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ontological reflections inspired by the Socialist  
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# **The economic problem of a community: ontological reflections inspired by the Socialist Calculation Debate\***

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**Abstract:** Implicitly, the Socialist Calculation Debate is about the connection between neoclassical theory and reality. It involves several ontological presuppositions, with wide-ranging implications. Our purpose is to discuss one of these presuppositions. We want to scrutinise the view, implicit in the ‘market socialist’ arguments, that things have economic roles or functions independently of the social environment in which they exist. ‘Primary factors’ and techniques of production are taken to exist independently of social arrangements; jointly with consumer preferences, they are supposed to define the economic problem of a community. In analysing this view, we borrow from F. A. Hayek, complementing his reflections with those of Donald Davidson, Willard Quine, and Tony Lawson. We also discuss a second problem, which follows from the first: if, in contrast with market socialists’ view, the economic roles of things depend holistically on complex social processes, how can we compare alternative forms of economic organisation?

**Keywords:** Ontology, Socialist Calculation, Economic Function, Counterfactuals.

**JEL:** B24, B25, B4

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## 1. Introduction

In 1920, Ludwig von Mises argued that socialism would be impossible. According to Mises, solving complex economic problems presupposes an ‘intellectual division of labour’ and a price system resulting from competitive exchanges against money. The removal of means of production from monetary exchange would imply, accordingly, that only simple, household economic problems are rationally solvable under socialism.

In the 1930s, several economists attempted to refute Mises’ impossibility argument in what came to be known as the *Socialist Calculation Debate*. They theorized the workings of a system of economic organisation said to be ‘socialist’ in so far as means of production are not privately owned, but in which alternatives are evaluated by way of prices that result from the interaction of decentralised decision units.

Their counterargument assumes, however, that ‘primary factors’ and techniques of production are explicitly or propositionally knowable, i.e. that they are *given* in an epistemological sense. F. A. Hayek’s most influential objection to these ‘market socialist’ proposals targets precisely this. As there exists neither a list of all primary factors nor a ‘book of blueprints’ with every technique of production, any form of economic organisation must discover what things take these economic roles. But knowledge is fragmented and often tacit. The competitive market process leads to reasonably efficient outcomes precisely because it integrates a vast amount of dispersed knowledge and continually renews the structure of knowledge that makes a complex economy work.

The Socialist Calculation Debate is much more than a debate on the feasibility of ‘socialism’ or the merits of the competitive market process. Implicitly, the discussions turn on the nature and status of economic theory and, specifically, on the connection between neoclassical theory and reality. Though not all the participants seem quite aware of this, the debate involves a series of fundamental ontological presuppositions, with wide-ranging implications. Our purpose in this paper is to discuss one of these ontological presuppositions.

We want to scrutinise the view, implicit in the market socialist arguments, that things have economic roles or functions – e.g., that *that* is a means of production – independently of the social environment in which they exist. In other words, for the market socialists primary factors or techniques of production are not just regarded as known, or knowable. They are also given in the *ontological* sense of existing independently of social arrangements. Jointly with consumer preferences, they are supposed to define *the* economic problem of a community.

In discussing this view and articulating an alternative ontological outlook, we borrow from Hayek's writings in the aftermath of the debate, in which categories in the moral sciences are associated with action and hence with *attitudes*, i.e. what agents believe and desire. However, we do not intend to offer an account of Hayek's intellectual evolution, as Steve Fleetwood (1995) or Bruce Caldwell (2005) do. Instead, we complement Hayek's reflections with those of other authors, viz. Donald Davidson, Willard Quine, and Tony Lawson.

We also discuss a second problem, which follows directly from the first. In the alternative ontological outlook that we sketch, the economic roles or functions of things depend holistically on complex social processes. But, if this is so, how is it possible to compare alternative forms of economic organisation, or indeed to assess the effects of policy measures?

The paper is structured as follows. We begin by briefly reviewing Mises' impossibility argument (Section 2) and the market socialist response to Mises (Section 3). We then elaborate on Hayek's most essential criticism of the market socialist proposals (Section 4). This epistemically grounded criticism will lead us to the implicit ontological commitment that we want to assess, i.e. that things have economic roles independently of the social environment in which they exist. In scrutinising this market socialist presupposition, we articulate an alternative outlook, built on the recognition of the role of attitudes in the definition of economic functions (Section 5). Finally, we discuss the possibility of comparing forms of economic organisation, attempting to steer a course between the Scylla of an engineering, or 'technical', approach to economics and the Charybdis of extreme holism or extreme kaleidics (Section 6). Brief concluding comments appear in Section 7.

## 2. Mises' impossibility argument

Around the beginning of the 20<sup>th</sup> century, it was often implied that the problems studied by economists would be specific to capitalism and should not bother socialists or collectivists. In the society which some believed the future was bound to bring, 'economic' problems would be replaced by 'technical' ones. Economics as traditionally understood would eventually become obsolete; social science would be replaced by 'engineering'.

Mises, however, believed that the insights of economics were applicable to any form of social organisation, as human action entails economising. There is an economic problem whenever to achieve an end another end must be relinquished, and this occurs when means are scarce and have alternative uses (see Robbins, 1935: 13; Hayek, 1935: 122-123). To choose one course of action as opposed to another involves a judgment as to which one is best: "every man who, in the course of economic life, takes a choice between the satisfaction of one need as against another, *eo ipso* makes a judgment of value" (Mises, 1920: 95).

Mises' (1920: 96ff) definition of an economic problem encompasses both the commonplace – whether to have apples or pears – and the complex – whether, and how, to build a new rail line between Paris and Vienna. But, crucially, commonplace and complex problems differ *in their nature*. Whereas most people can roughly solve the former, solving the latter requires an amount of data collection, computation, speculation, and entrepreneurial judgment that transcends the capacity of an individual consciousness. A human mind would stand perplexed "among the bewildering mass of intermediate products and potentialities of production" (1920: 103). According to Mises, then, in an economy in which complex economic problems are constantly being solved – more or less satisfactorily – there must exist an economically meaningful process of *intellectual division of labour*<sup>1</sup>.

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<sup>1</sup> "The distribution among a number of individuals of administrative control over economic goods in a community of men who take part in the labor of producing them, and who are economically interested in them, entails a kind of intellectual division of labour, which would not be possible without some system of calculating production and without economy" (Mises 1920: 102). In other

For Mises, this process is possible if there are prices resulting from “the interplay of the subjective valuations” (1932: 103) in exchanges against money. In so far as prices are the cumulative outcome of numerous such exchanges, they are reliable signposts for making economic judgments<sup>2</sup>. To be sure, the more the value of money fluctuates, or the fewer the goods that enter into direct exchange against money, the less reliable is monetary calculation. Still, as long as inflation remains low and the range of monetary exchange covers a significant part of the productive structure, Mises tells us that the price system is “sufficient” (1920: 98).

But, moreover, he argues that widespread monetary exchange is actually *necessary* for the coordination of all actions resulting from local evaluations – i.e. that no advanced economy can exist without a price system of significant scope. Thus, he contends that the economic meaningfulness of prices stems from their being the result of competitive market exchanges *and* that no system of calculation can have similar economic meaningfulness without being tied up to a vast array of “market dealings” (p. 111)<sup>3</sup>.

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words, Mises implies that in a complex economy each agent performs, and can only perform, a small fraction of the mental operations required for the economy to work. Instead of ‘intellectual’, the adjective ‘mental’ is used in the translation of Mises’ *Gemeinwirtschaft* (see Mises, 1932: 101). The translation ‘division of knowledge’ appears in Hayek (1937: 50). Mises’ original passage reads “*eine Art geistiger Arbeitsteilung*”.

<sup>2</sup> Mises’ position has similarities with Pierson’s (1902). Pierson emphasizes the incommensurability of goods in the absence of a standard of value, writing that “we cannot subtract cotton, coal and the depreciation of machines from yarns and textiles” (p. 70). This calculation requires “evaluation” (p. 82) and is done through monetary exchange (p. 72). “It is not a purely technical problem which is here in question, but rather a decision as to the most profitable way of employing material things; and the rightness of such a decision must depend upon the rightness of the evaluation which preceded it” (p. 59).

<sup>3</sup> In addition to this, Mises (1920: 110ff; 1932: 186-7) also discusses problems of “responsibility and initiative”. For him, entrepreneurship is a type of action rather than an actor, and entrepreneurs, unlike clerks, cannot simply be trained. Only capitalism can make the entrepreneur economically responsible for the profits and losses that result from her choices. This line of reasoning was largely ignored because of his socialist opponents’ belief that capitalism was no less bureaucratic than socialism would be. Lange (1937: 123ff) writes that this is a problem for sociologists, not economists (see also Durbin, 1936: 676; Lerner, 1937: 267ff). Interestingly, Lerner (1938: 74-75) states that “to agree that managers will not manage prudently unless they manage with their own money is to agree with von

If we define a socialist economy as an advanced economy with communally owned means of production and without monetary exchange against the means of production, Mises' famous result that socialism is 'impossible' clearly follows<sup>4</sup>. Without market prices, rational choice is impossible if we accept his assumptions.

His definition of socialism was hardly a straw man. Economic calculation *in natura* was indeed advocated (see Chaloupek, 1990: 668ff; Lavoie, 1985: 49) and Mises' 1920 argument was primarily framed against *this* type of argument. It was certainly not intended as an argument against neoclassical economics which, as late as 1932, Mises found close to his own approach (see Kirzner, 1988: 9ff). And, as we shall see, neoclassical economists who were sympathetic to the socialist ideal understood, and accepted much of, Mises' argument. They sought to counter his claims on the impossibility of socialism on the terrain of 'modern', not Marxist, economic analysis.

### **3. Answering Mises' challenge: the market socialists of the 1930s**

The most important debate spurred by Mises' 1920 article is the *Socialist Calculation Debate* of the 1930s<sup>5</sup>. Economists like Abba Lerner, Evan Durbin, H. D. Dickinson, and Oskar Lange tried to refute Mises' challenge by proposing a partly decentralised model of socialism that could solve the complex economic problems of advanced societies. Their reasoning was rigorously neoclassical.

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Mises that socialism is impossible." Shortly afterwards, incentive problems became a central concern in the economics of planning (see Bergson, 1948).

<sup>4</sup> For Mises, the impracticality (*Undurchführbarkeit*) of socialism and its impossibility (*Unmöglichkeit*) are the same proposition. According to Salerno (1990), impossibility is closest to his intentions. But see Lavoie (1985: 152-3). Significantly, authors who reason from a neoclassical perspective separate 'theoretical' and 'practical' problems: Schumpeter distinguishes the 'logical' soundness of socialism, whose blueprint is alleged to be more rational than capitalism's, from 'practical' difficulties in implementing it (see Graça Moura, 2016).

<sup>5</sup> For a survey of the German-language debate on socialism in the 1920s, see Chaloupek (1990), who agrees with Mises' (1996: 706ff) assessment that this debate was intellectually inferior to that of the 1930s. Keizer (1987) examines Mises' interventions in this German-language debate.

The most famous answer to Mises is arguably a two-part article by Oskar Lange (1936, 1937). Lange (1936: 54) accuses Mises (1920) of mixing up two meanings of ‘price’. According to Lange, in Mises price sometimes stands for exchange ratio, i.e. for monetary prices issued from competitive exchange, other times for “terms on which alternatives are offered”, i.e. for the trade-offs the economy faces<sup>6</sup>. Lange argues that, if we are given a preference scale and a list of primary factors, those ‘terms’ or trade-offs “are determined ultimately by the technical possibilities of transformation of one commodity into another, i.e. by the production functions.” For him, though it is true that exchange ratios satisfactorily reproduce the ‘terms on which alternatives are offered’, they are nevertheless not *identical* with these terms, and therefore it is conceivable that we could construct a way of recovering those terms alternative to competitive exchange. In other words, Lange does not find in Mises an argument that establishes more than the *sufficiency* of competitive exchange for complex economic calculation.

In fact, Lange thinks that there is no sound argument for the *necessity* of prices derived from competitive exchange. A few years earlier, Fred M. Taylor (1929), in his presidential address to the American Economic Association, had expounded a non-tâtonnement procedure that, for Lange and others, amounted to a counterexample to Mises’ challenge. According to this counterexample, the problem of imputation – “that is, the problem of ascertaining the effective importance in the productive process of each primary factor” (p. 6) – is solvable by a trial-and-error procedure. First, a list of the basic, pre-existing primary factors is constructed by the Central Production Board, and tentative valuations (numbers) are given to each factor. Then, the production units, managed by functionaries, choose the quantity of each product they are to produce by taking the prices of primary factors as given and following some predefined rule, for instance equalling price to marginal cost. Finally, citizens are allowed an income to be freely spent in a market for consumption goods. Depending on the preferences of

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<sup>6</sup> Lange borrows the distinction of these meanings from Wicksteed (1910: 28): “‘Price,’ then, in the narrower sense of ‘the money for which a material thing, a service, or a privilege can be obtained,’ is simply a special case of ‘price’ in the wider sense of ‘the terms on which alternatives are offered to us’ ... (how much of this against how much of that?).”

consumers, expressed in purchases, some goods will be in excess supply, others in excess demand. This is transmitted up the productive network by the mechanical rule-following of the functionaries, and results in surpluses and deficits of primary factors. New valuations of these factors consonant with these deviations are produced (following prescribed rules), and the procedure goes on until equilibrium is established. Once the problem of imputation is thus solved, everything else is “easy”<sup>7</sup> (Taylor, 1929:8).

For Lange (1936: 63ff), the price structure resulting from perfect competition has significance because it is parametric. In fact, the competitive price structure is the only one satisfying “the objective equilibrium conditions, i.e. [which] equalises demand and supply of each commodity” (p. 63). If the “parametric function of prices” (p. 59) is imposed by the Central Production Board in the trial-and-error procedure – if agents are made to take every accounting price as given – then the tried and corrected prices resulting from the trial-and-error procedure will also reproduce the objective equilibrium conditions of the economy, the “terms on which alternatives are offered” (p. 54). Lange (p. 66) goes so far as to write that “the accounting prices in a socialist economy can be determined by the *same* process of trial and error by which prices on a competitive market are determined”. Thus, he envisages market socialism based on the trial-and-error procedure as an improved form of what is fundamentally the same process as the competitive market system – improved because, for Lange (1937: 125ff), problems like externalities could be solved more easily under market socialism by making prices more comprehensive, and business cycles could be reined in by insulating local disturbances and preventing systemic contagion.

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<sup>7</sup> Dickinson (1933) also develops a procedure based on “successive approximation” (p. 231). His framework is similar to Taylor’s for the first iterations. But once “the system has got going” (p. 242), he tells us that we may dispense with the trial-and-error setup, and simply solve the problem mathematically, with demand and production functions. Dickinson states that the problem is not even one of solving simultaneous equations but merely of calculating “small deviations from an already established equilibrium” (p. 242). After Robbins’ (1934: 151) and Hayek’s (1935: 152ff) criticisms that attempting to solve the economic problem with simultaneous equations is absurd, to begin with because of computational difficulties, this proposal was abandoned (see e.g. Durbin, 1936: 677-678; Lerner, 1937: 254).

Inevitably, many socialists did not find the conception of a *market* socialism compelling. Roberts (1971: 564) surmises that no socialist ever “believed in, placed hopes in, or fought for” market socialism. Dobb (1940: 277) criticises “those who dream of marrying collectivism to economic anarchy” and advocates *proper* central planning, based on the “fuller knowledge of the data” available to the Central Planning Board, which is “a crucial element in the superiority of a socialist over a capitalist economy” (Dobb, 1939: 726).

No doubt many socialists would not even be interested in neoclassical models to begin with. Yet Lange’s model of a socialist economy shows that, in purely economic matters, some avowed Marxists did begin to argue like non-Marxists, as Schumpeter (1954: 884) approvingly remarks: “[T]hey learned the truth that economic theory is a technique of reasoning; that such a technique is neutral by nature ... [and that there existed] a piece of ground on which it was possible to build objectively scientific structures”.

Indeed, as has often been observed, dissent between the market socialist and the Austrian camp in the Socialist Calculation Debate was ultimately due to different methodological perspectives, which implied different views on the nature of economic problems and in particular on the status of neoclassical theory (see Hayek, 1945: 89). Significantly, Schumpeter, who was sympathetic to neoclassical economics but not at all to socialism, was persuaded that Lange and the market socialists had exposed Mises’ argument as an error (see Schumpeter, 1942: 172ff; 1954: 985ff).

#### **4. A Hayekian objection**

According to Lange (1936: 55), since Mises holds that “without private ownership of the means of production no determinate index of alternatives exists”, then, for him, “the economic principles of choice between different alternatives are applicable only to a special institutional set-up.” Lange provocatively claims that only an ‘institutionalist’ would hold such a position.

But does Lange have a point? We can perhaps conceive of notions that are universally relevant in the study of social phenomena, i.e. relevant regardless of the historic or institutional context. Consider, for example, the notion of choice. Presumably, most of us cannot conceive of a human community, whatever its institutional set-up, where there is no agency and, therefore, no choice. Neither can we identify choice without identifying an agent. From notions such as these we may be able to construct theories as universal as the underlying notions themselves. Yet this does not entail that such theories straightforwardly fit any actual states of affairs – i.e. that identifying the referents of, or the denotation of, designators is unproblematic. A theory that wishes to have any bearing on actual states of affairs requires sentences such as ‘actions are caused by reasons’ *as well as* sentences such as, say, ‘Penelope undoes Laertes’ shroud because she wishes to fool her suitors’.

As it happens, the market socialists who respond to Mises by proposing a trial-and-error procedure are insouciant to problems of this kind. They fail to realize that there is a gulf between the ‘purely theoretical’ problem that they formulate in neoclassical terms and the real economic problems that a socialist community would actually need to solve. Lange (1936) has no qualms in stating that ‘the amount of resources available’ is as much a given under capitalism as it is under socialism (p. 55), whilst Taylor (1929: 3, italics supplied) defines primary factors as “for example, the land itself; the water powers; the original raw materials such as metallic ores; the different kinds of labour services, *etc.*” But how can this ‘etc.’ suffice if a continually updated list of *all* the primary factors is actually required for the socialist plan to be feasible?

Hayek’s best known objection to the market socialists, expounded, *inter alia*, in Hayek (1945), turns precisely on this. Though neoclassical theorists assume knowledge of all the inputs that *would* be necessary to calculate solutions to economic problems (agents’ preferences, as well as a list of the means and techniques of production), there is *actually* no agent who does, or *could*, command all the pieces of information necessary to calculate those solutions. On the contrary, the study of the creation, acquisition, treatment and transmission of knowledge between economic agents is a crucial part of the problem of intersubjective economic coordination, essential when we study how economic problems are being solved in real life and when we wish to consider the merits of alternative forms of organisation. In both cases, we need to take into account who is informed of what, whence that information came, how agents

transformed information and other inputs into true and false beliefs, and how dispersed information and knowledge are coordinated and transmitted across the social body.

Hayek's challenge to market socialism implies, then, that knowledge of the facts necessary to solve the economic problem of a community is dispersed in people's heads, implicit in their routines, manifest in social rules of conduct; and that we may not be able to make such dispersed knowledge either propositional or succinct enough for it to be transmitted, or get the right incentive structure for it to be revealed and incorporated into any explicit mechanism of economic management. The creation, discovery, treatment and transmission of the relevant facts is of a piece with solving economic problems. The trial-and-error procedure put forward by the market socialists is wrong in assuming that the relevant facts are known or, at least, determinable, without a decentralised competitive process<sup>8</sup>.

This is clearly a very powerful, not to say definitive, objection to the trial-and-error procedure, which is built on a textbook understanding of competition. However, Lange does not just implicitly assume that primary factors could be listed, and techniques of production collected into a 'book of blueprints' – i.e. that they are known or knowable. He also takes it for granted that primary factors or techniques of production are given in the *ontological* sense of existing even if the concrete form of organisation were changed. Jointly with consumer preferences, these ontologically given primary factors and techniques are supposed to define *the* economic problem of any community.

This implicit ontological presupposition is not directly addressed by the Hayekian argument presented in this section, nor indeed is it discussed in the context of the Socialist Calculation Debate. We dedicate the next section to scrutinising it, building on Hayek and others. In assessing the view that things have particular economic roles, and that communities face the same allocative economic problems, regardless of the

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<sup>8</sup> For Hayek (1948), accordingly, the traditional view of competition “*assumes* the situation to exist which a true explanation ought to account for” (p. 94, italics in the original). Indeed, if it is already known what should be produced and what is the best way of producing and distributing it, what is competition about? These are precisely the questions that the *process* of competition is to answer. “It is only through the process of competition that the facts will be discovered”, whereas “‘perfect’ competition means the absence of all competitive activities” (p. 96).

social environment in which they exist, we also articulate an alternative view that underscores the dynamic creation and recreation of economic roles.

## **5. The economic problem of a community**

Enrico Barone and Vilfredo Pareto, identified by the market socialists as predecessors, conclude that, at the level of fundamental theory, the economic problems of what they call ‘individualist’ (or ‘free competition’) and ‘collectivist’ societies – or, roughly, of ‘capitalism’ and ‘socialism’ – are identical: “all the economic categories of the old [individualist] regime must reappear” (Barone 1908: 289). But it is not only *categories* that reappear. That to which those categories refer to in an actual economy, i.e. the actual stock of primary goods, the actually available techniques of production and the tastes agents actually have, are taken to be invariant to its form of organisation. *The economic problem of a community at a point in time is determined by these facts* (see Barone, 1908: 265-7; Pareto, 1909: 363 or VI.58).

The market socialist interpretation of Mises’ arguments is grounded on a similar view of economic reality. Of course, primary factors, techniques of production and tastes may differ across communities and perhaps even depend on their historical ways of solving economic problems (see Barone, 1908: 288-9). But *given that* there are so many gallons of acetic acid, there is a procedure for pasteurising milk, and agent X prefers milk to whisky, *the economic problem of the community does not depend on its present form of economic organisation*. After all, with a change in the form of economic organisation, acid would not evaporate, pathogens would not become resistant to pasteurisation, and at least in the short term there is no obvious reason why agent X should reverse her preferences. In this view, then, forms of economic organisation are ways of implementing ‘technical’ or ‘engineering’ solutions to an economic problem *independent from, and pre-existent to present, forms of organisation*. Hence, the merit of a solution brought about by a particular form of organisation can be gauged and compared with the solution that maximises the satisfaction of all concerned, given the existing preferences, primary factors and techniques of production.

Can this view be upheld, though? To begin with, what defines the economic role of something? Why, for instance, is something a means of production? It is easy to show that no properties *in* things, which we might call structural properties, are sufficient to determine their role. Few would affirm that an undiscovered oil reserve belongs to a community's set of means of production. Before people *learned* of its existence and perhaps went so far as to decide that it was worth their while to *do* something about it, it should not be counted as a means of production<sup>9</sup>. The discovery of the reserve is a change in what is true *of* it: it used to belong to the set of things that have not been discovered, and now it belongs to the set of things that have. The physical and chemical properties of the stretch of space time where the reserve is found, however, are unchanged. In short, the structural properties of things, even when they are independent of present forms of organisation, are clearly insufficient to define their economic roles.

A similar reasoning led Hayek (1942, 1943b, 1944) to argue that the facts with which the moral sciences in general, and economics in particular, are concerned depend on the subjectivity of agents, on their *attitudes*: on what they believe and desire, which in turn explains what they do. Indeed, it was a change in what agents believed about the world that gave the oil reserve a role as a means of production that it did not have before, even though nothing *in it* changed<sup>10</sup>.

But what precisely *are* attitudes? It is easy to see that they cannot be understood as a purely individual matter (see Davidson, 1995b: 18). Attitudes are often about other attitudes: our beliefs and desires often refer to other beliefs and desires of ours, or to those of other people, which in turn may involve ours yet again.

We form expectations about the behaviour of others, and try to understand what we observe them doing, by applying skills we have developed throughout our personal

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<sup>9</sup> Of course, as part of the environment in which economic activity takes place, the oil reserve might have some degree of economic significance even before its existence is learned by anyone, for instance by having an effect on the properties of the soil.

<sup>10</sup> Similar examples could be given for techniques of production. A technique of production in the engineering sense, for instance, does not become one in the economic sense unless agents become aware of it and find it worth their while to employ.

histories – skills the development and application of which are mediated by social rules informing and coordinating human interaction. These skills involve heuristics, judicious selection of prejudices, and the following of tried and tested inferential paths. For instance, as many have noticed (e.g. Hayek, 1942: 89; 1943b: 139; Quine, 1964: 59ff; Davidson, 1967: 27), we usually take others to be much like us. We usually assume off-hand that others share most of our fundamental beliefs (‘cars are four-wheeled vehicles’), make similar judgments of salience (‘look over there!’), and agree with us on broad ethical and aesthetical matters (‘I cannot understand why someone would do such a thing...’).

The exercise of these skills cumulates in an understanding of others that is expressed in a vocabulary of beliefs and desires, of reason and emotion, of choice and, if need be, of madness and mental illness. Attitudes, in short, can be thought of as our way of individuating the psychological states we and others are in, of expressing their content, and capturing their interrelations (see Davidson, 1989: 60).

Of course, the understanding of others we come up with is *context-dependent* and *provisional*. It results from integrating the evidence we have available when interacting in everyday life, which is mostly behavioural – what we hear others say and watch them do; and it reflects our limited, human capacity for processing this evidence in real time, in the face of ever new circumstances (see Davidson, 1995a: 132; Hayek, 1942: 91). As with any theory, this understanding is underdetermined by the evidence we employ, and even by all the evidence potentially available: there are bound to be many sets of sentences that are compatible with the available evidence and yet imply sentences that are in contradiction (see Quine, 1951; 1964)<sup>11</sup>. Any understanding of others, and hence our attitudes, is also *path dependent*, in as much as it depends on each person’s *actual*, idiosyncratic history. Our understanding could always have turned out differently, even if remaining true to the potentially available evidence, let alone to that which we found occasion to use or process.

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<sup>11</sup> Of course, the circumstance that many hypotheses fit the available evidence does not mean that we have no good reasons for preferring one to another. Two theories equally justified by the evidence may differ in charity, humanity, or paternalistic implications (see Lourenço, 2015).

If attitudes are provisional, context-dependent and path-dependent representations social beings come up with to keep track of each other's behaviour; and if, as we have seen earlier, the economic role of things depends on attitudes; then it follows that these roles must also be provisional, context-dependent and path-dependent. Moreover, insofar as attitudes are themselves the result of social interaction, they, too, depend on actual economic roles. We should thus not understand the relation between attitudes and roles as one-sided. Attitudes co-determine roles just as roles co-determine attitudes.

To this we must add that the economic role of something seldom depends on the attitudes of a single individual, but on appropriate relations between the attitudes of several agents (see Lawson, 2012: 361ff). This dependence is not merely a result of the intersubjective dependence of attitudes themselves. It is also due to the fact that the role of things is defined by the *articulation* of several agents' attitudes. Prices in a market order are a case in point: their role as "indicators of what ought to be done in the present circumstances" (Hayek, 1982: 276) is hardly reducible to the attitudes of any individual or group, but rather stems from the dynamic, extended order of the attitudes and the consequent actions of a community of agents.

To sum up, then, we have established two propositions regarding the connection between attitudes and the economic role of things. *First*, the economic significance of something is created and discovered *in the same process* in which attitudes are formed, i.e., the economic role of things is co-determined with attitudes themselves. *Second*, economic roles are defined within *constellations* of attitudes.

These two propositions allow us to question the plausibility of a notion of *the* economic problem of a community that would exist irrespective of the specificities of the community's social relations, such as its form of economic organisation. Instead, in real communities, characterised by specific social relations, various economic problems are simultaneously posed and solved, many such problems being integrations of simpler problems that agents implicitly and explicitly solve (see Lawson, 2012: 376ff). In the same way that different consequences may logically follow from the same premises if different rules of inference are utilised, different forms of organisation may lead to action being differently articulated and coordinated, to different determinations of economic significance and, consequently, to different

individual economic problems. In turn, different forms of organisation might lead to the different integration of these problems, thus resulting in different supra-individual economic problems. Unless the social processes governing the *creation* of significance, the *articulation* of actions, and the *integration* of individual problems were invariant to economic organisation, the market socialists' ideal problem of a community need have no connection with the *actual* problems being solved in any community. Nor need the engineering significance of a particular good or technique of production have anything to do with the economic roles determined within a social web of significance.

## **6. Comparing alternative forms of economic organisation**

The pre-existence of things with particular economic roles, perhaps even of *the* economic problem of a community, is often taken for granted, and not just by the market socialists. When we say that it would be better (or worse) if the present form of organisation (or a part of it) were changed, we usually assume that the comparison is meaningful because it compares solutions to the *same* economic problem of the *same* community.

But is this reasoning warranted? In David Lewis' (1973: 1) famous example, “*if kangaroos had no tails, they would topple over*”. If we believe this is true, then we believe that in a world where kangaroos had no tail, they would not have alternative ways of keeping balanced. If we think that they would have such an alternative, then we find the statement false. That is, the truth of a counterfactual statement depends on what is the case in the most similar world to ours that is nevertheless different in the relevant regard. The employment of different relations of similarity turns out different truth values.

The definition of a relation of similarity turns, then, on what is held constant once change takes place. In the market socialist outlook, the similarity standard is based on the structural properties of things: changes in economic organisation do not impact upon *the* economic problem of the community since primary factors and techniques of production are pre-determined economic facts. This position does have some intuitive

appeal: *this* hammer, for instance, will not change because people have changed their mind about it, nor will it hit nails less efficiently because of new minimum wage laws or of a change in the form of economic organisation. But intuitions must be scrutinised, especially when moving from simple examples to aggregate, all-encompassing social theories. And, in any case, the fact that structural properties of things remain unchanged need not entail that *economic* properties are unchanged, too.

The reflections in the previous section enable us to say something about the nature of economic change, and hence about difference and similarity, according to a standard that takes account of economic properties. We offered the example of a newly found oil reserve: we identified an economic event, i.e. a change in the economic properties of the reserve, which did not involve any change in its structural properties. The economic event that turned the reserve into a means of production was caused by a change in the beliefs of the relevant agents, not in the things these beliefs were about. Economic events are thus causally dependent on mental events. They depend on intersubjective processes of interpretation and interaction, mediated by social rules. In exploring these issues, we concluded that economic roles and economic problems are determined within a social web of significance. No part of the social body is unrelated to the other parts, and nothing has significance in a social vacuum: our preferences, viewpoint, even our sense of identity, are a function of the society in which we live, of the processes that turn us into acting agents, and of our ways of understanding and interacting with others (see Lawson, 2012: 373-4).

The openness and systemic interconnection of social phenomena leads authors such as Hayek (1942: 106; 1955; 1989) to argue that we can never obtain more than ‘explanations of the principle’: general descriptions of the intersubjective determination of attitudes, a broad understanding of the processes that create significance, articulate actions and integrate economic problems.

The possibility of such explanations depends on the existence of a degree of stability. Though in matters social everything is interrelated and in flux<sup>12</sup>, we do successfully

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<sup>12</sup> In Mises’ (1996: 392, italics supplied) words, “a price is expressive of the position which acting men attach to a thing under the present state of their efforts to remove uneasiness. It does not indicate

rely on relatively stable social rules and social structures, with relatively predictable local manifestations, to coordinate our actions with those of others (see Lawson, 1997: 30ff; 2012: 361)<sup>13</sup>. Similarly, although structural properties do not determine economic roles, they do often offer grounds that are good enough for recognising economic roles in ordinary situations, where we are familiar with the social rules in operation. In Hayek's (1943a: 65-66) words, "as long as I move among my own kind of people, it is probably the physical properties of a bank note or a revolver from which I conclude that they are money or a weapon to the person holding them."

Apart from the operation of stable rules, with relatively predictable local manifestations, there is another element which contributes to the possibility of explanations of the sort we are considering here. The social context of inquiry, the purposes and goals of explanations pursued in different contexts, imply that much complexity can often be disregarded. In our example of the oil reserve, there was no harm in ignoring the idiosyncratic history of the discoverers, the effect of ideology or special interests in the pursuits that led to the discovery of the reserve and its acquiring economic function, or the dynamic co-dependence between attitudes and economic function. On the other hand, if we were to discuss the effects of a change in economic organisation on the development of oil-related technology, ignoring such issues would probably be unwarranted.

The upshot of all this is that we can avoid an extreme holism and an extreme kaleidics, a pit where everything is continually and holistically changing, where we pull a tiny thread and the whole fabric is altered, where all continuity ceases. Change often occurs on what is, for practical purposes, a relatively unchanging background of significance, enabling us to speak of worlds different yet sufficiently similar to ours for us to understand what is at stake. Simultaneously, of course, we must avoid a form of the aggregation fallacy, i.e., of assuming that just because some changes may plausibly be regarded, for certain purposes at least, as taking place against an enduring

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a relationship to something unchanging, but merely the *instantaneous position in a kaleidoscopically changing assemblage*".

<sup>13</sup> For a discussion of relative stability in connection with emergent, transformative processes, social and other, see Lawson (2012: 357ff).

background of significance, that the form of organisation of a whole economy could change whilst that background would somehow survive.

The understanding of economic change that we are proposing may superficially seem to be at odds with the contemporary scientific ethos, which accepts that any change, even economic, is always supervenient on changes in a physical dimension. As Quine (1978: 98) writes, “nothing happens in the world, not the flutter of an eyelid, not the flicker of a thought, without some redistribution of microphysical states ... If the physicist suspected there was any event that did not consist in a redistribution of the elementary states allowed for by his physical theory, he would seek a way of supplementing his theory.” We see no reason to quarrel with this position<sup>14</sup>. The discovery of the oil reserve certainly involves physical events somewhere: in agents’ brains, perhaps. Yet, from the thesis that every economic event supervenes on physical events it does not follow that we could individuate economic events with a vocabulary that does not express attitudes – that we could reduce *types* of economic events to *types* of physical, much less engineering, events (see Davidson, 2009: 56). To understand others in an intersubjective world we employ rules of inference and judgments of similarity in a way that is normatively charged and reflects the limited evidence and computational capacity we have available. Such rules and judgments have no parallel in physical theories, which respond to different goals in different games (see Davidson, 1970). The relative autonomy of economic (or, more generally, social) theory must therefore be underscored.

Replacing a mechanistic ontology with a conception emphasising the holistic and fluid nature of social reality highlights an epistemological problem, with ethical and political implications. In such a world, how can we form reasonable beliefs in order to act? How can we reasonably develop and implement policy measures? We have primarily argued – in line with many others, particularly Tony Lawson – that social rules and social structures provide a degree of stability which, however variable,

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<sup>14</sup> Lawson (2012) is also explicit throughout in accepting ‘ontological naturalism’, “a non-dualist orientation that entails that even features such as life, choice and intentionality are integrated with the (rest of the) natural world and not composed of some separate (non-naturalistic) stuff” (p. 346). For a comparison of Quine’s work with that of Lawson, see Latsis (2007). See also Lawson (2014: 24ff) for a critique of some of Quine’s positions, albeit none germane to the present article.

enables agents to formulate plans of some sort and to act, and social theorists to construct ‘explanations of the principle’.

## **7. Concluding comments**

The Socialist Calculation Debate was a singular episode in the history of economic thought. It enabled the articulation of different methodological outlooks and it spurred some of those involved, in particular the Austrians, to achieve a better understanding of the specificities of their worldview.

For a long time it was widely believed that the Austrians had lost the debate. This was due to the formal demonstration that in a model of a market socialist economy the same formal solution to the same formal problem was achievable as in a competitive economy. However, even if the economic problem of all communities is thought to be formally the same – i.e. if one accepts that it can be described with the same symbols and sentences (with the same formal theory) – the determination of what those symbols refer to in the actual world is part of the economic problem solved by any real community. The practical necessity of ascertaining economic roles in the actual epistemic conditions of everyday life is the Hayekian insight of section 4.

But, moreover, actual economic roles are co-determined within contingent forms of economic organisation. The social embeddedness and dynamic determination of the economic dimension, its dependence on intersubjective processes of interpretation and understanding and other social processes of supra-individual coordination, is the ontological insight of section 5.

The market socialist outlook is based on an engineering approach to the economy. This outlook is congruent with the intuition that we can coherently compare economic systems after changes have been made to them, or compare different forms of organisation. In scrutinising this intuition, we have argued that the relative stability of social rules and structures enables us to avoid the scepticism that might be entailed by too extreme an emphasis on the holistic and self-transformative nature of social processes. Still, if it is often safe to ignore systemic interdependence to some degree,

one should not expect more than what Hayek calls ‘explanations of the principle’ when discussing complex social processes. This is the insight of section 6.

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