

Actions, Objective Facts
and
Beliefs in Economics

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ACTIONS, OBJECTIVE FACTS AND BELIEFS IN ECONOMICS

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1. Descriptions of Economic Life

Human actions make up the fabric of economic life: producing and distributing goods are essential components of economic behaviour, be it intentional or not.

However, anything brought about by a human being can be described differently depending on whether we describe it as a physical phenomenon, as the act of some agent or as an act belonging to a certain class of events. Clearly, to describe a human act as an economic action involves a description of the third type. (All economic actions must belong to the class of events to which 'economic' applies). Now, to ascribe an event to any such class involves that this event meets a certain criterion, which is not implied by its 'physical' description and is determined within a conventionally defined domain of human activity. (Such as production of goods, ethics, law, etc.). (See Anscombe, 1958). But once we admit this, we must also be prepared to admit that the concept of 'economic' is intensional rather than extensional in character (1).

In other words, the fact that a certain action can be described as an economic/action, does not permit us to exclude that the same action might also be described as technical/non technical, good/bad, legal/illegal. The intensionality of economic concepts involves that it will generally

(1) An intensional concept derives its meaning from the dispositions of thinkers rather than from 'objective' features of reality. The opposite holds for extensional concepts. (See Lewis, 1950, pp. 39-41).

be possible to lay down alternative criteria with which to form classes of economic actions; action x might be 'economic' under one criterion and 'not economic' under another criterion.

The intensionality of propositions about economic actions makes economic activity a subject-matter for beliefs; it is impossible to describe economic actions unless we believe that certain actions are economic and other actions are not (2). To sum up: the intensionality of propositions about actions involves that a sentence such as 'agent A is performing x' can be described in a number of different ways. Under some description(s) the sentence refers to an economic action, under other descriptions it does not. As we shall see in the section below, this aspect of propositions about actions provides useful insights into the relationship between praxeology and 'speculative' knowledge in economics.

2. Economics between Praxeology and Science

Eighteenth century literature is rich of references to the distinction between 'Art' and 'Science' in the treatment of economic matters. Sir James Steuart, in his Inquiry into the Principles of Political Economy, stressed the 'Art' side, while at the same time recognizing that political economy, in pursuing her object ('to secure a certain fund of subsistence for all the inhabitants [of a state], to obviate every circumstance which may render it precarious; to provide every thing necessary for supplying the wants of the society) (Steuart, 1966, p. 17 ; 1st edn 1767) should also make use of knowledge about the nature of men 'in such a manner as naturally to create reciprocal relations and dependencies between them, so as to make

(2) The intensionality of propositions describing actions is discussed in Anscombe, 1958 and Davidson, 1985.

their several interests lead them to supply one another with their reciprocal wants' (Steuart, 1966, p. 17; 1st edn 1767). Cesare Beccaria, who wrote only few years later, explicitly stressed the scientific character of economic analysis by arguing that political economy would easily get lost among the 'differences in climate, population and government of the various countries' (Beccaria, 1958, p. 383; written about 1771-2; our translation) unless political economists 'go back to the origin of things as they are in themselves', independently of the 'circumstances of place and time' and of 'the different transformations of society' (Beccaria, 1958, p. 385; written about 1771-2; our translation). This statement of Beccaria is reinforced by the implicit linkage that is established between the method of economics and that of the sciences: 'All sciences have this fundamental principle, this universal proposition, which is nothing but the statement of the common link of all the particular propositions that make up the body of a science. In order to find [this universal proposition] it is necessary to go back to the origin of things as they are in themselves, since at that stage only it is possible to find some primitive and primary combination, which has been like the core or leverage point upon which the various different details of a science were firmly established and expanded' (Beccaria, 1958, p. 385; written about 1771-2; our translation).

Adam Smith shares Beccaria's concern with the 'universal' character of propositions derived from knowledge of man's nature, and explicitly links the availability of such propositions with the possibility of explaining why alternative plans 'in the general conduct or direction [..] in the application of labour' have generally led to different outcomes in terms of 'greatness of [..] produce' (Smith, 1976, p. 11). Smith's immediate purpose is not to outline an additional scheme for economic policy. It is rather 'to explain, as fully and distinctly as I can, these different theories [of economic policy], and the principal effects which they have produced in

different ages and nations' (Smith, 1976, p. 11 ; 1st edn 1776).

Smith's Inquiry is therefore concerned in the first instance with identification of a 'higher order structure', within which it should be possible to make sense of the effects produced by alternative plans as to the 'application of labour'. This approach leads Smith to stress the causal aspects of economic actions rather than the intentional ones; actions are considered to be part of a complex system of events (that is itself governed by certain 'natural' laws) rather than simply the expression of the agents' reasons for doing them. Indeed, the whole conceptual structure of the Wealth of Nations is based upon the distinction between what would happen within a 'system of events' in which the outcomes of actions are left free to interact with one another (this is Smith's 'natural order') and the economy considered to be a system for the deliberate organization of actions in order to satisfy human needs. In this way, Smith takes economic analysis much beyond Stuart's 'art'; its purpose is no longer 'naturally to create reciprocal relations and dependencies' between the inhabitants of a nation (Stuart, 1966, p. 17; 1st edn 1767); it is rather to examine the 'objective' interactions that are determined thereby.

Jeremy Bentham perceived with great clarity the distinctive character of Smith's work when he wrote:

[t]he design of this work [Bentham's own Manual of Political Economy] is different from that of his [Smith's Wealth of Nations]. His had two objects, the τὸ ὄν [what is] and the τὸ πρέπον [what is proper]. But the τὸ ὄν is evidently the principal; the other comes in incidentally as it were. In this, the sole object is the τὸ πρέπον. His object was the science; my object is the art' (Bentham, 1952, p. 224; written about 1793-5; our translation).

Smith's Wealth of Nations is a crucial watershed in the dynamics of economic knowledge not so much for the different explanations and prescriptions to be found in it, as for the sharp methodological change which Smith introduced

in his work. Before Smith, economists were mainly concerned with the formulation of 'plans' for the organisation of the economy and the allocation of productive resources. (This is true for the Mercantilists and, partially at least, also for Quesnay and the other Physiocrats). With Smith, there is a change in the basic question which is raised, since his interest goes to the 'production of effects' and to the interaction of such effects within a complex network of relationships rather than to the organisation of means in order to achieve a certain result. (Smith, 1976, p. 11 ; 1st edn 1776). In carrying out this research programme, Smith goes near to suggest that it is possible to identify a set of 'objective' principles explaining 'the causes of improvement, in the productive powers of labour, and the order, according to which its produce is naturally distributed among the different ranks and conditions of men in society' (Smith, 1976, pp.10-11; 1st edn 1776), independently of the particular plans that might be carried out by individuals on any given occasion. (See Smith, 1776, Introduction and Plan of the Work).

In order to understand Smith's methodological shift better, it might be useful to remember that human actions can be described differently depending on whether we concentrate our attention on the intentionality of agents or on the causal mechanism inherent in the production of effects. As Donald Davidson has pointed out: 'causality allows us to redescribe actions in ways we cannot redescribe other events' (Davidson, 1985, p. 60). Smith's Wealth of Nations is an attempt to change the status of economic actions, by describing them as primitive rather than intentional. (This means that economic actions are not explained as effects of other actions of the agent; they are primitive in the sense that they are not analysed by Smith 'in terms of their causal relations to acts of the same agent' (Davidson, 1985, p. 49)). As a result, the subject-matter of economics appears to be a system of 'primitive' events causally related with one another rather than a system of actions

explained by the agents' reasons for doing them. In our view, the discovery of the 'descriptive duality' of economic actions lies behind Smith's idea that the subject-matter of the Wealth of Nations is logically different from the subject-matter of these old 'theories of political economy' that are mentioned in the Introduction to his work (Smith, 1976, p. 11 ; 1st edn 1776). (3).

3. On the Notion of 'Economic Order'

In the previous section, I have recalled that descriptive duality is a characteristic feature of human actions in general. This gives us a clue for the rational reconstruction of the different ways in which economists have approached the study of economic actions. For the subject-matter of economics appears to us under a completely different light depending on whether economic actions are described as intentional or primitive. In the former case, economics is a branch of praxeology (the 'science' of efficient action); economic actions are described as special cases of a more general genus, in which the bringing about of a certain effect by a cause can be described as an instance of purposeful acting. In the latter case,

(3) The descriptive duality of economic actions was explicitly discussed with great clarity by Marco Minghetti: '[Economics] is both art and science at the same time; but to have confused these two branches was cause of considerable error and controversy among scholars [...] Now, the free operations of human beings on things, as far as such operations are aimed at the satisfaction of human needs, as well as the resulting effects, make up a series of special facts, that are important, necessarily connected with one another, and having all the characteristics of a rational subject. Thus, up to now, you are simply a spectator; you see how wealth is produced, distributed, exchanged and consumed; and you make a science out of it. But if, after observing such laws, you go down to examine a single individual, family or nation having special intentions and operating under given circumstances; and you want to see how the principles get modified by the circumstances, and what individuals, corporate bodies and governments might do in order to make production

economics is rather a branch of 'natural philosophy', whose object, as we know from Locke, is to know 'the Nature of Things, as they are in themselves, their Relations, and their manner of Operation' (Locke, 1979, p. 720; 1st edn 1690).

In both cases, the study of economic actions requires the identification of what we might call 'economic order'. For in either case actions may only be explained on condition that it is possible to find a necessary (or probabilistic) connexion between actions and events, or between actions themselves. If economic actions are described as instances of intentional behaviour, their explanation involves that we are able to consider such actions as part of a certain plan. (This is what happens when actions are explained by giving the agent's reason for acting). On the other hand, if economic actions are described as primitive events (so that no reference to intentions is made), their explanation involves that we are able to consider such actions as part of a certain system of events (a set of events characterized by a fixed relationship among its elements); in this latter case, action X is explained (as an event) by pointing out that there is at least another event with which it is causally related according to the 'order' characterizing the system of events under consideration.

The two alternative conceptions of 'economic order' involve alternative descriptions of economic actions: the order of a plan is necessarily an order of reason, in which individual actions are arranged so as to be effective and consistent with one another. (In general, consistency of actions is a necessary condition for the effective operation of individuals arranged in a team).

greater, fairer its distribution, easier the exchange, more convenient its consumption, you will have the art' (Minghetti, 1859, pp. 73-4).

On the other hand, the order of a system of events has nothing to do (in principle) with the rationality of agents: here individuals (or collective) actions are related with one another by means of a 'higher order' structure in which certain patterns of interaction are allowed and other patterns are excluded. The final outcome may or may not be related with the agents' original intentions and can be explained without taking these intentions into account.

The order of an economic plan (as it is considered in the praxeological approach to economics) involves rationality in a much more meaningful sense than the 'natural order' of Smith and the other classical economists. For in the former case the rational individual has to formulate a plan that appears to be effective in terms of his present knowledge of the 'laws of nature'. In the latter case, the 'rational' individual is simply the individual who is shaped by economic institutions so as to behave in a certain pre-determined way when certain 'signals' are received. (These signals can be a price variation, a profit differential, etc.). The rationality of economic agents is thus more limited in theories of the classical type than in theories aimed at the rational reconstruction of any given 'order of reason' (reasonable plan).

The 'economic order' is described differently depending on whether it is described (i) as a set of mutually consistent plans, or (ii) as a system of causally related 'primitive' events (4). This difference is perhaps the philosophical origin of an important duality between conceptions of eco-

(4) It is worth noting that description (i) is also compatible with a weaker notion of consistency, in which we simply ask that plans be not systematically inconsistent with one another. On the other hand, description (ii) is compatible both with deterministic and probabilistic causality.

onomic life. Such a duality stems from the fact that human actions may alternatively be described as intentional or primitive (See above.) But descriptive duality cannot conceal the fact that it is the same action that can be described in alternative ways. Descriptive duality provides us with a clue to the understanding of the difference between structures of inquiry in economic analysis. It also provides us with a reason for the simultaneous existence of distinct lines of research in our discipline, and for the frequent 'switches' from one research line to the other in the historical dynamics of economic thought. (Certain descriptions of economic actions might appear to be more adequate than others, depending on where the economist's attention is concentrated on every particular occasion.) (4).

(4) The switch from one description to the other is already apparent in writings of the French Physiocrats. In a number of places, they describe the 'economic order' as 'natural order', and this appears to be an 'order of reason' rather than a 'system of events': 'Positive law [...] consists of the statement of the essential natural laws of the order that is shown by reason to be the most advantageous that can possibly be achieved by human beings in society [...]. Enlightened reason, once it has attained a clear knowledge of natural laws, becomes the necessary rule of the best possible government' (Quesnay, 1846, pp. 53-4; 1st edn 1765). In other places, the 'natural order' is described as a 'system of events' that is necessarily brought about once the intentions of human beings (their 'nature') are taken as given: 'Men [...] did not come to live together in a civil society as a result of chance. It is not without reason that they have extended the natural chain of reciprocal duties, that they have submitted themselves to a sovereign authority. They had, they have a goal that is essentially marked by their nature, so that they behave in a certain determined way. Now, their own physical constitution, that of the other beings around them, do not allow the use of arbitrary means to achieve that goal, since nothing arbitrary is possible in physical acts aiming at a determined end [...]. There is thus a necessary route that takes us nearest to the goal of civil society and of political bodies. There is thus a natural order, essential and general, that comprises the essential laws of all civil societies; an order from which any society cannot detach itself without becoming less of a society' (Dupont de Nemours, 1846, pp. 337-8; 1st edn 1768).

4. 'Exchange', 'Production' and the Descriptive Duality of Economic Actions

In the previous section, I have argued that the identification of a certain 'economic order' is a necessary condition for the use of theories in economic reasoning. I have also argued that economic actions can be described either as primitive or as intentional, and that either description leads to a distinct view of the 'economic order': 'order of facts' in the former case, 'order of reason' in the latter. Economists have attempted to establish a connection between 'order of facts' and 'order of reason' in a number of different ways, ranging from the deterministic anthropology of certain Physiocrats (see the passage of Dupont de Nemours quoted previously) to the adoption of the notion of 'economic equilibrium' in Condillac and Smith. In the former case, 'order of facts' and 'order of reason' coincide because this latter is defined as the general plan compatible with the 'natural' way which would be followed by any human being in pursuing the goal of his (her) life; '[N]othing arbitrary is possible in physical acts aiming at a determined end' (Dupont de Nemours, 1846, p. 337 ; 1st edn 1768). In the latter case, equilibrium is defined in such a way that, whenever there is equilibrium, the 'order of facts' is also an 'order of reason'. (Individual plans are mutually consistent,) As soon as we drop the deterministic anthropology, the physiocratic 'natural order' becomes purely an 'order of reason'. On the other hand, without the notion of equilibrium the method of Smith reduces to the study of 'objective' causal relationships, without explicit reference to the meaning of actions for economic agents. (Such meaning is generally related with the agents' own reasons for acting, i.e. with agents' intentions.)

The subsequent dynamics of economic theory shows the economists shifting back and forth between two main alternatives, both of which took shape during the 19th century: (i) the agent's intentions are

not explicitly considered, and economic actions are described as primitive; (ii) economic actions are described as intentional, and the economy is considered as the network of (individual and collective) plans.

Either route is founded upon a specific notion of 'economic order', and either of them involves a particular way of 'simplifying' economic relationships. In order to see this, it might be helpful to consider economies as a discipline dealing with a certain class of human actions and with the causation processes determined by their interaction with the 'material world' and with one another. Now, human actions would normally be intentional, at least to a certain degree. Intentionality involves beliefs of a certain kind about the causation processes by which desired outcomes are brought about. Acting involves that human beings get involved into a network of causal relationships that exists independently of the agents' intentions. (Under given external circumstances, the same act would normally produce the same effect, independently of the reason behind it.) (5) To describe actions as intentional, would normally involve a concentration of attention on the decisions of the economic agents and their patterns of interaction.

(5) The philosopher Kotarbiński has described this feature of economic actions as follows: 'The essential problems of economics have [...] a normative character. Economics poses the question how the action of a human team, engaged in co-stewardship, should be influenced, so that it operates in a rational manner, i.e. in the most efficient manner. But to prepare solutions of this type of problem one should know the dynamics of the spontaneous formation of structures of the teams engaged in stewardship, in other words, the relationship between their parts, which are generated independently of the external factors, programmed in advance. Problems of this kind, from the sphere of the science of the laws of these dynamics, have not a normative, but an assertive character' (Kotarbiński, 1965, p. 304).

This involves, in turn, a concentration of attention on a 'frictionless' world, in which the interaction of individuals acting intentionally can most easily be dealt with. The consideration of exchange provides economists with a conceptual framework in which the interaction among intending agents can be examined even in the absence of a complete description of the sequence of outcomes brought about by such interaction in the course of time. As a result, exchange became a privileged field of inquiry for economists interested in the formal ^{and} general characteristics of the processes by which the actions of economic agents can be coordinated with one another. On the other hand, production was either overlooked or described in such a way as to make it consistent with the assumptions of the 'pure exchange' model. In this latter case, production came to be considered as a special case of exchange, in which inputs acquired on the markets of productive factors are transformed into outputs sold on the markets for goods. (See Wicksteed, 1933, pp. 366-7; see also Hennings, 1986, particularly pp. 223-6).

The special characteristics of the ideal case in which the consistency of individual plans could be assessed (the 'pure exchange' model) induced the economists interested in the 'intentional' description of economic actions to consider production simply as a complication of exchange. This averted the economists' attention from these aspects of the production process that, although related with the intentionality of human behaviour, could not be studied on the simplifying assumptions of the pure exchange model. (This is particularly clear in the case of the analysis of production as a network of intentional actions, or tasks, which was almost entirely abandoned by economists after its use in the first chapters of Smith's Wealth of Nations.)

The relationship of exchange with production on the premises of the 'pure exchange' model was explicitly stated by Walras in the following way:

[A]ny value in exchange, once established, partakes of the character of a natural phenomenon, natural in its origins, natural in its manifestations and natural in essence [...]. Value in exchange is [...] a magnitude, which, as we now see, is measurable. If the object of mathematics in general is to study magnitudes of this kind, the theory of value in exchange is really a branch of mathematics which mathematicians have hitherto neglected and left undeveloped. It must be evident to the reader from the previous discussion that I do not claim that this science constitutes the whole of economics. Force and velocity are also measurable magnitudes, but the mathematical theory of force and velocity is not the whole of mechanics. Nevertheless, pure mechanics surely ought to precede applied mechanics. Similarly, given the pure theory of economics [that is based on exchange], it must precede applied economics [...]. [T]he theory of the economic production of social wealth, that is, of the organization of industry under a system of the division of labour, is an applied science. For this reason we shall call it applied economics. (Walras, 1954, pp. 69-76; 1st edn 1874-77)

Let us now turn to the alternative route mentioned above. This approach is characterized by the description of economic actions as primitive events, and by a concentration of attention on aspects of economic life that can be studied without explicitly considering the 'means-ends' dimension of economic behaviour. In other words, attention was focussed on the 'objective' mechanism by means of which a given action can produce a certain effect. Production of goods provided an 'ideal case' from which to start in the construction of economic theory. For, in the production process, human actions (tasks) acquire an identity and a purpose independently of individual intentions (the intentions of the individuals performing a certain hand motion or operating a certain machine). Such actions, in fact, do get connected with one another according to the laws of nature (or technology), rather than according to the deliberate choice of human beings.

Production provided a conceptual framework in which the interdependence

of actions (tasks) could be considered even in the absence of a full description of the interaction of individual plans. Production thus became a privileged field of study for economists interested in what we might call the 'material interdependence' of actions. On the other hand, the planning and 'conceptual' aspect of the production process was almost completely overlooked. (This feature may be clearly seen in Ricardo, if we compare his analysis of production with Smith's chapters on division of labour in the Wealth of Nations.) (6).

Once the subject-matter of economics was identified with the 'material interdependence' of human beings engaged in the production of goods, the aspects of economic life that are more clearly associated with intentions and plans receded in the background, for the consideration of planning activities was substituted by its objective counterpart: the study of the causation processes by which individual plans do interact and produce (often unintended) social outcomes.

Economic theories based on the 'pure production' model are distinct

(6) The relative neglect of the 'immaterial' side of production by economic writers was noted by Heinrich Storch (1815; 2nd edn 1823). On this issue, Francesco Ferrara wrote: 'L[.]n pourra L[.] dire que tous les produits sont matériels, parce que tous exigent une forme matérielle, ou bien que tous sont immatériels (ainsi que Say l'a affirmé), parce que leur utilité, l'intelligence qui les a créés, ou l'effet qu'ils produisent, peuvent toujours se traduire dans un élément incorporel. Si enfin, l'on veut à tout prix garder la distinction des produits en matériels et immatériels, cette distinction n'aura d'autre signification que celle d'une simple prépondérance de l'un des deux éléments, jamais d'une exclusion absolue de l'autre' (Ferrara, 1938. p. 109; 1st edn 1859). This way of thinking led Ferrara to explicitly recognize that the production process may be considered in two alternative ways, depending on whether production is described as a network of human actions or as a system of 'brute facts': 'L[.]e phénomène de la production n'existe en tant que fait isolé que pour autant que nous

from theories based on the 'pure exchange' model also from the point of view of the belief phenomena that are considered in either approach. In the 'exchange' oriented theories, relevant belief phenomena are those associated with the intentional aspect of behaviour, such as the beliefs involved in 'planning' human actions in order to achieve a certain result. (These would ordinarily be beliefs about optimization and search strategies and beliefs about other people's planning activities.) On the other hand, in 'production'-oriented theories, the relevant belief phenomena would mainly be those associated with attribution (beliefs about other agents' beliefs), theory acceptance (the 'view' of the economic system that is incorporated in social behaviour) and descriptions of possible 'states of the world' (7). For beliefs of this kind are part of social institutions and often contribute in a substantial manner to the predictability of economic behaviour which is presupposed by the 'material interdependence' point of view (8).

A mature formulation of the view of economic relationships characteristic of the 'production'-oriented theories may be found in the 'Preliminary Remarks' of John Stuart Mill's Principles;

In so far as the economical condition of nations turns upon the state of physical knowledge, it is a subject for the physical sciences, and the arts founded on them. But in so far as the causes are moral or psychological, dependent on institutions

l'isolens mentalement, pour la commodité de notre analyse. En réalité, il y a un enchaînement très serré de tous les atomes de la matière et de toutes les parties du mouvement [...] Suivant que nous appelons production telle ou telle phase du phénomène, nous pouvons donner la prépondérance à l'idée ou à la matière' (Ferrara, 1938, p. 109n; 1st edn 1853).

(7) For a discussion of belief phenomena critical in economic life, see Bacharach, 1986, pp. 179-84.

(8) The association between the predictability of human behaviour and the existence of a 'principle of arbitration' operating through social institutions and restricting freedom of choice was stressed by F.Y. Edgeworth in his Mathematical Psychics (Edgeworth, 1881, pp. 50-1). For a recent contribution

and social relations, or on the principles of human nature, their investigation belongs not to physical, but to moral and social science, and is the object of what is called Political Economy (Mill, 1965, p. 21; 1st edn 1848)

It is worth stressing that, in Mill's case, the distinction between 'physical' and 'moral' sciences does not involve that moral science is unable to discover 'objective' generalizations and laws. Indeed, the degree of necessity introduced in human affairs by the existence of social institutions was clearly recognized by Mill, when he wrote that:

Unlike the laws of Production, those of Distribution are partly of human institutions: since the manner in which wealth is distributed in any given society, depends on the statutes or usages therein obtaining. But though governments or nations have the power of deciding what institutions shall exist, they cannot arbitrarily determine how these institutions shall work. The conditions on which the power they possess over the distribution of wealth is dependent, and the manner in which the distribution is effected by the various modes of conduct which society may think fit to adopt, are as much a subject for scientific enquiry as any of the physical laws of nature. (Mill, 1965; p. 21; our italics; 1st edn 1852)

As Mill's passage makes clear, the economic theories of the 'production' family stress the mutual constraints that determine the course of economic life within social organizations. This characteristic distinguishes such theories from theories of the 'exchange' family, in which social organization is simply the institutional background permitting 'free' interaction among intending agents.

see Heiner (1983).

5. Concluding Remarks

Economic theories of the 'production' family and of the 'exchange' family are based on a simplified description of economic life. Either simplification derives from the descriptive duality of economic actions, which may alternatively be represented as 'primitive' or as 'intentional'. But actual economic actions are in fact both primitive events and intentional processes; human beings interact with one another in ways that depend both on their 'plans' and on the unintended outcomes of social interaction.

This suggests that there might be good reasons for not being satisfied with the 'straight jacket' placed upon us by existing theories. Knowledge of economic life needs a careful reconsideration of our conceptual frameworks, in order to provide ourselves with more flexible tools for economic inquiry. In particular, economic theory should permit us to examine, within a comprehensive conceptual framework, both the descriptions of economic life in terms of 'primitive events' and those in terms of intentional actions. In this way, it would be possible to account for the full complexity of economic life, without having recourse to the simplifications of the 'pure exchange' and 'pure production' parables. But a necessary condition for this enterprise is to place actions at the centre of economic theory, and to examine them as the outcome of the two processes of 'internal' and 'external' determination, which often co-operate in order to produce a certain effect (9). In this way, economic agents would appear to be 'free' to act, for their actions might be reconstructed as the expression of choices based on internal beliefs and other states of mind. On the other hand,

(9) The distinction between internal and external determination of actions is carefully examined in von Wright (1980), chapters II-IV.

the same actions normally belong to a range of possibilities which is determined externally (from the viewpoint of the individual agent) and which reflects the various degrees of 'objectivity' embodied in social institutions, technology and natural laws.

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REFERENCES

- Anscombe, G.E.M. (1958) 'On Brute Facts', Analysis, vol. 18, pp. 69-72.
- Bacharach, M. (1986) 'The Problem of Agents' Beliefs in Economic Theory', in M. Baranzini and R. Scazzieri (eds), Foundations of Economics. Structures of Inquiry and Economic Theory, Oxford and New York, Basil Blackwell, pp. 175-203.
- Beccaria, C. (1958) Elementi di economia pubblica [ms 1771-2] in C. Beccaria, Opere, ed. S. Romagnoli, Firenze, Sansoni, vol.1, pp. 383-649.
- Bentham, J. (1952) 'Manual of Political Economy' [written about 1793-5] in W. Storer (ed), Jeremy Bentham's Economic Writings, London, Allen and Unwin, vol. I, pp. 223-73.
- Davidson, D. (1985) 'Agency' [1971] in D. Davidson, Essays on Actions and Events, Oxford, Clarendon Press, pp. 43-61.
- Dupont de Nemours, P.S. (1846) 'De l'origine et des progrès d'une science nouvelle' [1768], in Physiocrates, vol.1, ed. E. Daire, Paris, Guillaumin, pp. 335-66.
- Edgeworth, F.Y. (1881) Mathematical Psychics. An Essay on the Application of Mathematics to the Moral Sciences, London, C.Kegan Paul.
- Ferrara, F. (1938) Oeuvres économiques choisies, traduites avec Introduction et Notes par G.-H. Bousquet et J. Crisafulli, Paris, Rivière.
- Heiner, R.A. (1938) 'The Origin of Predictable Behaviour', American Economic Review, September, pp. 560-595.
- Hennings, K.H. (1986) 'The Exchange Paradigm and the Theory of Production and Distribution', in M. Baranzini and R. Scazzieri (eds) Foundations of Economics. Structures of Inquiry and Economic Theory, Oxford and New York, Basil Blackwell, pp. 221-243.
- Kotarbiński, T. (1965) 'Praxiology', in On Political Economy and Econometrics. Essays in Honour of O. Lange, Oxford, Pergamon Press; Warszawa, Polish Scientific Publishers, pp. 303-312.
- Lewis, C.I. (1950) An Analysis of Knowledge and Valuation, La Salle, Ill., The Open Court Publishing Company.

- Locke, J. (1979) An Essay Concerning Human Understanding [1690], London, Clarendon Press.
- Mill, J.S. (1965) Principles of Political Economy with Some of Their Applications to Social Philosophy [1848, 1852], ed. J.M. Robson, with an introduction by R. Mc Rae, Toronto, University of Toronto Press; London, Routledge and Kegan Paul.
- Minghetti, M. (1859) Della economia pubblica e delle sue attinenze colla morale e col diritto, Firenze, Le Moanier.
- Quesnay, F. (1846) 'Droit naturel' [1765], in Physiocrates, vol. 1, ed. E. Daire, Paris, Guillaumin, pp. 41-55.
- Smith, A. (1976) An Inquiry into the Nature and Causes of the Wealth of Nations [1776], ed. R.H. Campbell, A.S. Skinner and W.B. Todd, Oxford, Clarendon Press.
- Steuart, Sir J. (1966) An Inquiry into the Principles of Political Oeconomy [1767] edited and with an introduction by A.S. Skinner, Oliver and Boyd for the Scottish Economic Society, Edinburgh/London.
- Storch, H. (1823) Cours d'économie politique, ou exposition des principes qui déterminent la prospérité des nations [1815], Paris, J.P. Aillaud, Bossange père, Rey et Gravier.
- Walras, L. (1954) Elements of Pure Economics [1874-77], ed. W. Jaffé, London, Allen and Unwin.
- Wicksteed, P.H. (1933) The Common Sense of Political Economy [1910], London, J. Routledge.
- Wright, G.H. von (1980) Freedom and Determination, Helsinki, The Philosophical Society of Finland.