

Marshall and the Notions of Welfare and Value in the Cambridge Tradition

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Abstract

This article analyses the notions of welfare and value in the contributions of Alfred Marshall, and how they were developed or criticised within the Cambridge economic tradition, especially by authors like Piero Sraffa and Amartya Sen who, like Marshall, saw themselves as continuators of classical political economy (albeit with different interpretations of the latter). The analysis is conducted drawing on the stratified ontology adopted in critical realism. It is argued that contributors developing or criticising Marshall placed their emphasis on different aspects, which can be fruitfully identified in terms of the critical realist stratified ontology, depending both on their analytical purposes and strategic intentions when engaging in academic debate. The distinction between welfare and value is also shown to be essential to the Cambridge economic tradition, and its stance towards modes of socio-economic organisation.

Keywords: Stratified ontology, Welfare, Value, Marshall, Cambridge tradition, classical political economy.

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1. Introduction

Alfred Marshall is commonly seen as the founder of the Cambridge economic tradition (Backhouse 2006; Harcourt 2003; Martins 2013). Two key notions associated with Marshall's contribution are welfare and value, which Marshall addresses in a quite different way from other authors associated with the so-called marginalist revolution. Those differences, when addressing welfare and value, happen also because Marshall presents himself as a continuator of classical political economy, unlike other authors associated with the marginalist revolution, who see their contribution essentially as a break with the classical tradition.

While other marginalist contributors – for example, Stanley Jevons, Carl Menger or Léon Walras – see welfare and value essentially in terms of subjective states, Marshall adopts a view where both subjective aspects (emphasised by the marginalist authors) and more objective aspects (emphasised by the classical political economists) play a role. When focusing on the long period, or on even longer processes connected to historical analysis, Marshall actually suggests that the more objective factors are the crucial ones. However, in the analysis of the short period, Marshall focuses both on subjective and objective factors regarding the determination of value, and the assessment of human wellbeing.

Subjective aspects play a prominent role especially in Marshall's partial equilibrium analysis, which became influential for the economic theory developed at Cambridge, especially by Arthur Cecil Pigou, Marshall's successor at Cambridge, who embraced a more subjectivist orientation than Marshall. Even John Maynard Keynes, whose critique of Pigou led to the separation of the Cambridge tradition into two different branches (Harcourt 2003; Martins 2013), adopted a more subjectivist orientation, with

ultimately rooted in what Keynes (1936) saw has the three key psychological laws of his theory.

While Keynes maintained elements of Marshall's equilibrium analysis (Hayes 2006), Piero Sraffa (1960), Keynes' close collaborator, provided a more radical critique of Marshall's partial equilibrium analysis (Sraffa 1925, 1926), engaging also in a debate with Marshallian authors like Dennis Robertson and Gerald Shove (Robertson, Sraffa and Shove 1930). Sraffa (1960) was ultimately led to a revival of classical political economy where value is measured in terms of objective notions like quantity of commodities and quantity of labour time (Meek 1961).

Hilary Putnam and Vivian Walsh (2012) argue Sraffa's (1960) analysis of value inaugurates a new stage of a revival of classical political economy at Cambridge, a minimalist one given its emphasis on the basic elements for a theoretical framework. For Putnam and Walsh (2012), Amartya Sen's (1985) capability approach to human development constitutes yet another stage of a revival of classical political economy, now focused on human wellbeing (and with a rich description of wellbeing that stands in contrast to Sraffa's minimalist approach). Sen focuses on objective human functionings, that is, what a person is or does, as the basis of human wellbeing, where potential functionings constitute what Sen calls *capabilities*. Sen's capability approach allows addressing inequality while overcoming critiques made to the more subjectivist Pigovian approach to welfare economics by Lionel Robbins (1932, 1938).

The revival of classical political economy brought about by Sraffa and Sen explains value and welfare, respectively, focusing on actual entities (commodities and functionings, respectively), which may be seen as the ultimate cause of whatever subjective states may also influence value and welfare. As noted above, Marshall adopted

a similar view regarding the long period, even if his own interpretation of classical political economy is rejected by Sraffa (1960) as inappropriate (Martins 2013).

It is argued here that albeit the revival of classical political economy brought by Sraffa and Sen points in an important direction, further steps are needed. To do so, a stratified ontology associated with critical realism is adopted here. This stratified ontology, advanced by Roy Bhaskar, has been developed at Cambridge by Tony Lawson (1997), and was adopted by Stephen Pratten (1998) when interpreting Marshall's contribution. The goal here is to further expand those developments.

To do so, it is important to note that in the critical realist stratified ontology, a distinction is made between: (i) the empirical domain, constituted by our experiences; (ii) the actual domain, which includes also the events at the basis of our experiences; and (iii) the real domain, which includes also the structures, powers, mechanisms and tendencies that cause events and our experiences of them (Lawson 1997).

The marginalist revolution, when focusing on subjective states, placed the empirical domain at the basis of economic analysis. Marshall's contribution contains a vision that goes beyond subjective states (Pratten 1998), and opens the door to a more objective approach, adopted more consistently by Sraffa and Sen in their revival of classical political economy. But although their analysis presupposes, ultimately (like Marshall's), the real domain (Martins 2013), the focus of Sraffa and Sen has been on objective entities of the actual domain (such as commodities and functionings, respectively), especially in their debate with mainstream economics.

Effectively, in their debates with mainstream economists, Sraffa (1960) and Sen (1982, 1985) make no explicit acknowledgement of the underlying structures, powers, mechanisms and tendencies presupposed in their argument (Martins 2013). However, even notions such as commodities (Sraffa 1960) presuppose a social system of social

relations, since relations between commodities, expressed in prices, reflect ultimately social relations, as Karl Marx (1999) noted right at the beginning of *Capital* when analysing commodities. Furthermore, human functionings (Sen 1985) depend ultimately upon a relational human nature, as again noted by Marx.

A more systematic and conscious focus on the real domain at Cambridge emerges with Lawson's (1997) approach to critical realism in economics, initially debated at the Cambridge Realist Workshop, and subsequently elaborated in the Cambridge Social Ontology Group (Slade-Caffarel 2024). This realist approach provides the basis for a further elaboration of the notions of welfare and value, focusing on the underlying structures, powers, mechanisms and tendencies that cause it, while helping systematising previous contributions to the topic in the Cambridge economic tradition. Furthermore, it helps elaborating a distinction between welfare and value that is central to the Cambridge economic tradition since Marshall, and had also been made by Marx.

Since the point is to develop a socio-economic framework, the emphasis is on common features that help achieving such a framework – see Morgan (2016) for an important discussion of such an approach, and of how Marx could be included more prominently than Marshall in such an exercise, given his influence on various authors of the Cambridge tradition like Sraffa, Sen or Lawson. The emphasis on a realist ontology helps finding a common framework withing the Cambridge tradition, which would be difficult to find at the level of substantive theory of value and well-being (Martins 2021).

The next section, section 2 addresses Marshall's definitions of welfare and value, and its role in Marshall's theory. Section 3 addresses Marshallian-Pigouvian welfare economics and the critiques it received from Robbins' positivist perspective. Section 4 provides a critique of positivism from a critical realist perspective. Section 5 discusses the role social ontology can play in explaining economic coordination. Section 6

discusses the organisation of the labour process drawing on the notion of organisation, which was quite central for Marshall. Section 7 addresses Sraffa's critique of Marshall's partial equilibrium method. Section 8 discusses the revival of classical political economy at Cambridge brought by Sraffa and Sen (and how it differs from Marshall's own continuation of classical political economy). Some concluding remarks follow.

2. Marshall on welfare and value

A central book in shaping the Cambridge economic tradition, and the dominant approach to economics in Britain and elsewhere for some time, is Alfred Marshall's *Principles of Economics*, first published in 1890, and revised until its eight (and final) edition in 1920 (Marshall 1920), four years before Marshall's death. At the beginning of the *Principles*, Marshall stresses the centrality of its subject matter, economics, in world history. Thus Marshall (1920, p. 1) notes how "the two great forming agencies of the world's history have been the religious and the economic", while providing the following assessment of the relative influence of both: "Religious motives are more intense than economic, but their direct action seldom extends over so large a part of life."

Marshall (1920, p. 1) then provides an influential definition of economics, as the study of human beings "in the ordinary business of life". But Marshall (1920, p. 1) quickly adds the more specific indication that economics "examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing". Wellbeing is indeed the central notion in Marshall's approach to economics. For the various theoretical aspects developed by Marshall are ultimately aimed at understanding how to foster the material requisites of wellbeing. Thus, at the end of the *Principles* – chapter 13 of book VI – Marshall (1920, p. 574)

returns to this topic, and addresses the “standard of life”, which he takes to be “the standard of activities adjusted to wants”.

Marshall sees both activities and wants as important when addressing the standard of life. But for Marshall, the fundamental aspect of the standard of life is the development and activity of human faculties. Thus, in chapter 2 of book III of his *Principles of Economics*, Marshall (1920, p. 76) criticises Stanley Jevons for placing a theory of consumption based on subjective wants as the “scientific basis of economics”. For Marshall, the basis of economic science – and thus of its analysis of the material conditions of human wellbeing – lies in the study of activities. But a study of wants is also important for understanding human activities, not least because the development of activities requires also abstaining from wants that may undermine those activities.

Marshall (1920, p. 112) compares two contrasting views of the role of wants in chapter 6 of book III of the *Principles*, where he notes that “Buddhist doctrine” advocates that “real riches consist not in the abundance of goods but in the paucity of wants”, while at “the other extreme are those who maintain that the growth of new wants and desires is always beneficial because it stimulates people to increased exertions.” Marshall (1920, p. 112) criticises the latter extreme view, noting: “They seem to have made the mistake, as Herbert Spencer says, of supposing that life is for working, instead of working for life.” Marshall (1920, p. 112) takes a more moderate position, noting that “some strenuous exertion is necessary for physical and moral health, and concludes, regarding wellbeing: “The fullness of life lies in the development and activity of as many and as high faculties as possible.”

In addition to wellbeing, another central aspect in Marshall’s approach is value, and its measurement. Marshall (1920, p. 13, original emphasis) argues the advantage of economics over other social sciences springs from dealing with cases where “the force of

a person's motives – *not* the motives themselves – can be approximately measured by the sum of money” given “in order to secure a desired satisfaction” or “undergo a certain fatigue.” Marshall (1920, p. 13) stresses that motives cannot be directly measured for, as he writes, “no one can measure the mental states of another at all except indirectly and conjecturally by their effect.” The sum of money used to measure the force of the person's motive reflects the exchange value, which Marshall (1920, p. 51) finds the more appropriate use for the term “value”, and “expresses the relation between two things at a particular place and time.”

Welfare and value are thus two central notions, if not *the* two central notions, of Marshall's approach to economics, as expressed in his *Principles*. For economics is defined in terms of a study of the material conditions of *wellbeing*, and its key distinctive characteristic, and relative advantage vis-à-vis other social sciences, lies in its ability to quantify in terms of *value*, measured in money.

To study value, Marshall focuses on what he sees as a mechanical equilibrium, which is a partial (or as Marshall calls it, a particular) equilibrium, in the sense that it abstracts from the forces outside a particular market. The analysis of a mechanical equilibrium is applied in book V of Marshall's *Principles* in order to study the interaction between supply and demand, which Marshall takes to be the ultimate determinants of (exchange) value.

But Marshall also combines his analysis of value with his analysis of wellbeing, noting how the value of a good or service need not correspond to its impact on wellbeing. To do so, Marshall (1920, p. 103), draws on his idea of a consumer surplus, defined as the “excess of the price” one “would be willing to pay rather than go without the thing”, over the price that is actually paid. That is, there is a difference between the wellbeing delivered by a good or service, and the value paid for it. Marshall's distinction between

value and wellbeing corresponds to the distinction between wealth and welfare made by his successor at Cambridge, Arthur Cecil Pigou (1912, 1920).

Another important distinction is made between the wellbeing different individuals achieve out of the same value. Thus, Marshall (1920, p. 108) also notes that “the real worth of a thing may be discussed with reference not to a single person but to people in general”. In this regard, Marshall (1920, p. 108) writes: “This involves the consideration that a pound’s worth of satisfaction to an ordinary poor man is a much greater thing than a pound’s worth of satisfaction to an ordinary rich man”. But here Marshall is already focusing on more subjective wants and their satisfaction, while noting how those with less income have a higher marginal utility for their income.

The distinction between the wellbeing different individuals achieve out of the same value was highlighted not only by Marshall, but also by Marshall’s mentor at Cambridge, Henry Sidgwick, and also by Pigou. In fact, Sidgwick and Pigou put a greater emphasis on this aspect than Marshall. The distinction between the wellbeing different individuals achieve out of the same value lies at the foundation of the branch of the Cambridge economic tradition more centred in the analysis of welfare, which starts with Pigou’s developments of Marshallian theory (Backhouse 2006; Harcourt 2003; Martins 2013).

3. Marshallian-Pigouvian welfare economics and the LSE critique

Pigou’s *Economics of Welfare* became the central book of the branch of the Cambridge economic tradition more centred in the analysis of welfare (Harcourt 2003). Pigou (1920), together with Hugh Dalton (1925), contributed to a much greater visibility of the idea that social utility increases when transferring income from individuals with more income, and thus a lower marginal utility for a given additional income, to individuals with less

income, and thus a higher marginal utility for the same additional income. Those transfers, termed Pigou-Dalton transfers (Sen 1982), are in line with Marshall's (1920) distinction between more and less urgent desires (and also connected to Sidgwick's utilitarian ethics).

But Pigou (1932) defined welfare in a different way than Marshall. In his *Economics of Welfare*, Pigou (1932, p. 10) avoids a detailed discussion of the meaning of welfare, and asserts, as he says, "more or less dogmatically", two propositions: "first, that the elements of welfare are states of consciousness and, perhaps, their relations; secondly, that welfare can be brought under the category of greater and less." While Marshall analyses wellbeing in terms of the development and activity of human faculties, Pigou shifts the emphasis to states of consciousness. To be sure, Marshall ends up focusing on subjective wants and its degree of satisfaction to a great extent, when analysing value. But Pigou takes the further step of centring the definition of welfare (rather than merely the analysis of value) in subjective phenomena such as states of consciousness, rather than in the development and activity of human faculties, as Marshall did.

Pigou, by focusing on the state of consciousness, moves closer to the more subjectivist approach that Marshall criticised when discussing Jevons' view of economic science. Despite his more subjectivist tendency, however, Pigou's emphasis on redistribution seems a quite direct development of Marshall's treatment of such notions as consumer surplus, which play a central role in the Cambridge analysis of redistribution aimed at increasing welfare, an approach that became increasingly interpreted in terms of Pigou's framework.

Pigou's more subjectivist approach opened the door to Lionel Robbins' (1932, 1938) critique of interpersonal comparisons of utility. Robbins follows the more subjectivist view of human preferences of marginalist authors like Jevons, in seeing utility

as an irreducibly subjective phenomenon. But unlike Pigou, Robbins (1935, 1938) argues that if well-being is assessed in terms of irreducibly subjective preferences, then it is not possible to compare the well-being of different individuals, as Pigou presupposes – much less include normative issues entailed by such a kind of welfare analysis within economics which, for Robbins (1932), should be a positive (i.e., value-free) science (Putnam and Walsh 2012). The shift of emphasis towards subjective states of consciousness makes it difficult to find an objective basis for Pigou-Dalton transfers aimed at increasing social welfare through greater redistribution, as argued in Marshallian-Pigouvian Cambridge welfare economics (Sen 1982).

Robbins' (1932, 1938) critique of Marshallian-Pigouvian welfare economics has far reaching consequences, for it is connected to Robbins' redefinition of economics as the science that studies the allocation of scarce resources that have alternative uses, while trying to separate positive analysis from normative aspects, to be left outside economics. This definition of economics stands in contrast to Marshall's more substantive definition. Robbins' approach, at a philosophical level, is in line with what is sometimes termed *neo-positivism* (Putnam and Walsh 2012), in order to distinguish it from Auguste Comte's positivism, and situate the former in line with the Vienna Circle, and its separation between facts and values. In the neo-positivist approach, science aims at finding logical or mathematical relations between facts.

Robbins' definition became widely influential in economics, leading to a conception where value arises from utility. However, in mainstream economics utility means not so much the objective use we may find for the good or service in our activities, but rather the very desire for it. Because desire-satisfaction increases with a greater quantity of goods and services, the intensity of desire, that is, subjective utility, decreases when we have a higher quantity of goods or services. Since subjective utility decreases

with the quantity of goods or services in existence, value depends also on the relative scarcity of a given good or service. So although (decreasing) subjective utility is the source of value, it becomes manifest in different values, which depend on the different quantities, or relative scarcities, of goods and services.

In Robbins' (neo)positivist approach to economics, subjective utility is essentially a mental fact to be grasped, as a positive fact (separated from normative implications) which becomes manifest only when confronted with a given quantity of goods or services. So albeit human preferences are irreducibly subjective, they become revealed in market exchange of certain quantities of goods and services. Market exchange is then the mechanism through which value is found, and thus the basis for economic coordination and distribution based on value (as revealed in market exchange).

The more influential formulation of this approach in economic theory arose with the developments brought by Vilfredo Pareto to Walrasian general equilibrium theory, where given an initial distribution of goods and services, market exchange leads to an allocation of goods and services according to the subjective preferences of those involved. And in the Walrasian-Paretian approach, subjective states can be ordered, as Pigou also noted, but not measured exactly (as Marshall had already noted). This leads the Walrasian-Paretian approach to a notion of ordinal utility, which stands in contrast with the cardinal utility that seems presupposed in Marshallian-Pigouvian welfare economics. Furthermore, in the Walrasian-Paretian approach subjective (ordinal) utility is the basis both for value and wellbeing, thus blurring the Marshallian-Pigouvian distinction between value and wellbeing.

Despite the important influence of Robbins, and Friedrich Hayek, who was with Robbins at the London School of Economics (LSE) in the 1930s, it is in John Hicks' (1939) *Value and Capital* that we find the more influential Walrasian-Paretian approach

to general equilibrium that emerged in the 1930s at the LSE, as an alternative to the Marshallian-Pigouvian approach to partial equilibrium that prevailed at Cambridge. Hicks (1939) notes he was part of a generation of economists more influenced by Pareto's 1907 *Manuale di Economia Politica* than by Marshall's *Principles of Economics*.

The Walrasian-Paretian approach developed at the LSE contributed also to further consolidate Robbins' separation between positive economics and normative economics. Themes such as inequality and distribution – quite central in the Marshallian-Pigouvian approach – were relegated to normative (i.e., non-scientific) economics, as positive (that is, scientific) economics should focus on efficiency, studied in terms of Pareto optimality.

Welfare economics starts subsequently to be addressed within the framework of Kenneth Arrow's and Gérard Debreu's (1954) neo-Walrasian general equilibrium theory, in which: (i) a Pareto optimum can be achieved through a competitive equilibrium with complete markets, complete information and perfect competition; and (ii) any Pareto optimum can be achieved through a competitive equilibrium with the same properties for an initial level of endowments.

In the neo-Walrasian analysis, the emphasis is on the mathematico-deductivist techniques employed, which play a secondary role in the Marshallian-Pigouvian framework. The Paretian emphasis on an ordinal approach to utility further contributed to the emergence of a formalist approach where substantive aspects concerning human well-being find less (or even no) space, not least when compared to what was the case in the Marshallian-Pigouvian approach.

4. Critical realism and positivism

The subjectivist approach to prices that emerges within the Walrasian-Paretian framework is ultimately underpinned by a positivist conception (Lawson 1997). To

further unpack what is meant by a positivist conception, it is useful to draw upon the critical realist stratified ontology, developed by Roy Bhaskar (2016), and also by Tony Lawson (1997) in the field of economics.

In the critical realist conception, reality consists of three domains. The first domain is the empirical domain, constituted by our experiences. The second domain is the actual domain, constituted also by the events behind our experiences. The third domain is the real domain, which comprises also the structures, powers, mechanisms and tendencies that cause events and our experience of them (Bhaskar 2016; Lawson 1997).

Bhaskar (2016) notes that the actual level encompasses the empirical level, just like the real level encompasses both other levels. In this perspective, positivism can be seen as a philosophical conception where scientific laws must be found at the actual level of events, where events include experiences, which from an outsider perspective are an event in another person's mind. Under such a conception, the method employed to study events at the actual level is typically the use of mathematico-deductivist models of the form "if event X then event Y" (Lawson 1997).

The latter approach presupposes closed systems where constant conjunctions of the form "if event X then event Y", are ubiquitous (Lawson 1997). Lawson (1997, 2003) argues that mainstream economics is characterised in terms of a mathematico-deductivist methodology that presupposes closed systems, and notes that the mathematico-deductivist techniques that characterise modern mainstream economics emerged out of Walrasianism to a significant extent (Lawson 2003).

The focus on the application of mathematico-deductivist methods to events presupposes a positivist methodology, to the extent that it consists in establishing correlations between events at the actual level. Here positivism is understood not merely as an attempt to separate facts and values (Robbins 1932), but also as a study of facts by

finding mathematical or logical relations between them (in line with the approach of the Vienna circle, often termed *neopositivism*, as noted above), without attempting to identify underlying structures, powers, mechanisms or tendencies behind them. But both views of positivism are related, since a study of the underlying structures, mechanisms or tendencies behind events or facts typically unveils underlying needs that have normative implications (Bhaskar 2016; Lawson 1997), leading to an entanglement of facts and values (Putnam and Walsh 2012).

But if the key characteristic of positivism is the neglect of underlying structures, powers, mechanisms and tendencies at the real level, then positivism can be found not only in approaches where the relations are established between events or facts at the actual level, but also in approaches where the relations are established between experiences at the empirical level. Lawson (1997) argues we find again a positivist approach when subjective states are seen as irreducible mental facts to be grasped and related, without an analysis of the underlying structures, powers, mechanisms and tendencies that cause them at the real level.

This is the position Lawson (1997) finds in Hayek's earlier works on scientism, albeit noting that Hayek's later works on the notion of spontaneous order may be seen as closer to a critical realist conception, as Steve Fleetwood (2015) argues. A key difference between Walrasian-Paretian general equilibrium and the Hayekian spontaneous order is whether the state to be reached is an equilibrium where relations between prices and quantities can be described mathematically, as Walras thought, or an order that cannot be explained in mathematical terms, as Hayek believed (Fleetwood 2015).

If we assume that economic coordination requires the codification of value into prices, then the market mechanism, or some planning mechanism that allows for codification of values, becomes central to economic coordination. As Joseph Schumpeter

(1994) notes, even in the socialist calculation debate, some of the authors arguing for socialist planning drew upon Walrasian-Paretian general equilibrium theory to explain the emergence of prices that allow for economic coordination.

The idea of focusing on value and prices, as an outcome of market forces, regardless of the specific motives that lead towards a given value or price, is also favoured by Marshall, who notes how a fundamental advantage of economic science is that value can be measured independently of the motives that give rise to demand, as noted above. However, Marshall focuses also on the differences between value and welfare, since not all motivations lead to the same development and activity of human faculties, which is Marshall's criterion for wellbeing, as noted above. Marshall's emphasis on the development of human faculties points towards the underlying structures, powers, mechanisms and tendencies that cause human wellbeing, going beyond its subjective manifestation in human wants.

To the extent that this is so, we find then a vision in Marshall which is consistent with the critical realist stratified ontology (Pratten 1998). Here it is helpful to refer to Lawson's (1997) use of the critical realist stratified ontology to study human wellbeing, while distinguishing between needs, satisfiers and wants. Wants are our more immediate subjective experience at the level of the empirical domain. Those wants may be met by various satisfiers at the level of the actual domain. But wants are ultimately grounded on underlying needs caused by structures, powers, mechanisms and tendencies to be unveiled. Satisfiers at the actual level that do not meet those needs are mere palliatives that do not address the underlying root of our wants.

While most marginalist contributors focus on subjective wants at the empirical level, Marshall's conception addresses also needs when considering the development of human faculties. But Marshall's methodology points towards a positivist orientation,

when focusing on measuring subjective value independently of the underlying motivations. This is a manifestation of an underlying tension between a realist vision and a positivist method we find in Marshall (Pratten 1998).

Despite this tension, Marshall's distinction between value and wellbeing opens the door to policy intervention aimed at correcting situations where market exchange may not deliver as much wellbeing as it could, as Pigou (1912, 1920) also noted when distinguishing wealth and welfare, or when addressing externalities. In the Walrasian-Paretian approach to welfare, or the Hayekian view of the spontaneous order, in contrast, there is no criterion for assessing welfare that is independent from the values that arise through market exchange.

In fact, Hayek (1948) sees any such putative criterion as an interference with human freedom, since it is each individual, rather than any other observer (such as a welfare economist or a political philosopher) who is in the best position to find out what her or his welfare may be. To be sure, Marshall also finds markets to be promoters of freedom, and places market exchange, rather than centralised planning, as the fundamental mechanism of coordination. But the more liberal (market oriented) view at Cambridge of Marshall, Pigou and Keynes (and many others) is typically intertwined with an emphasis on correcting market failure whenever market outcomes fail to deliver human wellbeing (Backhouse 2006; Backhouse and Medema 2012; Medema 2011), which is distinguished from value and wealth (Martins 2013).

From the point of view of other marginalist perspectives (Walrasian or Austrian, for example), the latter correction (of market failure) would disturb the process through which we find the prices that reflect subjective preferences for a given level of scarcity. In the Walrasian approach, such a correction would undermine the *tatonnement* process of reaching a Walrasian-Paretian general equilibrium. In the Austrian perspective, such a

correction would undermine the process of trial and error aimed at reaching a Hayekian spontaneous order based on price signals, so that coordination takes place through market exchange.

Léon Walras provides an ideal at the level of pure theory, to be reached through a *tatonnement* process. Walras stated explicitly that his method was based on Platonic philosophy which, according to him, consists of studying universals, rather than the corporeal entities in which those universals become manifest. Value, as explained in a Walrasian general equilibrium model, would then be one of those universal ideas towards which concrete prices are tending.

Marshall's approach, in contrast to Walras' general equilibrium theory, is focused on concrete reality. At the concrete level of everyday activity, meaning emerges through social practices (McGuinness 2008; Wittgenstein 1953), also within production processes that may allow for (at least some forms of) coordination without market exchange. For planning activities can be conceived at a broader level, which may require codification for some activities, but not for others. In fact, the information that allows for economic coordination may be difficult to codify in numbers or even words. Here a crucial aspect is the number of production activities that require codification, and who provides the information and planning required. This question is explored in the next section.

5. Coordination and social ontology

The critical realist stratified ontology can provide some help regarding the explanation of socio-economic coordination. From the critical realist perspective, explanation involves moving from subjective wants at the empirical level, and the commodities and services that act as satisfiers at the actual level, towards the real level where we find the structures, powers, mechanisms and tendencies behind socio-economic coordination. In this regard,

Bhaskar (2016) advances a transformational model of social activity in which human agents continuously reproduce and transform an underlying social structure where social positions are attached to rights, obligations, duties, liabilities, and the like.

Stephen Pratten (1998) draws upon the critical realist conception to interpret Marshall, and Lawson (2003) argues that the work of Keynes, and indeed the Post Keynesian tradition he inspired, can be best interpreted in terms of the critical realist conception – albeit Lawson (2013) also noted subsequently that much work associated with Post Keynesianism as tended towards the mainstream mathematico-deductivist methodology. Marshallian economics and Post Keynesianism may be seen as the two main branches of the Cambridge economic tradition (Harcourt 2003; Martins 2013), and a case can indeed be made for a realist interpretation of the whole Cambridge economic tradition, including its more recent developments (Martins 2013).

Regarding more recent developments, critical realism has figured prominently in the Cambridge Realist Workshop organised initially by Lawson and now by the Cambridge Social Ontology Group, and running for more than 30 years at Cambridge. Effectively, the Cambridge Realist Workshop became yet another central component of the Cambridge economic tradition, where the more heterodox approaches find a forum for ongoing debate.

Critical realism offers a radically different view to that we find in marginalist theory. In the marginalist view, the idea of a market equilibrium (Marshall 1920; Walras 1874) is the key organising concept, in terms of which the social interaction of individuals is explained. The ingredients for explanation are the subjective preferences of human individuals, and the resources available for satisfying those preferences, which are codified in prices that allow for economic coordination.

In critical realism, in contrast, coordination is explained in terms of the transformational model of social activity, as the basis for human interaction is the underlying social structure of social positions attached to rights, obligations, duties, liabilities, and the like. Social structures are reproduced and transformed by human agents, who are not seen as independent atoms reacting to prices as in the marginalist approach.

Lawson (2003) goes as far as arguing that a framework similar to critical realism can be found in various heterodox economic traditions beyond Post Keynesianism, such as Marxian economics, Original Institutionalism or Feminist economics, for example. The arguments made for connecting critical realism to various approaches such as Post Keynesianism, Marxian economics, Original Institutionalism or Feminist economics (Lawson 1997, 2003) are symptomatic of the high level of abstraction at which critical realist analysis takes place. Lawson (2003) argues that a realist orientation, and its emphasis on ontology, distinguishes heterodox economic traditions from mainstream economics, which is characterised by mathematico-deductivist methods while neglecting a study of underlying structures in the real domain (Lawson 1997, 2003).

In a critical realist approach, prices can be seen as ultimately determined by social processes in the real domain where, in a Marshallian perspective, the demand side depends on how underlying needs generate specific wants, and from the supply side, the emphasis is on the reproduction of the social structures that constitute the business enterprise and its production processes (Lee 1998, 2018). But for Marshall (1920), objective processes connected to the organisation of production activities are the more decisive factor in the long run, regarding not only price formation, but also economic coordination more broadly.

When looking at those objective processes, it is important to note that Marshall (1920) saw organisation as a category central enough to be included as a new factor of production alongside land, labour and capital. But the fundamental question is how organisation is brought about, and the relative contribution of those engaged in the labour process, compared with those providing the means of production, or the public entities that provide the context for production, for example.

This is a central aspect in explaining economic coordination, while possibly going beyond the dichotomy between market exchange and centralised planning as the only alternatives to economic coordination. The socialist calculation debate presupposes that codification of value into prices, either through market exchange or centralised planning, is essential to economic coordination. Marshall's distinction between value and wellbeing (or, in Pigou's terms, wealth and welfare) opens the door to a broader discussion where wellbeing, rather than value, is the ultimate criterion for economic coordination.

To be sure, in Cambridge welfare economics, value (as codified in prices) is central to market exchange, which is a key coordination mechanism. But the Cantabrigian analysis of wellbeing stands as a more fundamental one, as a basis also for correcting market failure. Furthermore, Marshall's emphasis on treating organisation as a basic aspect of economic theory allows for going beyond merely correcting market failure, by considering various forms of organising the labour process beyond market exchange or centralised planning. Organisation, however, is a quite general ontological category, and must be studied more systematically than Marshall (1920) did.

An important ontological account, which is relevant for such purposes, can be found in Lawson's (2019, 2022) more recent contributions to *social positioning theory*, which provide a more specific account of social reality than what we find in critical realism (Faulkner, Pratten and Runde 2017; Pratten 2015; Slade-Caffarel 2024). While

broadly in line with the critical realist transformational model of social activity advocated by Lawson (1997, 2003), social positioning theory further specifies that social positions are constituted by (rather than merely attached to) rights and obligations – some of which may be codified as rules – which are the underlying structure of social processes (Lawson 2019, 2022).

Social relations are internal relations, that is, relations in which each position is constituted by the relations (that is, the package of rights and obligations) in which it stands vis-à-vis other social positions. And those social relations consist of rights and obligations through which social positions are constituted (Lawson 2019). In this context, a *social system* is a network of social positions, and social reality is constituted and organised through processes of social positioning, whereby occupants of positions have their actions or uses governed by the rights and obligations that constitute the positions occupied (Lawson 2019).

In social positioning theory, socio-economic coordination can be explained in terms of rights and obligations (Lawson 2019) that specify a normative order which leads to a given form of *organisation*, rather than in terms of a market equilibrium (Marshall 1920; Walras 1874) based on prices and quantities. In critical realist terms, we may say that it is the way rights and obligations are organised that constitutes the underlying structure in terms of which more superficial phenomena at the level of events, such as prices and quantities, can be explained.

Value can indeed be taken to mean, ultimately, organisation. Things are valued because they are organised in a certain way, which allows for given uses. But the way they are organised may be brought about by natural processes, or by human labour. Thus, land and labour appear, as the classical economists noted, as the basis from which wealth emerges (Martins 2013). Labour time (and the quantity of land required to sustain the

labourer) can be seen as an expression of value to the extent that they quantify (and thus codify) important magnitudes regarding the process through which organisation is brought about, namely: (i) spatial configurations measured by the quantity of land necessary to sustain the labourer; or (ii) temporal processes, measured through the labour time performed.

But the social processes through which organisation is brought about are explained ultimately in terms of packages of rights and obligations that constitute social positions. Forms of social organisation based on rights and obligations will be discussed more fully in the next section, given the indications it provides on Marshall's vision regarding how to go further than merely correcting market failure.

6. Organisation and the labour process

Market exchange requires rights and obligations that include rights of disposal, that lead to less restrictions (again specified in terms of rights and obligations) surrounding market exchange. The liberal view is indeed characterised by the right of disposal, which allows for greater scope for market exchange of various items whose trade is more restricted in the pre-liberal era. The aim of the liberal revolutions was to abolish the restrictions brought about by a complex set of rights and obligations existing in guilds and other institutions of the *ancien regime*.

In this context, guilds and corporations in general are unfavourably assessed by liberal authors like Adam Smith due to limitations to human freedom that can be ultimately attributed to the absence of rights of disposal. Rights of disposal are prevented by the existence of obligations towards other members of the guild and corporations in general. Marshall (1920, p. 611), in contrast, makes a somewhat favourable assessment of guilds, and notes how those associations "led the way towards industrial modern

civilization; and if they had gone on their course undisturbed, and retained their first love of liberty and social equality, they would have probably long ago have worked out the solutions of many social and economic problems which we are only now beginning to face.”

In Marshall’s view, organisation at the level of production is possible through associations which, setting rights and obligations between the workers, allow for various forms of economic coordination that would help addressing many of the shortcomings of market exchange in delivering human wellbeing. This assessment also echoes Marshall’s analysis of subsequent forms of informal organisation, such as his analysis of industrial districts (Marshall 1920), the key feature of which is information that circulates without being codified into market prices. Thus, while market exchange is a basic mechanism of coordination for Marshall, it does not exclude other forms of organisation, including associations with rights and obligations that may not be compatible with the right of disposal that characterises the liberal view.

But Marshall notes that associations should not undermine the freedom of independent workers, for this would stifle innovation. Marshall (1920, p. 593) writes that “the growth of the national dividend depends on the continued progress of invention and the accumulation of expensive appliances for production”, and continues noting how “up to the present time nearly all of the innumerable inventions that have given us our command over nature have been made by independent workers”.

This assessment echoes Smith who, when analysing the division of labour, notes that many innovations in machines were made by workers. Thus Smith (1993, p. 17) writes: “A great part of the machines made use of in those manufactures in which labour is most subdivided, were originally the inventions of common workmen, who, being each of them employed in a very simple operation, naturally turned their thoughts towards

finding out easier and readier methods of performing it.” Workers thus showed some capability for organising their activities and means of production, while even being the main sources of innovation.

Smith notes the role of innovation brought by workers when analysing the division of labour, before addressing the issue of market exchange. This opens the door to forms of coordination at the level of production, even before exchange takes place. Technological developments occurred since then require, of course, further articulation of production processes with science and technology, and the capacity of workers for self-organising would depend on their access to knowledge embodied in technology, and not just the physical means of production in which knowledge is embedded as capital. Thus, Karl Marx (1973) notes how the embodiment of science and technology in capital, which becomes the driving force of the labour process, makes the worker lose control of the process, becoming a mere appendage to the machine. The embodiment of science and technology in capital requires thus new forms of organisation regarding the management of the labour process.

Authors drawing on classical economic theory could argue more directly for coordination at the level of production because the latter took value to be determined by labour time, which can be objectively observed in production processes before market exchange takes place. Smith’s view is in line with that of liberal authors like John Locke, who also draw upon the quantity of labour as a criterion for distribution. The same criterion is adopted by socialist authors like Robert Owen (and the Ricardian Socialists).

Effectively, the difference between classical liberals and (those designated as) utopian socialists is not their stance towards the measurement of value as labour time. Rather, the difference is that liberal authors place the right of disposal as a central one, allowing the transference of property in market exchange, while socialist authors do not

accept the right of disposal. For socialist authors, instead, rights and obligations are specified so as to define a collective ownership of the means of production. But in both cases, value is defined as labour time, to be used as a criterion for organising society.

However, value measured in terms of labour time need not be the only criterion for organising production. Thus, Marx criticises (what he sees as) utopian socialists like Pierre-Joseph Proudhon for using labour time as a criterion for organising production, as the focus should be on the conditions of human flourishing – we may note that albeit Proudhon is the target of Marx’s critique, the case for using labour time as a criterion was made more systematically by Owen and the Ricardian Socialists. The distinction between wellbeing and value, made in the Marshallian-Pigouvian tradition, is also made by Marx, while setting a benchmark for assessing economic arrangements.

Despite the similar distinction between wellbeing and value made by Marx and Marshall, there is a fundamental difference between their analysis of capital. Marshall’s (1920, p. 487) analysis of the sacrifice of waiting led him to conclude that “capital itself is the product of labour and waiting”, which means that surplus value is not entirely produced by labour, as Marx argued. For Marshall (1920, p. 487), Marx’s conclusion would hold if a commodity “is the product of labour alone, and not of labour and waiting”. Waiting provides, for Marshall (1920, p. 487), the “justification of Interest, the reward of waiting”, leading to a criterion for dividing the product between labour and capital, according to labour and waiting.

Marshall’s approach was further developed by John Bates Clark (1891), who argues that each factor of production (land, capital and labour) should be rewarded according to its marginal productivity, a view criticised by Thorstein Veblen (1908) early on, and also by Joan Robinson (1953-4) and Sraffa (1960) in the Cambridge controversies in the theory of capital (Cohen and Harcourt 2003; Harcourt 1972; Martins 2013). The

Cambridge controversies in the theory of capital show that distribution need not follow inexorable laws of marginal productivity. It is not just production, but also distribution, that must be studied in terms of a more general theory for understanding economic coordination, and the rights and obligations that constitute the existing organisational structure (Martins 2013). This requires moving from the empirical and actual level towards underlying structures, powers, mechanisms and tendencies, as argued in critical realism.

This leads also to the possibility of finding, at the level of underlying structures, a basis for a critique of the outcomes of market exchange focusing on the wellbeing they may fail to deliver, as noted above, so as to correct market externalities (Pigou 1920). It is for this reason that the distinction between value and wellbeing (or in Pigou's terms, wealth and welfare), which is also made by Marx, lays at the basis of the Cambridge economic tradition as started with Marshall.

A significant difference between Marx and Marshall, however, is that Marx believes that capitalistic market exchange should be abolished altogether, so as to give rise to a society in which the conditions of flourishing of each are the conditions of flourishing of all. The Marshallian-Pigouvian approach, in contrast, has a more modest aim, concerned with correcting the failures of market exchange.

But Marshall's definition of wellbeing, in terms of the development and activity of human faculties, not only provides a basis for assessing the outcomes of market exchange, as it can possibly be employed beyond the mere correction of market failure, in order to assess other forms of organising economic activity. The latter include those suggested by Marshall when discussing guilds, industrial districts, and other forms of organisation that do not rely on the codification of prices through market exchange (and also other forms of organising society considered, but never really elaborated, by Marx).

7. Sraffa's critique of Marshall's partial equilibrium method

The idea of correcting market failure, which is central to the Marshallian-Pigouvian approach (Backhouse 2006; Backhouse and Medema 2012; Medema 2011), was also developed by John Maynard Keynes (1936), who is another central author in the Cambridge economic tradition. Keynes (1936) maintained much of the Marshallian-Pigouvian approach to partial equilibrium, using aggregate demand functions and aggregate supply functions to show how equilibrium may occur below full employment (Hayes 2006). Unemployment would then lead to the need of public intervention to correct market failure. But Keynes (1936) presented his approach as a critique of Pigou's (1932), albeit also as a generalisation of the Marshallian approach into a general theory (rather than an outright rejection of it).

Keynes also adopts the social philosophy of redistribution implied in Marshallian-Pigouvian economics, focusing on how those with a lower income have a higher marginal propensity to consume, and thus more equality leads to greater effective demand, greater employment and thus greater welfare. In part I, chapter 8, paragraph 3, of his *Economics of Welfare*, Pigou (1932, p. 89) had also made the same remark regarding consumption, noting how "the richer a man is, the smaller proportion of his total income he is likely to consume".

And Pigou (1932, p. 89) combined this remark with his analysis of the impact of redistribution on welfare, noting how "it is evident that any transference of income from a relatively rich man to a relatively poor man of similar temperament, since it enables more intense wants, to be satisfied at the expense of less intense wants, must increase the aggregate sum of satisfaction". But at the same time as Pigou's (1932) welfare economics received criticism from Robbins and the LSE, Keynes (1936) also criticised the belief that

a partial equilibrium must be a full employment equilibrium, leading to a critique of the Marshallian-Pigouvian approach to partial equilibrium within Cambridge too.

The most profound critique of the Marshallian-Pigouvian framework, however, was made by Piero Sraffa (1925, 1926), who came to Cambridge through the intermediation of Keynes. Sraffa's (1925, 1926) critique of Marshall's partial equilibrium theory led to a debate with key Marshallian economists at Cambridge like Dennis Robertson and Gerald Shove (Robertson, Sraffa and Shove 1930). Sraffa's critique was much more profound than Keynes' (1936) because it was not presented as a generalisation of Marshall's theory and method (as Keynes' critique was), but rather as a rejection of Marshall's theory and method.

Sraffa (1925, 1926) notes that supply and demand curves may be influenced by what happens in markets using the same components as the market under analysis, as it increasingly became the case with the use of standardised components in various industries, a phenomenon that Marshall (1920, 1923) also noticed. Although Marshall and Sraffa presuppose a similar ontology, where reality is interconnected (Martins 2013), Marshall adopts a theory and method that is inconsistent with such an ontology (Pratten 1998).

Marshall's theory presupposes an equilibrium between relatively autonomous components, such as supply conditions and demand conditions, through which value arises. Sraffa, in contrast, focuses on the reproduction of an interconnected totality, rather than on the equilibrium between relatively autonomous components. Like Marshall, Sraffa (1960) uses the word *value* to denote exchange value, expressed in prices. But Sraffa (1960) assumes that value arises as the prices of commodities that allow for the reproduction of the economic system as a whole.

To be sure, Marshall's underlying vision is also centred on the notion of reproduction which, combined with the idea of equilibrium, leads to what he calls a *biological equilibrium*, which must be distinguished from his statical notion of a *mechanical equilibrium*. It is at the level of Marshall's economic theory and method that the notion of mechanical equilibrium becomes central. This leads to an inconsistency between Marshall's method and underlying vision, since both presuppose different ontologies (Pratten 1998).

Marshall's analysis of reproduction can be inferred from chapter 8 of book IV of his *Principles*, where Marshall (1920, p. 200) draws on Spencer to explain "the general rule, to which there are not very many exceptions, that the development of the organism, whether social or physical, involves an increasing subdivision of functions between its separate parts on the one hand, and on the other a more intimate connection between them." Marshall continues:

"This increased subdivision of functions, or "differentiation," as it is called, manifests itself with regard to industry in such forms as the division of labour, and the development of specialized skill, knowledge and machinery: while "integration," that is, a growing intimacy and firmness of the connections between the separate parts of the industrial organism, shows itself in such forms as the increase of security of commercial credit, and of the means and habits of communication by sea and road, by railway and telegraph, by post and printing-press." (Marshall 1920, p. 201)

The process of development takes thus the form of *differentiation* and *integration* – terms used also by Spencer – and applies to biological organisms and societies. But even

reproduction, characterised by differentiation and integration, is analysed by Marshall in terms of a biological, rather than mechanical, equilibrium.

Marshall (1920, p. 269) notes that book IV of his *Principles* is concerned with the “balancing or equilibrium between of the forces of life and decay”, which corresponds to the more appropriate approach to the study of biological and social entities. But in book V of his *Principles* Marshall (1920, p. 269) stresses the need of focusing on “a simpler balancing of forces” which corresponds instead to a case of “mechanical equilibrium”, so as to prepare the way for more “advanced study” of the balancing of forces of life and decay which characterise both biological and social entities.

In sum, the notion of equilibrium is central to Marshall’s method, but his goal is to move from the more static analysis implied in a mechanical equilibrium between supply and demand towards the more dynamic approach implied in a biological equilibrium between the forces of life and decay. However, Marshall’s notion of value is defined in terms of the static approach to mechanical equilibrium, which became the more influential aspect of his partial equilibrium method, which is the target of Sraffa’s (1925, 1926) critique.

8. The revival of classical political economy at Cambridge

Sraffa’s (1925, 1926) critique of Marshall must also be understood in terms of Sraffa’s (1960) analysis of value, where values are defined in terms of the objective relations between commodities as they emerge in the production process. Sraffa (1960) presupposes, at least in some of his unpublished writings, a physicalist ontology (Davis 2012), which stands in contrast with the subjectivist ontology implied in Walrasian-Paretian general equilibrium theory.

Sraffa notes that, when classical political economy emerged with William Petty, there was an objective, rather than subjective, approach to determining value (Davis 2012; Martins 2013). Here Sraffa follows Marx's (1999) – rather than Marshall's (1920) – definition of classical political economy, as a form of analysis started with Petty's (1899) more objective analysis of land and labour as the source of value, which is followed by Smith, and especially David Ricardo. Sraffa's revival of classical political economy, going back to Petty (1899), shows how value was not always taken to be an irreducibly subjective phenomenon, as it became the case after Robbins' (1932, 1938) critique of the Marshallian-Pigouvian framework.

However, a more subjectivist approach to costs appears with Nassau William Senior, when taking the abstinence from consuming something as a cost. John Elliot Cairnes, often seen as the last influential classical political economist, assesses costs in terms of sacrifice from a psychological perspective. And Marshall adopted a similar notion of real cost in terms of the sacrifice of waiting, as Sraffa also notes in his unpublished manuscripts (Martins 2013). It is this more subjectivist notion of cost, associated with what is taken to be the final stage of classical political economy, that makes Marshall see himself as a continuator of classical political economy.

Sraffa, in contrast, thought the only consistent notion of cost within classical political economy was a more objective one. Sraffa notes in his unpublished manuscripts that Marshall's original justification of interest, as the sacrifice of waiting, is an arbitrary or unscientific notion – especially when seen in terms of abstinence – in the sense that it reflects merely a subjective perception of those involved regarding their effort towards achieving something (Martins 2013).

In his unpublished writings, Sraffa also notes that Smith's (1993) reference to the toil and trouble involved in achieving something could also indicate a more subjective

perception of the sacrifice involved, along the lines of Cairnes' notion of cost, or Marshall's notion of real cost (Martins 2013). But Smith also referred to costs in terms of the labour time involved in producing something, that is, the quantity of labour embodied in the production process. Embodied labour can be seen as the more objective basis from which our subjective perception of our sacrifice involved arises, even if division of labour makes it difficult to infer embodied labour, leading Smith to focus on commanded labour, that is, how much labour can be purchased.

While Smith's reference to commanded labour was arguably meant to capture the need of measuring value through market exchange under a more complex division of labour (noting also the social relations of power to command labour implied therein), the emphasis on market exchange continues with subsequent authors who adopt a more subjectivist approach to value both from the supply perspective or the demand perspective, especially after the marginalist revolution. And when value becomes an irreducibly subjective fact, market exchange is seen as mechanism for revealing subjective preferences, rather than for revealing the embodied labour that may become manifest in the quantity of labour a given commodity may command in the market.

In terms of the critical realist stratified ontology, we may say that the notion of value was initially analysed in terms of entities at the actual level, such as the quantity of land or the quantity of labour time spent on production, in order to be subsequently assessed in terms of subjective wants at the empirical level. Sraffa aims at moving towards a more objective analysis of quantities of commodities and labour at the actual level. This leaves us, however, still one step away from the underlying structures, powers, mechanisms and tendencies that cause events at the actual level.

Sraffa's (1960) system can be seen as yet another solution to Marx's transformation problem, that is, the problem of transforming labour values into prices.

But to the extent that Sraffa only focuses on commodities and labour values at the actual level, his analysis also opened the door to a positivist interpretation of his work, focusing on closed systems (Pratten 1999). In fact, the very belief that Marx's transformation problem must be solved by finding exact prices already indicates a tendency towards actualism (Bhaskar 1993), that is, explanations in terms of the actual level only. For the central aspect of science is to uncover the structures at the level of the production process, rather than trying to find out the exact way in which labour time is transformed into prices, which will depend on multiple tendencies, not all of which can be exactly measured. Thus, when discussing Marx's analysis, Lawson (2019) concludes that finding the exact numerical values may prove an impossible task, and focuses instead on the underlying organisational structure of rights and obligations.

To be sure, Sraffa's analysis of the interconnectedness of the reproduction process takes into account (albeit implicitly) the underlying structures, powers, mechanisms and tendencies that cause the events at the actual level (Martins 2013). And Sraffa bases his analysis not just on Ricardo, but also on Marx, whose analysis plays close attention to the underlying structures, powers, mechanisms and tendencies that cause the events at the actual level. But Sraffa (1960) decided to present his approach focusing on entities lying at the actual level, such as quantities of commodities and quantities of labour.

An important reason why this is so is because Sraffa's (1960) contribution was meant to be a basis for a critique of modern mainstream economics, and objective entities proved a more solid basis for doing so. Sraffa's (1960) objectivist stance proved effective in providing a critique of marginalist notions of capital (Harcourt 1972). But it leaves aside aspects connected to human well-being that were dealt more fully with by Marx and Marshall, both of whom focused on the development and activity of human faculties when addressing wellbeing.

Regarding wellbeing, another key Cambridge contributor is Amartya Sen (2003, 2004), who notes that Sraffa found the topic of welfare economics ultimately political, which seems to suggest a separation between objective theory and normative issues. But Sen (1982, 1985, 1999) decided to address the topic of welfare economics, despite Sraffa's scepticism towards Sen's projects in that regard. In so doing, Sen (1982, 1985, 1999) advanced a more objective account of human wellbeing that allows overcoming Robbins' (1932, 1938) critique of Pigouvian welfare economics.

Sen (1982) first approached the topic of wellbeing through the use of partial comparisons of utility, so as to address Robbins' (1932, 1938) critique, while working within the Pigouvian approach to Cambridge welfare economics, as many other Cambridge contributors like Dennis Robertson, James Meade or Anthony Atkinson, who had an important influence on Sen. But Sen (1982, 1985, 1999) found the notion of functioning (and capabilities as potential functionings) a more solid and objective ground for addressing inequality, thus overcoming Robbins' critique of interpersonal comparisons of utility.

However, for Sen a human functioning consists of being and doing something at the level of events. Of course, functionings presuppose underlying faculties which enable functionings to emerge. But Sen (1985) puts the emphasis on functionings as events at the actual level, in order to engage in an effective critique of more subjectivist notions of wellbeing. Here an interesting analogy can be made to Sraffa's (1960) own emphasis on actual entities like commodities when criticising marginalist theory, while presupposing, of course, the underlying structures of socio-economic reproduction which lay at the basis of his system, which is also inspired in Marx's own reproduction schemes (Martins 2013).

Structures, powers, mechanisms and tendencies, are presupposed in a central notion Sen advances, namely that of human capabilities, which are potential functionings,

that is, what a person can be or do. And capabilities arise out of underlying structures, as powers individuals possess in virtue of those structures (Martins 2006; Smith and Seward 2009). But the analysis of underlying structures is essentially presupposed in Sen's analysis, rather than at the centre of it (Martins 2013).

Still, Sen's analysis can be fruitfully extended through a critical realist reconceptualisation of the notion of capabilities (Martins 2006; Smith and Seward 2009). Bhaskar (2016, p. 67), when discussing the capability approach advanced by Sen suggests "augmenting this approach with critical realism", and Lawson (2015, p. 385) also notes the similarities between his own approach to human development and "Amartya Sen's capability approach to ethics", albeit noting that Sen's writings on ontology are insufficiently developed, while failing to deal adequately with the connections between ontology and ethics.

Hilary Putnam and Vivian Walsh (2012) argue that while Sraffa's (1960) analysis of value constitutes an initial stage for a proper revival of classical political economy at Cambridge, Sen's (1985) capability approach constitutes yet another stage of a revival of classical political economy, now focused on wellbeing. In fact, Sraffa's (1960) contribution is arguably the more original analysis of value arising at Cambridge since Marshall (1920), while Sen's (1982, 1985, 1999) is the most influential analysis of wellbeing arising at Cambridge since the Marshallian-Pigouvian approach.

But the revival of classical political economy brought about by Sraffa and Sen explains value and welfare, respectively, focusing on actual entities, as noted above. Their attempt to engage in a critique of mainstream economics explains this emphasis on actual entities, as a basis for mathematical constructions aimed at criticising the more subjectivist ontology of mainstream economics. In so doing, Sraffa and Sen leave structures, powers, mechanisms and tendencies essentially presupposed in their analysis.

One way in which structures, powers, mechanisms and tendencies are presupposed in Sraffa's and Sen's analysis is their reference to Marx, who had a considerable influence on both Sraffa and Sen. Concerning welfare, Sen's emphasis on human development is in line with Marx's own analysis of the topic. Sraffa's study of value in terms of the conditions of reproduction, in turn, is in line with Marx's own analysis and, as noted above, can be seen as a solution to Marx's transformation problem.

In so doing, Sraffa and Sen also lead to a different interpretation of classical political economy, compared to the one that prevailed at Cambridge since Marshall. Sraffa adopts Marx's own definition of classical political economy, which diverges from Marshall's on various important aspects, not last to the extent that it does not resort to subjective notions when defining value.

Those changes in meaning also imply that the way in which the notions of welfare and value were interpreted at Cambridge since Marshall suffered various changes, from Pigou's tendency towards a more subjective view, to Sraffa's and Sen's more objective view and interpretation of the classical approach. In any case, a revival of classical political economy is a central aspect of the Cambridge economic tradition since Marshall, who also distinguishes himself from other marginalists to the extent that he claims to be continuing classical political economy, rather than rejecting it as the other marginalist contributors (Martins 2013).

9. Concluding remarks

The more objective view of value and welfare brought by Sraffa and Sen, respectively, helps addressing important challenges raised by the marginalist contributors. Sraffa's (1960) approach led to an important critique of marginal productivity theory, within the Cambridge controversies in the theory of capital, against the marginalist developments of

Marshall's analysis of the factors of production undertaken since Clark (1891), and developed in Sraffa's days by such authors as Paul Samuelson and Robert Solow (Cohen and Harcourt 2003; Harcourt 1972).

Sen's capability approach also provided a more objective ground for the analysis of inequality in human wellbeing, thus overcoming the limitations found by Robbins (1932) and others in the more subjective view advanced by Pigou (1920), and recovering Marshall's emphasis on objective activities (albeit not focusing so much on Marshall's analysis of human faculties).

Despite the important developments brought by Sraffa and Sen in their revival of classical political economy, their attempt to provide an effective critique of marginalist developments (and its subjectivist tendency) led to an emphasis on actual entities, such as commodities, labour time, functionings, and the like. In terms of the critical realist stratified ontology outlined above, we may say that Sraffa and Sen succeeded in providing a critique of the marginalist emphasis on the empirical level (given the marginalist focus on subjective preferences as they are experienced and manifest in market exchange). In so doing, Sraffa and Sen erected their theories on the more objective ground of commodities, labour time, functionings, and the like, which can be found at the actual level of events.

However, their analysis, like that of Marshall, ultimately presupposes the real (or deep) level of structures, powers, mechanisms and tendencies. The tendency to engage in debate with marginalist contributors often led to a neglect of this aspect, so as to focus on the more objective ground of actual entities when delivering a critique of subjectivist notions employed in marginalism. But the preoccupation with debating with mainstream economics, rather than contributing to enriching the revival of classical political economy found in the Cambridge tradition, led also to the neglect of the structures, powers,

mechanisms and tendencies that cause the events we observe at the actual level, and their empirical manifestations.

Such a realist perspective can be found in the study of productive structures, even before addressing the networks that emerge at the level of market exchange. And even market exchange requires such a realist analysis, since exchange is possible only due to various social systems of positions constituted by rights and obligations (Lawson 2019). Marshall's (1890) analysis of guilds and industrial districts, or Sraffa's (1925, 1926) study of imperfect competition when criticising Marshall's partial equilibrium analysis, all point to the need of understanding production and exchange in the context of social systems constituted by rights and obligations that may not be codified in market prices.

To engage in such a broader analysis, however, it becomes necessary to engage in the study of the real domain, where structures are to be found. The Cambridge Realist Workshop provided for many years a forum that placed the emphasis on real structures, while engaging in a critique of the positivist orientation of modern mainstream economics, characterised by the insistence on the use of mathematico-deductivist methods regardless of the nature of the social reality under analysis.

This realist approach has been further developed in the Cambridge Social Ontology Group, where the critique of modern mainstream economics no longer figures prominently, as the concern is now centred on studying social structures constitute social reality, most notably within developments in social positioning theory started with Tony Lawson (2019). In so doing, Lawson (1997, 2003, 2019) advanced also generalised human flourishing as the goal envisaged in his approach (Martins 2017; Ragkousis 2023).

Lawson's (1997, 2003, 2019) conception of wellbeing as generalised human flourishing is in line with Marx's and Marshall's definition of wellbeing in terms of the development and activity of human faculties. Marx, like Marshall, does not rely on value

(however defined) as the ultimate criterion for organising society. The stance of Marx and Marshall stands in contrast to that of those who find in value (rather than in wellbeing) the basis for organising society.

Despite their differences regarding the measure of value, liberal and socialist authors ranging from Locke to Owen take value (however defined) to be the basis for organising society. After the marginalist revolution, it is subjective utility (to be revealed in market exchange) that constitutes the basis for organising society. But again, it is value, now defined in terms of subjective utility, that occupies centre stage in economic coordination. Furthermore, after the marginalist revolution, subjective utility is the source not only of value, but also of wellbeing, blurring the distinction between both.

The distinction between wellbeing and value, made in the Marshallian-Pigouvian perspective, and also made by Marx, sets a different approach, by providing a benchmark for assessing economic arrangements (based on value) in terms of their impact on wellbeing. Wellbeing, rather than value, becomes then the ultimate criterion for assessing socio-economic arrangements, even if value may be quite central to the study of socio-economic organisation.

Lawson's (1997, 2003, 2019) account of human flourishing provides an important continuation of Marshall's emphasis on wellbeing as a development of human faculties, which provides a criterion for assessing the merits of organisational structures and entailed notions of value that may be developed for achieving such a goal. Furthermore, critical realism, and more recent developments such as social positioning theory, provide a basis for a deeper analysis of value in terms of the rights and obligations entailed in forms of social organisation.

Previous debates at Cambridge with mainstream economics proved rather unfruitful even when successful critiques were achieved (Cohen and Harcourt 2003;

Lawson 1997, 2003; Putnam and Walsh 2012). The emphasis on the actual level of events as a ground for a critique by such authors as Sraffa (1960) and Sen (1985) proved essential to such a success, as noted above. But perhaps the further development of the notions of welfare and value in the Cambridge tradition can more effectively advanced when unconstrained by the need of engaging in debate with mainstream economics. For doing so would allow greater scope for a realist analysis of underlying structures, powers, mechanisms and tendencies, to be applied to the study of how an organisational structure of rights and obligations (Lawson 2019) leads to greater or lesser generalised flourishing (of not only human, but also other interdependent sentient species).

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