

Work and Welfare in Economic Theory

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To the memory of my grandfather, Giorgio Focas

Preface

This book, which is based on a PhD dissertation at the University of Cambridge, had a limited circulation as a publication of the University of Siena Institute of Economics. A number of very useful comments and suggestions received at that stage have been taken into consideration in what follows.

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(OR, SOME MEANS ARE ALSO ENDS)

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Introduction

In 1975, I wrote an essay on the economic theory of socialism. A survey of the literature at that time instilled in me a certain feeling of uneasiness, arising from the gap existing between the idea of socialism espoused by many of us involved in the students' movement of the late 1960s and the idea of socialism as conceptualized in orthodox economic theory.

My uneasiness arose mainly from two characteristics of orthodox economic theory. First, work, the nature and the transformation of which were so important to us, was treated in the economic theory of socialism – and also, more generally, in the theory of the allocation of resources – exactly in the same way as, say, steel and iron. In other words, human labour was treated as a resource, the use of which affected people's welfare only indirectly, through the production of consumption goods (including leisure) obtained by employing it. The second source of uneasiness was that different institutional forms of organizing production and coordinating the division of labour seemed to have little effect, or even, under certain assumptions, no effect, on the relation between work and welfare. The independent worker, the employee of a capitalist firm and the member of a socialist self-managed cooperative – all seemed to be using the same techniques and organization of production in their work.

Such a feeling of uneasiness suggested the following questions: How are work and welfare related? Could the institutional differences between market and non-market types of organizations (for instance, firms) be better stated? And were my two reasons for uneasiness related? Were some of the differences and relative merits of alternative institutions overlooked because the preferences of people for different uses of their work were not satisfactorily taken into account? Or, conversely, were the preferences of the workers not important because the firms were not considered

to be institutions alternative to, or anyway different from, the market? How could production be organized in order to improve the welfare of the workers?

The aim of the present book is to evaluate the answers that economists from Smith onwards have given to these questions and then to ask myself the questions once again.

The 'natural' starting point of this work has been an examination of the division of labour existing in the celebrated pin-making factory. In spite of the fact that this factory is linked to the name of Adam Smith, Smith was largely unable to understand that the division of labour was coordinated, in the case of his own celebrated example, by means other than the market. In the first chapter, the analyses of Gioia, Babbage and Ure are shown to be superior to that of Smith in this respect. They explain the division of labour with the principle of minimizing training time – a principle that a profit-maximizing employer necessarily follows when he or she decides how to organize the labour process. By contrast, it will be argued that Smith better understands the disadvantages of the division of labour within the factory – an insight that is directly linked to his conception of work, and in general of human activity.

The first aim of chapter 2 is to contrast the Smithian concept of work, and in general of economic activity, with that of the Ricardian school. Smith and Ricardo are often classified together under the label of 'classical' economists. From the point of view of the present work, however, they tend to lie at opposite poles. Smith is well aware of the fact that the welfare of people is affected by the kinds of activities they perform at work; Ricardo, on the other hand, believes that the use of labour to bring about the production of consumption goods is the only link between work and welfare, and he regards labour as an homogeneous activity that can be measured satisfactorily in hours. These different approaches of Smith and Ricardo are shown to imply not only a fundamental difference between their theories of value, but also a difference in their evaluation of the issue of the division of labour. While Smith is aware of the unsatisfactory consequences of a very detailed division of labour on the worker's welfare, Mill, a leading member of the Ricardian school, explicitly deduces from the assumption of homogeneous labour the consequence that a more detailed division of labour can only improve social welfare. A second aim of this chapter is to evaluate the contribution of those economists who have been called either Ricardian

or, more recently, Smithian socialists, because of the influence that Ricardo or Smith was considered to have on their approach. In the present work these economists are divided into Smithian and Ricardian socialists. This classification is shown not to be purely a matter of terminology. In a socialist society the Smithian approach did not allow any objective evaluation of work independent of the tastes of the workers. By contrast, the 'true' Ricardian socialists deduced from the assumption of homogeneous labour that it was possible to calculate (labour-embodied) values independently of market exchange, and to reform the market in such a way that only just exchanges of equal quantities of (embodied) labour were carried out.

The starting point of chapter 3 is Marx's critique of the Ricardian model of socialism. Marx observes that the Ricardian socialist society will be simply unable to coordinate economic decisions because the society's reform prevents the market from achieving an equilibrium. The main purpose of this chapter, however, is to evaluate Marx's own models of a socialist society. I shall show that two contrasting models of an alternative society to capitalism can be found in the work of Marx and Engels. Unlike Smith, a great analytical merit of Marx lies in his full awareness that under capitalism the division of labour can be, and is in fact, coordinated by means other than the market. The firm conceived as a coordinating mechanism alternative to the market is shown to be the right key for understanding the two Marxian societies. The first model (single-firm socialism) extends the characteristics of firm-type coordination (planning, authority of the employer and so on) to society taken as a whole. The second model (anti-firm communism) is developed through a critique of the objectives and the division of labour carried out by the profit-maximizing firm. Marx did not perceive the contradiction between the two models because he believed that single-firm socialism should evolve smoothly into anti-firm communism. This belief is criticized in the last section of this chapter. There, Marx is also criticized for his undervaluation of some relative advantages of market-type coordination.

The purpose of chapter 4 is to compare (within the framework of a simple model) Marx's view of the economic process with that of the Ricardian school. In the Ricardian model the 'end' of society is to consume as many goods as possible. Workers are assumed to not have preferences for the kind of work that they perform; consequently, the human activity of production is

conceived to be only a 'means' for achieving the goal of consumption, and is never conceived as well as an 'end' in itself. Marx criticizes the Ricardian school for taking these characteristics of economic activities, which occur, according to him, only under specific institutional frameworks (e.g. capitalism and single-firm socialism), as general definitional characteristics of economic activity; he does not believe in this separation of human activity into 'means and ends'. It is shown here that within the Marxian model it is possible to give an endogenous definition of work (i.e. where human activities are only means to an end). This difference between the Marxian and Ricardian definitions of work is shown to imply that the Marxian and Ricardian theories of value are also different. They become equal only when some restrictive assumptions are made defining a particular institutional framework. The Marxian model of communism is shown to be a good test of this difference.

The fifth chapter examines the English and the Austrian streams within the marginalist revolution. From the point of view of the present work, the approach of Jevons shares many aspects of the Smithian contribution. Jevons is well aware that the welfare of people is affected by the quality of their working life. His world of independent producers, who are free to determine the length and other aspects of their working life, is shown to be a more normative implication of his awareness than an analytical deficiency of a capitalist model. From the same point of view, Menger's approach is very close to that of the Ricardian school. His 'economic man' derives welfare only from the goods that he consumes, and he is indifferent to the kind of work that he performs.

These differences between the approaches of the founding fathers of the marginalist revolution explain well the reasons for the disputes about the 'ultimate standards of value' between their immediate successors in England and in Austria. Although these disputes have been largely forgotten, they are shown to be very interesting because they clarify certain welfare implications of different institutional arrangements, such as the employment relationship. Moreover, within the framework of these disputes Wieser develops the theory of opportunity cost and shows its implications for the economic theory of a communist society.

Chapter 6 is dedicated entirely to evaluating the contribution of Walras. The Walrasian system is usually interpreted as the description of an idealized competitive capitalist society. However, Walras intended to build a Utopian model of a perfect socialist

society which could reconcile the aims of achieving social justice and maximizing social welfare. Like the Ricardian socialists, Walras looked for a world of just exchanges which could satisfy the requirement of commutative justice – a condition required by him for realizing distributive justice. He perceived that exchange and production decisions carried out at non-equilibrium prices would have prevented his perfect socialist from achieving both commutative justice and the maximization of social welfare. His ‘ticket scheme’ for an economy was an ambiguous way of coping with this problem. Such an economy is claimed here to be closer to the Marxian definition of a planned economy than to the actual features of the market.

Another characteristic of Walras’s perfect society is that welfare is assumed to be affected directly by consumption goods and leisure, and only indirectly by work. The Walrasian formulation was a successful compromise between the approaches of Menger and Jevons. It has become the standard formulation in the modern textbooks of economics. However, it can be easily shown that including leisure and not (directly) work in the utility function is tantamount to assuming that workers are indifferent among different uses of their labour power. Therefore it is argued that the Walrasian leisure device is certainly a very misleading assumption in the framework of normative economics. Furthermore, it can hardly be used to define the characteristics of a ‘perfect society’.

The purpose of chapter 7 is to criticize the rules that can be derived, and in fact are often derived, from the Walrasian leisure device. These rules are:

- (1) Organize production by de-skilling jobs.
- (2) Choose those techniques of production that are technologically efficient.
- (3) Allocate labour within the firm according to the profit maximization maxim.

According to these rules, the authority of a profit-maximizing manager goes undisputed by the workers. Since to use the Walrasian leisure device is to ignore people’s preferences for the allocation of their work, the derivation of such authoritarian and anti-democratic rules is hardly surprising. When workers’ preferences are taken into account, these rules are shown to be inconsistent with the maximization of social welfare. In particular, no internal allocation of work within the profit-maximizing firm as such should be allowed; instead, the provisional con-

clusion of this chapter is that the allocation of labour should be handled either by an omniscient central planner who knows workers' preferences, or through market transactions taken at equilibrium prices.

In chapter 8 it is argued that these two alternatives ignore either the costs of using the market or the costs of using the planning mechanism. Two convergent streams in the recent literature are examined. The first arises from the observation that there are costs involved in using the market mechanism; it is argued therefore that some transactions should be internalized within the firm. The second stream begins with the consideration that there are costs involved in using the planning mechanism; it is argued therefore that some decisions should be decentralized to smaller sub-units as firms. Although the starting points are different, both streams of literature can be used together to justify the existence of firms' internal allocation.

The purpose of the concluding chapter is to investigate the possibility of conceiving an institutional arrangement that is capable of economizing on the cost of organizing production activity while at the same time considering the preferences of the workers. It is argued that these two aims could be achieved by organizations that maximize not only profits but also the utility that the workers derive from their work. In other words, the market cannot completely coordinate economic activity (because of the costs of using the market mechanism), and hence non-market organizations must exist in the economy; hence the utility function of the workers should be internalized by these non-market organizations. A similar argument is put forward for the case of planning. The conclusion of this book, therefore, is that economists should accept the fact that industrial democracy and workers' control are important, not simply as an end in themselves, but also because of their economic implications. Only an extension of democracy to working life can bring about an organization of work and the use of production techniques that are consistent with the needs of individuals as producers.

1

The division of labour and the pin-making problem

1 *The Smithian explanation*

In his paper, 'The Division of Labour in the Economy, the Polity and Society', Arrow (1979) criticizes Adam Smith for regarding the division of labour or the complementarity of skills as a peculiarly human trait. He notes that it is widely known, thanks to both common knowledge and science, that cooperative specialized behaviour is a major aspect of bees, ants and wasps. Smith, however, confines the division of labour to human beings, because he notices that animals never engage in exchange. Since Smith considers exchange to be the only means whereby the division of labour can be originated and the coordination of different kinds of work achieved, animals cannot enjoy the advantages of the division of labour.

'This is a deficiency of analysis', claims Arrow; 'Smith is apparently not aware of the possibility that interaction and cooperation can be achieved by other means than the market' (1979, p. 157). Arrow notes that, although the market is a very important coordination mechanism, it is also true that, if we take the social sphere as a whole, the market is simply one among other coordinating mechanisms. In his paper he is interested in assessing how self-interest and market-type coordination can be effective only if a certain degree of non-self-interested, non-market-type cooperation is present in society. It is very difficult to disagree with him. What I am interested in pointing out, however, is that Arrow's criticism of Adam Smith is so general that it can be made using Smith's own famous example of pin-making.

As is widely known, Smith used pin-making to illustrate what he claims to be the three advantages of the division of labour: improved dexterity, saving of time otherwise spent in changing

occupations, and application of machinery invented by workmen thanks to their specialization in a particular field. It can be disputed that pin-making is a good example of Smith's three advantages, but I want first to concentrate on another point. The pin-making example certainly contradicts what Smith wants to show in the second chapter of the *Wealth of Nations*: that the division of labour of the members of society is coordinated only by the means of exchange.

'One man draws the wire, another straightens it, a third cuts it' is the famous beginning of Adam Smith's example (1976, p. 8). However, in this example the man who draws the wire does not *sell* it to the man who straightens it, and the latter does not *sell* the straightened wire to the man who cuts it. Smith's example shows exactly what Arrow maintains in opposition to Smith: that the market mechanism is not by any means the only one by which interaction and cooperation can be achieved. Smith does not seem to perceive the difference between this example and the one that he gives in the second chapter, in which he illustrates how, in a tribe of hunters or shepherds, a particular person specializes in producing bows and arrows and trades with other members of the tribe who specialize in the production of different goods. In such a tribe, a person who produces bows and arrows with greater dexterity and readiness finds it convenient to exchange them for cattle and venison, since 'he can in this way get more cattle and venison than if he himself went to the fields to catch them' (p. 19). In this second example, the coordinating mechanism described by Smith is really the market. Unlike the pin-making example, cattle and venison are *exchanged for* bows and arrows. Unlike the small pin factory that Smith had seen, 'where only ten men were employed' (p. 8), no employer is coordinating the distinct operations of the men of the tribe.

The Wealth of Nations can provide us with an explanation of how the market coordinates and favours the specialization of members of society, but its analytical power is not able to penetrate the doors of the pin factory. There, a type of coordination different from the one in which the tribe of self-employed hunters and shepherds operates, is working.

The pin factory in no way performs the indirect role that Adam Smith had given to it: that of showing the advantage of market-type coordination. What we now want to see is whether it plays the *immediate* role he assigned to it: that of showing the advantages of the division of labour. Let us consider these