

Marx versus Walras on Labour Exchange

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Abstract:

This paper compares Léon Walras's and Marx's thoughts on labour exchange, thereby illuminating the latter's perspective that can lead to a forceful counterargument to the neoclassical principle of labour exchange, for which the former affords a foundation. Both Walras and Marx distinguish between labour ability as a factor of production and labour as its service, but exhibit a striking contrast in their explanations of the distinction.

Walras's distinction between 'personal faculties' and labour never attempts to reveal the peculiarities of the relationship they share. Walras essentially equates the relationship between the two with that between non-human factors and their respective services by stripping the former of human elements. This not only allows labour exchange to be incorporated into Walras's general equilibrium system but also provides the groundwork for its neoclassical principle, which, on the basis of marginal theory, assumes work conditions to be determinable through the stylised market adjustment of the demand and supply of labour on each entrepreneur's and worker's maximisation behaviour.

In contrast, especially in his pre-*Capital* writings, Marx underlines the worker's subjectivity in deciding her labour performance. This implies that the type and intensity of time-unit labour varies depending on the worker's will and the constraints upon it. Accentuating the particular characteristics of the relationship between labour power and labour in this way, Marx's arguments lead to the invalidation of the neoclassical principle of labour exchange and rationalise the intervention of socio-political factors represented by the labour–capital class struggle in the determination of work conditions. Thus, this study focuses on the potential of Marx's labour power–labour distinction independent of his exploitation theory—the basis of a weighty refutation of the neoclassical system.

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I Introduction

The objective of this study is to attempt a comparison between Karl Marx's and Léon

Walras's views on labour exchange, and thereby shed light on an aspect of Marx's thinking that has received scant attention but can lead to a forceful counterargument to the

neoclassical economic doctrine.

Marx's economics was formed through his in-depth study of the classical school. His value and exploitation theory, which constitutes the kernel of his economic thought, is purely a product of his criticisms of and inheritances from the works of David Ricardo and other classical economists. Although, in contrast, the Marginal Revolution writings of William S. Jevons, Carl Menger, and Walras appeared during his life, Marx died without having an opportunity to learn neoclassical economics, which they pioneered. However, even if Marx had had this knowledge, it may have made little impact on his thinking. It seems fairly reasonable to imagine that Marx would have swept the neoclassical doctrine aside as a mere sophisticated version of 'vulgar' economics.

However, it is an unshakable fact that neoclassical economists advanced analytical techniques and minuteness significantly from the pre-marginalism 'vulgar' economists whom Marx savaged, thus having built the predominant theoretical system. So, to re-evaluate Marx's thought with due consideration of the history of economics after his death, we must investigate whether his arguments contain what may qualify as intrinsic criticisms of neoclassical economics. Long discussions on Marx's value and exploitation theory, which has been widely recognised as representing Marxian conflicts with the neoclassical school, suggest that it is inadequately qualified.¹⁾ Thus, comparative studies of Marx's and neoclassical economics from a broader perspective may be needed to reappraise Marx in the current situation. In historical research, it seems that close and wide-ranging comparisons between Marx and his

contemporary forerunners of the neoclassical school are required because such investigations have lagged behind the vast enquiries into the Marx–classical economist relationship.

On the basis of this viewpoint, this study investigates the worth of Marx's views on labour exchange in comparison with those of Walras, who played a leading role in the Marginal Revolution and originated the general equilibrium theory. I have chosen Walras as Marx's match from among numerous neoclassical economists not only for his importance and contemporaneity with Marx but also because the two distinguish between labour ability as a factor of production and labour as its service. The distinction between labour power (*Arbeitskraft*) and labour (*Arbeit*), with the criticism of the obscurity in classical economists' notion of this issue, underlies Marx's exploitation theory. Yet the comparison between Marx's arguments on labour exchange, especially in his pre-*Capital* writings, and Walras's demonstrates that Marx's labour power–labour distinction—quite independently of his concept of exploitation—has the potential for a weighty refutation of the neoclassical rather than the classical system.

Disregarding factor–service relations peculiar to labour exchange, Walras sees work conditions as determinable through the stylised market adjustment of the demand and supply of labour on each entrepreneur's and worker's maximisation behaviour. This introduces the neoclassical manner of explaining even labour exchange by the marginalism-based market theory. It may be called the neoclassical principle of labour exchange.²⁾ Recognising the particular characteristics of

the relationship between labour power and labour in contrast to that between non-human factors and their respective services, Marx's views can reveal the groundlessness of the neoclassical principle, and rationalise the intervention of socio-political factors represented by the labour–capital class struggle in the determination of work conditions.

By thus opposing Marx against Walras, this study, unlike the traditional value and exploitation theory-centred comparison between Marx and neoclassical economists, illuminates a facet of Marx's thought which can be an intrinsic and potent criticism of the neoclassical paradigm and thereby justify his socio-economic views.

Section II deals with Walras's treatment of labour exchange. It will be shown here that Walras's distinction between 'personal faculties' (*facultés personnelles*) and labour (*travail*) never leads him to recognise the vital difference between their relationship and the nonhuman factor–service relationship. As a result, Walras perceives no particular characteristics of the human labour exchange. This contributes to the formation of the neoclassical principle of labour exchange as well as Walras's general equilibrium system. Section III focuses on Marx's discussions that stress the worker's subjectivity in the decision on her labour performance and the resulting peculiarities of the labour power–labour relationship. It will thus be argued that, as opposed to Walras's personal faculties–labour distinction, Marx's labour power–labour distinction involves the grasp of the human elements of labour exchange, and this insight leads to a cogent denial of its neoclassical principle. Section IV concludes the paper.

II Walras on Labour Exchange

Walras's theory of labour exchange is incorporated into his general equilibrium system in *Elements of Pure Economics*. In Part IV of the book, Walras describes markets for 'productive services' in addition to those for 'commodities' (consumption goods) explicated in the previous part, and presents simultaneous equations to satisfy the equilibrium of all service and product markets. Walras begins this part by distinguishing between 'capital' and 'income' or service.³⁾ Here he remarks:

The elementary factors of production are three in number. In listing these factors, most authors employ the terms: *land, labour and capital*. But these terms are not sufficiently rigorous to serve as a foundation for rational deduction. *Labour* is the service of human faculties or of persons. We must rank labour, therefore, not with land and capital, but with *land services* ['*rente*'] rendered by *land*, and with *capital services* ['*profit*'] rendered by *capital goods*. (emphasis in original; L. Walras [1926] 1954, 212)

Thus, Walras stresses the distinction between human (or personal) faculties and labour as their service. This perception is comparable with Marx's labour power–labour distinction. The similarity was previously pointed out by Mark Blaug (1996, 258). Walras mentions that he follows *The Theory of Social Wealth* by Auguste Walras, his father, regarding his definition of capital and income, as referred to in note 3 (see L. Walras [1926] 1954, 212). In that book, indeed, Auguste supplied

the same definition (see A. Walras [1849] 1997, 140). Furthermore, Auguste distinguished between personal faculties and labour before his son: 'Labour, it is the income from personal faculties' (*Le travail, c'est le revenu des facultés personnelles*) (see A. Walras [1849] 1997, 157).⁴ Although Walras's personal faculties–labour distinction was thus an inheritance from his father, it is noteworthy because Jevons, Menger, and most other early neoclassical economists did not specify a similar distinction.

For all this resemblance, Walras's treatment of labour exchange otherwise exhibits a striking contrast with Marx's.

While Marx maintains that labour *per se* cannot be an object of market exchange, 'services of persons' as well as personal faculties are supposed to be marketable in the *Elements*. Walras assumes that personal faculties are classifiable and quantifiable just like land and capital goods (see Marx [1867] 1996, 535–42; L. Walras [1926] 1954, 271–72). In this fashion, Walras recognises the diversity of labour ability or skill. As to land and capital goods, they can be classified and quantified on the basis of their physical properties. Yet in what way can personal faculties, which are generally irreducible to material attributes, be classified and quantified? Without giving any account of this issue, Walras quantifies each kind of 'services of persons,' or labour, and embodies its quantity in production functions with fixed input coefficients in the *Elements*. He also explains that the price of each of the personal faculties can be estimated by discounting on the price of the corresponding labour. This concept differs markedly from Marx's reproduction cost theory of the value

of labour power (see L. Walras [1926] 1954, 237–40, 271; Marx [1867] 1996, 180–83).

Walras states that the amount of labour is measurable in terms of labour time per capita (see L. Walras [1926] 1954, 237). This implies that each time-unit use of a personal faculty provides the same service. Hence, the variability of the type of labour (which is limited by the worker's abilities but ought to be considered different even if assuming one and the same personal faculty) and its intensity is precluded here. As will be noted in the next section, Marx perceives this variability as rooted in the nature of labour power, which is inalienable and so whose performance is contingent on the worker's will. Walras also remarks: '[P]ersonal faculties are *inalienable* capitals' (*les facultés personnelles sont des capitaux intransmissibles*) (emphasis in original; see L. Walras [1877] 1993, 75). This observation, however, is scarcely reflected in Walras's theory of labour exchange. Walras assumes that services from land, personal faculties, and capital goods can be used for personal consumption as well as production (see L. Walras [1926] 1954, 237–38). Of labour retained or purchased for their own consumption and that sold to others, as Ugo Pagano (1985, 100–01) notes, it is only the former that Walras presupposes to directly affect individuals' welfare. This can be seen from the system of equations of equi-marginal utility ('*rareté*' in Walras's terminology)–price ratio for all products and services that Walras presents as required for each individual's maximum satisfaction. Here, Walras includes the amount of labour retained or purchased for each individual's own consumption in the

argument of her utility function, but not that sold to others (see L. Walras [1926] 1954, 237–38). Pagano (1985, 110–11) interprets this as ‘tantamount to assuming that the workers are indifferent among alternative allocation of their manpower in production—that is, indifferent to the kind of work they perform.’ In fact, it can rather be observed that Walras’s theory excludes such workers’ preference by presuming the identity of service out of each time-unit use of a personal faculty. Yet the preference as to the type and intensity of labour, which undoubtedly affects the worker’s welfare, is vital for her as a possessor of personal faculties and will. Hence, this omission creates a crucial imperfection in Walras’s theory of labour exchange.

It may well be said, however, that the above treatment, as in the *Elements*, affords a pivotal foundation for the neoclassical principle of labour exchange. On the one hand, Walras himself did not subsume marginal productivity theory, which underlies the principle, into his general equilibrium system.⁵⁾ Marginal productivity theory, on the other hand, requires such a metric definition of each sort of input as can guarantee the identity of service from each input unit of the same sort. Additionally, the input unit must be such that it can be commonly recognised by the demanders and the suppliers in order for the trade to be conducted in the market place. The neoclassical principle of labour exchange hinges on the finding of a labour unit which meets these requisites. Here the measurement of labour by its product contradicts the marginal productivity theory, whose groundwork lies in the stipulation of the causality from input to output.

Then, time-capita, chosen as a labour unit in the *Elements*, is definite enough to be recognisable for all market participants, and has indeed been generally adopted as a labour unit by neoclassical economists. Time-capita, however, can only become a labour unit suiting the above requirement of marginal productivity theory if each time-unit labour of all workers exercising the same personal faculty, to the exclusion of its variability, is assumed to provide the same service. Ruling out the worker’s choice of the type and intensity of her own labour entailed by the inalienability of her personal faculties, this assumption weakens human elements of labour exchange and, as a result, equates its framework with that of the exchange of land and capital goods services, in which each factor and its service are in unique correspondence. True, the *Elements* theorises that the price (wage rate) and amount of each kind of labour are determinable through the stylised market adjustment of its demand and supply on each agent’s (entrepreneur’s and worker’s) maximisation behaviour, in exactly the same way as the price and amount of non-human services and products are determined (see L. Walras [1926] 1954, 222–26).

It may be thus concluded that Walras’s personal faculties–labour distinction is made never with the intention of explaining the peculiarities of labour exchange, but solely as a means of his distinguishing between factors of production (‘capitals’ in his phraseology) and their services in general. The factor–service demarcation is necessary for the development from the general equilibrium system as regards product and service markets in Part IV of the *Elements* into the system that adds ‘capital’ markets in Part V. Walras’s

theoretical contribution in this respect, *per se*, should not be underrated. Walras, however, places the relationship of personal faculties to their services and that of land and capital goods to their non-human services in the same category. Thus formed the new 'Trinity Formula,' upon which was grounded the neoclassical principle of labour exchange. Philip H. Wicksteed, who advocated the universality of the marginal productivity-based distribution rule, expressed the logical conclusion of this direction given by Walras to economics forthrightly: 'The crude division of the factors of production into land, capital and labour must . . . be abandoned' (see Wicksteed [1894] 1992, 83).

Walras's 'dehumanisation' of labour exchange may be predictable from his methodology. Walras regards 'pure economics' dealing with the determination of exchange value as a natural science (see, for example, L. Walras [1860] 2001, 151–53; 1993, 487–88). In *Economics and Justice* he argues: 'Natural facts will be . . . distinguished from moral facts in that the former will have their origin in the fatality of natural forces, and the latter in human free will' (Les faits naturels se distingueront . . . des faits moraux en ce que les premiers auront leur origine dans la fatalité des forces naturelles, les seconds dans la volonté libre de l'homme) (see L. Walras [1860] 2001, 152). In Walras's notion, labour exchange is also subject to 'the fatality of natural forces.' So, unlike Marx, Walras negates the role of class struggle and other 'moral facts'—or 'those which result from human will being exercised on other humans' will; in other words, relations of people to people' (ceux qui résultent de la volonté de l'homme s'exerçant à l'endroit de

la volonté des autres hommes, autrement dit les rapports de personnes à personnes)—as determining factors of work conditions (see L. Walras 1993, 487).

On the other hand, Walras notes that the equilibrium of product and service markets depicted in the *Elements* is 'an ideal and not a real state.' Yet he adds: '[E]quilibrium is the normal state, in the sense that it is the state towards which things spontaneously tend under a regime of free competition in exchange and in production' (see L. Walras [1926] 1954, 224). The labour market is no exception here. Furthermore, Walras attaches ethical value to free competition among workers and entrepreneurs. In *Economics and Justice*, Walras remarks that workers and entrepreneurs are placed on the same footing (placés sur le même pied) in free competition (see L. Walras [1860] 2001, 186). In *Studies in Applied Economics*, Walras states that a 'just wage' is what corresponds to the equilibrium of labour demand and supply as a result of free exchange (see L. Walras [1898] 2005, 221). While Walras argues for the nationalisation of land, he sees little need for the regulation of labour exchange. As opposed to Marx, who stresses the difference between the value created by labour and the value of labour power, Walras asserts the 'equivalence of labour and wage' (équivalence du travail et du salaire) determined under free competition (see L. Walras [1860] 2001, 185–86). Walras has no Marxian-type concept of exploitation. He sees capital accumulation as the fruit of labour and savings, and denies the conflicting nature of the labour–capital relationship claimed by socialists (see L. Walras [1860] 2001, 522; 1996, 582–87).

Hence, Walras is naturally hostile to workers' industrial actions, in which he insists that the state should rationally intervene to suppress strikes for the purpose of the better working of product and service markets. Walras observes that mere laissez-faire is not conducive to the cause (see L. Walras [1898] 2005, 223–24, 372; 1987b, 510). In addition, Walras recognises that his demonstration of the superiority of free competition is premised on economic agents' high capability, 'the supposition . . . that consumers know their needs and producers their interest; workers are serious, and sufficiently instructed and moral; entrepreneurs are truly enlightened people' (la supposition . . . que les consommateurs connaissent leurs besoins, et les producteurs leur intérêt; que les ouvriers sont sérieux, suffisamment instruits et moraux; que les entrepreneurs sont des hommes véritablement éclairés) (see L. Walras 1987a, 221–23). This seems to suggest that Walras had already discerned stringent requisites for the 'perfect competitive market.'

Yet Walras never changed his basic conception of labour exchange. In *Studies in Applied Economics*, Walras writes: 'Why are there no strikes between entrepreneurs and capitalists? It is because the market in fixed capital (the Bourse) and circulating capital (the banks) have been organized somewhat better than the labour market, which is not organized at all' (see L. Walras [1898] 2005, 225). This implies that the more the labour market becomes 'organised,' the closer it comes to the ideal state described in the *Elements*. For this object, Walras emphasises the need for workers' cultivation (see, for example, L. Walras 1996, 585–86; 1987a, 223–24).⁶ Here, he never perceived that the

ideal would be inaccessible not merely because of the lack of workers' or other agents' edification, but due to particular characteristics inherent in labour exchange. Although he had some knowledge of Marx's economic thought, Walras did not pay attention to Marx's labour power–labour distinction, which bore a similarity to Walras's personal faculties–labour distinction, but led to a disparate view on labour exchange by examining its essence. Consequently, Walras's comments on Marx largely consisted of criticisms of Marx's labour theory of value, as did many other early neoclassical economists' (see, for example, L. Walras [1936] 2010, 149–51).

III Marx's Distinction between Labour Power and Labour: Another Possibility

In his early works, Marx argued that the worker–capitalist power relationship or their class strife is the major determinant of wages.⁷ Marx's stance on labour exchange was thus opposed to Walras's from the beginning. Marx's mature system of economic thought, especially his theory of exploitation based on the labour theory of value, was sketched out in the *Grundrisse*, or the *Economic Manuscript of 1857–58*, and consummated in *Capital*. In this sense, as Allen Oakley (1979, 287) puts it, '[The *Grundrisse*] provided a foundation for Marx's later critico-theoretical development, but no more' (emphasis in original). Meanwhile, Michael A. Lebowitz (2003) accentuates the 'one-sidedness' of *Capital*. Lebowitz observes '*Capital* is essentially about capital,' noting that '*Capital* looks upon the worker from the perspective of capital (that is, as an object for capital

rather than as a subject for herself)' (see Lebowitz 2003, ix, 104). Actually, in this regard the *Grundrisse* and other pre-*Capital* writings contain descriptions that attach more importance to the worker's autonomy than does *Capital*. In addition, they present diverse discussions on the distinction between labour power and labour; in *Capital*, however, the distinction is exclusively positioned as the groundwork for the exploitation theory. Although those discussions in Marx's pre-*Capital* writings are rather fragmentary, they can be integrated into a forceful counterargument to the neoclassical principle of labour exchange.

In the original text of *A Contribution to the Critique of Political Economy*, Marx writes:

As use value, the labour capacity is realised only in the activity of labour itself, but in much the same way as with a bottle of wine which is bought and whose use value is realised only in the drinking of the wine. Labour itself falls as little within the simple circulation process as does the drinking. The wine as a capacity, *δυναμει*, is something drinkable, and the buying of the wine is appropriation of the drinkable. So is the buying of the labour capacity the appropriation of the ability to dispose over the labour. (Marx 1987, 506)⁸⁾

In this manner, Marx recognises that for both labour capacity and non-human commodities a demarcation must be made between themselves and their respective use value. However, he continues:

Since the labour capacity exists in the vi-

talinity of the subject itself and manifests itself only as his own expression of life, the buying of the labour capacity, the appropriation of the title to its use naturally places the buyer and the seller in the act of its use in another relationship to each other than that in the buying of objectified labour existing as an object outside the producer. (Marx 1987, 506)

Thus, Marx underlines the difference between the purchase of labour capacity and that of 'objected labour,' or commodities in general, with regard to the acquisition of their use value, because of the fact that 'the labour capacity exists in the vitality of the subject itself and manifests itself only as his own expression of life.' Marx describes the particular characteristics of labour exchange which this entails in the *Economic Manuscript* of 1861–63 and the *Grundrisse*, respectively:

[L]abour is . . . the expression of the worker's own life, the manifestation of his own personal skill and capacity—a manifestation which depends on his will and is simultaneously an expression of his will. (Marx 1988, 93)

What the free worker sells is always only a particular, specific measure of the application of his energy. Above every specific application of energy stands labour capacity as a totality. The worker sells the specific application of his energy to a specific capitalist, whom he confronts independently as a single individual. Clearly, this is not his [real] relationship to the existence of capital as capital, i.e. to the class of cap-

italists. Nevertheless, as far as the individual, real person is concerned, a wide field of choice, caprice and therefore of formal freedom is left to him. (Marx 1986, 392)

These excerpts show that in his pre-*Capital* writings Marx pays due attention to the worker's subjectivity regarding her labour performance. In the second extract, from the *Grundrisse*, Marx connotes that the worker's subordination to the capitalist class does not annul her independence against her individual employer. In the *Elements*, Walras presupposes that the worker's various personal faculties are separable from each other as entities, and that each time-unit use of each of them provides the same service. In contrast, according to Marx, 'Above every specific application of energy stands labour capacity as a totality.' In other words, Marx implies that labour capacity, a counterpart of Walras's personal faculties, is an indecomposable element of human abilities. Thus, unlike in the *Elements*, the worker originally has discretion over the entire mode of the use of her labour capacity as its inalienable owner. Hence, to quote from the above excerpts, the type and intensity of labour is variable as 'a manifestation which depends on his [the worker's] will and is simultaneously an expression of his will,' and so 'a wide field of choice, caprice and therefore of formal freedom is left to him' on labour performance.

The above viewpoint, simple in itself, possesses profound significance for the present-day postindustrial economy. Michael Hardt and Antonio Negri (2000, 280–303; 2004, 103–15) argue that in contrast to the modern industrial economy, where 'workers learned how to act like machines both inside

and outside the factory,' in the postindustrial economy with the rising dominance of the service sector, immaterial labour creating 'immaterial products, such as knowledge, information, communication, a relationship, or an emotional response' achieves hegemony and imposes a tendency even on agricultural and industrial labour; 'other forms of labor and production are adopting the characteristics of immaterial production.' Here, Hardt and Negri suggest, workers are to incessantly change the mode of their labour as appropriate to their communication and interaction with others, just as the computer can continually modify its own operation through its use. Additionally, 'the cooperative aspect of immaterial labor is not imposed or organized from the outside, as it was in previous forms of labor, but rather, cooperation is completely immanent to the laboring activity itself' (emphasis in original; see Hardt and Negri 2000, 294). In these circumstances, although workers are still or even more subordinate to their employers in the power relationship, their subjectivity acquires crucial importance as to their labour performance, and so it is irrelevant to assume the constancy of the type and intensity of per time-capita labour as Walras does *de facto*.

Thus is drawn such a conclusion in the following passage from *Capital*:

One consequence of the peculiar nature of labour power as a commodity is, that its use value does not, on the conclusion of the contract between the buyer and seller, immediately pass into the hands of the former. (Marx [1867] 1996, 184)

The severance of the buying and selling of

labour power and the buyer's acquisition of its use value, or labour, mentioned here is, of course, not solely a matter of time lag. Its crux must be that the purchase of labour power or the labour contract as such does not assure the buyer her actual acquirement of any certain labour, owing to 'the peculiar nature of labour power as a commodity,' that is, its inalienability and the resulting dependence of its use on the worker's will or preference and the constraints upon it; however, *Capital* shuns the accentuation of this feature of labour power. This severance is already articulated in the *Grundrisse* (see Marx 1986, 204–05). Thus, unlike Walras's personal faculties–labour distinction, Marx's distinction between labour power and labour is not a mere factor–service demarcation, but defines the particular characteristics of labour exchange.

In the *Grundrisse*, Marx notes: 'In so far as it [labour time] is exchangeable in that form (is itself a commodity), it is not only quantitatively but also qualitatively determined and differentiated' (see Marx 1986, 107). Now that Marx's labour power–labour distinction implies that time-unit labour, unlike in Walras's model, can provide quantitatively and qualitatively diverse service—or concrete useful labour in Marx's terms—contingent on the worker's preference and the constraints upon it, labour time as such cannot be an adequate trading unit of the labour service market. Indeed, Marx writes: 'Labour time itself exists as such only subjectively, only in the form of activity' (see Marx 1986, 107). Furthermore, Marx explains that even in the same branch of industry '[t]he labours of individuals . . . are not only *quantitatively* but *qualitatively* differ-

ent' (emphasis in original; see Marx 1986, 109).

Accordingly, what remains as a candidate for the trading unit of the labour service market is labour *per se*. In the *Economic Manuscript of 1861–63*, Marx argues this issue:

Originally, it is true, we were able to measure labour capacity with money, because it was itself already objectified labour, and the capitalist could therefore buy it; but were unable to measure *labour itself* directly, for as bare activity it escaped our standard of measurement. Now, however, in the measure to which, in the labour process, labour capacity proceeds to its real manifestation, to labour, the latter is realised, appears itself in the product as objectified labour time. . . . At the end of a certain measure of labour time, e.g. hours, a certain quantity of labour time has been objectified in a use value, say twist, and now exists as the latter's exchange value. (emphasis in original; Marx 1988, 83)

This citation articulates the impracticability of measuring 'labour as bare activity,' or labour in a concrete useful form, and suggests that abstract human labour alone can be quantitatively perceived through the exchange value of the product.⁹⁾ The denial of the immediate measurability of labour—true, it may safely be said that except for very simple and mechanical work, the quantitative perception of concrete useful labour in general exceeds human capability—involves the negation of rendering labour *per se* the trading unit of the labour service market.¹⁰⁾

In consequence, no adequate trading unit of the labour service market can be found in

either labour time or labour *per se*, and so a requisite for the formation of the market, that is, the definition of its appropriate trading unit, proves absent. Thus, Marx's discussions lead to the refutation of the neoclassical principle of labour exchange asserting the market determinability of work conditions. That, in turn, allows room for the intervention of 'extra-economic' factors, especially the worker–employer power struggle, in the settlement of work conditions. There is no reason to deny that the struggle does not remain individual, but unfolds socio-politically as labour–capital class strife. In *Value, Price and Profit*, indeed, Marx states:

The maximum of profit is . . . limited by the physical minimum of wages and the physical maximum of the working day. It is evident that between the two limits of this *maximum rate of profit* an immense scale of variations is possible. The fixation of its actual degree is only settled by the continuous struggle between capital and labour, the capitalist constantly tending to reduce wages to their physical minimum, and to extend the working day to its physical maximum, while the working man constantly presses in the opposite direction. The matter resolves itself into a question of the respective powers of the combatants.

. . . As to *the limitation of the working day* in England, as in all other countries, it has never been settled except by *legislative interference*. Without the working men's continuous pressure from without that interference would never have taken place [*sic*]. But at all events, the result was not to be attained by private settlement be-

tween the working men and the capitalists. This very necessity of *general political action* affords the proof that in its merely economic action capital is the stronger side. (emphasis in original; Marx [1898] 1985, 146)

By this logic, Marx's labour power–labour distinction-based arguments legitimise his other observation, the role of labour–capital class conflict as a prime determinant of work conditions. Note that the whole reasoning here stands quite independent of the concept of exploitation as the main contention of Marx's labour power–labour distinction—the difference between the value created by labour and the value of labour power as the source of profit.

On the other hand, Marx explains how the development of mechanisation in capitalistic production deprives workers of skills and resistance, thereby giving capitalists overwhelming dominance (see, for example, Marx [1867] 1996, 374–509). The characterisation of the worker 'as an object for capital' in *Capital* arguably reflects the 'full-fledged' stage of capitalism in this respect. The adverse effect of mechanisation on the worker is mentioned also in Marx's pre-*Capital* writings (see, for example, Marx 1986, 41; 1988, 318–46). Yet they simultaneously demonstrate the prototype of labour exchange, where the worker acts as an independent agent towards the employer.

IV Concluding Remarks

This study has examined Walras's and then Marx's thoughts on labour exchange in their comparisons, and illuminated the latter's discussions that can lead to a potent argument

against the neoclassical principle of labour exchange, for which the former affords a foundation. As an inheritance from his father, Walras distinguishes between personal faculties and labour. This distinction, however, never aims to reveal the peculiarities of the relationship between the two; rather, Walras essentially equates it with the relationship between non-human factors and their respective services by stripping the former of human elements. This treatment not only allows labour exchange to be incorporated into Walras's general equilibrium system, but also provides the groundwork for the marginal principle-based neoclassical labour exchange doctrine, which deduces the market determinability of work conditions through the conventional adjustment of the demand and supply of labour on each entrepreneur's and worker's maximisation behaviour.

Although only fragmentarily, in his pre-*Capital* writings Marx underlines the subjectivity of the worker, qua an inalienable possessor of labour capacity, in the decision on her labour performance. As Marx deduces, this implies that unlike in Walras's model, where each time-unit use of a personal faculty is assumed to provide the same service, the type and intensity of time-unit labour is variable depending on the worker's will and the constraints upon it. Hence, labour time cannot be an adequate trading unit of the labour service market. Marx also denies the immediate measurability of labour *per se*. Accordingly, in general there exists no appropriate trading unit in terms of which the labour service market is formed. Thus, highlighting the particular characteristics of labour exchange, Marx's distinction between labour power and labour leads to the invali-

dation of its neoclassical principle and rationalises his other observation—the intervention of socio-political factors represented by the labour–capital class struggle in the determination of work conditions.

In this manner, Marx's discussions on labour exchange attach importance to the worker's preference regarding the content of her labour. Walras and other neoclassical economists, as utility-oriented theorists, should take due account of this preference, but they ignore it. This contrast causes Marx's thoughts on labour exchange to embrace forceful and intrinsic criticisms of the neoclassical doctrine.¹¹ However, Marx's focus on the worker's subjectivity nearly disappears in *Capital*. Here, in principle, labour power is treated as a commodity, used at the bidding of the capitalist. Arguably, this change is attributable to the fact that the labour power–labour distinction in *Capital* is exclusively identified as the cornerstone of the principle of exploitation based on the labour theory of value.¹² As a result, pushing abstract human labour to the fore, Marx in *Capital* marginalises concrete useful labour as irrelevant to value and exploitation, and tends to underestimate labour in the service sector as producing no surplus value. Yet it is concrete useful labour, not abstract human labour, whose concept is shared by neoclassical economists and which concerns the worker's preference. Additionally, the service industry has become increasingly dominant in today's economy.

Thus, while the establishment of Marx's value and exploitation doctrine in *Capital* marked the limit of his studies and criticisms of classical economics, this doctrine shoved aside those viewpoints in his pre-*Capital*

writings that could lead to convincing counterarguments to the neoclassical theory. Most Marxists up to the present followed the direction established in *Capital*. Historical research on Marx's economics, too, centred around topics as to the value and exploitation doctrine. The same is true of the comparison between Marx and neoclassical economists. This made the comparative study of them remain secondary to the study of the Marx-classical economist relationship, despite the fact that more than a century has passed since the neoclassical school obtained hegemony. Consequently, critics on the neoclassical side asserted that Marx made little positive contribution to the history of economics and so mainstream economists might well neglect his economics (see, for example, Brewer 1995).

By giving attention to Marx's discussions on the labour power-labour distinction in his pre-*Capital* writings and contrasting them with Walras's counterparts, this paper revises the above tendency and shows that Marx's thinking contains an element which, independent of his labour theory of value and conception of exploitation, can be an intrinsic and potent criticism of the paradigm of neoclassical economics and thereby justify his socio-economic views. This also urges the re-evaluation of the development of Marx's economic thought.

Indeed, given that present-day capitalism is characterised by the globalisation of a market-oriented economy, which the neoclassical tenet indisputably supports ideologically, and that Marxian thinking along the traditional line reaches a grave stalemate today, the reappraisal of Marx's pre-*Capital* discussions on labour exchange introduced

in this study will have more impact than a mere historical retrospect.

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Notes

- 1) As is well known, Eugen v. Böhm-Bawerk ([1896] 1984) pioneers the debates concerning the transformation problem by indicating the discrepancy between the theory of value developed in Volume I of *Capital* and that of the price of production in Volume III. Moreover, also famously, Nobuo Okishio (1963) and others prove that the so-called fundamental Marxian theorem, or the capitalist's exploitation of labour as a requisite for positive profit, holds good independently of the labour theory of value. Having rigorously examined exploitation, John E. Roemer (1982) shows that the demonstration of exploitation in the Marxian sense becomes impossible once the heterogeneity of labour is assumed. Samuel Hollander (2008), with close reviews of Marx's writings, concludes his theories of value and exploitation to result in their submission to the orthodoxy.
- 2) This principle is explicitly stated in most modern economics textbooks (see, for example, Mankiw 1998, 384–92). For literature criticising neoclassical concepts of labour exchange, see, for example, Herbert Gintis (1976) and Geoffrey M. Hodgson (1980).
- 3) Walras states: 'Since capital, by definition, outlasts its first use and consequently affords a series of successive uses, the flow of uses evidently constitutes a flow of income. . . . In order to bring out the distinction between capital and income, we shall designate all those incomes which consist in the uses made of capital by the name of *services*' (emphasis in original; see L. Walras [1926] 1954, 213).
- 4) About Auguste's influence on his son

- concerning terminology and definitions, see, for example, William Jaffé (1935, 190–92).
- 5) Walras did not refer to the marginal productivity theory in the first three editions of the *Elements*. He did so in Lesson 36 of the fourth edition of the book (see L. Walras [1926] 1954, 382–92). Kayoko Misaki (1998, 68–71) emphasises Walras's intention to introduce marginal productivity theory as an analytical tool of the determination of minimum average cost-bringing coefficients of production rather than as distribution doctrine.
 - 6) Walras complains: 'Workers have no exact notion of the mechanism of the determination of prices of products and productive services through free competition' (Les ouvriers n'ont point une notion exacte du mécanisme de la détermination des prix des produits et des services producteurs par la libre concurrence) (see L. Walras 1996, 581).
 - 7) 'Wages are determined through the antagonistic struggle between capitalist and worker' (emphasis in original; Marx 1975, 235). 'The size of wages is determined at the beginning by *free* agreement between the free worker and the free capitalist. Later it turns out that the worker is compelled to allow the capitalist to determine it, just as the capitalist is compelled to fix it as low as possible. *Freedom* of the contracting parties has been supplanted by *compulsion*' (emphasis in original; Engels and Marx [1845] 1975, 32–33).
 - 8) As in this quoted passage, Marx, in pre-*Capital* writings, generally used the word 'labour capacity' (*Arbeitsfähigkeit* or *Arbeitsvermögen*) in lieu of labour power.
 - 9) 'As an intrinsic element, each concrete useful labor has a specific form and aim; it is not measurable in quantity, and is distinguishable only in qualitative terms' (Park 2003, 163).
 - 10) The observation that labour intensity is variable depending on the worker's preference and the constraints upon it also forms a basis of the efficient wage theory (see, for example, Yellen 1984; Shapiro and Stiglitz 1984). Samuel Bowles and H. Gintis (1990, 314) remark that the idea of the efficiency wage theory originated in Marx's analysis of the extraction of labour from labour power. Efficiency wage theorists, however, scarcely offer a specific explanation as to the substance of labour, or what they call effort. Nevertheless, they quantify effort and, moreover, de facto presuppose that both the worker and the employer have the ability to grasp effort level. This also holds for Bowles and Gintis's 'neo-Marxian' contested exchange model, which embraces the efficiency wage concept. The model assumes that the employer sets the maximum profit-bringing wage level based on her knowledge of the worker's effort response to wages, or the 'labor extraction function' (see Bowles and Gintis 1990, 179). If so, then there will be no denying that bargaining can be conducted in terms of effort, which is supposed to be quantitatively perceived by both the worker and the employer. Contrary to Bowles and Gintis's intention, this admits the buying and selling of labour *per se* negated by Marx, and results in turning back the contested exchange model to the conventional labour market model (see Bowles and Gintis 1990, 180–82). Criticising efficiency wage theorists and others' notion that effort is cardinally measurable, Martin Currie and Ian Steedman (1993, 136) write: 'What are the *units* in terms of which care, attentiveness and initiative are to be measured?' (emphasis in original). In all truth, 'care, attentiveness and initiative' are important work categories in today's service production-dominated economy.
 - 11) Pagano (1985, 50–59, 114–15) argues persuasively that Marx considered communist society to be a world where the worker's

welfare obtained from the content of work, to which she is originally sensitive but which is undermined in capitalist and even early socialist society, can be sought to the fullest extent, whereas Walras supposed the worker's indifference to the content of work to be primordial (about this matter, see, in particular, Marx 1989, 85–87). Hodgson (1980, 265) reveals the contradiction inherent in neoclassical economics that, while assuming the worker's 'free' will in the labour contract, neoclassical economists necessarily negate that will in order to admit the appropriation of labour like that of a machine's services. At least this criticism may hold for Walras's thought. See also David A. Spencer (2009, 69–93) as an insightful investigation into the difference among neoclassical economists in their treatment of work.

- 12) One of the most critical problems with Marx's 'commoditisation' of labour power arises when he supposes that the value and price law regulating commodities in general also holds for labour power (see, for example, Marx [1898] 1985, 144; [1867] 1996, 180–81). Marx does not specify how this notion can harmonise with the following view in *Capital*: 'In contradistinction . . . to the case of other commodities, there enters into the determination of the value of labour power a historical and moral element' (see Marx [1867] 1996, 181). Blaug (1996, 258) gives a pertinent comment on this passage: '[Marx] fails to point out that competition provides no mechanism to reduce the "market price" of labour power to its "natural price." The labour theory of value as such does not guarantee that labour power will sell at its (labour) value.'

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