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# "TO BE" OR "OUGHT TO BE": THE QUESTIONS OF EMPIRICAL CONTENT AND NORMATIVE BIAS IN LÉON WALRAS'S METHODOLOGY

BY
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## I. INTRODUCTION

Léon Walras was a truly revolutionary economist. Not only did he leave a lasting mark on economic doctrine participating in the Marginalist Revolution, which supplanted the labor theory of value of the classical school, but he also contributed to major changes in economic methodology as being one of the first and most ardent promoters of the use of mathematics in economics.[1] For an actor who played such a great role in the development of economics, how did he conceive his scientific endeavor? This question can be broken down into two different but related questions: First, how did he know that he had found true scientific laws? What was his theory of knowledge? Is it best described as empiricist (claiming that all knowledge comes from experience) or idealist (claiming that reason can achieve knowledge independently of experience)? And, second, what relation did his writings on pure theory bear with his policy prescriptions? Was there a normative bias in Léon Walras's methodology, i.e., were his positive statements molded by his normative inclinations?

This last set of questions has generated much debate, given that Walras actively fought for scientific rigor while not refraining from defending his views on the desired social order. For W. Jaffé, who unearthed his correspondence, a careful study of primary evidence shows that Walras's conception of justice heavily influenced his search for pure truth. The *Éléments d'économie politique pure* (*Éléments*), "appears, on the surface, as a competely *wert-frei*" system, but it is

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[1] For a review of Walras's contribution to economics, see D. A. Walker (2001, pp. xiii–xlvii).

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nevertheless "inform[ed]" by "implicit moral convictions" (Jaffé 1977, p. 371). However, D. A. Walker has strongly attacked Jaffé's allegation that Walras's theory of general equilibrium was deliberately constructed as a normative scheme, pointing to Walras's "careful distinctions between normative and positive subject matters" (Walker 1984, p. 466).

It does seem contradictory that such a sophisticated scholar would confuse science with normative argument. For R. Koppl, this constitutes the essence of what he calls the "Walras paradox" (Koppl 1995, p. 43). Koppl argues, however, that there really is no contradiction: Walras did view his pure theory as normative but he was warranted in doing so by the philosophical tradition of his time. He "was working with a different set of assumptions than the set most English-speaking economists take for granted," in which "all of theory" has "a kind of normative character" (Koppl 1995, pp. 43, 47). How is that so? "For Walras, all theoretical reasoning has the character we call normative, because all theoretical reasoning concerns ideal perfections rather than imperfect reality" (Koppl 1995, p. 49). In this, Walras followed closely the scheme detailed by a prominent philosopher of the time, Etienne Vacherot.[2] Koppl concludes: "The Walras paradox is real; he did argue that general-equilibrium is a normative scheme and pure science. But a knowledge of the Vacherotian metaphysics undergirding this paradoxical claim shows that any contradictions in it are only apparent, not real" (Koppl 1995, p. 50).

Thus, we see that a serious answer to Walras's alleged normative bias brings us back to a consideration of his theory of knowledge. What is the character of these "ideal perfections," the variable of science, which, according to Koppl, confer to science its normative character? How are they obtained? On this question there is no consensus among Walras scholars. A number of French authors stress the idealist features of his theory of knowledge and maintain that, for Walras, the variables of science are not created by induction. For example, E. Tatti quotes as evidence of this view the following passage in Vacherot: "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" (Vacherot 1858, vol. 1, p. 365; quoted in Tatti 2000a, p. 419; 2000b, p. 22). Likewise, P. Dockès argues that, if induction plays an initial role in the construction of "real types," the "ideal types," the variables of science, are ultimately obtained by an *a priori* synthesis. According to Dockès, this position was probably borrowed Vacherot's work (although the philosopher does not adhere to it) and in any case implies "the rejection of empiricism" (Dockès 1999, pp. 18–19).

This paper purports to tackle the two sets of questions mentioned above: 1) Is Walras's theory of knowledge better described as empiricist or idealist? 2) Was there a normative bias in Walras's pure science? First, we will review the Vacherotian theory of knowledge and conclude that induction does play a role

[2]The evidence of the influence of Vacherot on Walras is well-known among Walras scholars. See Walras (1992, p. 413); W. Jaffé (1965, vol. 3, p. 2); see also Walras's reading notes on Vacherot (Walras 1859–1861).

in the construction of the "ideal types," which are not created by *a priori* synthesis. The Vacherotian theory of science is best described as empiricist, and is very similar to Locke's. Moreover, we will argue that Walras did seem to conform to Vacherot's scheme. Second, we will tackle the question of Walras's alleged normative bias, with particular attention to Koppl's approach. We will first note that leading philosophers and economists of the time did tend to assert that pure theory was both positive and normative. However, we will notice that Walras explicitly reacted against their approach, defending a division of positive and normative concerns. Koppl's solution to the paradox, as we will see, stood on an erroneous definition of Walras's "ideal perfections," and mistakenly associated Walras's science with Vacherot's "ideal metaphysics." The Walras paradox simply does not exist.

## II. "TO BE . . ."

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 on its reasoning. The return to reality should not take place until the science is completed and then only with a view to practical applications (1954, pp. 71).

For Walras, sciences using this methodology are said to "go back to experience not to confirm but to apply their conclusions" (Walras 1954, pp. 71–72). From this passage, some scholars have questioned the positive content of Walras's theory. 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 propositions do not have to be confirmed by data before being applied" (Pokorny 1978, p. 391). For J. Lallement, Walras's *Elements* constitute a "purely logical" construction, which is far from a positive theory (Lallement 1997, pp. 79, 81). 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 (Tatti 2000a, p. 419). For P. Dockès, they are the result of a synthesis *a priori* (Dockès 1999, p. 19). And the seeds of this idealist bias are found in the Vacherotian theory of knowledge, to which Walras openly admits being indebted.[3]

[3]Walras's theory of knowledge is presented in one of his early writings, the *Théorie générale de la société* (Walras 1990, pp. 25–148), which borrows extensively from Étienne Vacherot's *La métaphysique et la science* (in particular, the 9th and 10th *entretiens* or "chapters"). Tatti insists that the Vacherotian theory of knowledge is adopted by Walras and proceeds to establish the idealist bias in Walras's methodology from a direct comparison with Vacherot (Tatti 2000b, p. 17 and ssq, Tatti 2000a). Dockès also establishes parallels between Walras's theory of knowledge and that of Vacherot, concluding that Walras's idealist bias is contained in the writings of the French philosopher (although he concedes that their position might differ) (Dockès 1999, pp. 18–20).

For Vacherot, three faculties of the mind—*imagination*, *understanding*, and *reason*—are involved in the formulation of all claims of knowledge, whether they are 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) (Vacherot 1858, vol. 1, pp. 363, 378). These notions possess an ideal character: for Vacherot, it is essential that the constituent elements of scientific laws correspond exactly to their definitions (Vacherot 1858, vol. 1, p. 364). 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, which is boundless both in time and in space (Vacherot 1858, vol. 2, p. 64). 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 that cannot be grasped in their entirety in any empirical realization. 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.[4] "S*cientific* knowledge," Vacherot insists, "is based on perceptions" and "composed of notions" (Vacherot 1858, vol. 2, p. 41). 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 flavor 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" (Vacherot 1858, vol. 1, p. 365). This passage is often quoted by Walras scholars as the conclusive proof that the Vacherotian theory is distinctly non-empiricist,

[4] "Any science takes its principles from experience [. . .] The only role played by pure reason (I do not say logic) is related to this small number of metaphysical conceptions of the Being, the Infinite, the Absolute, the Universal, which are the proper object of metaphysics " (Vacherot 1858, vol. 2, pp. 598–99, translation by author).

since it suggests that the empiricist claim that all knowledge comes from experience is relinquished.[5]

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 10th *entretien* (chapter), 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 "generalizes" 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" (Vacherot 1858, vol. 2, p. 40).

How could Vacherot consistently deny any role for induction in the identification of the type (in the 9th *entretien*) and subsequently insist on its importance (in the 10th *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 9th *entretien*, after Vacherot asserts that the mind conceives geometrical figures *a priori*, without any comparison or induction, he says: "The proof that this type is not the product of abstraction is that it is the *condition* of abstraction" (Vacherot 1858, vol. 1, p. 365, emphasis added). 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 (Vacherot 1858, vol. 1, p. xxiv). 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 from experience, and turns into ridicule the "absurd hypothesis of innate ideas" (Vacherot 1858, vol. 1, p. 448). Actually, the dimension of Vacherot's abstract notions, which is irreducible to experience is its form, not in any way its content (Vacherot 1858, vol. 1, p. 378). 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 "labor of words," but actually perfect notions of the mind that correspond exactly to the definitions of scientific laws.[6] 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

[5] For example, Tatti writes: "The anti-empiricist aspect of the Vacherotian (and Walrasian) synthesis is then manifested clearly in the assertion that there is, in the notion, something more than in the perception" (Tatti 2000b, p. 22).

[6] Vacherot's accusation is found in Vacherot (1858 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 criticized by Berkeley. For a quick overview of the question, see Loux (1998, pp. 20–21).

proposition that Vacherot would indeed agree with[7] (Locke 1984, Bk. 3, Ch. 3, Sec. 2). And the formation of these notions seems to correspond to the mechanism outlined by Vacherot. Locke holds that "ideas, taken from particular beings, become general representatives of all of the same kind" through the process of "abstraction" (Locke 1984, Bk. 2,Ch. 11, Sec. 9). 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" (Woolhouse 1971, p. 106).

We have thus established that a consistent account of the Vacherotian theory of scientific knowledge is significantly close to an empiricist model. Variables of science are obtained through induction and their only dimension 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 *Elements*? 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. 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" (Walras 1990, p.16).

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* (Walras 1859–61, p. 4; Walras 1996, p. 134). 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 (Vacherot 1858, vol. 2, p. 32). It is thus impossible to speak of "real types." However, Walras's "mistake" appears to be a mild one. In a sense, Vacherot believes that "the objective reality of ideas is in inverse relation with their degree of abstraction" (Vacherot 1858, vol. 2, p. 34). Thus, concrete types, relating to a particular body, are "more real" than abstract types, referring to a general class.[8]

[7]For example, Vacherot says that *this* body is a concrete notion of (the abstract notion of) *a* body (Vacherot 1858, vol. 1, p. 378).

[8]The particular sense in which this is true is that, for Vacherot, abstraction "suppresses" objective reality in its "comprehension," because it substitutes types for "realities." Yet Vacherot also holds that abstraction "increases" objective reality in its "extension," because it generalizes a property to a whole class (Vacherot 1858, vol. 2, p. 41).

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) (Lallement 1997, p. 81). 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 (Dockès 1999, pp. 14–16, 19–20). 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 (Lallement 1997, p. 81).

First, it should be noted that Walras does mention the importance of induction in scientific method on a few occasions.[9] Second, induction does seem to play a role in the construction of variables of science, as we have mentioned. Let us take an example. In his *Théorie générale de la société*, 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 notion of this stone and the abstract notion of stone, he can name and define the stone, he can base his reasoning and judgments on the idea of stone" (Walras 1990, p. 99).

We should not be led into thinking that, because this definition of the abstract notion is "complete" and "definitive," it is therefore not subject to an update from experience. After the passage quoted above, Walras mentions the example of a child who, knowing the church of his village, would name all buildings of Paris "the mass." 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. Walras thus sees a difference, although not in kind but in degrees, between the knowledge of the child and that of an experienced observer (1990, p. 99). 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 thus classified by understanding become notions, first concrete, then abstract" (Walras 1990, p. 100). This does not appear as a significant departure from our account of Vacherot's theory, and we maintain that Walras's theory of knowledge is best described as empiricist.

## III. . . .OR "OUGHT TO BE"?

We now investigate the question of Walras's alleged normative bias, with particular attention to Koppl's approach. We show first that the assertion of both the positive and the normative character of pure theory was present in the writings of main actors of the time. However, we note that Walras reacted strongly against this approach. Not only was Walras aware of the distinction

[9]For example, he writes: "The study of the physical and natural sciences would not only give to the men interested in cultivating the moral and political sciences the notion of science, it would also give them the habit of the method of induction and deduction, which is the genuine scientific method" (Walras 1987, p. 392). See also Walras (1954, p. 48; 1987, p. 384; 2001, p. 148).

between positive and normative matters, but he objected to the simultaneous assertion of normative inclinations and positive statements in pure theory. Koppl's chain of reasoning is simply based on an erroneous definition of Walras's "ideal perfections."

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 fulfill 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" (Zeldin 1977, p. 209). Victor Cousin, the leading philosopher of the time, who propagated his ideas through his control of the education system, considered that the primary aim of philosophy was to reform men. For him, reason intervenes both in revealing absolute truth and in providing a guide for action.[10] The same conclusion applies to Theodore Jouffroy, another prominent philosopher of the time. Jouffroy reduces "all of philosophy" to the question of human fate, in such a way as to confound positive and normative concerns (Taine 1905, p. 207). Indeed, Jouffroy insists that man's natural constitution must naturally lead to the fulfillment 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.[11]

This attitude appears to be also present in the field of economics.[12] At the time, political economy was dominated by the "liberal" school, which preached freedom of trade and the defense 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 imposed on the search for truth their normative bias.[13] For one, Say presents himself as the champion of the "experimental method," heavily anchored in reality: "We must not ask from it [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" (Say 1840, vol. 1, p. 49).

But Say's plea for scientific rigor is questionable. 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 (Cairnes 1875, p. 13). It is part of the scientist's work to inquire as to 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,

[10] See Taine (1905, p. 144), Gerbod (1965, pp. 74–75), and Charlton (1963, p. 101).

[11] See Taine (1905, pp. 266, 279).

[12] In review of this paper, Koppl reacted against the claim that the attitude "filtered through" to the economists mentioned, who, contrary to Walras, were too old to be influenced by these philosophers. I concede that I do not show that Cousin and Jouffroy influenced Say and Bastiat, but I maintain that the similarities are striking and worthy of mention. I still think that it is possible that Say and Bastiat were influenced by the eclectics in their definition of proper scientific practice, and I leave it for future research to settle this question.

[13] J.-B. Say was the leader of the *utilitarians*, who considered man as a "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.

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."[14] 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.[15]

Why should it be different for Walras? For Cairnes, who criticized both Say and Bastiat for confusing positive and normative statements, even opponents of Bastiat, who disagreed on particular policy issues, followed the same methodology by basing their science upon a doctrine of natural rights (Cairnes 1873, p. 320). Walras is certainly well acquainted with the philosophical references of the time.[16] Like Jouffroy, he addresses the question of human fate, and much like the philosopher, he confuses its positive and normative interpretations. On the one hand, Walras uses the expression "human fate" to describe the motor 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 *realization* of given social conditions and individual positions (Walras 1990, pp. 133–34). 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 realization of the Ideal, necessarily just. And this Ideal, Walras contends, is revealed to man by the faculty of reason (Walras 1990, p. 146).

For Koppl, normative concerns pervade Walras's scientific practice. The chain of influence, we may suspect, comes from Vacherot, one of the leaders of the eclectic movement. Following D. G. 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'" (Koppl 1995, p. 48). Vacherot's ideal metaphysics is clearly designed as a way for man to freely formulate his Ideal: if the definition of the Ideal had to be closely anchored to reality, then it would fall short of moral perfection, given that many undesirable events occur (Charlton 1963, p. 115). For Koppl, Walras's science is similar to Vacherot's ideal metaphysics, because it is based on "ideal types," abstracted from "real types" through the rational method: "For Walras then, 'theory and science' are similar to and perhaps identical with the 'ideal metaphysics' of Etienne Vacherot" (Koppl 1995, p. 49). Granted, Walras's science is based on ideal types, but why are they not simply "conceptualizations" of reality, why do they necessarily express an Ideal? Because, Koppl argues, for Walras, "'the ideal is necessarily perfect', just as 'all perfection is necessarily ideal'; and that 'all reality is imperfect'" (Koppl 1995, p. 49, quotes from *Etudes d'Economie*

[14]His biographer, M. de Fontenay, asserts that the aim of Bastiat's scientific endeavor was to prove this harmony (Cairnes 1873, p. 318).
[15]See Solal and Zouache (2000, p. 542).
[16]Walras quotes Cousin on some occasions (Walras 1992, p. 413; 1996, p. 122). He quotes Jouffroy in his essay "Philosophie de l'art," "referring to the theme of fate" (Tatti 2000a, pp. 422–23).

*sociale*, Paris: R. Pichon and R. Durand-Auxias, 1936 pp. 10–11). This should establish that "ideal types," being perfect, assert a normative goal.

However, this interpretation of the Vacherotian epistemology is mistaken. Vacherot does not assert that the term "ideal" implies a normative goal. He states: "Who says type says perfection. But it is of the essence of perfection to be ideal, i.e. to exist only in the mind, as a pure thought" (Vacherot 1858, vol. 2, p. 32). Thus, Vacherot *defines* idealization as conceptualization, with no mention to its normative connotation.

Moreover, "perfection" does not necessarily refer to a moral quality. Vacherot indeed clearly distinguishes between two types of perfections, the relative and the absolute (Vacherot 1858, vol. 2, p. 225). 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" (Vacherot 1858, vol. 2, p. 225). Thus, even positive studies, which are based on notions of understanding, have an "ideal" content, in that they rely on objects that exist as pure thoughts, and that are by definition perfect. This doesn't assert any normative inclination on the part of the scientist. In this scheme, reason, the faculty which asserted both positive truth and normative inclinations in the eclectics, does not play any role. It is thus difficult to accept the premise of Koppl's analysis, and compare Walras's science to Vacherot's ideal metaphysics. In fact, it is more sensible to compare science with positive metaphysics.[17] Vacherot himself draws such a comparison, as reported (and supported) by Charlton, Koppl's reference on Vacherot (Charlton 1963, p. 114). In this exercise, Vacherot compares his (positive) metaphysics to geometry, the very science to which, as we have seen, Walras compares his pure economics (see also Tatti 2000b, p. 26).

Moreover, Walras's rejection of the concurrent assertion of positive and normative content in pure theory can be seen in his attitude towards the leading philosophers and economists of his time. First, Walras sees major flaws in the theories of Cousin and Jouffroy. He believes that Cousin's theory is "the most serious obstacle in the progress of the social science" (Walras 1996, p. 122). 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 nationalization of land.[18] This is not simply a rejection of the conclusions of political opponents,

[17] Note that it is not asserted that science *is* positive metaphysics. Vacherot did believe that science and metaphysics were different orders of knowledge, but he tried to link them in his 1858 essay: *La métaphysique et la science ou principes de métaphysique positive* (see Vacherot 1858, vol. 1, p. xv). Positive metaphysics and science are similar because they both originate from a study of reality. Positive metaphysics "works from the knowledge given by the sciences to a synthetic view of the world as a whole" (Charlton 1963, p. 114).

[18] 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 1990, "Théorie de la propriété," pp. 177–206).

but also a criticism of their method, which confuses positive and normative statements, as is evidenced by Walras's other methodological statements.

Walras indeed 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 criticizes 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, and the other, that of Bastiat and the moralists, founds property of land upon considerations of justice by negating its intrinsic value, which is a scientific fact of reasoning and experience (Walras 1992, p. 411).

Thus, Walras opposes Say's "experimental" method by insisting that the proper allocation of resources should be debated openly as a question of justice.[19] 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.[20] 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 labor 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 (Walras 2001, p. 113). 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 them from those who own them but by the concession of other equivalent things" (Walras 2001, p. 180).

Thus, there is a fundamental difference between Walras's and Bastiat's perspective on the harmony between "what is" and "what ought to be." Granted, Walras holds that social states contain the principle of their own development, leading to the attainment of the Ideal (Walras 1990, p. 147). However, Walras

[19] For Say, political economy is a "perfect" (complete) science, and economists should concentrate on spreading their work to the layman (Say 1840, vol. 1, p. 57). For Walras, it is important to develop science before popularizing it (Walras 1990, p. v).

[20] See Solal and Zouache (2000, p. 547).

strongly insists that pure theory should not be assessed on grounds of normative concerns, thereby showing that positive and normative matters are not simultaneous asserted in his pure theory:

> Do you think of any geometer or any astronomist who would agree to discuss one single instant, the former a theorem which would '*spiritualise geometry*', the latter an astronomic law which would be '*more satisfactory from a moral viewpoint*'? This is, however, what people used to the rigor of positive science are doing, according to the economic position of the moralists spiritualists [of Bastiat] (Walras 1990, p. 39).[21]

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 (For example, see Walras 1987, p. 301). Frustrated that Walras "founded his pure economics on a conception of 'natural law' from which the ideal of justice was absent," a conception "completely excluding human judgments of rights and duties," the philosopher C.-B. Renouvier rejected Walras's pure economics as an expression of the Ideal. (Jaffé 1965, vol. 1, p. 449).[22] 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 (Jaffé 1965, vol. 1, p. 542).

This further supports the claim that Walras did not intend his pure theory to assert normative inclinations.

## IV. CONCLUSION

This essay has tackled two important methodological questions about Walras's work: First, is his theory of science best described as empiricist or idealist? Second, was there a normative bias in Walras's pure theory? On the first question, we have concluded that Walras is best described as an empiricist, given the important role of induction and the similarities with the view of J. Locke, a champion of empiricism. On the second question, we have reviewed Koppl's particular perspective. For Koppl, Walras's pure theory asserted both positive and normative content because it relied on ideal perfections. This was warranted by a particular intellectual environment, celebrating reason as a faculty that 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. We have argued that this conclusion is ill-founded. It is based on an erroneous definition of

[21] He also says: "We only want to ensure the respective independence of the moral order and of the economic order" (Walras 1990, p. 40).
[22] The original passage is found in Bridel and Baranzini (1996, p. 95).

Vacherot's "ideal perfections" and does not stand the test of Walras's own review of contemporary economists. The very existence of the Walras paradox is indeed not to be taken for granted.[23]

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[23]Obviously, we would need to complement this study with a more detailed review of Walras's general-equilibrium theory to conclude whether or not his scientific practice was consistent with his methodological statements. On this, Walker asserts that most writers "have analysed his work from the point of view that it is an attempt to understand the real economy of his time" (Walker 2001, p. xxxvi). Also, he notes that most scholars "have shown that they regard it as evident that his theoretical constructions have that objective [to devise a positive model] and hence are not normative" (Walker 2001, p. xxxix; see also, Walker 1996).

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