Does J.S. Mill's theory of comparative advantage prove the superiority of free trade?

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-----WORK IN PROGRESS-----

Abstract

The theory of comparative advantage allegedly shows why free trade is beneficial for all. It is said to be both grounded on a competition hypothesis and to be applicable to any economic system. Does this view coincide with the presentation made by one of its major exponent, namely J.S. Mill? This contribution explores the complexity existing between Mill's principles and practice on this topic. On the epistemological level, Mill defends the idea that the theory is based on decisions made by self-interested agents; however, he rejects clearly any pretension to universal applicability of the theory precisely because the maximising behaviour assumption has no universal relevance. Yet, we show that in practice, Mill's presentation of the comparative advantage contains a macroeconomic explanation independent of any assumption concerning agents' motivations. Indeed, the gains for countries highlighted by the theory are the result of specialisation, and not of free trade, contrary to what Mill and commentators traditionally claim. Further, this macro explanation appears to be of universal applicability, contrary to what Mill thought.

Keywords

J.S. Mill, comparative advantage, free trade, macroeconomics, economic methodology

Introduction

It is a commonplace to say that the principle of comparative advantage is the classical theoretical support for free trade. The theory is said to show why free trade is beneficial for all nations as well as the world as a whole and how free trade automatically leads to the realisation of those benefits. In fact, two aspects need to be analysed separately in order to assess the relevance of such a commonplace. First, what connection, if ever, does exist between the theory and free trade? In other words, to what extent is it a free trade based theory? Certainly Ricardo, the most prominent founder of the theory,[1] clearly had in mind market-based economies in which individual agents (wine and cloth producers in his famous example as well as consumers) act in markets according to their own private interests. Ricardo stated quite explicitly that "*under a system of perfectly free commerce*, each country naturally devotes its capital and labour to such employments as are most beneficial to each" (Ricardo 1817, 133, emphasis mine). And as is well known, he developed this analysis as a theoretical weapon against the *Corn Laws*. Yet, in spite of Ricardo's intentions, the question remains whether the competition hypothesis is necessary to establish the validity of the principle of comparative advantage, as Faccarello recently pointed out (Faccarello 2015).

The second issue at stake is to determine to what extent it is a normative theory that has a pretension to be of universal relevance. Admittedly, the theory is very often used as an article of faith to promote free trade worldwide. International institutions, such as OECD, the IMF, the World Bank and the WTO, definitely ground the laissez-faire policies they advocate on it, because it is admitted that "countries can benefit from comparative advantage-driven trade" (Kowalski 2011). On its homepage the WTO bases "the case for open trade" on the theory of comparative advantage and appraises this theory as "arguably the single most powerful insight into economics" (WTO | The case for open trade). In a speech delivered at Paris School of Economics in 2010 the former Director-General of the WTO, Pascal Lamy, defended the theory of comparative advantage against criticism (Lamy 2010). Such a pretension has precisely been noticed and denounced by many critics of political economy since a long time ago. It has been particularly questioned in Germany from the mid-nineteenth century until the First World War by historical economists. Friedrich List (1841) first questioned the "cosmopolitanism"

[1] For an account of the complex story of the authorship of the theory see Maneschi (1998), Ruffin (2002, 2005) or Aldrich (2004).

(*Kosmopolitismus*)[2] of the so-called "Adam Smith school", which is said to generalise its laws based on free trade from the sole English case and thus to oversee the "national" aspect of economic phenomena, namely the political, cultural and historical peculiarity of each country. Along the same lines, Wilhelm Roscher censured the universal abstractions of the "free–trade school" (*Freihandelsschule*) (Roscher 1854). At any rate, it bears noting that critics and promoters of the comparative advantage theory agree on the first point, which is the fact that the theory is closely connected with free trade.

The aim of this contribution is to discuss these two ideas traditionally associated with the theory of comparative advantage by comparing it with the writings of one of its major exponents, namely J.S. Mill. We will first look into what Mill "officially" said – in his economic methodology – on both aspects we have raised. As for the first aspect, we will recall that he conceives any economic theory as being based on the competition assumption, in line with the traditional understanding of the comparative advantage. As for the second aspect, however, we will underline how far Mill was from any pretension to universality when it comes to applying economic results to practice (section 1). But then, a fair investigation into Mill's writings should not only heed what he tells us in principle – his methodology – but also what he wrote and did in practice. We shall therefore stress the gap between what Mill claimed and what he did. In particular, we will highlight the fact that free trade is not a necessary assumption in order to establish the principle of comparative advantage, contrary to what Mill announced. Indeed, the gains for countries highlighted by the theory are the result of specialisation, and not of free trade, contrary to what Mill and commentators traditionally claim. Further, this macro explanation appears to be of universal applicability, contrary to what Mill thought (section 2).

[2] Ironically, the first instance given by the *Oxford English Dictionary* of the English adjective "cosmopolitan" is from J. S. Mill on capital (see Tribe 1995, 33, note 3). Indeed, in chapter XVII of the *Principles*, Mill remarks that "capital is becoming more and more cosmopolitan". Of course, this does not prove that List's attack would appositely apply to Mill. In fact, Mill adds immediately after this sentence a comment on the variability of empirical situations throughout the world: "But there are still extraordinary differences, both of wages and of profits, between different parts of the world" (Mill 1848b, 588).

1 Mill's "official" relativistic market-based approach

1.1 "Desire of wealth" and "competition" as *necessary* hypothesis in economics

In his essay entitled "On the Definition of Political Economy…" Mill famously defined economic theory as a study based upon one central axiom, namely the "desire for wealth". He avers that "[political economy] predicts such of the phenomena of the social state as take place in consequence of the pursuit of wealth. It makes entire abstraction of every other human passion or motive" (Mill 1967 [1836], 321)[3] – a passage he inserted almost verbatim in the *System of Logic*. Note that competition was mentioned as a required supposition but only in passing (Mill 1836, 322). Now in the *System of Logic*, Mill suggests that a legal framework must also be assumed in political economy in order to make possible the very pursuit by individuals of their desire for wealth:

> "English political economists […] discuss the laws of the distribution of the produce of industry, on a supposition which is scarcely realized anywhere out of England and Scotland, namely, that the produce is 'shared among three classes, altogether distinct from one another, labourers, capitalists, and landlords; and that all these are *free agents, permitted in law and in fact to set* upon their labour, their capital, and their land, *whatever price they are able to get for it*' […]" (Mill 1843, 903, italics mine).

Mill strikingly characterizes the core premise here ("free agents") not only as a maximizing behavior but also as a set of legal institutions ("permitted in law") and of social norms ("permitted in fact") which allows agents to pursue such a behavior. Mill obviously means that people may be driven by pecuniary interests, but if laws or customs prohibit their pursuit, then no competition exists. As a result, the maximizing behavior is regarded, in the *Logic*, as a hypothesis which is, though necessary, not sufficient for economics.

In the *Principles*, published five years after the *System of Logic*, things are made even clearer. The "competition" assumption seems even to have become paramount over that of the "desire of wealth". The only significant epistemological remark in connection with the fundamental assumptions of political economy, within the entire book, involves competition and not the interested behavior:

[3] Two other counter motives are actually heeded, namely "aversion to labour, and desire of the present enjoyment of costly indulgences" (Mill 1843, 902).

> "*Only through the principle of competition* has political economy any pretension to the character of a science. So far as rents, profits, wages, prices, are determined by competition, laws may be assigned for them. [...] As an abstract or hypothetical science, political economy cannot be required to do, and indeed cannot do, anything more" (Mill 1848a, 239, emphasis added).

Of course, the underlying motive driving economic agents on free markets is, in Mill's mind, the pecuniary interest. To put in a nutshell, Mill considers economic laws applies under the proviso that competition is "free and active" (Mill 1848b, 472, 475) – "free" relating to the legal framework, "active" referring to self-interested motive.

This being said, the principle of comparative advantage, elaborated both in his essay entitled "Of the laws of interchange between nations…" written in 1829-30 as well as in his *Principles*, should conform to this epistemological principle. All the more so as Mill himself considered that, among all "truths" established by political economy, "none has contributed more [than the principle of comparative advantage] to give to that branch of knowledge the comparatively precise and scientific character which it at present bears" (Mill 1844, 232).

This being recalled, does Mill regard the theory of comparative advantage as being of universal relevance? Should legislators of any part of the world apply this abstract principle?

1.2 Mill's rejection of any normative theory

Many commentators, including the critics of political economy, misinterpret the very function of abstraction in Mill's theoretical framework. They associate abstraction in economics with a pretension to universality. Mill, on the contrary, conceives it definitely as a *particularisation*, or in other words as a method that *narrows the validity* of economic theories. Indeed, in his *Principles* (1848) as well as in his *Essay on the Definition of Political Economy* (1836) or his *System of Logic* (1843), Mill always clearly claimed a limited realm of validity for political economy, on account of the very fact that this science is based on the assumption of the "desire of wealth". There is no doubt that he regards the "desire of wealth" as a strict hypothesis intended by no means to describe the whole reality. It is only a necessary "abstraction" if one wants to investigate scientifically economic phenomena (Mill 1843, 902). Economics is an "abstract" and "hypothetical" science (Mill 1836, 325; 333, 1843, 900, 1848a, 239), that is to say based on the isolation of a special behaviour – the "desire of wealth" acting in competitive markets. Therefore, economic laws may by no means be regarded as universal or natural: they are on the contrary "tendencies" (Mill 1836, 337, 1843, 899; 910).

Hence Mill's extreme cautious attitude on the question of the applicability of economic theorems: if one wants to use these abstract and conditional laws in practice, one must also restore what they have overlooked in their initial hypotheses. Political economy is a provisional science; it cannot serve as a practical guide from which one could draw timeless precepts. More precisely, Mill limits the scope of political economy to competitive capitalism, where the "desire of wealth" is an actual behaviour (thanks to the legal and moral permission of buying and selling freely according to prices).

As a result, Mill establishes a spatial-temporal limitation to the validity of political economy. First, its laws cover only a *limited number of countries*: "English political economists [...] discuss the laws of the distribution of the produce of industry, on a supposition which is scarcely realized anywhere out of England and Scotland" (Mill 1843, 903). Second, selfish and individualistic behaviours and the socio-institutional environment that allows these behaviours – that is to say, free competition – is a feature proper to *modern* Anglo-Saxon countries only:

> "Competition, in fact, has only become in any considerable degree the governing principle of contracts, at a comparatively modern period. The farther we look back into history, the more we see all transactions and engagements under the influence of fixed customs" (Mill 1848a, 240).

Mill thus clearly stresses the relativity of the conclusions of political economy. Moreover, he claims himself to be a critic of political economy, denouncing his fellow economists who, in general, forget this historicity:

> "The principal error of narrowness with which they are frequently chargeable, is that of regarding, not any economical doctrine, but their present experience of mankind, as of universal validity; mistaking temporary or local phases of human character for human nature itself; having no faith in the wonderful pliability of the human mind; deeming it impossible, in spite of the strongest evidence, that the earth can produce human beings of a different type from that which is familiar to them in their own age, or even, perhaps, in their own country" (Mill 1865, 306).

Mill appears fully aware of the peculiarity of economic laws. De Marchi notes that one of the main goals of Mill's *Principles* was to "rescue from narrow, negative, and inflexible writers of the extreme laissez-faire persuasion 'the truths they misapply, and [combine] these with other truths to which they are strangers'..."[4] (De Marchi 1974, 136). Indeed, Mill initiated the famous art–science distinction, which was precisely meant to keep political economy away from ideologies, including liberal ideology and *laissez-faire* policies (Zouboulakis 1993, 23-27). Mill's prudence regarding the applicability of economic theories is restated even in a speech before Parliament from 1868, published in 1870 in *Chapters and Speeches on the Irish Land Question*:

> "So far from being a set of maxims and rules, to be applied without regard to times, places, and circumstances, the function of political economy is to enable us to find the rules which ought to govern any state of circumstances with which we have to deal – circumstances which are never the same in any two cases. [...] I do not know in political economy more than I know in any other art or science, a single practical rule that must be applicable to all cases" (Mill 1868, 255).

It is therefore no exaggeration to say that Mill strived to warn about the limits of economics and about the difficulties to move from abstract theory to concrete applications.

Mill even provides a particularly telling illustration for our discussion. In the *System of Logic*, Mill condemns any attempt to prove scientifically the benefit of a particular policy measure such as *Corn Laws* from direct observation of its effects, insofar as it would mean trying to determine "one social cause among a great number acting simultaneously". The problem is that "the number of instances necessary to exhaust the whole round of combinations of the various influential circumstances, and thus afford a fair average, never can be obtained" (Mill 1843, 909); Mill concludes against those who would prove the superiority either of protectionism or of free trade at all times and in all places:

> "A trial of corn laws in another country or in a former generation would go a very little way towards verifying a conclusion drawn respecting their effect in this generation and in this country. It thus happens, in most cases, that the only individual instance really fitted to

[4] The passage in brackets within the quote comes from a letter written by Mill to W. Conner in September 1849 (see Mill 1972a, 37). Among the writers concerned in this letter we find E. Baines Jr. or T. Hodgskin, and in a lesser extent H. Martineau.

> verify the predictions of theory is the very instance for which the predictions were made ; and the verification comes too late to be of any avail for practical guidance" (ibid.).

Mill thus emphasizes the need to take into account national (and even generational) specificities of each country. Far from defending an alleged British cosmopolitanism, Mill appears to be the advocate of his own critics by giving here an epistemological argument in favour of non-cosmopolitanism. Interestingly, Mill was one of the few classics (along with C. F. Bastable) to uphold the infant industry argument (Mill 1965b [1848], 918–20) against sheer free-trade – although making no reference to Friedrich List.[5]

2 Mill in practice

2.1 Free trade: neither a necessary nor a sufficient hypothesis in order to obtain the gains of international specialisation

The paternity of the theory of comparative advantages probably belongs to Torrens, who, two years before Ricardo, explained the principle in his *Essay on the External Corn Trade* (Torrens 1815), but without resorting to what made Ricardo's subsequent success: processing by means of a numerical example, in this case representing the amount of labour hours required to produce corn and cloth – the famous "Ricardo's four magic numbers" in the words of Samuelson (1969, 4). Mill, in his *Essay* of 1844, resumes Ricardo's numerical analysis which he considers to be the truly scientific exposition of the question (Mill 1844, 233). But this is the version given by his father in his *Elements of Political Economy* (Mill 1844, 234) that he quotes verbatim. He proceeds in the same way in the *Principles* (III, xvii).

Let's take the example that J. S. Mill borrows from his father. It starts from a situation of autarky, where England and Poland produce two goods, cloth and corn. England has no absolute advantage: its unit costs of production are higher in both sectors. In addition, the ratio of productivities within each country differs from country to country. The table below shows the data used by Mill:

[5] Mill refers (but in a critical way) to the American protectionist economist Henry Charles Carey (cf. *Principles*, V, x, 1).

Table 1: Number of working days required for the production of cloth and corn

	1 unit of cloth	1 unit of corn
England	150	200
Poland	100	100

In this brief passage of no more than one page, Mill develops (like Ricardo and his father James) in fact two conceptually distinct issues: the first is the highlighting of gains from specialization; the second is the entirely different question of the incentive to specialize in a competitive environment.

But both in the *Essay* and the *Principles*, Mill passes constantly from one analysis to the other, operating a constant amalgam between the question of the gains of the specialization and that of the interest for free economic agents to specialize. This is seen through the fact that Mill is not clear on the source of the benefits. He first talks about "the advantage *of an interchange* of commodities between nations" (Mill 1844, 233, emphasis mine), to declare a page after the benefit does not come from free trade as such but "results from the more advantageous employment which thence arises, of the labour and capital" (Mill 1844, 235). Likewise, in the *Principles*, he speaks of the "direct benefits of *commerce*" and of the "benefit of international *exchange*, or in other words, foreign *commerce*" (Mill 1848b, 590-1, my emphasis). Obviously, the real source of the gains is not the exchange as such but the specialization, because it amounts to allocating the factors of production to the relatively most efficient sectors and thus to abandon the relatively inefficient productions. Thanks to specialization, countries have in total a superior production for the same amount of work. We propose to illustrate this point with the following two tables:

Table 2 : Labour quantity required for the production of cloth and corn and global production *without* international specialisation

	Unit cost of production (in days)		Production
	Cloth	*Corn*	
Angleterre	*150*	*200*	**1 cloth** + **1 corn** in 350 days
Pologne	*100*	*100*	**1 cloth** + **1 corn** in 200 days
Global			**2 cloth + 2 corn**

We see that in the autarkic situation, 550 days' labour generate a world production of 2 units of cloth and 2 units of corn.

After specialization of England in cloth and Poland in corn, productivity in each country remains unchanged but overall productivity has increased:

Table 3 : Labour quantity required for the production of cloth and corn and global production *after* international specialisation

	Unit cost of production (in days)		Production
	Cloth	*Corn*	
Angleterre	*150*	-	**2,33** (350/150) **cloth** + **0 corn** in 350 days
Pologne	-	*100*	**0 cloth** + **2** (200/100) **corn** in 200 days
Global			**2,33 cloth + 2 corn**

As a result of a better allocation of factors of production, the same global quantities of work (550 days) now generate a world production of 2.33 units of cloth and 2 units of corn, a global increase of 0.33 units of cloth. This is precisely the conclusion Mill wishes to reach: "[the]

advantage consists in a more efficient employment of the productive forces of the world" (Mill 1848b, 591).

However, Mill mixes in the same text the objective explanation of the cause of the gains, established at a macroeconomic level, and the subjective incentive of the agents (or countries) to specialize to obtain these gains, that is a microeconomic approach.[6] After all, whether or not trade finally takes place, world productivity will still have increased after specialization. We can also very well imagine cases of specialization without exchange, for example when imposed by a dictator who ultimately takes the whole product. However, this example of the dictator clearly testifies that the theory works independently of the hypothesis of desire for wealth as Mill understands it, that is to say the desire pursued by individuals in a system of commercial freedom – which obviously has nothing to do with the "desire for wealth" of a dictator. The only necessary condition for explaining the objective causes of earnings is not the opening of the borders, which would benefit the profit-driven producers, but simply that the relative costs differ between the two countries. This analytical difficulty consisting in focusing at the same time on the macroeconomic level and on the underlying microeconomic motivation of the agents appears already in Ricardo's work, as recently pointed out by Faccarello (2015, 759-62).

Ultimately, the principle of comparative advantage, on the macroeconomic side amounts to saying that since the ratio of the costs of production within each country, differs from country to country, the specialization of each country in the comparatively most productive sector increases productivity globally. Or, as Cairnes turns it, different comparative production costs are "the essential and also the sufficient condition" (Cairnes 1874, 371) for the existence of international trade.

In fact, there are other hypotheses required, notably the absence of diminishing returns to scale, the lack of difficulty in converting from one sector to another, and so on. Still, the essential point for us is that this there is no need to postulate free trade or any desire for wealth. "Free and active" competition is neither a necessary nor even a sufficient hypothesis: it simply has nothing to do with the model. The principle of comparative advantages is a macroeconomic principle which therefore has a form of universality, in the sense that, far from being applicable only to competitive market economies, it is true for any economic system, be it a primitive economy, a competitive or a communist economy. Moreover, the fact that the gains from

[6] The confusion is of the same nature as that between the objective cause of profit (the fact that the worker produces more than what is necessary to reproduce his labor power) and the subjective incitement of the capitalist to practice abstinence in order to gain some profit.

specialization can be obtained in a communist economy has been underlined by Kantorovich who, in his major work on Soviet planning, develops an example of optimal specialization which corresponds exactly to the Ricardian model developed here by Mill (Kantorovitch 1959).

Yet, in Mill's writings, the principle of comparative advantages remains fully embedded in the question of free trade, as we will see in the next section. And so in a way, Mill remains apparently faithful to his epistemological principles. But we have also shown that Mill has a clear focus on productivity. There is therefore a tension in Mill's presentation between the treatment of issues that do not mobilize a competitive hypothesis and those that mobilize. Symptomatic is in this respect the fact that it takes as synonyms "exchange" and "specialization":

> « The addition thus made to the produce of the two [countries] combined, constitutes the advantage *of the trade* » (Mill 1848b, 591, italics mine).

> « The circumstances are such, that if each country confines itself to the production of one commodity, there is a greater total return to the labour of both together; and this increase of produce forms the whole of what the two countries taken together gain *by the trade* » (Mill 1844, 235, italics mine).

From this point of view, Mill reproduces exactly the confusion of the two levels of analysis initiated by Ricardo who affirms: "In the 7th Chap. of this work, I have endeavoured to shew that all *trade*, whether foreign or domestic, is beneficial, by increasing the quantity, and not by increasing the value of productions" (Ricardo 1817, 319, my emphasis).

To be quite rigorous, Mill should have replaced in both quotations the word "trade" by "specialization". If he has not done so it is because Mill starts (as Ricardo) from a competitive framework of free movement of goods at the international level and, consequently, reasons not in terms of productivity but price. There are two main reasons for explaining this ambiguity. First, there is the historical context in which the theory was elaborated: during the *Corn Laws* debate, Mill following his father and his father's friend Ricardo wants to show the deleterious effects of protectionism on profit in Britain. This explains that he addresses the specialisation issue only in terms of abolishing customs barriers. This is all the more so as Mill wrote his *Essay* on international trade in 1829-30, the general context is the same as for Ricardo, since it was not until 1846 that the *Import Act* abolished Corn laws. Thus the framework of the theory was laid down and Mill resumed it in the *Principles*, although this work was written after 1846 (between 1847 and 1848). A theoretical overhaul was furthermore less likely to happen as, Mill was, in the political arena, an author friendly to free trade who tried to show that it is the best way to benefit from comparative advantage.[7]

The second reason is the theoretical purpose Mill follows when presenting the comparative advantage. As we will explain in the next section, Mill is not interested in presenting the principle as such. His aim is to discuss the theory of value in a competitive economy, which explains his focus on the microeconomic level.

2.2 Desire for wealth and competition: sufficient but non necessary assumptions to induce international specialisation

The reasons for the imbroglio between the question of gains related to specialization on the one hand, and the question of interest in trading abroad, on the other, may appear more clearly in the *Principles* than in the *Essay*. Mill's challenge of chapter XVII of the *Principles* is not, first of all, to show the effects of the specialization of countries, or even to show the superiority of free trade. It is to determine the law of the value in the case where there is immobility of the capital (the determination being definitively solved in the chapter XVIII which relates precisely to the "International values"). Indeed, this chapter is located in Book III entitled "Exchange", the same one that deals with the theory of value. The title of section 1 which opens chapter XVII is explicit: "Cost of production is not the regulator of international values". Mill is therefore trying to re-establish Ricardo's famous statement that world market prices do not depend on the amount of labor incorporated (what Mill calls "cost of production") in the particular case where capital is immobile (which he believes is the case at the international level).[8] But, starting from an initial questioning on the theory of value, Mill comes to treat simultaneously a conceptually different problem which is the gains related to the specialization. He will then introduce the principle of comparative advantages into the competitive framework of the Ricardian theory of value. In doing so, Mill (like Ricardo) is proposing another theory that no longer corresponds to the principle of comparative advantage expressed earlier: he does

[7] On the fact that Mill appears in political debates as an inflexible supporter of free trade, on the basis of very general economic principles without paying attention to the practical feasibility of free trade for certain exporting sectors, see for example Hupfel (2010).

[8] "The same rule which regulates the relative value of commodities in one country, does not regulate the relative value of the commodities exchanged between two or more countries" (Ricardo 1817, 133). Ricardo explains that this is the consequence of the relative immobility of the capital due to "fancied or real insecurity of capital", and of the immobility of labour on account of the "natural disinclination which every man has to quit the country of his birth and connexions" (*ibid.*, p. 136).

not seek to highlight the amount of productivity gains at the global level (as seen above), but to demonstrate that free and active competition leads to specialization *consistent with* comparative advantages. As Faccarello aptly puts it: "contrary to what Ricardo sometimes suggests (see for example Works I, p. 170), the benefits obtained by each country are not the cause but the *unintended consequence* of actions taken by economic agents on the basis of a different motive" (Faccarello 2015, 772). The same remark may be applied to Mill.

Mill's reasoning focuses here on the microeconomic level. He introduces two additional hypotheses in relation to the principle of comparative advantages: he assumes that there is a free market of capital in each country and, moreover, a free market for goods at the world level. Let's first look into the first additional hypothesis. Mill states that exchange within a country can only take place only between equivalent amounts of work, according to the theory of labor-value. However, this implies, as we know, to introduce the hypothesis that there is "free and active" competition between capitals within each country because it equals the profit rates, so that prices are eventually proportional to the amount of work incorporated. Mill, for example, assumes that the English cloth producers get the equivalent of 150 hours of work in the corn sector in exchange for 150 hours of work. In other words, in exchange for 1 unit of cloth they receive 0.75 (150/200) unit of corn (see table 1). In the same way, in Poland one unit of cloth is exchanged for one unit of corn.

Now comes into play the second additional hypothesis: if we assume the free movement of goods and services worldwide and let producers in all countries follow their desire for wealth,[9] they will specialize in a manner consistent with the principle of comparative advantages and therefore reap the gains from specialisation. Mill reasons here in the context of a barter economy. He argues that the English cloth producers have interest in exchanging their production for Polish corn because for the same amount of work provided they get more: in exchange for 1 unit of cloth they get 0.75 units of corn on the English market but 1 unit by selling them in Poland (in the end, the world relative price of the cloth expressed in corn will be between 0.75 and 1). The same reasoning but reversed shows that the Polish producers of corn have an interest in selling their production to England. Thus, although the real costs of production are absolutely higher in a country, the fact that the relative costs within each country are not the same provides an interest for the producers in each country to specialise in the

[9] It is quite astonishing that Mill takes the example of Poland, in as much as he has persistently insisted that outside Anglo-Saxon countries, mercantile spirit and commercial institutions are barely developed.

relative most efficient sector and to exchange their merchandise, or conversely, provides an "interest to import the articles in which their advantage was smallest" (Mill 1848b, 588). Reversely,

> "if it produces both commodities with greater facility, or both with greater difficulty, and greater in exactly the same degree, there will be *no motive to interchange*" (Mill 1844, 234, my emphasis).

We see that the problem Mill is dealing with here is no longer that of the gains of specialisation. Mill here is looking at a different question: how can countries be specialized in productions for which they have a comparative advantage? And the treatment he proposes takes the form of a theory of inducement, as we pointed out in the quote. Mill demonstrates, in the context of a barter economy,[10] that a "free and active" competition is a sufficient hypothesis to encourage producers to specialise in the most efficient sectors. In other words, he proves that free trade is a sufficient incentive system to lead to specialization that maximizes global productivity.

Mill's theoretical practice as an economist is here in line with his epistemological definition of political economy: his reasoning is based on a postulate of "free and active" competition. However, this reasoning has not allowed him to explain this other economic problem that Mill himself tries to deal with, namely to show that specialization generates a rise in overall productivity. Further, this approach does not prove that "free and active" competition is a necessary condition for dealing with the problem. In other words, the hypothesis retained by Ricardo and Mill is perhaps sufficient but not necessary, contrary to what Mill's epistemological principles proclaim. And of course, there are other ways than *laissez-faire* that can also lead to specialisation in the comparatively most productive sectors. For example:

a) through an agreement of producers collectively deciding to divide the work internationally and then divide the products;
b) through an agreement of States;
c) through economic policies (industrial, agricultural, etc.) aimed at encouraging, through regulation, taxation, subsidies, etc., agents to specialize. This is important because in

[10] Mill considers that the contribution of the Ricardian specie-flow mechanism between countries consist in demonstrating that the results obtained within a barter economy « is not affected by the introduction of money as a medium of exchange » (Mill 1844, 234).

reality, it is unlikely that individuals will give up their job and convert their capital and know-how as easily as Mill and Ricardo suppose;

d) through coercion, without economic freedoms. One can imagine a supra-national public authority imposing specialisation on member States (for example, the USSR compelling its satellite countries). Then an exchange of national productions could be managed by a planning office.

In all these instances, though there is an international specialisation and exchange of national productions, there is no free trade as understood by Mill and Ricardo. And we have seen that it is even possible to imagine cases where there would not even be any exchange at all (the dictator's case seen above). One might object that, at least in case d) and in the case of a dictator, we are out of the issue of international trade, since the trading area is dominated by a single authority. The answer to this is that according to Mill (and Ricardo) the concept of sovereignty in no way defines the nation. The only relevant criterion for them is that of the absence of capital mobility. So that two territories may very well be under the same authority, they will constitute different "nations" if the capital does not move from one to the other (because of the distance or of cultural differences). It follows that the question of nations is altogether incidental in the reasoning which applies very well to two individuals, a soon as the ratio of their productivity between different activities is different, as Ricardo himself in chapter VII of his *Principles* suggests:[11]

> "Two men can both make shoes and hats, and one is superior to the other in both employments; but in making hats, he can only exceed his competitor by one-fifth or 20 per cent., and in making shoes he can excel him by one-third or 33 per cent.;—will it not be for the interest of both, that the superior man should employ himself exclusively in making shoes, and the inferior man in making hats?" (Ricardo 1817, 136, footnote).

Free trade based on the desire for wealth is therefore only one of the possible ways leading to specialisation. And as far as history is concerned, it was rather the third way of specialisation which countries privileged. States chiefly have orchestrated the specialisation of productive activities on their territory.

[11] See also the famous example of the lawyer and his secretary given by Samuelson (1948).

Conclusion

Many economists regard the theory of comparative advantage not only as the "deepest and most beautiful result in all of economics" (Findlay 1987, p. 514) but also as "an unassailable intellectual cornerstone" (Harrigan 2003, p. 86). Samuelson calls it, at the occasion of his Presidential Address to the *Third Congress of the International Economic Association*, in September 1968, the only proposition in social science that "is both true and non-trivial" (Samuelson 1969, 9). Mill himself, as pointed out above (see 1.1), considered that it is one of the most "precise and scientific truth" in economics. Yet, as Mill himself stressed – and as his critics also claimed – a profit-driven market economy is a very recent institution with no universal existence, and laws established upon its supposition are necessarily of local relevance. Where, then, does the truthiness of the comparative advantage comes from? This study has tried to show that it comes from the macroeconomic explanation of the gains, which is a result that is not grounded on the micro decisions of economic agents. Such a result contains a form of universality, in the sense that it is applicable to any kind of economic system and not only to modern capitalist societies.

Further, this article provides a critique of the critique of political economy's pretension to establish universal laws. For example, our thesis is in line with one of Karl Polanyi's starting point, namely the illusion that the "economy" (meant as an empirical system organising production and consumption) and the "market" could be seen as identical, that is to say that all the circulation of goods would be reducible to the merchant exchange. Nevertheless, we separate from Polanyi when he condemns economics because it would necessarily suffer from an "economistic fallacy". The latter is defined as the "artificial identification of the economy with its market form. From Hume and Spencer to Knight and Northrop, social thought suffered from this limitation wherever it touched on the economy" (Arensberg, Polanyi, et Pearson 1957, 270, note 1; see also Polanyi 1977, chap. 2). Our demonstration aims to show that Mill's practice (and that of most classical economists) is more complex than a mere study of market phenomena. In order to assess political economy's pretension to universality, one cannot merely refer to Mill's epistemological writings. Therefore, the critique of such a pretention is not simply a problem because it misunderstands Mill's epistemological position. It is more fundamentally questionable in that it disregards his practice as an economist and therefore attaches uncritical and, in our opinion, excessive importance to his methodological principles.

Indeed, Mill's epistemological discourse is seen as one that adequately describes his own theoretical practice as an economist. The critique is entirely based on the definition of political economy as a deduction from the supposedly necessary hypothesis of the "desire for wealth". These commentators share with Mill this common belief that the political economy is an *egonomy*.

The perspective of our study has been in a certain way symmetrical to that adopted by Hollander in his famous study on Mill. The latter sought to highlight the presence of marginalist or microeconomic analyses in Mill's economic writings (Hollander 1985, vol. 1, chap. 5). We have tried, conversely, to highlight the non-market elements in Mill's economic theory – Mill's macroeconomic analyses. Indeed, in seeking analyses presenting a certain form of universality, or at least a degree of validity much more general than that of applying only to modern capitalist economies, our task has been to identify the theoretical moments where Mill provides analyses which are not grounded upon the maximising behaviour. Moreover, Hollander's point of view consist in reducing economic theory to microeconomics – a perspective also adopted by Schumpeter (1954, 517), Knight (1935, 6) or Hicks (1974, 307). Interestingly, it consists in a modern and somehow refined formulation of Mill's own definition of political economy as a strict study of the human behavior led by pecuniary incentives. Therefore, it is also an acceptation of the definition Mill gave of political economy. By doing so, these authors pursue Mill's methodological reductionism without recognizing that his very practice as an economist denies this same reductionism.

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