Freedom, Equality and Altruity

Abstract

As A. Sen [1991] reminded us, economists have long developed their analyses from a dual perspective, viz. the political and moral philosophical standpoint, and the mechanistic, technical standpoint practised by the engineer. During the twentieth century, the mathematical approach dominated; Ethics and welfare economics became at best secondary. However, the reform required in economics which J. Stiglitz [2010] is calling for today must be firmly located within an Ethical framework. In the first part, we recall the liberal Ethical nature of perfect competition models and then propose a new Ethics which, operating on the principles of freedom and equality, adds the rational duty of altruity, as outlined by Ph. Kourilsky [2011]. Using this new framework, we go on to develop a post-liberal general competitive equilibrium model to offer a new perspective by introducing the social and solidarity economy.

Introduction

This article starts from the point where two research traditions into the microeconomics of perfect competition converge. The first, historical, refers general competitive equilibrium modelling back to its origin in the eighteenth century to which K. J. Arrow and F. H. Hahn [1971] link the name of Adam Smith. This brings us to the moral and political philosophy which was the bedrock of eighteenth century economic thought. The second is contemporary, if neglected, and develops general competitive equilibrium models with labour-managed firms rather than capitalist ones. This work carried out between 1950 and 1980 which J. Bonin and L. Putterman [1987] summarised, applies fundamental microeconomic principles to that other economy, the alternative to capitalism. In both cases, our understanding of microeconomics shifts from its usual perception as a 'technical' or 'mechanistic' exercise, to borrow the terms that A. Sen [1991] uses to characterise this research tradition. Finally, our article is closely related to a body of work which has more recently integrated altruism into its economic modelling. However, in our study altruism is neither the 'behavioural altruism' nor the 'psychological altruism' that engages economists (c.f. C. Clavien [2010]) but the 'altruity' that Ph. Kourilsky [2011] defines as a rational duty tied to freedom and equality as natural rights using a universalist approach and as 'capabilities' as defined by Sen, i.e. functional capabilities using a pragmatic approach.
In the first part, we will turn from liberal Ethics to post-liberal Ethics using the uppercase 'E' to define the scope of the word ethics to restrict it to the study of what should be and what we should do. It is essential to be precise here, for as F. Vergara [2002, p. 50 ff] states, the word ethics (like 'morals' in English) has two other meanings which relate to what is and not what should be: at the level of moral sentiments where study is psychology-based and at the level of social behaviour where study refers to the sociology of manners and morals. Liberal Ethics were developed in the eighteenth century, according to F. Vergara [op. cit.], by economists following two paths: utilitarian, where the criterion of the greater good was happiness for the greatest number of people, and that where the criterion of good was derived from natural law. We will show that these two paths have been updated in the perfect competition models even though these are rarely understood as an Ethic. The extreme development of their technical aspect has led to this being forgotten or even led to a false interpretation of nature of this model. So when Alan Greenspan [2008] testified in a House Oversight Committee hearing following the subprime crisis: 'Something which looked to be a very solid edifice and indeed a critical pillar to market competition and free markets did break down [...] I found a flaw in the model that I perceived as the critical functioning structure that defines how the world works.', his continuing mistake was to believe that the perfect competition model described the real world as it was, whereas in Ethical terms this model projected the market as it should have been in order to fulfil a criterion for the greater good. The error acknowledged by Greenspan is thus one which impacts on liberal Ethics. It is, according to Ph. Kourilsky [2011], a flaw at the very core of the idea of freedom. Following Kourilsky's analysis, we will shift to post-liberal Ethics which adds the rational duty of altruity to freedom and equality. This shift is caused by the failure of liberal Ethics to achieve its outcome as has been the case over the last thirty years which some characterise as the 'trente doulereuses' (the thirty grim years) after the 'trente glorieuses' (the thirty glorious years).

In the second part, we will adapt perfect competition microeconomics to this new post-liberal Ethics. This will be in two stages. Using a universalist approach, the first puts forward a post-liberal competitive equilibrium which will be shown to be significantly different from liberal competitive equilibrium as well as from egalitarian equilibrium (as defined in terms of division or distribution). The second will provide a pragmatic revision of our microeconomic

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1 From A.Orléan [2009, p. 13]
model allowing for a less than ideal world where risk exists concerning the status of the other. Altruity as a rational duty then becomes a gamble.

Finally, our model will apply fundamental microeconomic principles to the social and solidarity economy, by basing it on the concept of altruity which reaches back to Prudhon's concept of mutualism and the third way that he sought to introduce.

Part I. Post-liberal Ethics

Using the perfect competition model in a technical or mechanistic way in the form that general competitive equilibrium theory in particular has ascribed it has led to its nature as an Ethical model being forgotten. This is not to question the validity of using this technique, however, which as A. Sen [op. cit.] reminds us, has allowed us to understand economic interdependence better. Our criticism concerns the neglect of Ethics that this use leads to when combined with the interpretation of the economy in terms of 'hard science' devoid of any value judgement. This neglect of the Ethical nature of microeconomics has not, however, only been due to the drift away from the technical use of perfect competition. The turning point came when perfect competition models were relegated in favour of more reality-based models, for example, contract theory. When, in his introduction in one of the first works on this new microeconomics, B. Salanié [1994, p. 6] warns the reader that 'the choice of the words 'Principal' and 'Agent' should not be taken to imply that one of the parties works for the other or that the modeller is more interested in one than in the other' (our emphasis), he pricks the bad conscience of a reality overriding the Ethics of perfect competition where market equality was the standard with the hypothesis that makes everybody into a price taker. Whatever the reasons may be for the role of Ethics diminishing in microeconomics, our article reconnects with this older path where market analysis was considered in terms of the greater good. After examining liberal Ethics in the past and updating them in the language of perfect competition microeconomics, we shall follow Ph. Kourilsky (op. cit.) down the path of reforming liberal Ethics leading to a definition of post-liberal Ethics.
Liberal Ethics and perfect competition microeconomics

The construction of liberal Ethics in the eighteenth century by economists who were emerging into the bourgeois public sphere at the same time as building it, according to J. Habermas [1993], has been illustrated by F. Vergara [2002] in his detailed and very informative investigation *Les fondements philosophiques du libéralisme* (The Fundamental Philosophical Principles of Liberalism). Even if later this link has been over-stretched\(^2\), their market analyses were grounded in liberal political philosophy and, more precisely, in Ethics based on an ultimate sovereign criterion of the greater good, thus 'classic liberalism'. The latter faces two ways, depending on which ultimate criterion of the greater good is used, dividing economists between utilitarians who choose happiness for the greatest number and natural law economists. Adam Smith served as figurehead for the first group and Anne-Robert Turgot for the second. Citing B. Constant, F. Vergara [op. cit., p. 17] shows that despite setting off from different starting points, the two orders of classic liberalism arrived ultimately at the same place: 'Bentham's preferred path led him to results identical to mine... Nobody doubts that in defining utility appropriately, one succeeds in applying to this notion the same rules as those which flow from the idea of natural law. If they did arrive at the same place, then the routes they followed to reach it were as different as their individual starting points. For the utilitarians, establishing the truth of well-laid down rules rests on observation and experimentation whereas for natural law economists it is based on a third way, demonstration. Neither mathematical deduction nor observation-experimentation, but 'qualitative deduction'.

Related to the microeconomics teaching of H. Defalvard [2007] in the first year of university studies, based on a cultural approach, we propose updating the eighteenth century economists' concept of liberal Ethics into the language of perfect competition microeconomics. While there are no few studies which have established Turgot, Smith and also Boisguilbert as forerunners of general competitive equilibrium, our approach is different as it places them

\(^2\) A Sen (op. cit., P.6) places this disconnection between economics and ethics rather late. Indeed, in the first third of the twentieth century when L. Robbins [1935] wrote, 'It does not seem logical to associate the two studies (economics and ethics) in any form but mere juxtaposition', he knew he ran counter to the most widely held opinions of the time.
more as founders. For liberal Ethics are the historic foundation stone of mathematic models of perfect competition.

For utilitarian Ethics, we need to look at the model inherited from Marshall of the partial equilibrium analysis of perfect competition where the price of goods is expressed in monetary terms. In this perfect competition model we can see that under certain hypotheses, the competitive equilibrium which is produced on the free market maximises the collective surplus which is made up of consumer surplus and producer's profit (hatched area in Fig.1 below). Even if collective surplus thus defined is only a rough approximation of the 'greatest happiness for the greatest number' concept, as utility is not the equivalent of happiness and a market in partial equilibrium is not society, we consider it is nevertheless sufficient in order to maintain that this partial perfect competition equilibrium model is consistent with economists' utilitarian Ethics. In addition, and in the opposite sense, this result gives the partial perfect competition equilibrium model an Ethical weight. Incidentally, liberal Ethics play no role in partial equilibrium in a monopoly situation as the power of a monopoly market, having become a 'price maker', fixes the equilibrium price below the marginal cost, stripping market equilibrium of its virtue of maximising the collective surplus. The rules under which a monopoly operates whereby pricing is at marginal cost is the rule that Hotelling proposed so that the market in a monopoly situation again satisfied the utilitarian criterion of the greater good. This competitive equilibrium approach in terms of welfare measured by the collective surplus, and its analysis, remains linked to A.C. Pigou [1952], a former student of Marshall. However, our viewpoint differs to the extent where Ethics as a fundamental principle requires it to precede the study of competitive equilibrium and not succeed it as in welfare economics.
To update natural law Ethics we need to consider the general competitive equilibrium model, the legacy of Walras. In a general competitive equilibrium in a pure exchange economy (in simple terms, without production), the allocation of goods confirms equality between the marginal rates of substitution of goods and the marginal rates of technical substitution of goods, for any pair of goods. This property refers to the theory of value according to which in general competitive equilibrium, the relative subjective price of each good consumed by an individual in the economy is equal to its relative marginal cost. How does this property have an Ethical weight? To show this, we need to make a detour via natural law as Turgot [1769] did in his article Valeurs et monnaies (Value and Money) where he explored 'the first commerce' between man and nature based only on natural law. By updating this detour in current microeconomic terms, we can see that in equilibrium, the isolated individual consumes quantities to the extent their relative subjective price equals their relative marginal cost. By retaining this property of natural exchange, general competitive equilibrium allows each individual to obtain what he would have naturally obtained under natural law, as depending upon his preferences and his talents. By leaving each individual free from others, as described by L. Walras [c.f. A. Berthoud, 1988], general competitive equilibrium conforms to the ethics of natural law. It satisfies the Pareto optimum criterion that the Italian economist devised in such a way that it satisfies the sovereignty of the individual by specifying it for a single individual (c.f. M. Fleurbaey, 1996, p. 48). In the context of a Pareto-efficient welfare economy, if the opposite is clearly apparent today, since the study of the optimum comes after
the study of equilibrium, it was not so for Walras. For the latter, 'the general market is a machine for freedom', his 'pure political economics' is the analytical development of a model of justice' [A. Berthoud, 1988].

Our approach both confirms the argument put forward by B. Constant and updates it; the two versions of liberal Ethics, utilitarian and natural law, establish the same functioning rules for markets which should be left free as long as the conditions of their social optimality are met. Indeed, if classic liberalism is more liberal than the pre-liberal thought of a J. Locke, for example, who in the seventeenth century justified slavery, F. Vergara shows us that he is by contrast more moderate than the ultra-liberalism of an M. Friedman or F. Hayek in the twentieth.

If we have now updated liberal Ethics in the language of perfect competition models in order to recall Ethical weight so often forgotten by them, what has happened to liberal Ethics themselves since their origin in the eighteenth century? For F. Vergara, liberal Ethics has been overtaken by two new systems of thought: Marxist and Keynesian. Marx emphasises that capitalism has developed productive force to such a point that liberal Ethics, associated with small-scale economy, were no longer relevant. In this new setting, the market left to its own devices would have lost its Ethical virtue. Keynes showed in his turn, but for different reasons, that a market left to its own devices would not lead to a virtuous equilibrium; it had every chance of being an equilibrium of underemployment. Having wrecked the game by curbing the impact of liberal Ethics in the twentieth century, the century of the mixed and collective economies, these self-same new systems of thought have in their own turn been criticised in the last third of the that century. So we are seeing a large-scale return of liberal Ethics, or even of ultra-liberal Ethics, with F. Fukuyama [1992] talking about the end of history. But history continues, and like a wheel that turns, it has put economic liberalism in the hot seat the end of the first decade of the twenty-first century for several reasons including the global financial crisis which started in 2007 with the subprime crisis. And so microeconomics is being denounced again; because of its performative value, it is deemed to have a certain responsibility for the onset of the crisis. Thus, J. Stiglitz [2010] is calling for a reform of economics without which capitalism cannot be reformed. In his assessment, he considers that the development of microeconomics, in which he was involved and which won
him the Nobel prize for economics which consisted in adapting market analysis by taking imperfect information into account, had been unsatisfactory as it was irrelevant in relation to the major failure of microeconomics. In the current crisis, he places the intrinsic failure of microeconomics in its modelling of human behaviour which uses self-interest as the only benchmark of behaviour. After all, his book (Freefall: America, Free Markets, and the Sinking of the World Economy) is called (in French editions) 'The Triumph of Greed'!

We share his analysis. However, we want to draw conclusions/analyse the consequences, not from a standard ethical or behavioural or psychological altruism angle, but in the area of Ethics. Indeed, a fundamental requirement for the reform of economics is the reform of liberal Ethics which give perfect competition microeconomics its unparalleled strength, which explains why it remains the standard benchmark for judging markets. While it is not without interest to reread Marx and Keynes for an interpretation of the current crisis, even discounting the social changes which separate us from their works, neither one of them put forward a new Ethics paradigm which could provide a fresh set of fundamental principles for the economy and the markets. This idea of reforming microeconomics via a reform of liberal Ethics on which its ideas are founded would not have seen the light of day without the analyses in the latest work of Ph. Kourilsky [2011] who proposes a set of post-liberal Ethics:

‘Altruistic liberalism belongs to a vast category of liberal theories all of which stem from the right of individual freedom.’ Very different theoretical branches have grown out from this central freedom. Some of them lead to contradictory conclusions when put into practice, for instance, in respect of economic regulation and the role of the state in civic life. Altruistic liberalism could therefore be considered as a variant of liberalism in the wide sense of the word. But to my mind, altruistic liberalism is more than that. It's a political philosophy with a mission to succeed classic liberalism in a 'post-liberal' era.

In fact, the economic cycle leads me to think that with the help of the 2008 financial crisis, liberalism has exposed a deep flaw whose effects can be seen everywhere: at the individual nation level and on a global scale, in economic and financial spheres as well as in the social one. This manifests itself as excessive injustices and leads to serious social problems. Because the flaw lies within the idea of freedom itself, at the heart of all forms of liberalism, it impacts on all political figures supporting the liberal tradition in western democracies. In this sense, altruistic liberalism is not a branch of liberalism. It would be better if its mission were to succeed it.’ (p. 205-206).

We therefore strongly recommend re-examining Ph. Kourilsky's views on freedom, equality and altruity on the journey towards post-liberal Ethics.
Two paths to post-liberal Ethics: universalist and pragmatic

Following his first essay *Le temps de l’altruisme* [2009] (The Time for Altruism), Ph. Kourilsky [2011] re-examines in a more systematic and Ethically-framed analysis his idea of a rational altruism under a new name - altruity. The objective is to differentiate it from altruism, generosity or brotherly affinity which while linked in part to feelings, manners and mores belong in the domain of ethics. The issue, in Ethical terms, is to redress 'the weakness of moral order within the idea of freedom; freedom is too often understood as a right without any personal responsibility attached to it.' (p. 22), and lead to an outline for 'fundamental principles of an improved liberal political philosophy - altruistic liberalism.' (p. 23). We will this consider this outline here and re-examine it in further detail in the second part of this article when we revisit microeconomics.

The analyses of Ph. Kourilsky follow closely behind the natural law liberal Ethics ship by setting off from the principle of individual freedom, taken as a 'natural right, that is, an inalienable right that each individual possess from birth, before any society (...) a radical right' (p.179). But it should be added that this universalist perspective cannot be separated from a contextual approach where 'enjoying freedom in principle, we would be even freer if we considered the conditions of exercising this freedom' (p.179). The internal link between freedom as a natural right and individual freedoms in the meaning of the 'capabilities' of A. Sen referred to by Ph. Kourilsky is established by reason since this link 'supposes a rational approach, which allows a concept (here, freedom) to be examined as a radical principle (freedom is a natural inalienable right) and as a relative statement (an individual may be more or less free)' (p.179). There are perhaps two possible ways in which to place the pragmatic analysis as compared to the universalist approach with first and second pragmatisms: pragmatism 1 would come with the decline of the universalist approach, by proposing an applied version. Pragmatism 2 would be where the pragmatic approach would no longer start from universalism, but would be an autonomous approach. Incidentally, when Ph. Kourilsky (op. cit. p. 88) was developing pragmatism 2, the impression could be gained that he was also changing his version of liberal Ethics when considering his utilitarian version. This is something we shall come back to later.
In universalist terms, the principle of altruity becomes a 'natural duty' linked to freedom as a natural right. This link is forged through equality which is a second natural right itself linked to freedom. Freedom as a natural right may in fact be defined as the principle that all men are free and equal in dignity and in law where equality is the equality between free individuals. Thus linked, freedom and equality lead to the rational duty of altruity as a moral principle: 'the idea of altruity thus implies the idea of equal dignity and restores a principle of justice. The standard aberration of individualism derives from an attitude where the individual considers himself before any other and/or the community. The self-determining nature of the duty of altruity re-establishes an equilibrium (...) the expression of the duty of altruity is such that it guarantees this radical equality of rights in democracy,' (p. 184 and p. 139). The freedom of each individual calls for equality between them which supposes altruity to be defined within a general framework as 'a deliberate commitment to act for the freedom of others'. (p.182). Altruity as a deliberate commitment is then a rational duty, that is, 'a rational obligation which is expected to be adopted by everybody. 'In this way, altruity is the equivalent in lay terms to the imperative duty of charity in religious circles.

Like freedom, 'if altruity is a "natural duty", then exercising it in its full meaning requires some reflection to allow each individual to work out in a practical way what his own duty of altruity is. Nonetheless, taking the pragmatic view, altruity is introduced in a different way. In his examination of practical application, 'an individual's freedom is not only limited by that of others, but also constructed because of that of others.' (p.180). Consequently, 'because the freedom of each is constructed because of that of others, it naturally follows that each individual is assumed to participate in the construction of the freedom of others.' (p.181). It is by this pragmatic path that reason establishes altruity as a duty where logical deduction only holds, however, where a prior moral premise is accepted that there is an indissoluble link between rights & responsibilities. Whether we are taking the universalist or the pragmatic aspect of natural law post-liberal Ethics, altruity is always a combination of duty and reason: a rational duty linked to natural rights, capabilities for freedom and equality.

If the post-liberal Ethics of Ph. Kourilsky and links universalism and pragmatism, it also links the individual level and the collective level: at the first level, altruity concerns relations
between individuals, at the second relations between social groups. For our current study, we are looking at the individual level only where we find another problem with economic theory.

According to Ph. Kourilsky, economic liberalism as well as having an inherent flaw in the idea of freedom included as a right without any linked responsibility, has a second source of deficiencies linked to the 'unjustified transfer between liberal political philosophy and economic theory'. What does this mean for us? Here we cite Ph. Kourilsky at some length (op. cit., p. 65-66):

'If liberal political philosophies refer everything to the idea of freedom of the individual, the economic theories which derive from them should be based on exchanges between free men. This is what the founders intended, whether Adam Smith, Turgot, Condorcet or others. (…) Transferring the notion of freedom to the exchange as it is rather than giving it the status of an exchange between free men constitutes a very serious shift. The play on words covers up a stunning intellectual hoax. From the moment that exchange becomes the dominant concept, with the corollary the pre-eminence of a market where free trade was king, man as a human being disappeared from the equation. He becomes an object, subordinated to the market. If we push this interpretation on a little, this approach will lead to man being considered as a thing and in practice deprive him of his freedom. This is the very criticism that many make about Homo economicus. Here, man is described as a mechanical and disembodied object, a type of robot created to obey the laws of a market so supposedly perfect that he will be compelled by it. This caricature of man is unacceptable. It would be better to strike it from economics students' textbooks in order to settle economics [in its status] as an ethical science.'

Without a doubt, Ph. Kourilsky gives us here the principal reason which has led to microeconomics being flushed clean of Ethics; individual freedom has been transferred into the ‘market as king’ in which the individual ends up as a puppet. By putting competitive exchange after natural exchange (which is exchange by a free man in natural law) all our teaching of microeconomics has striven to reinstate the discipline as a moral science. In the second part of our article we will continue with the aim of transforming perfect competition microeconomics by providing it with a new foundation stone – post-liberal Ethics.
Part II. New fundamental principles of microeconomics

From the moment that perfect competition microeconomics rediscovered its Ethical base, its first steps were based upon a criterion of the greater good from which it was to evolve its concept of competitive equilibrium. Ethics no longer placed at the side of or defined separately from competitive equilibrium. Ethics or justice is no longer a story of redistribution of market equilibrium allocation but refers to the theoretical construction of markets. In short, microeconomics becomes an ethical science. By prioritising the natural law path over the utilitarian and Anglo-American one, we can develop a post-liberal competitive equilibrium model following the three strands of natural rights to freedom, equality and the natural duty of altruity. However, we differentiate it from the liberal model of competitive equilibrium and the egalitarian model compared to which it forms a third way with antecedents back to Proudhon's concept of mutualism. In other words, we propose a more pragmatic approach of altruity by considering the risk where rational duty becomes a gamble.

*Pure theory of post-liberal competitive equilibrium*

The Ethics of natural law are universalist in that their overriding principle of the greater good, the right to freedom, is valid whichever human society is under consideration. Furthermore, in the natural law tradition, the right to freedom is valued higher than any society: A.R. Turgot [1970, p.77-78] writes very clearly: 'Citizens have rights, rights that are sacred for the body of society itself; they exist independent of such society; they are elements necessary to that society and only take part in it, with all their rights, to put themselves under the protection of these same to guarantee their property and their freedom. But private bodies do not exist in any way by themselves, nor for themselves; they have been formed for society. 'This principle led A.R Turgot to picture the value in trade from the situation of the isolated individual who makes his "first trade" with nature. A realist reading of the theory of value, i.e. one lacking an Ethical dimension, denounces the dream world of economists and indicts them for lack of realism. In fact, this criticism is an illusion shared by many economists who, although behaving subconsciously in an Ethical way, consider the perfect competition model to be an abstraction of reality similar to the frictionless models in theoretical physics. This is to ignore the fact that the isolated individual is a social construct where social ties between individuals
are seen in the primary and socialised mode of their separation. E. Levinas [1984] in his thesis *Totalité et infini’* (Totality and Infinity) put forward a challenge to the separation of the individual - that of raising a barrier against totality to the extent where separation produced the other as infinitely other, preventing the other becoming the subject of a totalist reduction to sameness. The isolated individual is the individual separated from the other and so already has a relationship with the other. If we return to Turgot, we soon find that his isolated individual lives at one end of an island where at the opposite end we discover another isolated individual. This separation is the first institution. Our approach to institutions is thus different from that put forward by M. Aoki [2001] where individuals precede the first institution and are its founders. In our view, the important factor is the linkage between the institution and the relationships between individuals.

In order to highlight the separation preceding competitive exchange we will put forward a model with two individuals – indexed $i = 1, 2$ - whose most important link is their separation: each is separated from the other. In this situation, each undertakes a natural exchange where in exchange for their work, where $L^i$ is the length of time taken for work by the individual $i$ he buys the goods he requires. The natural exchange is a stage setting for autonomy where each individual is presumed to have (acquired) enough rationality to be free to exercise authority over himself as an equal of others. Such autonomy defines man as modern where freedom, reason and equality overlap. In a way, liberal Ethics stops at this point. Post-liberal Ethics adds to this autonomy the rational duty to commit to acting for the freedom of others. On the basis of the starting position of each individual, a calculation of altruity can be made which should make the positive rational duty of the one equal to the negative rational duty of the other. We can now model the starting point of each individual separate from the other.

Each individual has preferences for the two goods in the economy – indexed $h = 1, 2$ - which are represented by their utility function, $U^i(x^i_h, x^i_h)$ where $x^i_h$ represents the quantity of the good consumed $h$ by the individual $i$. On the other side, each individual produces goods that he demands from his production model represented by the three following equations:
(1) \( y_i^1 = f_i^1(L_i^1, T^{Ai}) \)
(2) \( y_2^1 = f_2^1(L_2^1, T^{Ai}) \)
(3) \( \overline{L} = L_i^1 + L_i^2 \)

where \( y_h^i \) is the quantity of the good produced \( h \) by the individual \( i \), \( L_h^i \) the length of work time spent by individual \( i \) in producing the good \( h \) and \( \overline{L} \) the individual's total work time \( i \).

Lastly, \( T^{Ai} \) is a factor representing the productivity of the agricultural land on which the individual \( i \) works.

To make our argument less abstract, we will take two separate individuals with the same preferences but not the same production model. Individual 1 will have a relative work productivity twice as high for the production of good 1 whereas for individual 2 it will be the opposite way around.

Model of individual 1's behaviour

\[
\text{Max} U^1 = x_1^1 x_2^1 \\
\text{s.c.} y_1^1 = T^{A1} 2L_1^1 \\
\text{s.c.} y_2^1 = T^{A1} L_2^1 \\
\text{s.c.} \overline{L} = L_1^1 + L_2^1
\]

Model of individual 2's behaviour

\[
\text{Max} U^2 = x_1^2 x_2^2 \\
\text{s.c.} y_1^2 = T^{A2} L_2^1 \\
\text{s.c.} y_2^2 = T^{A2} 2L_1^2 \\
\text{s.c.} \overline{L} = L_1^2 + L_2^2
\]

Giving the parameters the following values: \( \overline{L}^1 = \overline{L}^2 = 6 ; T^{A1} = 1 ; T^{A2} = 2 \), we arrive at the following equilibrium of consumption allocation for each individual in a situation of natural exchange:

Individual 1: \( x_1^1* = 6 \) and \( x_2^1* = 3 \)
Individual 2: \( x_1^2* = 6 \) and \( x_2^2* = 12 \)

That individual 1 consumes twice as much of good 1 than of good 2 and individual 2 twice as much of good 2 as good 1 is linked to the preferences and individual talents of the two individuals. However, the difference in the levels of consumption (and thus wealth in real terms) comes only from the fact that individual 1 inhabits the side of the island where the land is half as productive as that situated at the other end of the island; their work time is the same and their relative work productivity is exactly inverse.
The separation of individuals is a social method of encounter where it occurs between separate, autonomous individuals. In liberal Ethics, the right of property is also a natural right which if respected allows us to consider any encounter as a trading one and not, for example, an opportunity for theft. Finally, equality as a natural right requires perfect competition in the sense that its price taker hypothesis puts each individual into a position of equality. These three natural rights (freedom, property and equality) correspond to the liberal competitive equilibrium model. Post-liberal Ethics urges us to add the natural duty of altruity to this model. This introduces the idea of deliberation before any competitive exchange occurs where each individual works out his commitment to the freedom of others. The sole fact of benefitting from relatively more productive land gives more freedom to individual 2 who thus has a positive duty of altruity towards individual 1. To achieve balance, individual 1 will have a negative duty of altruity towards individual 2\(^3\). In order to calculate his duty of altruity on the basis of perfect information, each individual will recalculate his natural equilibrium as if he spent half his work time at one end of the island and half at the other. This amounts to each individual endogenising the ethical externality (negative for one, positive for the other), a concept that Ph. Kourilsky (chap. 7) refers to when he introduces the concept of otherness into economics. Deliberate commitment to the freedom of the other proceeds in two stages: the calculation by each individual of his rational duties of altruity, followed by their coordination so that the positive rational duty of the one (his supply of altruity) becomes equal to the negative rational duty of the other (his demand for altruity).

Stage 1: Individual calculation of rational duties of altruity

This calculation amounts to each individual endogenising the positive or negative ethical externality linked to the difference in productivity of agricultural land on the island. Each individual calculates his new level of wealth in goods as if he had worked half his time at each end of the island.

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\(^3\) Ph. Kourilsky [op. cit. p. 111] specifically links growth in wealth and increase in freedoms.
Model of individual 1’s behaviour

\[ \text{Max} U^1 = x_1^1 x_2^1 \]

s.c. \( y_1^1 = (T^A_1 + T^A_2) \frac{L_1^1}{2} \)

s.c. \( y_2^1 = (T^A_1 + T^A_2) \frac{L_2^1}{2} \)

s.c. \( \overline{L} = L_1^1 + L_2^1 \)

Model of individual 2’s behaviour

\[ \text{Max} U^2 = x_1^2 x_2^2 \]

s.c. \( y_1^2 = (T^A_1 + T^A_2) \frac{L_1^2}{2} \)

s.c. \( y_2^2 = (T^A_1 + T^A_2) \frac{L_2^2}{2} \)

s.c. \( \overline{L} = L_1^2 + L_2^2 \)

In the simple case under consideration, each individual's wealth in goods becomes:

Individual 1: \( x_1^{1r} = 9 \) and \( x_2^{1r} = 4.5 \)

Individual 2: \( x_1^{2r} = 4.5 \) and \( x_2^{2r} = 9 \)

Using these new levels of wealth, each individual calculates his positive or negative rational duty by the finding the difference between his initial level of wealth and his level of wealth integrating ethical externalities. The rational duty (DR) calculated by each individual for each of his goods is thus:

Individual 1:

\[ DR_1^1 = x_1^1 * - x_1^{1r} * = -3 \]

\[ DR_2^1 = x_2^1 * - x_2^{1r} * = -1.5 \]

Individual 2:

\[ DR_1^2 = x_1^2 * - x_1^{2r} * = +1.5 \]

\[ DR_2^2 = x_2^2 * - x_2^{2r} * = +3 \]

Because individual productivity is different, the rational duties of altruity are not equal. For good 1, individual 2 supplies a duty of altruity of one and a half units of the good whereas individual 1 demands a duty of altruity of three units as individual 1 is twice as productive as individual 2 in producing good 1. For good 2, individual 2 has a supply of three units of altruity whereas individual 1’s demand for altruity is only one and a half units as the latter is half as productive as individual 2 in producing good 2.
Stage 2: Coordination of the rational duties of altruity

In the second stage, we foresee an equalising procedure whereby the same percentage \( x_h^* \) is used to change the duties of altruity so that their sum totals cancel themselves out:

For good 1:
\[
DR_1^1 (1 - x_1^*) + DR_1^2 (1 + x_1^*) = 0 \quad \Rightarrow \quad x_1^* = \frac{1.5}{4.5}
\]
\( d'où : \quad DR_1^1 = DR_1^1 (1 - x_1^*) = -2 \quad et \quad DR_1^2 = DR_1^2 (1 + x_1^*) = 2 \)

For good 2:
\[
DR_2^1 (1 + x_2^*) + DR_2^2 (1 - x_2^*) = 0 \quad \Rightarrow \quad x_2^* = \frac{1.5}{4.5}
\]
\( d'où : \quad DR_2^1 = DR_2^1 (1 + x_2^*) = -2 \quad et \quad DR_2^2 = DR_2^2 (1 - x_2^*) = 2 \)

From that point on, the initial wealth in goods of each individual may be transformed through the altruity transfer mechanism into initial ethical endowments for exchange where \( \varnothing_h^i \) is the initial ethical endowment of the individual \( i \) for the good \( h \):

For individual 1:
\[
\varnothing_1^1 = x_1^* + 2 = 8 \quad et \quad \varnothing_2^1 = x_2^1 + 2 = 5
\]

For individual 2:
\[
\varnothing_1^2 = x_2^1 - 2 = 4 \quad et \quad \varnothing_2^2 = x_2^2 - 2 = 10
\]

On the basis of equity, competitive exchange between the two individuals brings both commutative justice (justice at exchange where no individual exercises power over another) and distributive justice since the initial endowments are themselves just. Unlike liberal competitive equilibrium which is structured only to deliver commutative justice, post-liberal competitive equilibrium results in both commutative justice and distributive justice. Using an
Edgeworth box, we will demonstrate the initial wealth of the two individuals, their ethical endowment for a fair exchange integrating transfers linked to the balanced duties of altruity, and the two competitive equilibria, liberal and post-liberal.

Whether based on initial wealth or on ethical endowments, competitive equilibrium results when supply and individual demand for goods are equal, as calculated at given prices: \( p_1 \) being the price of good 1, \( p_2 \) being the price of good 2 and \( p = p_1 / p_2 \) the relative price of good 1 to the quantity of good 2. Competitive equilibrium is shown by the allocation of goods for which the indifference curves of the two individuals on their budget line which has an equal slope (in absolute value terms) to the relative equilibrium price are equal. For liberal competitive equilibrium (ECL), the equilibrium price is \( p^{ECL} = 1.25 \), and the equilibrium of consumption allocation: \( x^{ECL} = (x_1^{ECL} = 4.2; x_2^{ECL} = 5.25; x_1^{2ECL} = 7.8; x_2^{2ECL} = 9.75) \). For post-liberal competitive equilibrium (ECPL), the equilibrium price is the same with \( p^{ECPL} = 1.25 \), but the equilibrium of consumption allocation is different with: \( x^{ECPL} = (x_1^{1ECPL} = 6; x_2^{1ECPL} = 7.5; x_1^{2ECPL} = 6; x_2^{2ECPL} = 7.5) \). The equilibrium price stays the same as it only depends on preferences and the scarcity of goods. The equilibrium of consumption allocations are different: liberal allocation retains unfairness from the start whereas post-liberal allocation, through duty of altruity transfer mechanism results in an egalitarian allocation which, in this particular case, is one that satisfies both distributive justice and commutative justice.

For comparison, we could put forward a third concept of justice called 'egalitarist' where individuals would no longer be seen as separate but as included within a community. In this scenario, the initial wealth produced by the two individuals would be seen as belonging to the community which would then divide them into equal portions. The egalitarian equilibrium of individuals' portions merges in our example with the post-liberal competitive equilibrium. Another way of achieving egalitarian allocation could be by state intervention in the free market: the state would intervene after the market to redistribute its yield. This is classic state intervention in welfare economics terms. By giving the same value to land productivity, but considering that individual 1 has a work time divided in half (as will be seen below), ECPL with its rational duties from that point on being zero would not be any different from ECL and both would be different from the 'egalitarist' equilibrium.
We consider that our post-liberal competitive equilibrium model recalls P.-J Proudhon’s third way at the end of his work on mutualism. According to the study by C. Ferraton [2007, p.76-84], mutualism reconciles both freedom and equality, avoiding the freedom without equality of liberal capitalism and the equality without freedom of authoritarian socialism. Thus, in his work *De la capacité politique de la classe ouvrière* (Of the Political Capacity of the Working Class) [1865], p.124], P.J. Proudhon defined an economy governed by mutualism as 'a system of stabilisation between free forces, where each is assured of enjoying the same rights subject...
to fulfilling the same duties, obtaining the same advantages in exchanging the same services (...) thus, a system intrinsically egalitarian and free.'

Applied theory of rational duties of altruity

Up to this point, we have confined ourselves to a perfect world so that we could develop a pure theory of post-liberal competitive equilibrium, assuming in particular perfect information on personal data about those individuals demanding altruity. From now on, while retaining the deliberately simple bases of our model, the individual demanding altruity may owe his lesser wealth either to the relative productivity level of his agricultural land being half or to his work time being half. In fact, for individual 1, if the land he occupies is characterised by the same productivity as that occupied by individual 2 but his length of work time is half, his initial wealth will be unchanged. Looking at individual 1: \( T^{A1} = 2 \) et \( \bar{I} = 3 \), he has the same initial wealth with \( x_1^* = 6 \) and \( x_2^* = 3 \). If individual 1 is honest, the calculation of his duty of altruity would lead him to calculate a zero demand, just as the supply of altruity by individual 2 would be zero. However, if information is not perfect in respect of individual 1 and if he is not honest, (which comes from ethics, not Ethics), then he will hide his work time being half in lower productivity from his land and demand an amount of altruity corresponding to this situation. Calculating rational duties of altruity will be performed from that point on in a framework of information asymmetry. Individual 2 is considered to form a belief about the status of individual 1 who is demanding altruity. Faced with individual 1's demand for altruity, individual 2's belief that the former has less productive land will be represented by probability \( Pa \) and his belief that individual 1 has a work time of only half will be represented by probability \( Pb = 1 - Pa \).

In this risk situation, individual 2 by supplying his duty of altruity takes the risk of being tricked if the other is a type \( b \) and, inversely, if he does not supply his duty of altruity he risks not committing to the freedom of the other should the latter be type \( a \). To assist his decision-making, we are going to endow individual 2 with a Von Neuman Morgenstern utility function \( u^2 \) which associates a level of utility to each of these risk situations. By taking \( DR^2_h = 0 \) as the zero rational duty of individual 2 for good \( h \), this VNM utility function will take on the values in the table below:
Table 1: Aversion to ethical risk

<table>
<thead>
<tr>
<th>$u^2$</th>
<th>$DR^2_h$</th>
<th>$DR^2_{h*}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$a$</td>
<td>-10</td>
<td>10</td>
</tr>
<tr>
<td>$b$</td>
<td>10</td>
<td>-5</td>
</tr>
</tbody>
</table>

These values show an equal satisfaction for individual 2 when his rational duty is adjusted. However, when his rational duty is misadjusted, he is more sensitive to his error when he makes a zero supply of altruity when the other is a type $a$ than to his error the opposite way around when he makes a supply of altruity when the other is a type $b$. In the end, individual 2 will choose to supply altruity when the expected utility of his supply is higher than the expected utility of his zero supply of altruity, i.e.:

$$Pa \times u(DR^2_{h*} / a) + Pb \times u(DR^2_{h*} / b) > Pa \times u(DR^2_{h} / a) + Pb \times u(DR^2_{h} / b) \Rightarrow Pa > \frac{3}{7}$$

Thus, if he thinks that the other has about 43% chance of being type $a$, he will respond to his demand for altruity with a supply of altruity and post-liberal competitive equilibrium will take place. If he thinks the other has more than 57% chance of being type $b$, he will choose not to respond to the other individual’s demand for altruity. And it will be liberal competitive equilibrium which takes place. In both cases, rational duty of altruity becomes a gamble. Since we are looking at things from a more practical angle, we can suggest that beliefs are a function of the social realities in which individuals live. The less social realities are common realities, the more we think beliefs have chances of being defensive projections increasing the probability that the other is indeed tricking you. The challenge for post-liberal modernity is to build common realities without the using the resources of the community. We believe this challenge can be taken up by the social economy with which we will conclude.
Conclusion

Ph. Kourilsky's work [2011] introduces altruity in economics as shown in the title of his chapter 7. Bringing the ideas of Sen and Stiglitz together, which he strongly desires to do, will require a reform of the science of economics. Our article has put forward a first way to undertake this reform in two stages. The first re-examines to the neglect of Ethics and sees perfect competition microeconomics as an ethical science. Building on this, the second part develops a post-liberal competitive equilibrium model which links freedom and equality as natural rights to altruity as a natural duty. More broadly, our way opens up the prospect of an ethical and political microeconomics whose teaching will dip into the history of thought for its inspiration and call for a pluralist view of economics.

While we do not have the space here to consider all the implications of this new prospect, we will focus on those which concern the place of social economy in a reformed economics. Just as Protestant Ethics have become a given and so an integral element of capitalism, 'altruity,' as Ph. Kourilsky [op.cit., p. 121] rather modestly remarks, 'has already made its entrance, albeit modest, on to the economic scene. The 'économie sociale et solidaire' (social and solidarity economy) is a term used in France to describe a marginal but developing economic structure.' While the social economy is absent from the microeconomics textbooks, when microeconomics becomes a truly ethical science, the social and solidarity economy will occupy the centre ground as it represents the ideal of humanist economics and restores post-liberal competitive equilibrium. From its pragmatic viewpoint, ethical and political microeconomics will then start with the description of realities and those which will show altruity as a functional capability will be brought to the forefront. We are thinking, for example, of health mutuals, cooperatives, fair trade entities or, more so, work integration social enterprises. This last example leads us to conclude by a reference to A.R. Turgot which reveals how far back initiatives such as IAE (insertion par l'activité économique - work integration social enterprises) go. In his article for the Fondations encyclopaedia, A.R. Turgot [1970, p. 77] mentions an exception to the free market - the 'free association': 'I refer in particular to the town of Bayeux where the inhabitants have freely subscribed together to banish begging from their town and they have succeeded by providing work to all those beggars capable of work and alms to those who are not.' These practices, from yesterday and today, are without doubt not unconnected with the Ethics that Turgot referred to in the preamble to his 1776 edict to vindicate the suppression of guilds: 'God, in giving Man needs
and making it necessary for him to work, has made the right of work the property of every
man; and this property is the highest, the most sacred and inalienable of all.' [from Sewell,
1983, p.183]. The preamble to the 1946 French constitution reaffirms the universal right to a
job and the duty to work. Altruity makes the commitment of freedom for those deprived of the
practical ability to work a rational duty at the individual level that we have prioritised here,
but also at the collective level on both small and large scales.

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