UNIVERSITY OF OXFORD

Discussion Papers in Economic and Social History

Number 49, January 2003

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ALEXANDRE DEBS

University of Oxford

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THE SOURCE OF WALRAS'S IDEALIST BIAS: A REVIEW OF KOPPL'S SOLUTION TO THE WALRAS PARADOX[1]

ALEXANDRE DEBS

(Jesus College, Oxford)

[1] I would like to thank Paul David, Avner Offer, Jean-Pierre Potier and Elena Tatti for helpful comments. Any remaining mistake or omission is entirely mine. I would like to thank the FCAR fund of the Government of Québec, the Rhodes Trust and Jesus College, Oxford for financial support in the completion of this project.

Abstract

In the last decade, with the publication of his Complete Works, there has been renewed interest in Walras's methodology, mostly in the French economic literature. In particular, some scholars have argued that Walras characteristically confused positive and normative statements, a mistake all the more surprising given his impressive knowledge of philosophy (the so-called 'Walras paradox'). This paper reviews these recent studies and, in particular, it contests the solution to the Walras paradox offered by R. Koppl. For Koppl, the paradox is explained by the fact that Walras was influenced by philosophers who did not distinguish between positive and normative statements. More precisely, the French philosopher E. Vacherot inspired him to an idealist theory of knowledge, where preconceived notions of justice could be defended as truths. This paper contests such a conclusion: Vacherot's theory of science was not idealist and did not sanction a confusion of positive and normative statements. The Walras paradox could even be non-existent after all.

1. Introduction

Léon Walras, one of the founding fathers of the Marginalist Revolution, left a lasting mark on the field of economics, more particularly in economic theory. J. A. Schumpeter, the famous Austrian economist, even asserted, in his *History of Economic Analysis*, that 'so far as pure theory is concerned, Walras is in my opinion the greatest of all economists'. While lauding the French economist for his contributions to pure theory, Schumpeter looked down on his 'questionable philosophies about social justice'.[2] For W. Jaffé, who unearthed Walras's correspondence, overlooking Walras's essays on social justice actually perverts our interpretation of Walras's pure theory, because his conception of justice heavily influenced his search for pure truth.[3] This position, based on a careful study of primary sources, has gained some ground among Walras scholars, but it has not reached unanimous support. D. A. Walker opposes most forcefully Jaffé's position, by insisting that Walras's 'pure science' was concerned with discovering truths about the world independently of any bias for social justice.[4]

The debate on the Walras paradox (of an alleged confusion between positive and normative statements, i.e. statements which relate to, respectively, *what is* and to *what ought to be*) naturally diverges on the character of Walras's theory of knowledge. Is it a bland empiricism, which considers that all knowledge comes from experience, thus solely concerned with positive interpretations, or is it an insidious idealism, which believes that some knowledge can be achieved independently of experience, thus sanctioning the scientist to 'impose' as truths about the world some preconceived bias? The consensus now appears to lie in an idealist interpretation of Walras's theory of knowledge, with Walker's position being isolated.[5] More particularly, this bias is taken to be found in the writ-

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[2] Schumpeter, J. A., *History of economic analysis* (New York, 1994), p. 827.

[3] See Jaffé, 'The normative bias of the Walrasian model: Walras versus Gossen', in *Quarterly Journal of Economics*, 91, 3 (1977), pp. 371–87.

[4] See Walker, D. A., 'Is Walras' theory of general equilibrium a normative scheme?', History of Political Economy, 16, 3 (1984), pp. 445–69 and 'Les idées de Léon Walras sur la Nature Humaine', in *L'économie walrasienne*, Actes du colloque de l'association internationale Walras, les cahiers du CERAS, hors série no. 1, pp. 99-115.

[5] For example, see Dockès, P. 'Ce qui est, ce qui devrait être, ce qui sera: Walras's economics as he saw it', in *Revue européenne des sciences sociales*, t. XXXVII, 116 (1999), pp.13–36 ; Lendjel, E., 'Le "biais empiriste" dans l'interprétation de Walker du tâtonnement walrasien', in *Economies et Sociétés, Cahiers de l'ISMEA*, Série "Histoire de la pensée économique", PE, n. 26, t.XXXI, 10 (1997), pp. 47–84 ; Tatti, E. '"Être" et "devoir être" chez Léon Walras', in P. Dockès, L.Frobert, G.Klotz, J.-P. Potier & A. Tiran, *Les traditions éco-*

ings of Etienne Vacherot, a philosopher of the time who greatly inspired Walras.[6] Vacherot's work is placed more broadly in a particular philosophical tradition, which D.G. Charlton describes as the 'secular religions', distinctive in their celebration of reason, the 'metaphysical faculty' which would both reveal absolute truth and the desired social order.[7] From this, a solution to the Walras paradox has been offered. For R. Koppl, the paradox is only apparent, since Walras was influenced by a special intellectual environment, 'taking for granted an epistemology and metaphysics implying that all of theory – science, art and ethics – had a kind of normative character'.[8]

Koppl's approach to the problem is very interesting, since it insists on repositioning Walras's work within its intellectual context. This essay follows Koppl's suggestion in tackling the question of the Walras paradox. First, it supports the claim that Walras's intellectual context was indeed characterised by a confusion between positive and normative statements, even within the field of political economy. However, based on a detailed review of the Vacherotian theory of scientific knowledge, it contests the particular chain of influence offered by Koppl, and supported by current interpretations of Walras's methodology. The Vacherotian theory of scientific knowledge, in fact, was not 'idealist'. It was very similar to that of a champion of empiricism, John Locke. The seeds of Walras's normative bias, if any, must be found elsewhere. And, in fact, it is not so clear that the bias exists after all. Walras was aware of the distinction between positive and normative statements and reacted against his environment to conduct his search for pure truth independently from considerations of social justice.

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nomiques françaises – 1848–1939 (Paris, 2000), pp. 417–28 and *La méthode de l'économie pure selon Walras: Une analyse de ses fondements gnoséologiques*, Master's Thesis no.122, cahiers de recherches économiques, Deep, École des HEC, Université de Lausanne (2000).

[6] Walras admits: 'I admire him [Vacherot] infinitely; it is in this work [*La Métaphysique et la Science*] that I initiated my philosophical studies.' Walras to R.F.A. Sully Prudhomme, 3 January 1898, in Jaffé, W., *Correspondence of Léon Walras and Related Papers*, (Amsterdam, 1965), vol. 3, p. 2. See also Walras' reading notes on Vacherot: *Notes sur la Métaphysique et la science d'Étienne Vacherot* (1859–1861), in Fonds Walras of the 'Bibliothèque cantonale et universitaire de l'Université de Lausanne' (former call number FW IS 1927, Vb 19, Cartons divers II vis; new call number FW IS 1927, V/16/20)

[7] Charlton, D.G., *Secular Religions in France, 1815–1870* (London, 1963), pp. 96–125.

[8] Koppl, R., 'The Walras Paradox', in *Eastern economic journal*, 21, 1 (1995), p. 47.

2. Intellectual context

First, it is sensible to argue that French philosophy in the mid-nineteenth century confused positive and normative claims in their characteristic celebration of the faculty of reason. After the turbulent times of the revolution and under the watchful eye of the reinstated Monarchy, French philosophy claimed to fulfil the mission of defending the status quo, 'of reconciling the traditions of the past with the needs of the present, and of showing civilisation the dangers that menaced it'.[9] Victor Cousin, the leading philosopher of the time, who propagated his ideas through his influence over the education system, considered that the primary aim of philosophy was to reform men, with the same faculty, reason, used to reveal absolute truth as well as to provide a guide for action.[10] The same conclusion applies to Theodore Jouffroy, another prominent philosopher of the time. Jouffroy reduced 'all of philosophy' to the question of human fate, in such a way as to confound positive and normative concerns.[11] Indeed, Jouffroy insists that man's natural constitution must naturally lead to the fulfilment of his fate, his 'good', a necessarily desirable outcome intended by a benevolent God. Again, this 'good' is revealed to man by the faculty of reason.[12]

This attitude appears to have filtered through to the field of economics. At the time, political economy was dominated by the 'liberal' school, which preached freedom of trade and the defence of private property. The two most prominent figures of the liberals were J.-B. Say and F. Bastiat. Although their methodology differed, they both defended a 'proper' scientific practice which

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9 Zeldin, T., *France 1848–1945, Volume Two: Intellect, Taste and Anxiety* (Oxford, 1977), p. 209

10 'Ma philosophie n'est pas une ouvrière de science, c'est un instrument de morale. Son but n'est pas de découvrir le vrai, quel qu'il soit, mais de faire des honnêtes gens, quoi qu'il en coûte. « Son caractère est de subordonner les sens à l'esprit, et de tendre, par tous les moyens que la raison avoue, à élever et à agrandir l'homme. »'. quoted in Taine, H., *Les philosophes classiques du XIXe siècle en France*, 9th edition (Paris, 1905), p. 144. See also Gerbod, P., *La condition universitaire en France*, 1st ed. (Paris, 1965), pp. 74–75; and Charlton, p. 101.

11 see Taine, *op.cit.,* p. 207.

12 '[S]i chaque être a une fin qui lui est propre, chaque être a dû recevoir une organisation adaptée à cette fin, et qui le rendît propre à l'atteindre: il y aurait contradiction à ce qu'une fin fût imposée à un être, si sa nature ne contenait le moyen de la réaliser.' From Jouffroy, T., *Cours de droit naturel*, 29e leçon, p. 118, quoted in Taine, *op.cit.,* p. 266; see also Taine, *op.cit.,* p. 279.

imposed their normative bias on the search for truth.[13] For one, Say presents himself as the champion of the 'experimental method', heavily anchored in reality:

> We must not ask political economy to provide an account of what happens in a better world, as much as we must not ask physiology about the functioning of digestion in the stomach of angels.[14]

But Say's plea for scientific rigour is debatable. For the English economist J. E. Cairnes, Say confounds the study of the distribution of justice with the 'wholly different questions' of the justification of current social institutions.[15] It is part of the scientist's work to inquire the impact of given social reforms, even if they have not been enacted yet. If questions of social justice are discarded in Say's methodology, in Bastiat's work, on the contrary, they take the forefront and submerge any question of 'pure science'. Bastiat indeed develops a doctrine of natural rights concluding the necessary harmony between 'what is' and 'what ought to be'.[16] Exchanges naturally take place at their just value, and social order is determined by a godly design. This truth, Bastiat asserts, is only apprehended by the faculty of reason.[17]

Why should it be different for Walras? For Cairnes, who criticised both Say and Bastiat for confusing positive and normative statements, even opponents of Bastiat, who disagreed on particular policy issues, followed the same methodol-

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[13] J.-B. Say was the leader of the *utilitarians*, who considered man as an 'homo economicus', exclusively pursuing his personal interest, whereas F. Bastiat was head of the 'moralists', treating man as an 'homo ethicus', solely concerned with seeking moral virtue.

[14] Say, J.-B., *Cours complet d'économie politique pratique*, second edition, (Paris, 1840), vol. 1, p. 49.

[15] Cairnes, J. E., *The Character and Logical Method of Political Economy*, second edition, (London, 1875), p. 13.

[16] His biographer, M. de Fontenay, asserts that the aim of Bastiat's scientific endeavour was to prove this harmony (see Cairnes, J. E., *Essays in Political Economy, theoretical and applied*, (London, 1873), p. 318).

[17] 'Tout d'abord, F.Bastiat pense que le monde est ordonnancé par une providence divine selon des principes immuables, favorables au bien-être des individus. La société ne doit pas tenter de dépasser la nature en prenant le dessus sur ces principes mais simplement se fondre dans « l'organisation naturelle » (Bastiat, F., *Harmonies économiques* (second edition, Paris, 1851), p. 20) […] Chaque individu possède des capacités cognitives assez puissantes et les idées assez claires pour découvrir la volonté divine imprimée dans la nature: la raison consciente représente le seul intermédiaire entre Dieu et les Hommes' (Solal, P. and A. Zouache, 'Ordre naturel, raison et catallactique: l'approche de F.Bastiat', in P. Dockès, L. Frobert, G. Klotz, J.-P. Potier & A. Tiran, *Les traditions économiques françaises – 1848-1939* (Paris, 2000), p. 542).

ogy, by basing their science upon a doctrine of natural rights.[18] Walras was certainly well acquainted with the philosophical references of the time.[19] Like Jouffroy, he addressed the question of human fate, and much like the philosopher, he confused its positive and normative interpretations. On the one hand, Walras uses the expression 'human fate' to describe the motivating principles of man, either the 'pursuit of well-being and creation of wealth' or the search for moral virtue. On the other hand, Walras considers human fate as the *realisation* of given social conditions and individual positions.[20] And the two interpretations are connected. Walras develops his own doctrine of natural rights, which concludes the necessary harmony of 'what is' and 'what ought to be'. Mankind is naturally in possession of the principles leading to the realisation of the necessarily just Ideal.[21] And this Ideal, Walras contends, is revealed to man by the faculty of reason.[22]

For Koppl, the confusion between positive and normative statements perverts Walras's whole scientific endeavour, which is yearning for an Ideal. In this, Walras follows closely the scheme detailed by another prominent philosopher of the time, Etienne Vacherot. Following Charlton, Koppl distinguishes between a 'positive' and an 'ideal' metaphysics in Vacherot's work; positive metaphysics '"studies reality" whereas ideal metaphysics "studies the ideal or the perfect, an abstraction created by man by means of extrapolation from the imperfect".[23] For Koppl, Walras's science, studying the realm of the perfect, the

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[18] Cairnes, *op.cit.,* p. 320.

[19] Walras quotes Cousin on some occasions (Walras, *Études d'économie politique appliquée: Théorie de la production de la richesse sociale (EEPA)*, in P. Dockès, P.-H. Goutte, C. Hébert, C. Mouchot, J.-P. Potier and J.-M. Servet (eds.), *Œuvres Economiques complètes*, vol. 10 (Paris, 1992), p. 413; *Cours*, in P. Dockès, P.-H. Goutte, C. Hébert, C. Mouchot, J.-P. Potier and J.-M. Servet (eds.), *Œuvres Economiques complètes*, vol. 12 (Paris, 1996), p. 122). He quotes Jouffroy in his essay 'Philosophie de l'art', 'referring to the theme of fate' (Tatti, E., '"Être" et "devoir être"…', pp. 422–23).

[20] Walras, L., *Études d'économie sociale: Théorie de la répartition de la richesse sociale (EES)*, in P. Dockès, P.-H. Goutte, C. Hébert, C. Mouchot, J.-P. Potier and J.-M. Servet (eds.), *Œuvres Economiques complètes*, vol. 9 (Paris, 1990), pp. 133–34.

[21] In contrast, Walras argues that an individual man can escape the fulfilment of his fate. This is somewhat problematic, for Walras states, in the same series of lectures, that a moral man has no choice but to act morally (*ibid.,* p. 104). It appears that Walras is simply pushing back one step the question when he asserts that man is free to 'desert' the accomplishment of his fate. Man is free not to fulfil his fate, yes, but a moral man necessarily acts morally.

[22] *Ibid.,* pp. 146-47.

[23] Koppl, *op.cit.,* p. 48.

absolute, corresponds to Vacherot's 'ideal metaphysics': 'From Walras's description of theory and science, it seems that he conceived of political economy as a branch of ideal metaphysics, but without the added flourish of deification.'[24]

This position appears very sensible, but would need to be complemented by a detailed review of Vacherot's theory of knowledge. How exactly is the 'ideal' extrapolated from the 'imperfect'? What exactly is the role of reason in science, this faculty which, in the case of Cousin and Jouffroy, is responsible for a confusion between positive and normative statements? Naturally, the debate on the normative bias of Walras's methodology requires an extensive review of his theory of knowledge, whether it is best described as empiricist (claiming that all knowledge comes from experience) or idealist (claiming that reason can achieve knowledge independently of experience).

3. The Vacherotian theory of knowledge

Luckily, Walras has written extensively on questions of method. And it appears that Koppl's position is actually strengthened by these essays, which picture Walras as an idealist, detaching science from experience and sanctioning the free intervention of reason.

In his *Éléments d'économie politique pure*, Walras expounds the proper methodology for the search of pure truth. In this passage, Walras rejects the 'experimental' method ('restricted to a pure and simple description') for the 'rational' method (which 'transcend[s] the bounds of experience'). He suggests that 'the pure theory of economics ought to take over from experience certain type concepts […] from these real-type concepts the pure science of economics should then abstract and define ideal-type concepts in terms of which it carries its reasoning.' Then, 'the return to reality should not take place until the science is completed and then only with a view to practical applications', for such sciences are expressly said to 'go back to experience not to confirm but to apply their conclusions'.[25] From this passage, Walras scholars have concluded that the positive interpretation of Walras's pure science is really a secondary concern. For D. Pokorny, Walras acts as a stubborn dogmatist who builds his science 'as a wholy [sic] deductive system whose assumptions need not be true and whose

[24] *Ibid.*

[25] Walras, L., *Léon Walras' Elements of pure economics or The theory of social wealth*, transl. by W. Jaffé (Homewood, Ill., 1954), pp. 71–72.

propositions do not have to be confirmed by data before being applied'.[26] For J. Lallement, Walras's 'conditional description of a fictive state evicts any positive interpretation'.[27] The variables of science, Walras's ideal types, need not emerge naturally from a careful observation of the world. For E. Tatti, they are not obtained by induction.[28] For P. Dockès, they are the result of a synthesis *a priori.*[29] And the seeds of this idealist bias is claimed to be found in the Vacherotian theory of knowledge, to which Walras openly admits being indebted.[30]

The matter is thus taken to be settled, and passages of Vacherot's work are quoted as the obvious source of Walras's idealist bias. Yet this standard interpretation of the Vacherotian theory of knowledge is contestable. In fact, it is quite sensible to liken it to a particular empiricist account, that of John Locke. Let us expand on this idea.

For Vacherot, three faculties of the mind (which he calls *imagination, understanding* and *reason*) are involved in the formulation of all claims of knowledge, whether they be metaphysical or scientific. First, imagination perceives the sensory inputs from the external world and creates a perception. Perceptions, Vacherot explains, cannot be named and defined and thus cannot be used directly in claims of knowledge. To support communication of knowledge, the second faculty of the mind, understanding, transforms these perceptions into notions (or types), either concrete (relating to a particular body) or abstract (relating to a class of bodies).[31] These notions possess an ideal character: for

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[26] Pokorny, D., 'Smith and Walras: Two theories of science', in *Canadian Journal of Economics and Political Science*, 11, 3 (1978), p. 391.

[27] Lallement, J., 'L'économie pure de Walras est-elle normative?' in Hubert Brochier et al., *L'économie normative* (Paris, 1997), p. 79.

[28] Tatti, '"Être" et "devoir être"…', p. 419.

[29] Dockès, 'Ce qui est, ce qui devrait être…', p. 19.

[30] Walras' theory of knowledge is presented in one of his early writings, the *Théorie générale de la société* (Walras, *EES,* pp. 25–173), which borrows extensively from Étienne Vacherot's *La métaphysique et la science*. Tatti insists that the Vacherotian theory of knowledge is adopted by Walras and proceeds to establish the idealist bias in Walras' methodology from a direct comparison with Vacherot. (Tatti, *La méthode*…, pp. 17ff; Tatti, '"Être" et "devoir être"…'). Dockès also establishes parallels between Walras' theory of knowledge and that of Vacherot, concluding that Walras' idealist bias is contained in the writings of the French philosopher (although he concedes that their position might differ). (Dockès, 'Ce qui est, ce qui devrait être…', pp. 18–20).

[31] Vacherot, E., *La métaphysique et la science ou principes de métaphysique positive* (Paris, 1858), vol. 1, p. 363.

Vacherot, it is essential that the constituent elements of scientific laws correspond exactly to their definitions.[32] Finally, a third faculty, reason, creates the conception, which does not apply to any singular object or class, but rather to the Whole, to the infinite Universe, always in evolution.[33] This theory of knowledge is intended by Vacherot as a 'conciliation' of the conflicting methods of empiricism and idealism. In that context, what are its distinctively 'non-empiricist' features, and do they support a non-empiricist interpretation of his theory of science?

First, Vacherot's treatment of the role of reason is distinctly 'non-empiricist', as it is said to create conceptions which cannot be grasped in their entirety in any empirical realisation. But what role does reason play in his theory of knowledge? In fact, it appears totally void, since it is used to support metaphysical claims, a different order of speculations.[34] 'S*cientific* knowledge', Vacherot insists, 'is based on perceptions' and 'composed of notions'.[35] This is all very sensible. Indeed, how could a 'perfect triangle' in geometry correspond to the 'Whole' or 'infinite totality of the Universe', which is 'in becoming' and does not refer to any particular class of objects?

Then, if reason does not play any role in the construction of scientific laws, the non-empiricist flavour of Vacherot's theory of scientific knowledge must rest in the account of the construction of the notions of understanding, Vacherot's alleged variables of science. In fact, Vacherot's own claim of originality compared to the empiricist (and John Locke) is based on the treatment of notions. First, Vacherot states that notions are not simply words but ideas of the mind, thereby insisting that they are irreducible to experience. Second, he asserts that notions are not necessarily general (there is such a thing as a 'concrete notion') and can be formed without the intervention of induction: 'Yet it is the case that the mind conceives geometrical figures *a priori*, that is, without any comparison and induction, it distinguishes immediately, upon the first occurrence, the type, the idea which serves as a principle of definition as well as a measure of perfection.'[36] This passage is often quoted by Walras scholars as the

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[32] *Ibid.,* vol. 1, p. 364.

[33] *Ibid.*, vol. 2, p. 64.

[34] 'Toute science tire ses principes de l'expérience […] La seule part à faire à la raison pure (je ne dis pas à la logique), c'est ce petit nombre de conceptions métaphysiques sur l'Être, l'Infini, l'Absolu, l'Universel, qui fait l'objet propre de la métaphysique' (*ibid.*, vol. 2, pp. 598–99).

[35] *Ibid.,* vol. 2, p. 41; italics in the text.

[36] *Ibid.,* vol. 1, pp. 365, 378.

conclusive proof that the Vacherotian theory is distinctly non-empiricist, since it suggests that the empiricist claim that all knowledge comes from experience is relinquished.[37]

Yet it appears that Vacherot's theory of scientific knowledge, admittedly a mixture of empiricism and idealism, is not too far from an empiricist account. In the tenth *entretien*, Vacherot is simply silent on the creation of particular ideas (or concrete notions) when he asserts that the notion, intended to serve as a variable in scientific laws, is obtained through the process of abstraction, which 'generalises' and 'extends to a whole class' the perception… with the help of induction!

> Thus experience has discovered that this body enjoys that property: here is a simple perception, whose object is a real property, but limited to a single individual or a small number. For this perception to become a notion, one needs the intervention of induction, which always proceeds by elimination, i.e. by abstraction.[38]

How could Vacherot consistently deny any role for induction in the identification of the type (in the ninth *entretien*) and subsequently insist on its importance (in the tenth *entretien*)? Is Vacherot contradicting himself? Not necessarily. In fact, Vacherot's position appears to be that, from a first encounter, the mind can immediately 'arrive at' the idea of a concrete type in its specificity, but that an acute sense of the abstract type, of the general class in which this body belongs, is only attained with the help of induction. Indeed, in the ninth *entretien*, after Vacherot asserts that the mind conceives geometrical figures *a priori,* without any comparison or induction, he continues: 'The proof that this type is not the product of abstraction is that it is the *condition* of abstraction.'[39] Thus, the type immediately 'arrived at' would allow the development of an abstract type, which captures the properties of a class. And it appears that the content of these ideas is fully borrowed from observation. Vacherot indeed insists that the 'material' of knowledge is taken completely from experience.[40] He explicitly rejects the alternatives proposed by idealists, the *a priori* synthesis, by which the mind can accumulate knowledge about the world without any input

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[37] For example, Tatti asserts: 'Le côté anti-empiriste de la synthèse de Vacherot (et de Walras) se manifeste ensuite clairement dans l'affirmation selon laquelle dans la notion il y a quelque chose de plus que dans la perception.' (Tatti, *La méthode…*, p. 22).

[38] Vacherot, *op.cit.,* vol. 2, p. 40.

[39] *Ibid..,* vol. 1, p. 365; emphasis added.

[40] *Ibid.,* vol. 1, p. xxiv.

from experience, and ridicules the 'absurd hypothesis of innate ideas'.[41] Actually, the dimension of Vacherot's abstract notions which is irreducible to experience is its form, not in any way its content.[42] But that is not typically anti-empiricist and in fact does not seem much different from the position of John Locke, a champion of empiricism.

John Locke indeed believes that the variables of science are not simply a 'labour of words', but actually perfect notions of the mind, which correspond exactly to the definitions of scientific laws.[43] Contrary to Vacherot's accusation, he does not eschew the possibility of forming ideas of particular bodies, he simply rejects ascribing a name to every individual member of a class, a proposition which Vacherot would indeed agree with.[44] And the formation of these notions seems to correspond to the mechanism outlined by Vacherot. Locke indeed holds that 'ideas, taken from particular beings, become general representatives of all of the same kind' through the process of 'abstraction'.[45] This process of abstraction proceeds in a similar way as that of Vacherot. According to R. S. Woolhouse, a Locke scholar, the English philosopher assumes our ability 'to identify and re-identify individuals which we later see to be instances of a certain sort *before* we have the abstract idea of that sort, i.e. before we are able to re-identify them *as* the same instances of that sort'.[46]

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[41] *Ibid.,* vol. 1, pp. 394–452; vol. 2, p. 243.

[42] 'Elle [L'expérience] ne fournit que la *matière*, pour parler le langage de Kant; c'est l'entendement qui imprime la *forme*' (*ibid.*, vol. 1, p. 378).

[43] Vacherot's accusation is found in *La métaphysique*…, vol. 2, p. 50. It is well known that, for Locke, scientific variables are not simply words. His position, called 'conceptualism', as opposed to 'nominalism', is criticised by Berkeley. For a quick overview of the question, see Loux, M. J., 'Nominalism', in E. Craig, *Routledge Encyclopedia of Philosophy* (London, 1998), pp. 20–21.

[44] Locke, J., *An essay concerning human understanding*, ed. J. Dunn, Past Masters Series (Oxford, 1984), Bk. 3, ch. 3, sec. 2. For example, Vacherot treats this stone as a concrete notion of (the abstract notion of) a stone (Vacherot, *op.cit.,* vol. 1, p. 378).

[45] Locke, *op.cit ,* Bk. 2, ch. 11, sec. 9.

[46] Woolhouse, R. S., *Locke's philosophy of science and knowledge: A consideration of some aspects of* An essay concerning human understanding (Oxford, 1971), p.106.

4. Back to Koppl

We have thus established that a consistent account of the Vacherotian theory of scientific knowledge is significantly close to an empiricist model. Reason, the faculty responsible for a confusion between positive and normative statements in the 'secular religions', has no role to play in scientific statements. Variables of science are obtained through induction and their only dimension which is not reducible to experience is their form, not in any way their content.

How does this new reading of the Vacherotian theory of scientific knowledge fit with Walras's own methodological statements of the *EEPP*? In Vacherot, the method proceeds in two steps: experience provides certain type concepts; and the mind obtains through abstraction the variables of scientific statements. Similarly for Walras, the mind first obtains real-type concepts and then abstracts from these some ideal-type concepts. Note, first, that the third step, that of creating a conception with the use of reason, is missing. Variables of science are constructed by the faculty of understanding.[47] Walras indeed states that real types are provided by experience, and that ideal types are defined by the faculty of understanding: 'there is no acceptable ideal type, in the social science as well as in pure geometry, except those that are unveiled by understanding from the real types supplied by experience'.[48] Thus, it cannot be argued that reason, which was responsible for normative biases in the philosophy of Cousin and Jouffroy, perverts Walras's pure science: its role is void in scientific speculations.

Yet there still appears to be an 'idealist' bias in Walras's methodology. If it is not from the intervention of 'reason', it is from the fact that Walras's variables of science are indeed 'ideal' and contain an element irreducible to experience. Does Walras's method differ from that of Vacherot? Walras was certainly aware of Vacherot's position that abstract notions are updated with induction. He had read thoroughly the *Métaphysique*, copied the relevant passage in his reading notes and described in a similar way the passage from a (particular) perception to a (general) notion in his *Cours*.[49] His terminology, distinguishing between 'real' and 'ideal' types (instead of 'concrete' and 'abstract' types), is indeed unfortunate and a source of great confusion. For Vacherot, all types, being perfect, are by definition ideal: 'Who says type says perfection. But it is of the

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[47] Indeed, Walras rejects Cousin's theory of knowledge, which insists that truth is only attained with the intervention of reason (Walras, *Cours*, p.122).

[48] Walras, *EES,* p.16.

[49] Walras, *Notes*, 4th page; *Cours*, p.134.

essence of perfection to be ideal, i.e. to exist only in the mind, as a pure thought.'[50] It is thus impossible to speak of 'real types'. However, Walras's 'mistake' appears to be a mild one. Vacherot himself says that 'the objective reality of ideas is in inverse relation with their degree of abstraction'[51] Thus, concrete types, relating to a particular body, are 'more real' than abstract types, referring to a general class.

The equivalence in terms seems relatively solid, but it could indeed be disputed. In fact, most Walras scholars would contest that ideal types are obtained through induction (except A. Berthoud, who is taken to defend that position).[52] If Dockès concedes that Walras is an empiricist in his construction of the 'real types', he argues that ideal types are constructed from a synthesis *a priori*, which adds to the content of observation to achieve knowledge.[53] For Lallement, the process of abstraction, which produces the ideal types, does not proceed by induction, but rather eliminates the 'accidental' properties of a being to reach its essence.[54] It does indeed appear difficult to conclude that Walras's 'ideal types' are obtained through induction. His references to induction are few and almost absent in his later writings, and some passages fit the model set by Vacherot only with difficulty. For example, Walras states that

> a man, having seen a first stone, and even before seeing a second one, knows immediately, completely and definitely, what is a stone, in that he has in his mind the concrete of this stone and the abstract notion of stone, he can name and define the stone, he can base his reasonings and judgments on the idea of stone'.[55]

So it appears that the mind directly arrives at the abstract notion from the first instance. However, although Walras states that this definition of the abstract notion is 'complete' and 'definitive', his treatment implies that this definition is subject to an update from experience. Walras mentions the example of a child who, knowing the church of his village, would name all buildings of Paris 'the mass'.[56] Walras argues that the child has a clear notion of 'monument' from the first encounter of a church, but it is obvious that the child confuses the particular and the general properties of the 'monument' he observes. There is thus a

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[50] Vacherot, *op.cit.,* vol. 2, p. 32.
[51] *Ibid.*, vol. 2, p. 34.
[52] Lallement, *op.cit.,* p. 81.
[53] Dockès, 'Ce qui est, ce qui devrait être…', pp. 14–16, 19–20.
[54] Lallement, *op.cit.,* p. 81.
[55] Walras, *EES,* p. 99.
[56] *Ibid.*

difference, not in kind but in degrees, between the knowledge of the child and that of an experienced observer.[57] This seems to imply that, if a general notion can be apprehended from the first instance, it can be updated, and the correct interpretation can be arrived at after a long and laborious synthesis: 'The perceptions of imagination being treated by understanding thus become notions, first concrete, then abstract'.[58] This does not appear as a significant departure from our account of Vacherot's theory.

And if the correspondence between Vacherot's concrete/abstract notions and Walras's real/ideal types is granted, this highlights another point: the discussion of the 'ideal' and the 'perfect' is not the monopoly of ideal metaphysics. Vacherot indeed clearly distinguishes between two types of perfection, the relative and the absolute.[59] The absolute perfection, to which the Infinite Being aspires, is an all-encompassing conception, apprehended by reason, which captures all normative aspirations. The relative perfection, on the other hand, corresponds to an ideal type of understanding, which has a solid positive interpretation: 'It is a simple notion of understanding, whose abstract and purely ideal object is nevertheless easy to determine, since it always corresponds to this or that reality perceived by experience.'[60] Thus, even positive studies, which are based on notions of understanding, have an 'ideal' content. Consequently, one cannot single-handedly associate science with ideal metaphysics. Charlton indeed likens science with positive metaphysics, not with ideal metaphysics, using the example of geometry, a science to which, as we have seen, Walras himself compares his pure economics.[61] But if positive metaphysics is conversant with ideal notions, this does not mean that it imposes an Ideal. Its content is totally taken from observation, so that the scientist cannot impose as 'truth' his preconceived bias about what 'ought to be'. It is thus difficult to accept the premise of Koppl's analysis, and compare Walras's science to Vacherot's ideal metaphysics.

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[57] 'Je me disais qu'entre sa connaissance et la mienne ce n'était qu'une question de plus ou de moins' (*ibid.*).

[58] *Ibid.,* p. 100.

[59] Vacherot, *op.cit.,* vol. 2, p. 225.

[60] *Ibid.*

[61] Charlton, *op.cit.*, p. 114. See also Tatti, *La méthode …*, p. 26.

5. The Walras paradox revisited

In fact, it is possible to contest the claim of normative bias altogether. Granted, Walras does believe in the harmony of 'what is' and 'what ought to be'. He holds that social states contain the principle of their own development, leading to the attainment of the Ideal.[62] From Vacherot, the variables of science, the relative perfections, indeed *imply* an Ideal, the absolute perfection.[63] But the point is that this connection with the Ideal is *appended* to Walras's search for pure truth; it is not perverting the endeavour from the outset. This is visible in his criticism of the methodology of the current thinkers of his time. If there was any confusion between positive and normative statements in his intellectual environment, Walras was aware of it, and rejected it.

First, Walras sees major flaws in the theories of Cousin and Jouffroy. He believes that Cousin's theory is 'the most serious obstacle to progress in social science'.[64] Although he approaches the question of human fate, like Jouffroy, he dissents from his methodological individualism and concludes that the Social Whole should own the social form of wealth, thus sanctioning the nationalisation of land.[65] This is not simply a rejection of the conclusions of political opponents, but also a criticism of their method, which confuses positive and normative statements.

Walras divides the field of economics in a famous tripartition of pure economics, applied economics, and social economics, respectively regulated by conditions of truth, interest and justice. These three matters should not be mixed, and Walras openly criticises Say and Bastiat for committing that mistake. On the question of property of land, he argues that, of the two theories which sanction individual ownership of land,

> one, that of J.-B. Say and the *utilitarians*, acknowledges the intrinsic value of land by deciding on its ownership upon matters of interest which, good or bad, are in this case irrelevant. The other, that of Bastiat and the *moralists*, founds property of land upon consid-

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[62] Walras, EES, pp. 146–47.

[63] Vacherot, *op.cit.,* vol. 2, pp. 85–86.

[64] Walras, *Cours,* p. 122.

[65] Walras states that there are two social types, the individual and the State, and two sources of wealth, individual faculties and land. Justice should respect the initial endowments in individual faculties, but land, whose value is determined socially, should be owned by the Social Whole (Walras, *EES*, 'Théorie de la propriété', pp. 177–206).

> erations of justice by negating its intrinsic value, which is a scientific fact of reasoning and experience.[66]

Thus Walras opposes Say's 'experimental' method by insisting that the proper allocation of resources should be debated openly as a question of justice.[67] Yet he maintains against Bastiat that the determination of the value of land should not be confused with its just distribution.

The defining principle of Bastiat's doctrine of natural rights, which should determine the value of exchangeable goods, is 'service for service'. The concept of service finds an original interpretation in Bastiat's work. It corresponds neither to the effort of the supplier nor to the need of the demander, but rather to the *pains saved* to the demander.[68] It is difficult to consistently defend this original notion. In the case of land, can we consider that the produce of natural fertility corresponds to a *pain saved* to the demander? Certainly, but the demander would benefit from natural bounty were he to produce the good himself, so why should the *producer* be paid for it? Bastiat's answer is that only human effort confers value to a good (yet he maintains that the value of a good is not equal to the labour embodied in the produce). This implies that land has no value, a conclusion which, for Walras, runs counter to 'reasoning and experience'.

Walras's approach to the question of value is different. For him, the value of a good is a 'natural fact': goods of a certain use, restricted in quantities, have value.[69] It is thus useless for the theorist to 'impose' the 'fairness' of a trade with a formula such as 'service for service', for traders naturally exchange goods at equal value : 'Exchange, I have said, consists in the fact that certain things, in great supply, not being free, cannot be obtained by those who desire

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[66] Walras, EEPA, p. 411.

[67] For Say, political economy is a 'perfect' (complete) science, and economists should concentrate on spreading their work to the layman. 'Nul ouvrage n'est moins utile qu'un livre qu'on ne lit pas; et un livre d'économie politique serait lu de peu de personnes, s'il excédait la mesure du temps et de la dépense dont la généralité des lecteurs consent à faire le sacrifice pour connaître les ressorts de la société' (Say, *op.cit.*, vol. 1, p. 57). For Walras, it is important to develop science before popularising it. (Walras, *EES*, p. v).

[68] 'Bien loin que la valeur ait ici une proportion nécessaire avec le travail *accompli* par celui rend le service, on peut dire qu'elle est plutôt proportionnelle au travail *épargné* à celui qui la reçoit.' Bastiat, F. (1851), p. 125, italics in the text, quoted in Solal and Zouache, *op.cit.,* p. 547.

[69] Walras, L., *L'Économie Politique et la Justice*, *(EPJ)*, in P. Dockès, P.-H. Goutte, C. Hébert, C. Mouchot, J.-P. Potier and J.-M. Servet (eds.), *Œuvres Economiques complètes*, vol. 5 (Paris, 2001), p. 113.

them from those who own them but by the concession of other equivalent things.'[70]

Only after the study of the natural and necessary consequences of the mechanism of perfect competition should the concordance with interest and justice be settled.[71] Frustrated that Walras 'founded his pure economics on a conception of "natural law" from which the ideal of justice was absent, […] completely excluding human judgments of rights and duties', the philosopher C.-B. Renouvier rejected Walras's pure economics as an expression of the Ideal.[72] In his belated response, Walras writes:

> As concerns my pure political economy, it studies purely and simply the fact of the determination of price or the proportions of exchange under a hypothetical regime of absolute free competition. It concludes neither for nor against this regime, and I believe that it must be totally subtracted from the moral viewpoint. But be assured that when I introduce this viewpoint, it will find a way free of any preconceived idea.[73]

Thus it appears that, although Walras does believe in the necessary harmony between 'what is' and 'what ought to be', he maintains that the latter does not determine his study of pure economics. Obviously, this conclusion needs to be confronted with a detailed account of Walras's actual approach to economic problems, a question which goes beyond the object of this paper.

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[70] *Ibid.*, p. 180.

[71] For example, see Walras, L., *Mélanges d'économie politique et sociale (MEPS)*, in P. Dockès, P.-H. Goutte, C. Hébert, C. Mouchot, J.-P. Potier and J.-M. Servet (eds.), *Œuvres Economiques complètes*, vol. 7 (Paris, 1987), p. 301.

[72] See Jaffé, *Correspondence* …, vol. 1, p. 449. The original passage is found in Bridel, P. and R. Baranzini, *Le chêne et l'architecte, Un siècle de comptes rendus bibliographiques des* Eléments d'économie pure *de Léon Walras* (Genève, 1996), p. 95.

[73] Jaffé, *Correspondence…,* vol. 1, p. 542.

6. Conclusion

This essay has tackled the question of the Walras paradox (of an alleged confusion between positive and normative statements) with a special consideration of Koppl's solution. For Koppl, Walras confused positive and normative statements because he was influenced by an intellectual environment which did not establish such a distinction, celebrating reason as a faculty which would both reveal absolute truth and the desirable social order. More particularly, Koppl likens Walras's science to E. Vacherot's 'ideal metaphysics', which does not study reality but is rather concerned with achieving an Ideal.

It appears that the literature generally agrees on an non-empiricist interpretation of the Vacherotian theory of knowledge, thus leaving the scientist free to impose his preconceived biases as truth. This essay has contested the particular chain of reasoning offered by Koppl, and the traditional interpretation of the Vacherotian theory of knowledge. In fact, Vacherot's theory of knowledge is much like to that of John Locke, a chief empiricist, with induction playing a key role in the construction of scientific variables. Reason, as a matter of fact, does not play any role in science. The very existence of the Walras paradox is indeed not to be taken for granted. It appears that Walras was fully aware of the distinction between positive and normative statements and that he did approach the question of value independently of questions of justice.

These conclusions rely on the assumption, taken for granted thus far in the literature, that Walras's theory of knowledge was essentially Vacherotian. In fact, Walras did not go as far as stating that he 'copied' his system from Vacherot, and it could be argued that there are indeed significant differences between the two theories, especially in view of our new reading of Vacherot.[74] It could be argued that it is simply awkward to conclude that Walras's theory did fit that scheme. Had Walras genuinely conferred any role to induction, he would have stated it explicitly and repeated it abundantly. In that case, neglecting verification by observation is all the more problematic for an empiricist interpretation of his methodology. This 'evidence' can be judged conclusive, but it should be appraised according to its true nature, i.e. indirect, offering an 'air of reasonableness', rather than direct, tangible and unequivocal. In that case, neglecting

[74] Walras states: 'L'ouvrage de Vacherot, *La métaphysique et la science*, parut en 1858, au moment même où j'entreprenais de combler cette lacune et de compléter mes études philosophiques. Je le lus sans la moindre difficulté, avec une attention scrupuleuse et le plus vif intérêt; il est resté pour moi un livre de chevet; et si je n'y ai pas trouvé mon système tout fait, je l'en tirai peu à peu comme je vais tâcher de le dire.' (Walras, *EEPA*, p. 413).

verification by observation is all the more problematic for an empiricist interpretation of his methodology. Still, the orthodox view on Walras's theory of knowledge would need to be revised: the source of his idealist bias, if it exists, cannot be uncovered in the writings of Etienne Vacherot.

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