist circle: if you begin with the subjective side, you will have to mobilize concepts and procedures that allow you to correlate marginal utilities with relative prices -- F. Y. Edgeworth's attempt to build an hedonometer must be seen within this attempt.

On the other hand, if you start with the objective commodity in the capitalist system, you have to explain how ideological factors and alienation bar the conscious apprehension of the workings of this system. For both Marx and marginalists we can say that sociological and psychological factors stand in the way of the access of the human mind to the objective phenomena of the economic world -- be they relative prices or commodity production.

And what is the relevance of a paper like this? Is it just another possible interpretation of the relation of Marx and the marginalists? Well, in times of post-truth politics, growing intolerance and of crippled dialogues, we found it useful to try to show, from a philosophical perspective, that even very different schools of economic thought partake of the same modern philosophical problematic. It is not a question of finding a middle-ground between Marx and the marginalists (they are right here and he's wrong there and vice-versa), but of calling attention to the very foundation of modern thought. According to our argument, if we look at the dilemmas of the relation between subject and object in modern thought, we can perhaps see the differences in schools of economic thought -- which were born as part of modern intellectual culture -- in a more productive and open way.

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