

# Note de recherche

Knowledge and Rules : Hayek's social  
theorizing in later work

Maria Filomena de Sousa

02-05

Pour se procurer des copies de cette note de recherche communiquer avec les chercheurs:

**Adresse postale:** CIRST  
UQAM  
C.P. 8888, Succursale Centre-ville  
Montréal, Québec  
Canada, H3C 3P8

**Adresse civique:** CIRST  
UQAM  
Pavillon Thérèse-Casgrain , 3e étage  
455, boul. René-Lévesque Est, Bureau W-3042  
Montréal, (Québec) Canada  
H2L 4Y2

**Téléphone** (secrétariat du CIRST): (514) 987-4018

**Télécopieur** (secrétariat du CIRST): (514) 987-7726

**Courrier électronique:** CIRST@uqam.ca

**Site Internet:** [www.cirst.uqam.ca](http://www.cirst.uqam.ca)

## **Knowledge and Rules: Hayek's social theorizing in later work**

Maria Filomena de Sousa  
Université du Québec à Montréal

It is often held that the 'Scientism' essay (1942- 44) is F. von Hayek's most significant methodological contribution. It may be asserted, however, that his radically subjectivist social theorizing in that essay sets serious questions against the research framework that it proposes. Given these difficulties I want to argue that it is appropriate to regard the 'Scientism' essay, and the related article 'The Facts of the Social Sciences' (1943), as a mere stage in the evolution of Hayek's thinking. Indeed, I believe that Hayek's most significant contributions derive from a line of research he launched in the mid-1960s when he moved from technical economics to philosophical questions and amended his previous methodological position that was sustained by the conceptual couple of constitutive and explanatory ideas, which had constituted the backbone of the 'Scientism' essay. At the same time, motivated by the socialist calculation debate, Hayek emphatically argued against constructivist rationalism and undertook the positive task of setting out a theory of the spontaneous order as the unintended result of human efforts and the product of unplanned process of selective evolution.

In this paper I will offer an account of Hayek's social theorizing as grounded in the assumption that social life is rule-governed and that the knowledge upon which social life depends is largely tacit. I will conclude by pointing out that in his later work Hayek's methodological position which differs considerably from the mainstream Austrian tradition sets the stage for a successful challenge to central planning.

### **Tacit knowledge and rules**

First, it should be emphasized that the various arguments Hayek put forward from the 1960s onwards rest upon the core assumption that unifies his scientific work of seven decades, according to which, knowledge is fragmented, dispersed amongst a myriad of socio-economic agents and no individual, i.e. planer, can have access to the totality of the information that constitutes it. It ensues that in large organizations it is impossible for individuals to achieve

coordination through explicit rational agreements<sup>1</sup>. This is a permanent feature of Hayek's work and it is inseparable from the scientific demonstration that socialism is not viable. These two theses are carried out together and although in the 1930s he had started to focus on the epistemological aspect of the problem, it is only from the mid-60s onwards that the challenge to central planning becomes more of a philosophical than of an economic kind.

An important aspect of Hayek's long-held observation about the knowledge upon which socio-economic life depends concerns its tacit and practical character. Indeed, these insights are decisive for his mature social theorizing and for the development of his arguments on the socialist problem. Hayek went on to elaborate upon the notion that much of what people know is not available to their conscious reasoning for the first time in his essay of 1945a. As he put forward a conception of practical, tacit, knowledge that took inspiration from Michael Polanyi, who also opposed central planning, and from Gilbert Ryle. Hayek emphasized that agents are unable to conceptualize all the conditions of their actions given that economic knowledge is constantly changing along with whatever changes occur in society. The concept of practical tacit knowledge replaces, then, the language of 'opinions' and 'beliefs' that predominated in the 'Scientism' essay and which usually implies explicit, discursive, knowledge. Incidentally, it is also worth noticing that Hayek later emphasized that information is clearly preferable 'to where I usually spoke of 'knowledge', since the former clearly refers to the knowledge of particular facts rather than theoretical knowledge to which plain 'knowledge' might be thought to refer' (Hayek, 1979a, p. xii).

Even though agents are unable to conceptualize all the conditions of their actions, since the most essential information is passed on in the prices of commodities as abbreviated signals they are able to react in appropriate ways to changes in their circumstances without explicitly knowing much about them. Hayek will repeatedly resort to this to justify his claim that rationally engineered systems are inferior to the market system in a democratic society. For market prices ensure that 'all of a society's dispersed knowledge will be taken into account and used', provided that prices be 'determined solely by market forces and not by the coercive powers of government' (Hayek, 1978, p. 62).

---

<sup>1</sup> Interestingly enough, Bruce Caldwell (1988) and O'Driscoll (1977) suggested that the coordination problem provides the unifying topic for Hayek's work.

Most significantly, in 1963a Hayek's ideas on the significance of the use of knowledge in society are supplemented by the notion that, as repeated by Hume and Kant, general rules must prevail for spontaneity to flourish. Coordination within the spontaneous order is, then, achieved not only through the price mechanism but also when people act according to certain rules, although individuals will usually be unaware of the rules governing their actions. As a consequence, the notion of non-discursive rule-following played a pivotal role in Hayek's social theorizing after the mid-1960s.

### **Social reality as rule-following: Coordination and negative rules**

In order for the process of coordination characteristic of the market to operate beneficially, competition requires that those involved observe rules rather than resort to physical force. Thus, rules alone can unite an extended order. As underlined, in a statement typical of the liberal tradition:

It is only as a result of individuals observing certain common rules that a group of men can live together in those orderly relations which we call a society...No group is likely to agree on articulated rules unless its members already hold opinions that coincide in some degree. (Hayek, 1973a, p. 95)

Social contract theories in Hobbes's tradition and contemporary contractualist theories represent a solution to the problem of coordination in political terms. Hayek vehemently opposes the logical fiction of the social contract and rejects the idea of an explicit rational agreement. Indeed, in modern society the necessity to mobilize huge amounts of information makes it impossible for any individual to rationally master the totality of such information:

Only when it is wrongly assumed that all rules of just conduct have deliberately been made by somebody do such sophisms become plausible as that all power of making laws must be arbitrary, or that there must always exist an ultimate 'sovereign' source of power from which all laws derives. (Hayek, 1973a, p. 28)

Organization encounters here the problem which any attempt to bring order into complex human activities meets: the organizer must wish the individuals who are to co-operate to make use of knowledge that he himself does not possess. In none but the most simple kind of organization is it conceivable that all the details of all activities are governed by a single mind. (Hayek, 1973a, p. 49)

The advantage of achieving an equilibrium of coordination when individuals abide by non-explicit rules of conduct lays in the optimal utilization of fragmented knowledge allowing the agents to make use of, and to benefit from, more knowledge and information than is otherwise possible. Hence 'civilization rests on the fact that we all benefit from knowledge which we do not possess' (Hayek, 1973a, p 15). Accordingly, most rules of conduct, though not necessarily all, are observed in action without being known to the acting person in articulated or explicit form. Meaning that people may *know how* to act, without explicitly *knowing that* the rule is such and such, that is, the agent need not be able to state the rule in words in order to be able to conform to it in his actions, or to recognise whether others have or have not done so. And although 'man never existed without laws that he obeyed, he did, of course, exist for hundreds of years without laws he 'knew' in the sense that he was able to articulate them' (Hayek, 1973a p. 43).

Incidentally, the notion that it is not necessary to discursively know a rule or a convention in order to behave accordingly is shared by many philosophers including, for instance, Lewis and Quine:

It may be held that we can adopt conventions through behaviour, without first announcing them in words; and that we can return and formulate our conventions verbally afterward, if we choose, when a full language is at our disposal. It may be held that the verbal formulation of conventions is no more a prerequisite of the adoption of the conventions than the writing of a grammar is a prerequisite of speech; that explicit exposition of conventions is merely one of many important uses of a completed language. (W. V. Quine, 1963, in 1976, pp. 77-106)

Unarticulated rules usually contain more than what the verbal formula succeeds in expressing, though articulation is often necessary. In fact, rules which govern actions of the members of spontaneous orders don't need to be known, or understood, by these elements as 'it is sufficient that the elements actually behave in a manner which can be described by such rules' (Hayek, 1973a, p. 43).

Thus, in the market system we are led, for example by prices, to do things by circumstances of which we are largely unaware and which produce unintended results:

The process of a gradual articulation in words of what had long been an established practice must have been a slow and complex one. The first fumbling attempts to express

in words what most obeyed in practice would usually not succeed in expressing only, or exhausting all of, what the individuals did in fact take into account in the determination of their actions... The process of articulation will thus sometimes in effect, though not in intention, produce new rules. But the articulated rules will thereby not wholly replace the unarticulated rules. (Hayek, 1973a, p. 78)

In this sense rules of conduct take mainly the form of 'abstract principles' which apply to an unknown number of future instances, and equally to all persons in the objective circumstances described by the rule, irrespective of the effects which observance of the rule will produce in a particular situation. Such rules are thus 'abstract' for they are general and end-independent rules, utterly apart from individual ends. And it is precisely the abstract nature of rules that allows freedom of individual decision, since freedom requires that the individual be allowed to pursue his own ends:

What man probably found most difficult to comprehend was that the only common values of an open and free society were not concrete objects to be achieved, but only those common abstract rules of conduct that secured the constant maintenance of an equally abstract order which merely assured to the individual better prospects of achieving his individual ends but gave him no claims to particular things. (Hayek, 1979a, p. 164)

Abstract rules don't pose, then, any danger to freedom as the greatest possible freedom for all is secured precisely 'by uniformly restricting the freedom of all by abstract rules that preclude arbitrary or discriminatory coercion by or of other people, that prevent any from invading the free sphere of any other' (Hayek, 1988, p. 63). On the other hand, in a society where obedience to concrete end rules is enforced by an authoritarian government individual freedom is annihilated, for 'individual freedom cannot be reconciled with the supremacy of one single purpose to which society must be entirely and permanently subordinated' (Hayek, 1944a, p. 206).

These rules are also described by Hayek as negative rules in that they are 'more effective guides for action when they appear as no more than an unreasoned prejudice, a general feeling that certain things simply 'are not done, while as soon as they are explicitly stated speculation begins about their correctness and their validity' (Hayek, 1973a, p. 60). Such rules assure the individual of the right within a known domain to pursue his own goals on the basis of his own knowledge, and largely consist of prohibitions which warn the individual not to engage in certain types of actions

In order to live successfully and to achieve one's aims within a world which is only very partially understood, it is therefore quite as important to obey certain inhibiting rules which prevent one from exposing oneself to danger as to understand the rules on which this world operates. Taboos or negative rules acting through the paralysing action of fear will, as a kind of knowledge of what not to do, constitute just as significant information about the environment as any positive knowledge of the attributes of the objects of this environment. (Hayek, 1967a, p. 81)

To sum up, to follow a rule is not to follow a precise prescription, for the rules, as Hayek conceives them, are 'in themselves negative' 'inhibiting rules' that leave the individual free to pursue his goals as they just demarcate the borderlines of appropriate conduct. Indeed, their main characteristic is that by themselves they don't constitute the cause of a particular action, they don't prescribe a particular behaviour, but they delimit the conditions of certain actions and thus provide the framework within which individuals may act. Such inhibitory rules eliminate thus certain individual choices, but at the same time as they are abstract they only delimit general conditions for the successful pursuit of the various individual purposes. Hence allowing for freedom.

Notice also that in this sense rules are not real entities but devices which describe regularities of conduct<sup>2</sup>. However, as Hayek pointed out, as soon as rules of conduct are explicitly stated speculation begins about their correctness and their validity. This means that some rules of conduct are then institutionalized and codified in moral, or ultimately in legal, systems. This is the case of one of western civilization's oldest codes of conduct, the Ten Commandments, which is a code of traditional morals and consists of 'Thou shalt not' kind of rules.

### **Abstract rules: rules of perception, rules of conduct and the rule of law**

Although the notion of non-explicit rule of conduct is central to Hayek's conception of social life, his perspective is held in place by four types of rules: rules of perception, and three types of rules of conduct, non-explicit rules and explicit moral rules, and legal rules. Hayek draws our attention to the fact that the two main types of rules should be clearly differentiated, but he also gives us to understand that it is not always easy to bring out the connection between

---

<sup>2</sup> Which is also the current sociological definition.



the rules governing perception and the rules governing action. And a further complication is that his own treatment of this topic often leads to conceptual confusion as he tends to shift from one level to another as if the four concepts were interchangeable. I will now very briefly outline Hayek's main arguments on rules of perception, moral and legal rules.

Rules governing perception are *a priori* but they are not transcendental nor innate or genetically determined, even though the individual's genetic equipment helps him to develop them in the context of the environment in which he grows up. Rules governing perception have a common feature with rules governing action: both are rules which we cannot not state but nevertheless govern our actions and perceptions. Indeed, we sometimes perceive patterns which we are unable to specify, or that we are not able to discursively describe, and perhaps will never be able to specify. Furthermore, even though rules of perception are not 'negative', in keeping with the primacy of the abstract assumption Hayek remarks that the mind must be capable of performing abstract operations in order to be able to perceive particulars, and that this capacity appears long before we can speak of a conscious awareness of particulars :

The conception that we often perceive patterns without being aware of (or even without perceiving at all) the elements of which they are made up conflicts with the deeply ingrained belief that all recognition of 'abstract' forms is 'derived' from our prior perception of the 'concrete': the assumption that we must first perceive particulars in all their richness and detail before we learn to abstract from them those features which they have in common with other experiences. But, although there exists some clinical evidence that the abstract is often dependent on the higher nervous centres and that the capacity to form abstract conceptions may be lost while more concrete images are still retained, this is clearly not always so. Nor would it prove that the concrete is chronologically prior. (Hayek, 1967a, p. 52)

Mental activities are thus not guided solely, or even chiefly, by the particulars towards which they are directed but rather by abstract rules. Hayek maintains that these rules are principles of perceptual organization of the same kind as, for instance, the psychological principles of Gestalt or in the case of linguistics, Chomsky's rules of generative grammar. However, in this sense principles of perceptual organization are not 'abstract' rules. Now, it is no coincidence that like Kant, Hayek calls these rules or principles 'schemata'. The schemata, or 'Analogies' of experience, are held by Kant to be regulative principles of experience, since they are required for organizing all objects of our empirical knowledge within a cognitive unity. Furthermore, regulative principles which are *a priori*, are also called constitutive for they are

objectively necessary for experience. It is quite clear that Hayekian perception rules are equivalent to Kantian regulative principles. Moreover, by themselves the regulative principles do not characterize any individual item by itself but rather only in relation to other objects of experience. One might thus justifiably assume that when he speaks of 'abstract' perception rules, Hayek has in mind these feature of the regulative principles.

If rules of perception stand at the bottom of several superimposed layers, rules in the legal sense stand at the top. As we have seen, rules of perception and rules of conduct are for the major part rules which we are able to apply without knowing them explicitly. But social life is also governed by rules which have been deliberately introduced:

This is necessary because those chiefly negative (or prohibitory) rules of conduct which make possible the formation of social order are of three different kinds, which I now spell out. These rules are: (1) rules that are merely observed in fact but have never been stated in words; if we speak of the 'sense of justice' or the 'feeling for language' we refer to such rules which we are able to apply, but do not know explicitly; (2) rules that, though they have been stated in words, still merely express approximately what has long before been generally observed in action; and (3) rules that have been deliberately introduced and therefore necessarily exist as words set out in sentences. (Hayek, 1978, pp. 8-9)

Now, Hayek insists that neither traditional nor evolved morals are a completely constructed and justified body of rules. Moral codes, consist, then, of abstract rules of the second type. Although they have been stated in words, still they merely express approximately what has long before been generally observed in action.

Legal rules in the legislative sense, however, consist of rules of type 2 and 3. They have been deliberately introduced, or deliberately codified and, thereby, necessarily exist in an articulated form. They include, for instance, economic rules of property and contract securing the personal domain of the individual. Hayek claims that only minimum legal rules would allow for a spontaneous order to emerge and thereby, law is to consist of general rules which allow for the free action of individuals by limiting in general terms the range of their actions:

In the terms we have adopted this means that the general rules of law that a spontaneous order rests on aim at an abstract order, the particular or concrete content of which is not known or foreseen by anyone; while the commands as well as the rules which govern an organization serve particular results aimed at by those who are in command of the organization. More complex the order aimed at, the greater will be that part of the separate actions which will have to be determined by circumstances not known to those

who direct the whole, and the more dependent control will be on rules rather than on specific commands. (Hayek, 1973a, p. 50)

A system of private case-law governing exchange is, Hayek claims, the indispensable condition of individual freedom and thus provides the best framework for innovation and for the market order to thrive. In this sense 'the general welfare at which a government ought to aim cannot consist of the sum of particular satisfaction of the several individuals for the simple reason that neither those nor all the circumstances determining them can be known to government or anybody else' (Hayek, 1976a, p. 2). Thereby, legal rules do not serve particular ends but rather generic values:

Even where the judge has to find rules which have never been stated and perhaps never been acted upon before, his task will thus be wholly different from that of the leader of an organization who has to decide what action ought to be taken in order to achieve particular results. (Hayek, 1973a, p. 97)

Legislation, the deliberate making of law, came relatively late in the history of mankind, and is fraught with the most far-reaching consequences. But if legal positivism derives all law from the will of the legislator, Hayek's basic contention is that we could never have designed the whole system of legal or moral rules.

Within the liberal framework if the market order is one side of the coin, the English common law is the other side. This body of general rules that was build up gradually in order to govern exchange is known as the English common law, whereas the economically advanced areas that do not have common law, take the case of Japan, have a developed system of private law as well. A striking example of this conception is to be found, remarked Hayek, on the one hand, in the doctrine of the Whigs, and on the other, in Locke, who argued that the legislators should make only general rules, they are to govern by promulgated established Laws, not to be varied in particular cases. The constructivist approach, on the other hand, is to be seen in the original form of legal positivism, as advocated by Thomas Hobbes and John Austin, to whom every law must be derivable from a conscious act of legislation. Interestingly, this constructivist line of thinking was later epitomized by the doctrine of Hayek's own teacher at the University of Vienna, Hans Kelsen, for whom Law is a deliberate construction serving particular interests.

In final analysis, rules are a device to cope with our constitutional ignorance in a free society which 'is governed by a multiplicity of individual ends which are not ordered in a particular hierarchy binding on the members (Hayek, 1976a, p. 15). But it is also essential to realise that Hayek is clearly attempting to set up a 'layered', superimposed, system of rules:

I know that we both have in this connection been vainly endeavouring to find a really appropriate name for that stratification or layering of the structures involved which we are all tempted to describe as 'hierarchies'. I have throughout disregarded the fact that the processes I have been considering occur not just on two but on many superimposed layers, that therefore, for instance, I ought to have talked not only of changes in the dispositions to act, but also of changes in the disposition to change dispositions, and so on. We need a conception of tiers of networks with the highest tier as complex as the lower ones. What I have called abstraction is after all nothing but such a mechanism which designates a large class of events from which particular events are then selected according as they belong also to various other 'abstract' classes. (Hayek, 1978, p. 49)

It is, however, to be doubted whether the several layers, and types, of rules are interrelated. For if it would be reasonable to assume that the various types of rules of conduct, moral and legal rules, which are essentially general and negative are to a certain extent interrelated and interdependent, it is difficult to accept that such a connection could be established between these rules and rules of perception. Legal and moral rules are explicit and enforced rules of conduct but rules of perception are of a different kind.

### **Knowledge and coordination within the spontaneous order**

As we have seen, parallel to Hayek's claim that the basic values of an open society must be abstract or negative is his emphasis upon the spontaneous nature of the extended order which will result from certain regularities of conduct.

The extended order self-generates when its members observe certain negative rules of conduct which are independent of particular purposes, and refrain from engaging in certain activities. Moreover, the order 'will always constitute an adaptation to the multitude of circumstances which are known to all the members of that society taken together but which are not known as a whole to any one person' (Hayek, 1973a, p. 44). The main advantage of spontaneous orders, such as the market process, is that they facilitate coordination through maximum use of widely dispersed and unsurveyable knowledge:

The order of the extended economy is, and can be, formed only by a wholly different process - from an evolved method of communication that makes it possible to transmit, not an infinite multiplicity of reports about particular facts, but merely certain abstract properties of several particular conditions, such as competitive prices, which must be brought into mutual correspondence to achieve the overall order. (Hayek, 1988, pp. 86-87)

Enabling individuals to 'judge comparative advantages of different uses of resources of which they have immediate knowledge and through whose use, whether they so intend or not, they serve the needs of distant unknown individuals' (Hayek, 1988, p. 77).

It is essential to realise that Hayek's concern here is once again with the central issue of social constructivism<sup>3</sup>. He stresses that since agents hold limited knowledge they cannot represent the overall order nor mould their actions to it intentionally or knowingly. As the extended order cannot be known as a whole by anyone it is futile to try to convey integrated and complete information to any central authority. Accordingly, efforts to re-design spontaneously arisen orders are doomed to failure for such a constructivist attitude overlooks, on the one hand, the order's complexity and, on the other hand, the limitations of our knowledge and of reason in general. Indeed, as far as no one can fully comprehend its structure as a whole, or ascertain its particulars, no one can fully control it either.

From all this it follows that whereas social engineering aims for particular ends, abstract patterns provide a framework for freedom and creativity, that is, for a free open society<sup>4</sup>. Add to this that there is a remarkable difference between spontaneous and designed socio-economic systems which lies in the mechanisms of social control. In engineered systems control consists in legal norms, incentives, and sanctions imposed by designated agents, while in spontaneous systems social control consists in abstract social and moral norms<sup>5</sup>.

Abstract, end-independent spontaneous orders prove then, this is Hayek's point, to be more successful than engineered orders for the latter are organizations of particular purposes, where rules are applicable only to particular people or in the service of the ends of the ruler. One might also mention, in support of the above thesis, that the whole idea of 'central control' is

---

<sup>3</sup> Hayek's arguments against constructivism were to a large extent inspired by Hume's philosophy.

<sup>4</sup> The term was popularized by Karl Popper (1945), but was coined by Henri Bergson in *Les deux sources de la morale et religion* (1932). Bergson contended that the Judeo-Christian tradition has embraced in its history both the open society and the close society, and exhibits in its great saints an opening out of the human spirit toward all humanity.

<sup>5</sup> See also J. S. Coleman (1990).

not realistic<sup>6</sup>. Indeed, in the real world there is no such thing as a 'single directing mind at work; there will always be some council or committee charged with designing a plan of action for some enterprise' (Hayek, 1988, p. 87). In final analysis, then, any process of coordination involving groups that are not self-contained, and where different bits of information are contributed by different individuals, remains one of making use of dispersed knowledge.

As is well known, Hayek borrowed his ideas on the significance of the obvious and simple system of natural liberty, i.e. free market system, from Adam Smith:

...the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man, or order of men. The sovereign is completely discharged from duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human wisdom or knowledge could ever be sufficient; the duty of superintending the industry of private people, and of directing it towards the employments most suitable to the interest of the society. (Smith, 1776, in 1976, IV, ix, p. 687)

This a very famous and often quoted passage, and it sums up what Hayek understood by 'socialism' and the reasons why it was doomed to failure: the undeniable assumption that no human wisdom or knowledge could ever be sufficient to direct people towards the employments most suitable to the interest of the society.

This said, the criticism of social constructivism shouldn't be understood as a radical anti-rationalism disabling individuals from critical appraisal of certain patterns of the order to which they belong. The order's individual members are constrained merely by general rules of conduct and therefore they free to try alternative ways of acting and thinking. Hayekian views on rationalism and the possibility for critical appraisal of values and institutions may, at first, appear to conflict but by dissociating the idea of spontaneous rule from the concept of spontaneous order, he makes sense of the seeming contradiction between spontaneous order and critical rationalism. Indeed, Hayek doesn't assimilate engineering at the level of rules to engineering at the level of the order and he gives us to understand that the repercussions of intervention at the level of the rules followed by individuals are, so to speak, neutral; whereas at

---

<sup>6</sup> Let us remember that these are the arguments that Hayek put forward when he went to explain, and elaborate upon the socialist problem, and the Mises-Lange debate.

the level of the overall order they will probably turn out as negative. To put it in different terms, within the Hayekian framework there's no necessary causal link between spontaneous rule and spontaneous order as rules are 'blind' or 'random' regarding the emerging order. Although rules upon which a spontaneous order rests may be of spontaneous origin, this need not always be the case. At the same time, some spontaneous rules governing individual behaviour may clearly make altogether impossible the formation of an overall spontaneous order. Regardless of its origins the important point is that regularities in individual's behaviour will determine the general character of the resulting order, but by no means all the details of its particular manifestations, as the order 'will always be an adaptation to a large number of particular facts which will not be known in their totality to anyone' (Hayek, 1973a, p. 40).

Furthermore, it is also conceivable that the formation of spontaneous order relies entirely on rules that were deliberately made:

Although undoubtedly an order originally formed itself spontaneously because the individuals followed rules which had not been deliberately made but had arisen spontaneously, people gradually learned to improve those rules...That even an order which rests on made rules may be spontaneous in character is shown by the fact that its particular manifestation will always depend on many circumstances which the designer of these rules did not and could not know. (Hayek, 1973a, pp. 45-6)

What is more, within the Hayekian world view the market system, or catallaxy, is seen as the most comprehensive order extending over the various fields of society<sup>7</sup>. All in all, the market order is presented as a highly complex and non-representable system of general, end-independent, rules. We can preserve an order of such complexity not by the method of directing the members, but only indirectly by enforcing and improving the rules conducive to the formation of a spontaneous order' (Hayek, 1973a, p. 51).

Now, it is important to distinguish carefully between the abstract spontaneous order and the concrete order made of human beings and the institutions that they set up. In the latter individuals draw upon practical knowledge entailing skills and habits. The abstract order, however, emerges unintentionally out of the interactions of a myriad of individuals acting within particular circumstances, but it is highly complex and evades individual knowledge. As

---

<sup>7</sup> This prompted some to note that this 'economic' conception of reality, resembles the perspective that was shared by Marx as well.

we cannot see, or otherwise intuitively perceive, the abstract spontaneous order we are only able to reconstruct it mentally by tracing the relations that exist between its elements. Still, the two orders interact leading to a reciprocal determination

### **The methodology of social science**

Based on the foregoing discussion, namely the acceptance that the social realm is structured by rules, as opposed to concept-dependent, I will now raise the question of the significance of this transformation in terms of the methodology social science, whose main task is to explain the formation and evolution of the socio-economic order and its institutions.

Hayek's account of social analysis is thus related to his conception of social life as the unintended result of individuals's interaction, since in the market place as in other institutions of the catallaxy the result of individuals's actions has unintended consequences within a context which includes internal and external, acknowledged and unacknowledged conditions. Social science, then, 'begins with-and has an object only because of-the discovery that there exist orderly structures which are the product of the action of many men but not the result of human design' (Hayek, 1973a, p. 37). Orderly structures, however, are the result of regularities of individual conduct and, therefore, to reconstruct the spontaneous orders it is necessary to explain social action from within the rules which give it meaning<sup>8</sup>:

Yet, though the whole economic theory (and, I believe, of linguistic theory) may be interpreted as nothing else but an endeavour to reconstruct from regularities of the individual actions the character of the resulting order, it can hardly be said that economists are fully aware that this is what they are doing. The nature of different kinds of rules of individual conduct (some voluntarily or even unconsciously observed and some enforced), which the formation of the order presupposes, is frequently left obscure. (Hayek, 1967a, p. 72)

Given the acknowledgement that there is an element of non-discursive rule reliance in all our thinking and action, social analysis is given the task of identifying those rules and of conceptualizing the connections between them providing us with a glimpse of the overall

---

<sup>8</sup> It is interesting to consider that Hayek's position here bears a striking similarity with that of Searle:

Sometimes in order to explain adequately a piece of human behavior we have to suppose that it was done in accordance with a rule, even though the agent himself may not be able to state the rule and may not even be conscious of the fact that he is acting in accordance with the rule. (J. R. Searle, 1969, p. 42)



pattern although it will never allow us to completely grasp, or otherwise totally reconstruct, the overall spontaneous order. The imperative of the 'Scientism' essay was to understand social action from within the mind of each acting individual. But with the recognition that individuals are unable to conceptualize all the conditions of their actions, the 'subjective' approach to social reality with its explanations that rely exclusively on motivating ideas cannot provide us with an adequate account of social life. Indeed, since the individuals need not be able to state rules in words in order to be able to conform to them it is useless to hook exclusively into the self-understanding that agents have of their actions. Social agents may 'know how' to act, and the manner of their action may be correctly described by an articulated rule, without their explicitly 'knowing that' the rule is such and such. The point to be emphasised is, then, that a rule may effectively govern action in the sense that from knowing it the social scientist can explain people's behaviour, without it being known as a verbal formula to the actors. In other words, this is a perennial issue within social analysis, the distinction between the meaning of an action and what the actor means by it:

To the observer the norms guiding the actions of the individuals in a group are part of the determinants of the events which he perceives and which enable him to explain the overall order of actions as he finds it.

(Hayek, 1973a, pp. 79-80)

Let us also remember that those chiefly negative rules of conduct which make possible the formation of the concrete and the abstract order are of different kinds. Indeed some rules are unknown to the acting individuals whilst others that have been deliberately introduced and therefore necessarily exist as words set out in sentences. The explanatory task is, then, not only to identify rules which are operative on certain occasions, but also to determine conjectural connections between networks of rules and thus provide us with a glimpse of the overall pattern in spite of the fact that the acting persons may not be aware of it. Indeed, 'though social theory constructs social orders from the rules of conduct assumed to be given at any one time, these rules of conduct have themselves developed as a part of a larger whole' (Hayek, 1967a, p. 73). However, a further complication is that connections of this kind are not likely to be understood 'until we have learnt to distinguish clearly between the regularities of individual conduct which are defined by rules and the overall order which will result from the observance of certain kinds

of rules' (Hayek, 1973a, p. 111). Indeed, since we cannot see, or otherwise intuitively perceive, the abstract order of meaningful actions, we are only able to reconstruct it mentally by tracing the relations that exist between its elements. It is worth stating at this point that even though Hayek did not explicitly acknowledge the two distinct levels of the order, the tacit acceptance of such an hierarchy underlies all of his methodological propositions. Obviously, different social sciences target mainly elements of one level or the other, jurisprudence for instance targets mainly the concrete level while systems theory targets the abstract order, although most social sciences target both the concrete and the abstract levels:

I must confess here that, however grateful we all must be for some of the descriptive work of the sociologists, for which, however, perhaps anthropologists and historians would have been equally qualified, there seems to me still to exist no more justification for a theoretical discipline of sociology than there would be for a theoretical discipline of naturology apart from the theoretical disciplines dealing with particular classes of natural or social phenomena. (Hayek, 1979a, p. 173)

Now, in order to understand the formation of the order of human interaction a 'genetic' account comes to play a prominent part while tracing connections between networks of rules. This genetic methodology proceeds by rationally reconstructing, though only partially, the process of formation of our traditions and institutions. This, however, excludes one-directional causation and mechanical laws. Hayek's account of self-ordering processes is thus mainly descriptive<sup>9</sup> and, as he would have us believe, economic science is the only science to have developed a theoretical technique for dealing with such spontaneous orders:

At this point I find myself in the embarrassing position of wanting to claim that it must be the members of my own profession, the economists, specialists who understand the process of formation of extended orders, who are most likely to be able to provide explanations of those moral traditions that made the growth of civilization possible. Only someone who can account for effects such as those connected with several property can explain why this type of practice enabled those groups following it to outstrip others whose morals were better suited to the achievement of different aims. (Hayek, 1988, p. 70)

In general terms Hayek follows here the path taken by Menger, who attempted to provide a 'genetic' rational reconstruction of economic phenomena through a method of conjectural

history<sup>10</sup>. Let us be clear, however, that Menger's historical account which is 'compositive', aims at reconstructing social 'wholes' from their parts and is a purely rational *a priori* assessment which excludes empirical testing. A procedure which Hayek advocated in the 'Scientism' essay but which was not followed in subsequent work. Although it is not the place to discuss Hayek's cultural evolution theory, let me just point out that one of the obvious reasons for this transformation is surely that a strictly subjectivist compositive method doesn't help us shed light on the question of why some rules rather than others prevailed as the product of cultural selection, since it cannot provide us with an explanation for the evolutionary process which doesn't depend upon the agents beliefs.

Now, the point at issue is that inspite of the fact that, in earlier works, Hayek had held that the only empirical part of social science, i.e. economics, concerns the acquisition of knowledge, this new line of thinking and the acknowledgement that the empirical conditions in which socio-economic events occur are also relevant to the explanation of those events certainly has far-reaching implications for social methodology. On these new grounds, the assessment of factual circumstances which lead individuals to behave in such ways as to bring about the observed social regularities should also be 1) accounted for, and 2) tested.

Within this framework, intelligibility of human actions depends upon the identification of the rules which are necessary to classify actions of being of a certain kind conjoined with an assessment of the conditions that provide the basis upon which those actions are performed. Including acknowledged and unacknowledged conditions, internal non-discursive and tacit motivations, and external material requirements:

The concrete individual action will always be the joint effect of internal impulses, such as hunger, the particular external events acting upon the individual (including the actions of other members of the group) and the rules applicable to the situation thus determined. The rules upon which different individual members of a group will at any moment act may therefore be different either because the drives or external circumstances acting upon

---

<sup>9</sup> It must be pointed out that Hayek's terminology is confusing. He dismisses explanation in favour of description, but at times he seems to accept some type of explanation as well.

<sup>10</sup> In the debate with the positivist-empiricist historical school which hoped to arrive at the laws of development of social wholes, Menger argued against the use of history as a means of discovering empirical laws and emphasized that the object of social theory is the tracing of the unintended consequences of individual actions, and that in this effort the genetic and functional aspects cannot be separated. It is essential to realise, however, that Menger's 'genetic' account of the formation of social institutions is still an historical rather than, strictly speaking, an evolutionary assessment of a process of social reproduction driven by a selective mechanism. For more see Hayek (1934c, 1968b, 1968c).

them make different rules applicable, or because different rules apply to different individuals according to age, sex, status, or some particular state in which each individual finds himself at the moment. (Hayek, 1967a, p. 68)

The provisional hypothesis about a process which might have taken place are susceptible of undergoing experimental testing. Nonetheless, it must also be emphasized that Hayek was also extremely cautious about the possibility of empirical checks, to the best of my knowledge there is only one brief passage in the 'Studies' where he openly advocated testability:

Yet the problem of the formation of such structure is still a theoretical and not a historical problem, because it is concerned with those factors in a sequence of events which are in principle repeatable, though in fact they may have occurred only once...Conjectural history in this sense is the reconstruction of a hypothetical kind of process which may never have been observed but which, if it had taken place, would have produced phenomena of the kind we observe. The assumption that such a process has taken place may be tested by seeking for yet unobservable consequences which follow from it, and by asking whether all regular structures of the kind in question which we find can be accounted for by that assumption. (Hayek, 1967a, p. 75))

Now, given Hayek's dismissal of the traditional empiricist principle of induction, this kind of limited testing cannot provide a basis on which to confirm a scientific theory nor does it allow for the establishment of predictive inferences. Indeed, his point is that complex phenomena cannot be made completely rational or subject to 'control'. From all this it follows that in relation to the complex phenomena of the social sciences we can only attain 'qualitative' understanding, and not exact prediction<sup>11</sup>. Complex phenomena are thus confined to pattern prediction, or prediction in 'principle':

With respect to policy, the methodological insight that in the case of complex spontaneous orders we will never be able to determine more than the general principles on which they operate or to predict the particular changes that any event in the environment will bring about, has far-reaching consequences. (Hayek, 1973a, pp. 62-63)

All in all, the social scientist can only gain a partial insight into the character of the spontaneous order and, therefore, he cannot pretend to be able to fully grasp the mechanism which brings about and maintains the structure of the order. From his schematic picture of the

order he is unable to foresee all the particulars of a concrete situation, nor explain why or how it occurred or predict its future transformations. Although Hayek didn't argue for an idealistic nor for an *a prioristic* approach, he stressed that given the limits of guidance by factual knowledge it is useless to focus on random experimentation. As a consequence, even though empirical assessment is allowed, it is assigned a limited role within the analysis of self-ordering processes.

### **Hayek and the Austrian School of Economics**

It is a commonplace to observe that Hayek's social analysis and his arguments against central planning were construed under the heading of the Austrian subjectivist premise. Based on the undergoing discussion I want to argue that the latter did not play a crucial role in the development of the later stages of Hayek's social theorizing, and that indeed it would be more accurate to say that his mature conceptual framework is rather at odds not only with mainstream Austrian *a priorism*, but with radical subjectivism as well. Actually some commentators, such as Bruce Caldwell, rightly underscored that Hayek never endorsed Misesian *a priorism* but the practical aspect of the Hayekian concept of knowledge and the empirical level of the spontaneous order are seldom acknowledged. In what follows I want to discuss the topics of Austrian *a priorism* and subjectivism, and raise the question of the significance of Hayek's position in view of the socialist problem. Hayekian thinking, of course, was informed by fundamental features of the school's doctrine, namely, the opposition to neo-positivism, the idea that social phenomena are the unintended result of human efforts, and the notion that information held by individuals is the key to economic and social understanding. However, as Hayek went on to elaborate upon and extend these insights, he gradually moved away from the school's strictly subjectivist approach and at the same time developed a conceptual framework which enabled him to argue successfully against socialism.

In order to clear the ground, let us remember that social phenomena such as economic and political arrangements are seen by Hayek, and by all Austrians, as being in a sense too 'complex' to be theorized about. As Hayek puts it, the main achievement of the Austrian school of Economics is precisely the fact of having highlighted that all social and economic formations

---

<sup>11</sup> Hayek wrongly believes that this is a situation exclusively prevalent in the field of social science. However, prediction and control are also impossible, for instance, in biology.

are complex by nature. As we have seen, Hayek went on to extend this insight and demonstrated that acting individuals only possess partial knowledge, but the resulting order of collective phenomena incorporate all the relevant data, or information, available to all agents :

The main achievement of the Austrian school's thereby became that it decidedly helped to clear up the differences that must inevitably exist among disciplines that deal with relatively simple phenomena, like mechanisms, which necessarily were the first to be very successful and which for this reason came to be regarded as paradigms that other disciplines ought to imitate, and the sciences of highly complex phenomena, or of structures determined by a greater number of particular facts than could ever be concretely ascertained by scientific observers and containing objects of theoretical (rather than physically observable) thought - i.e., the thoughts of other persons. What had already been implicit in Adam's Smith conception of the "invisible hand", which led to the formation of an order that no individuals in the society could understand, in this way became the prototype of the model on which an increasing number of attempts are based to master the problems of determining highly complex orders. (Hayek, 1968b, in 1992, p. 56)

The key to economic understanding is thus the emphasis placed on informational contents, a postulate which in Menger's *Grundsätze der Volkswirtschaftslehre* (1871) translates into the theory of subjective value according to which one of the prerequisites for 'a thing to become a good' is human knowledge of the causal connection between satisfaction and need. As it is well known, the Austrian school was philosophically influenced by neo-Kantianism and advocated a true *a priori* economic theory. It is interesting to consider Carl Menger's claim that testing the exact theory of the economy through full experience is just a methodological absurdity, and the following statement which goes as far as to compare economic theory with mathematics:

To want to test the pure theory of economy by experience in its full reality is a process analogous to that of the mathematician who wants to correct the principles of geometry by measuring real objects, without reflecting that the latter are indeed not identical with the magnitudes which pure geometry presumes or that every measurement of necessity implies elements of inexactitude... The results of realistic orientation stand in an essentially different relationship to the empirical method than those of exact research. The former are based, of course, on the observation of phenomena in their "empirical reality" and complexity, and of course the criterion of their truth is accordingly the empirical

method. An empirical law lacks the guarantee of absolute validity *a priori*, i.e., simply according to its methodological presuppositions. (Menger, 1883, in 1963, pp. 69-70)<sup>12</sup>

Ironically, this exclusive dichotomy between, on the one hand, a pure subjective rationality and, on the other hand, the realm of empirical phenomena, is even more so reminiscent of Cartesian dualism than of Kantian *a priorism*.

Ludwig von Mises is the one who most forcefully put the case for an *a prioristic* approach and his position surely has far-reaching implications. His main methodological idea is that economics is a praxiology, a general theory of action, revolving around the rationality postulate, or more precisely, a subjective and *a priori* science of every kind of human action. Accordingly, all rationality is subjective and every '[a]ction is, by definition, always rational' (Mises, 1962, p. 35). Consequently, economic theory should be regarded as 'pure theory', that is, unconnected with empirical data although referring to concrete action. Mises, who regarded disdainfully empirical research, pointed out that:

The theorems attained by correct praxiological reasoning are not only perfectly certain and incontestable, like the correct mathematical theorems. They refer, moreover with the full rigidity of their apodictic certainty and incontestability, to the reality of action as it appears in life and history. Praxiology conveys exact and precise knowledge of real things. (L. von Mises, 1949, p. 39)

This is an important and revealing remark. Indeed, if praxiology is a science of the same kind as geometry or logic it means that it has no connection with the real world were economic systems are confronted with all sort of factual circumstances. Now, a serious criticism directed against this line of thinking, revealing the difficulties about supporting this kind of views, is that its *a priorism* hampers any serious research project<sup>13</sup>. In view of such criticism it is, then, essential to realise that if in general terms Hayek adhered to the school's doctrine, he didn't adopt the *a priorist* approach characteristic of Austrian economics.

To quote Caldwell :

---

<sup>12</sup> It would appear that Menger mistakenly takes 'theoretical', 'formal', *a priori* , as interchangeable concepts. This means that not only did he claim that only abstraction can reach the reality underneath economic phenomena. But he regarded economic theory as *a priori* and thereby immune to data.

<sup>13</sup> See, for example, M. Bunge (1998).

Mises, like Popper, started from Weber and eventually produced a logic of choice, though their versions of it could not have been more different. One reason that Hayek may have avoided the topic initially was that he did not want to have to confront Mises, with whose *a priorism* he apparently disagreed. Later on he may not have wanted to have to choose between them. In any event, since Hayek never explored the logic of choice, in this matter Mises and Popper, the *a priorist* and the falsificationist, shared more in common with one another than they did with Hayek. (Caldwell, 1994, p. 128)<sup>14</sup>

As mentioned above, blunt criticism pertaining to Hayek's supposedly *a prioristic* conceptual framework is thus unjustified, even though it is certainly true that in another sense Hayek had started in philosophy from a neo-Kantian viewpoint and accordingly the philosophical assumptions underlying his economic and social theorizing were influenced by such a line of thinking.

As Hayek was trying to set up a case against central planning and socialism, following the Mises-Lange debate in the 1930s the problems of knowledge and change came to play a prominent part in the shaping of his arguments.<sup>15</sup> Indeed, let us remember that since the very

---

<sup>14</sup> It is worth noting that Caldwell had previously (1988a) claimed that Popper was a Hayekian since his situational analysis was a generalization of the methodology of economics so that it would be fair enough to presume that he got it from Hayek. But he was quick to amend his former position as he went on to point out that Popper's situational logic method owes much more to Weber than it does to Hayek. I agree with this later assessment.

Game theory, for instance, derives directly from logic of choice. Although Hayek never openly criticized it, it is a tool incompatible with his assumptions regarding knowledge. Indeed, Game Theory abstracts from the tangles of the social world to a pure realm peopled by ideally rational agents equipped with fully ordered preferences and complete information. Moreover, it was invented at the Austrian Business Cycle Institute which was set up with Mises's help in 1927, after being persuaded by Hayek following his visit to the U.S. in 1924. Hayek became the first director of the new institute where he worked with Oskar Morgenstern, who succeeded him when he left for London in 1931. The line of research of the institute became then increasingly scientific, focussing on mathematical and econometric approaches, and within this framework mathematician John von Newman contributed to the invention of Game Theory in the early 1940s. Hayek though, was opposed to the econometric framework, and he strongly criticized mathematical economics.

<sup>15</sup> As mentioned above, following the Mises-Lange controversy over socialism, and the fact that Mises's (1920, 1922) definition of socialism was not efficient, after 1944 Hayek will attack central planning not only in economic, but also in political and philosophical terms. Mises argued that socialism, or for that matter every kind of economic planning by the government, could not work because it lacked the information of market prices. As underlined by Streissler (1994), Mises had borrowed the core of this idea from Friedrich von Wieser, Hayek's teacher, who was the first to argue that even a socialist community would have to calculate in economic terms in order to be efficient. However, even though Mises had found an important problem and the line of solution, he could not prove his solution. As K. Vaughn suggestively highlighted:

Mises wrote an article claiming that rational economic calculation was impossible under socialism. This prompted those who favoured socialism to try to refute him and thus forced them to construct a model of (a) rationally administered centrally directed economy. Meanwhile, Hayek wrote two sophisticated and penetrating critiques of the socialist schemes which were in the main ignored. Mises seemed easy to refute, and so, for twenty years, socialists continued to refute the same arguments, thereby avoiding consideration of the more difficult issues raised by Hayek. (K. Vaughn, 1980, p. 537).



beginning Hayek dismissed the mainstream concept of equilibrium<sup>16</sup> precisely because it focussed on perfect competition and, thereby, ignored the complex, real world of imperfection and continuous and unpredictable change. The notion of practical knowledge put forward in the essay of 1945a conjoined with the theory of the spontaneous order, systematized between the mid-60s and the late-70s, which comprises both a concrete and an abstract level and is structured by general rules which are followed tacitly, is the keystone of the arch in the architectonic of the arguments against central planning. These arguments are thus couched in the real world where the knowledge upon which socio-economic life depends is not only divided amongst a myriad of agents, but in reality is also usually not available to the discursive awareness of the acting individuals. Thus, in the market system we are led, for instance by prices, to do things by circumstances of which we are largely unaware and which produces unintended results. The practical, tacit, knowledge embeded in social practices and encapsulated in prices is first and foremost the knowledge of particular circumstances and, therefore, is constantly changing along with whatever changes occur in society. As a consequence, it cannot be encompassed by isolate individuals or even by a group of government officials, hence it cannot be conveyed to any central authority in a statistical form.

As highlighted by Moldofsky:

For, as Professor Hayek argues, no one can convey to planning authorities the required knowledge because no one knows, or can know, beforehand which of the many particular facts might be important to them at the time in question. Therefore, the more complex the economic system, the more deficient is the knowledge of the central planners, and the greater is the need for competitive markets and the prices they generate. (Naomi Moldofsky, 1989, p. 16)

Hayek's challenge to the possibility of successful central planning focussed, then, on epistemological arguments pertaining to the limitations of our reason and to the nature of the ever changing economic knowledge, rather than on the Austrian subjectivist premise.

---

In any event, Mises emphasized the theoretical impossibility and argued against the economic workability of socialism, whilst Hayek underlined the aspect of practicality. But as a matter of fact, efficient socialist systems do exist, and Hayek underlined that although socialist systems are possible, in the sense of being economically efficient, they are extremely impracticable, and too costly, but the competitive market collects information very cheaply.

For more see T. W. Hutchison (1981), F. Machlup (1981), and I. Kirzner (1986).

<sup>16</sup> See, for instance, B. Caldwell (1988a, 1988b).

According to the latter, the central bureau can never plan for individual wants because it cannot know them. Meaning that the individual alone knows about his subjective evaluations. For Hayek though, the individual itself is basically ignorant and he lacks information about the circumstances and conditions around him, about the rules governing his actions.

As Streissler has so aptly put it:

Now if the individual alone knows about his subjective evaluations of goods, this might imply that government can never plan for individual wants, because it cannot know them. Once more, however, this is a point subtly different from that made by Hayek: with Hayek it is a lack of information of the central agency about what the individual knows concerning other agents, their actions, concerning circumstances and conditions around him etc., but not a lack of information about individual evaluations. It may be that to Menger his subjectivist position was so important because it did argue against 'socialism'; but this point is not the main point in Hayek. (E. Streissler, 1994, p. 53)

Consider the following statement:

...Hayek (as well as all later Austrians, to varying degrees) endorsed at least one crucial Misesian methodological position, namely, the belief that subjectivism must play a central role in analysing the behaviour of agents. But as far as his *a priorism* is concerned, it is incorrect to think that Hayek once followed Mises, then, changed course sometime in the 1930s. (B. J. Caldwell, 1994, p. 121)

Indeed, subjectivism plays a role within the Hayekian framework. However, let me point out that in later work Hayek acknowledges that agents are unable to conceptualize all the conditions of their actions and that the social order exists, at least to some extent, independently of the knowledge that agents have of it. Accordingly the analysis of the behaviour of agents in terms of non-discursive rule-following replaces the previous framework which focussed exclusively on individual conceptions. This rule-following framework will also play a pivotal role in the challenge to socialism. As we have seen, as Hayek presents us with a spontaneous order structured by abstract rules he draws our attention that at a political level the fact that these rules are also an ideal means of coordination and, given their general nature, they leave the individual free to pursue his goals.

In later work, Hayek didn't focus on the implications of the extension of Austrian subjectivism. However, over and above all these considerations, there is a 'decided family likeness between the informational arguments of Menger and Hayek. And how could it be

otherwise...Hayek, of course, was also the rediscoverer of the half-forgotten Carl Menger' (Streissler, 1994, p. 54). Indeed Hayek, who belonged to the third generation of Austrian economists, always stressed his allegiance to the school. However, if in earlier work, namely in the 'Scientism' essay which strikes a radical subjectivist note, Hayek's standpoint is typically Austrian, in later work his position is significantly different from that of mainstream members of the school. In spite of the fact that Hayek never acknowledged the existence of any implicit dissension and that, on the contrary, he kept stressing his indebtedness to the tradition of Austrian economics<sup>17</sup>.

### **Conclusion**

Hayek's earlier radical subjectivism patent in the 'Scientism' essay represented only a stage on the course of his understanding of the problems of the economic, political and social orders. Indeed, as Hayek went on to elaborate upon and extend his insights on knowledge he moved away from the Austrian school's *a prioristic* and strictly subjectivist line of thinking, and developed a conceptual framework which enabled him to argue successfully against socialism. At the heart of his social theorizing lies an innovative conception of the spontaneous order as constantly confronted by the all pervasive problems of knowledge and change, comprising both an abstract and a concrete level. On the one hand, the concrete level of the order is made up of individuals drawing upon practical knowledge concerning concrete situations of time and place, and which never exists in an articulated or integrated form. On the other hand, the abstract level is a highly complex non-representable system which is not known as a whole to any person. Given the huge amounts of information involved at the two levels, the overall order is too complex to be managed and we can only partially reconstruct it conceptually. In this sense Hayek's suspicion of empiricism and his belief in our inability to explain, control, or re-design the complex order reflects the somewhat enduring influence of the Austrian tradition in the shaping of his thinking.

---

<sup>17</sup> Caldwell (1994) observed with much truth that Hayek was careful never to criticize Mises's methodological views directly while Mises was alive. A pattern which, of course, he also followed with regards to Popper. But in 1968b, for example, Hayek remarked that, as opposed to the earlier Austrians, Mises's was in fact a strictly rationalist utilitarian. Furthermore, as Hayek pointed out, since the term Austrian school was for many years synonymous with Mises's disciples, his 'extreme position' against scientism contributed to the relative unpopularity of the school in the United States.

## References

- Bunge, M. 1998. *Social Science under Debate. A Philosophical Perspective*. Toronto: University of Toronto Press.
- Caldwell, B. 1988a. 'Hayek's transformation'. *History of Political Economy* , **20** (4 Winter) : 513-41.
- 1988b. 'La méthodologie de Hayek: description, évaluation et interrogations' *Politique et Économie*, **9**: 71-85.
  - 1994. 'Four Theses on Hayek'. In M. Colonna, H. Hagemann and O.F. Hamouda, eds., *Capitalism, Socialism and Knowledge*. England, USA: Edward Elgar.
- Coleman, J. S. 1990. *Foundations of Social Theory*. Cambridge, MA: Harvard University Press.
- Kirzner, I. 1986. 'Ludwig von Mises and Friedrich von Hayek'. In Leser, ed., *Die Wiener Schule des Nationalökonomie*. Vienna: Bohlau.
- Machlup, F. 1981. 'Ludwig von Mises: The Academic Scholar who would not compromise'. *Wirtschaftspolitische Blätter*, **28** (4): 6-13.
- Hayek, F. A. 1934c. 'Carl Menger'. *Economica*, **1** (4): 393-420.
- 1942-44. 'Scientism and the Study of Society' (in three parts). *Economica*, new series, **9-11**.
  - 1943c. 'The Facts of the Social Sciences'. *Ethics*, **54** (1): 1-13.
  - 1945a. 'The Use of Knowledge in Society'. *American Economic Review* , **35**: 519-530.
  - 1952a. *The Counter-Revolution of Science: Studies on the Abuse of Reason*. Glencoe, Ill.: The Free Press.
  - 1967a. *Studies in Philosophy, Politics and Economics*. London: Routledge and Kegan Paul.
  - 1968b. 'Economic Thought, VI: The Austrian School'. In D. L. Sills, ed., *International Encyclopaedia of the Social Sciences*. New York: Macmillan and Free Press, **4**: 458-462.
  - 1968c. 'Menger, Carl'. In D. L. Sills, ed., *International Encyclopaedia of the Social Sciences*. New York: Macmillan and Free Press, **10**: 124-127.
  - 1973a. *Law, Legislation and Liberty. A New Statement of the Liberal Principles of Justice and Political Economy*. Vol. I: *Rules and Order*. London: Routledge and Kegan Paul.
  - 1978. *New Studies in Philosophy, Politics, Economics and the History of Ideas*. London: Routledge and Kegan Paul.
  - 1979a. *Law, Legislation and Liberty*. Vol III: *The Political Order of a Free People*.. London: Routledge and Kegan Paul.
  - 1988. *The Fatal Conceit. - The Errors of Socialism*.. Vol. 1 of W.W. Bartley III, ed., *The Collected Works of Friedrich von Hayek*.. London, N.Y.: Routledge.
  - 1989. *Selections from F. A. Hayek's Contribution to the Theory and Application of Spontaneous Order*. In N. Moldofsky, *Order- With or Without Design?*. London: Centre For Research Into Communist Economies.
- Hutchison, T. W. 1981. *The Politics and Philosophy of Economics*. New York: New York University Press.
- Menger, C. 1871. *Grundsätze der Volkswirtschaftslehre*. Vienna: Braumüller.
- 1883. *Untersuchungen über die Methode der Socialwissenschaften, und der politischen Oekonomie insbesondere*. Leipzig: Duncker & Humblot. English translation by F. J. Nock. *Problems of Economics and Sociology*. Illinois: University of Illinois Press, 1963.
- Mises, L. von. 1949. *Human Action: A Treatise on Economics*. New Haven: Yale University Press.
- 1962. *The Ultimate Foundations of Economic Science*. Princeton: Princeton University Press.
- Polanyi, M. 1951. *The Logic of Liberty*. Chicago: The University of Chicago Press.

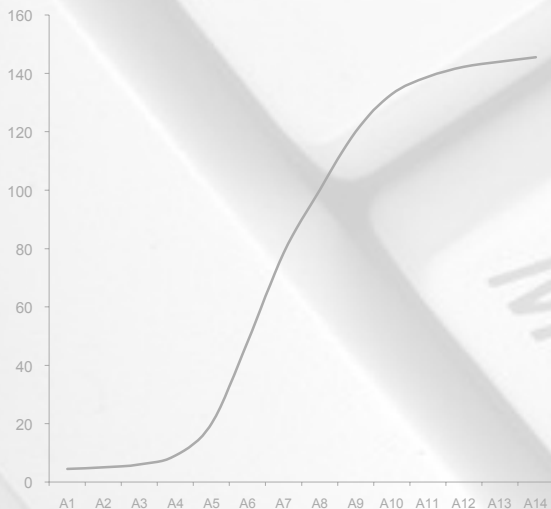
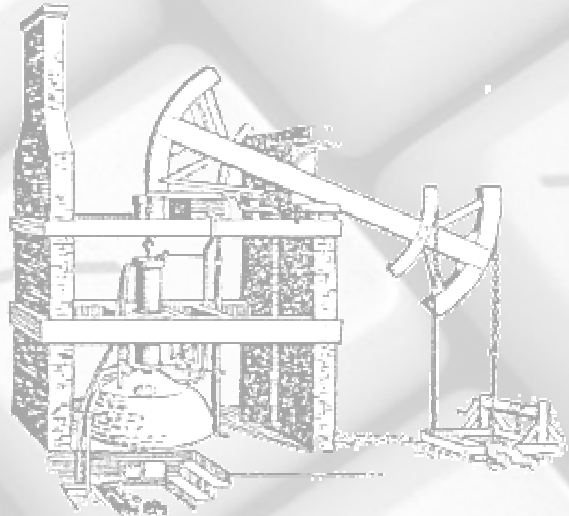
- 1966. *The Tacit Dimension*. New York: Doubleday.
- Quine, W. V. O. 1936. 'Truth by Convention'. In O. H. Lee, ed., *Philosophical Essays for A. N. Whitehead*. New York: Longman. Reprinted in W. V. O. Quine, *The Ways of Paradox and Other Essays*, rev. and enl. ed. Cambridge, MA: Harvard University Press, 1976
- Ryle, G. 1949. *The Concept of Mind*. London: Hutchinson.
- Searle, J. R. 1969. *Speech Acts. An Essay in the Philosophy of Language*. Cambridge, MA: Cambridge University Press.
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Straham and Cadall. Glasgow edition by R. H. Campbell and A. S. Skinner. Oxford: Oxford University Press 1976.
- Sousa, M. F. de. 1999. 'Concepts théoriques, représentations constitutives et sciences sociales'. In L. Langlois and J.-M. Narbonne, eds., *Actes du XXVIIe congrès de l'Association des sociétés de philosophie de langue française*. Paris, Québec: Vrin, Presses de l'Université Laval.
- Streissler, E. W. 1994. 'Hayek on information and socialism'. In M. Colonna, H. Hagemann and O.F. Hamouda, eds., *Capitalism, Socialism and Knowledge*. England, USA: Edward Elgar.
- Vaughn. K. J. 'Economic Calculation Under Socialism: The Austrain Contribution'. *Economic Enquiry*, **XVIII**: 535.

## Titres parus

- 99-01** Doray, Pierre ; Diane Gabrielle Tremblay et Line Painchaud, « Le développement d'un projet de formation engageant l'école et l'entreprise : modalités organisationnelles et effets sur les carrières »
- 99-02** Doray, Pierre ; Carine Laliberté, Diane Gabrielle Tremblay et Carol Landry, « L'économie communautaire et la planification de l'offre et de formation : quelles orientations institutionnelles ? »
- 99-03** Auger, Jean-François et Robert Gagnon, « An Independent inventor in a university setting : Jean-Charles Bernier at the École Polytechnique de Montréal, 1925-1975 »
- 99-04** Auger, Jean-François, « Le laboratoire d'électronique appliquée de l'EPM et les transferts de techniques vers les entreprises, 1950-1975 »
- 99-05** Doray, Pierre, « La participation à la formation en entreprise au Canada : quelques éléments d'analyse »
- 99-06** Baud, Jean-Pierre et Jean-Guy Prévost, « L'ancrage statistique des identités : les minorités visibles dans le recensement canadien »
- 99-07** Godin, Benoît et Yves Gingras, « L'impact de la recherche en collaboration et le rôle des universités dans le système de production des connaissances »
- 99-08** Albert, Mathieu et Paul Bernard, « Sous l'empire de la science : la *nouvelle production de connaissance* et les sciences économiques universitaires québécoises »
- 99-09** Albert, Mathieu et Paul Bernard, « Faire utile ou faire savant ? : La *nouvelle production de connaissances* et la sociologie universitaire québécoise »
- 99-10** Gemme, Brigitte, Yves Gingras et Benoît Godin, « La commercialisation de la recherche universitaire : que disent vraiment les chiffres ? »
- 99-11** Godin, Benoît et Stéphane Ratel, « Jalons pour une histoire de la mesure de la science »
- 99-12** Albert, Mathieu, « Stratégies d'adaptation des organismes subventionnaires en sciences humaines et sociales au Canada et au Québec aux compressions budgétaires gouvernementales »
- 00-01** Prévost, Jean-Guy, « Science et fascisme le champ statistique italien (1910-1945) »
- 00-02** Foisy, Martine, Gingras, Yves, Sévigny, Judith, Séguin, Sabine, « Portrait statistique des effectifs étudiants en sciences et en génie au Québec (1970-2000) »
- 00-03** Bouchard, Louise, Ducharme, Marie-Noëlle, « Les défis pour le travail social à l'ère des technologies de l'information »
- 00-04** Gentzoglani, Anastassios, « Innovation and Growth in the Knowledge-based Economy »
- 01-01** Castelli Gattinara, Enrico, « Épistémologie 1900: la tradition française »
- 02-01** Fredette, Raymond, « D'où vient l'antiaristotélisme de Galileo Galilei? »
- 02-02** Pavitt, Keith, « Innovating routines in the business firm : what corporate tasks should they be accomplishing? »
- 02-03** Dodgson, Mark, « Policies for Science, Technology and Innovation in East Asia »
- 02-04** Gentzoglani, Anastassios, « Networks and Proximity : An Empirical Analysis »

## Centre interuniversitaire de recherche sur la science et la technologie (CIRST)

Les travaux de recherches effectuées au CIRST visent l'avancement des connaissances et la mise à contribution de celles-ci dans l'élaboration et la mise en œuvre des politiques ainsi que dans la résolution des problèmes de société qui présentent des dimensions scientifiques et technologiques. Ces recherches s'ordonnent autour de trois grands axes : l'analyse du développement scientifique et technologique, l'analyse socioéconomique et gestion des technologies et l'analyse socio-politique des usages et des incidences des technologies



Le CIRST est rattaché à l'Université du Québec à Montréal, l'Université de Montréal et l'Institut national de la recherche scientifique (INRS). Il rassemble des chercheurs provenant aussi de plusieurs universités québécoises et représentant une large diversité de disciplines : sciences économiques, sociologie, génie industriel, histoire des sciences, science politique, sciences administratives, communication, etc. Le CIRST fournit un milieu de formation par la recherche à de nombreux étudiants de deuxième et troisième cycles dans les domaines de recherche de ses membres.