STUDIES IN EMERGENT ORDER VOL 2 (2009): 54-75

A Mengerian theory of the origins of the business firm

Aidan Walsh

> 'Anthropologists may travel from island to island and observe that each harbours people with a particular custom. It is not necessary to go that far away, however. In modern economics, each firm forms an island of custom in the ocean of the market.' (Schlicht 1998:207)

In Hayek's classification of orders there are spontaneous orders and organizations (Hayek 1973: 36). The border between the two is well-defined. Spontaneous orders flow, spontaneously, from the rule-following behaviour of individuals; a spontaneous order has no purpose, although it may appear purposive, and the behaviour of individuals is coordinated, ordered, solely by rule-following by the individuals participating in the order. Organizations, on the other hand, are deliberately created for a purpose, they are coordinated by the commands of the organizer and while rule-following behaviour can be used to 'fill in the gaps' between commands these rules are of a particular type – rules of purpose. Spontaneous orders include the market, the internet, language, academic research and so on. Organizations include the socialist state, an army and a business firm.

The purpose of this paper is to discuss whether this distinct border between spontaneous orders and organizations applies to the business firm. Firstly, the rules of a spontaneous order and the rules of a made order may not be that different; rules will spontaneously develop in every business firm. Here the border is blurred. Secondly, the purpose of a business firm may not be that concrete but may be vague, ill-defined; blurring the distinction between a spontaneous order and the business firm further. Thirdly, it may be that command as a coordination mechanism may not be a useful distinguishing feature between a business firm and a spontaneous order; command may be over-privileged as a coordination mechanism within the firm. (The difference between a command and a rule is explored in the appendix to this paper.) Fourthly, and finally, once we see that command could possibly fall away as a coordination mechanism within the firm we might be able to conjecture an invisible hand or Mengerian theory of the origins of the modern business firm. This conjecture hinges on the fact that the fundamental ingredient in all spontaneous orders, rule-following, may be an important but neglected coordination mechanism within the business firm.

1: The rules of a business firm and the rules of a spontaneous order may not necessarily be that distinct.

In Hayek's writings the distinction between an organization and a spontaneous order is quite clear. An organisation is a 'made order' (1973: 37), it is created by the commands of an overseeing authority. Of course, commands are not adequate to guide behaviour of members of an organization in all circumstances; there must also be the 'rules of organization' (1973: 49). These rules can be distinguished from the rules of a spontaneous order; the rules of an organization 'are specific to the functions assigned to particular persons' and 'serve particular results aimed at by those who are in command of the organization'. (1973: 50)

Ioannides (2003a and 2003b) has pointed out that the reliance on rule-following within the firm is more pervasive than Hayek thought and this blurs the distinction between a spontaneous order and a business firm; he calls the business firm a 'hybrid Hayekian order.' The reason for this hybrid nature is that some part of the rules will arise spontaneously within a business firm once it is created; they do not, as Hayek may have thought, necessarily serve the particular results aimed at by those in authority. Ioannides points to 'a recent stream of literature that, explicitly or implicitly, views the firm as an entity that tends to evolve spontaneously in directions neither foreseen, nor entirely controllable by the directing authority. This literature links naturally to the competencies or capabilities perspective which describes the firm as spontaneously creating new features that the commanding authority has, first of all, to discover and, secondly, to coordinate with its strategic vision.'

The fact that those in 'command' of an organization are often 'disobeyed' and thwarted is commonplace. 'It is surprising how much that in theory is authoritative, in the best of organizations lacks authority – or, in plain language, how generally orders are disobeyed.' (Barnard 1938: 161-162 see also Schein, 1992: 217, 226, 235) In Intel at a crises point in its history between 1982 and 1985, Andy Grove (Grove 1997; Burgelman and Grove 2007) noted that employees were already, spontaneously, exiting from the memory chip business while senior management was committed to staying in that business; the eventual strategic decision to exit was facilitated by the activities of these more junior employees. On the other hand, where new useful strategic directions are discovered by those at the top of the organization, a tremendous effort may be required to overcome these spontaneous features. One prominent CEO said: 'Whenever I had an idea or a message I wanted to drive into the organization, I could never say it enough, I repeated it over and over and over, at every meeting and review, for years, until I could almost gag on the words.' (Welch 2001: 393) Nearly 80 years before another prominent CEO despaired: 'There are so many people involved and it requires such a tremendous effort to put something new into effect, that a new idea is likely to be considered insignificant in comparison with the effort that it takes to put it across.' (Alfred Sloan in a speech to the General Motor's sales committee 29 July 1925, quoted in Stewart 1963: 165)

The rules that flow from this process may not be the 'rules of purpose' created by those in authority but may be, as Ioannides points out, spontaneously evolved rules. (Ioannides 2003b; see also Yu 1999; Sautet 2000: 119) This is the first blurring of the border between spontaneous orders and the business firm. The second blurring is closely related.

2. The purpose of a business firm may necessarily be vague and ill-defined; this may further blur the distinction between a business firm and a spontaneous order.

The market process is in a state of constant change, competition in the market is a 'discovery procedure' (Hayek 1978: 179). All firms engaged in that market process, it is submitted, must be aiming towards, not a concrete purpose, but, to a greater or lesser extent, a vague, yet to be fully discovered, purpose. The firm does not, merely, have an 'ill structured' purpose: where 'the goal' is 'clear' but where there is no 'well-defined set of generators for synthesizing potential solutions' (Simon 1947: 128). Instead the purpose of the firm may be 'ill-defined' (Klein 1998: 146): where the purpose is not clear but is clarified as part of the process of striving towards that purpose.

There is no doubt that the purpose of a firm can change over time. Thus Nokia moves from being a timber processor in Finland to a mobile phone manufacturer. Hayek himself noticed this phenomenon when he wrote that organizations 'do (or at one time did) serve a purpose of the maker.' (1973: 38 – emphasis deleted) This, it could be argued, is a firm changing from one concrete purpose to another. However, firms do not usually abruptly change from one concrete purpose to another; any change is gradual, evolutionary and path-dependent (see Penrose 1959: 78; Langlois and Robertson 1995: 23, 105). One way to explain this phenomenon is to posit that the purpose of the firm may not have been that concrete in the first place. The purpose of a firm may be ill-defined; the firm may constantly redefine and refine its purpose as it strives towards it. This change, this discovery process, happens unceasingly, one pricing decision, one selling opportunity, one modified product at a time. Witt points out:

> '[The entrepreneur has no] formal blueprint for financing, investing, hiring, assigning tasks, producing, purchasing and marketing as it is in business strategies and formal planning discussed in the management literature….[A]llowing for, and relying on, decentralized problem-solving capabilities of the firm members in a potentially growing firm organization, a business conception must be sufficiently general and unspecific… It must be able to codevelop with the unfolding business venture in order to cope with its uncertainties and the initial lack of experience. The outcome of learning and the discovery of unforeseen problems and their solutions can, and often do, mean rearrangement or even entire reconceptualization of the underlying notions. In addition, in the case of the firm, development is a matter of entrepreneurial direction which interacts, and sometimes interferes, in an unpredictable way with the employees' own free will …' (Witt 2000: 740)

For example, in Henry Ford's *My Life and Works* (1923), we can see Ford setting up his motor company as the solution to an ill-defined problem. Ford explained: 'The plan which I then had in the back of my head but to which were then [1904] *not sufficiently advanced to give expression*, was that, when a model was settled on then every improvement on that model would be interchangeable with the old model, so that a car would never go out of date....' (56-57; emphasis added) Once he had settled on the final design of the Model T, Ford thought he had solved the car design problem for all times; the problem was no longer ill-defined, he thought. It would seem that the Ford Motor Company had a concrete purpose at this stage – making Model Ts - but the purpose remained ill-structured in that it was capable of constant improvement; '... [Ford] loved the process far more than the cars, and he would do anything to improve the process and almost nothing to improve the car.' (Halberstam 2003: 220). However, even as he wrote *My Life and Works*, Ford's plans were coming unstuck. Ford was mistaken when he thought that the problem was merely ill-structured. Instead, in the mid-20s, the new second-hand car market destroyed the market for the Model T - the car was out of date. Ford had to close his plant for a period of months while he re-tooled for the Model A; he had destroyed his capability to evolve and so could only change by abrupt discontinuance of his existing strategy and the creation of a new one. This abrupt change is not common – in fact it is so unusual that Alfred Sloan was puzzled by it and described Ford's actions as 'almost whimsical' (Sloan 1963: 162). The problem for the Ford Motor Company was never merely ill-structured. Certainly in Ford's case Witt is correct: 'Cognitive constraints prevent the entrepreneur, as much as anyone else, from imaging all possible moves that unfold in the future.' (Witt 2007)

That a firm can have an ill-defined purpose may explain how firms can mutate from providing one service or product to providing a completely different one. It may explain how firms can be 'the nurseries for new projects.' (Schlicht 1998: 264) Management and employees within firms may not be fixed on a firm goal or hierarchy of goals but may constantly be refining their activities, within their capabilities, within their overall 'basic constraint' (Gordon quoted in Williamson 1967: 12) or ill-defined goal: 'Seek profit.' (Mises 1949: 306; see also Horwitz 2008). Having said that, at any particular point in time, a firm produces something concrete. It may appear, at that point in time, to have a fixed clear purpose; the coordination mechanism leading to that purpose may appear narrow, rigid and purposeful. When a firm succeeds it may appear, at a point in time, so perfectly suited for what looks like its fixed purpose that one could only think it had been deliberately designed by a genius. (Langlois 1995; Bennis 1999) Like Ford's plant in 1923. At the firm level the dynamic nature of the coordination mechanism may be always apparent to participants; whereas to the outsider the order within the firm may appear teleological.

The necessary vagueness of the purpose of the firm blurs further the distinction between a spontaneous order, which has no purpose, and an organization, which has a purpose. Further, a purpose so vague that it can encompass over time making wood pulp and mobile phones may mean that constituent rules may not solely be the 'rules of purpose' but included rules with a degree of abstraction that made them akin to the rules of a spontaneous order. (Ioannides 2003b; Langlois 1995; Sautet 2000: 125)

3. Command may be over-privileged as a coordinating mechanism within the firm; this may erode one of the main distinctions between a business firm and a spontaneous order.

As we saw, one of the differences between a made order and a spontaneous order is that command is a coordinating mechanism in a made order but cannot be a feature of a spontaneous order. However, an examination of command within the business firm may show it has some problems as a coordination mechanism.

Michael Polanyi (1951) explored command in his essay *The Span of Central Direction*. Polanyi noted that he 'may be labouring the obvious. But obvious though my result may seem, I can find it stated nowhere, while a great deal has been written which contradicts it in detail.' (Polanyi 1951: 136) In this essay, Polanyi took the example of a corporate body coordinated by command from the top. 'Since the chief can give orders only directly to no more than three to five subordinates, any larger body must be coordinated through devolution to successive tiers of subordinate officials. … A corporate system … can be extended to any considerable extent only by increasing the height of the pyramid through the addition of new tiers…' Polanyi worked though the ability of a number of individuals to coordinate their activity where there was a mutual self-adjustment and where there was command. Even with an organization of five people, self-adjustment rapidly showed itself to be superior to command.

The limited utility of commands within the firm was also argued by Mary Parker Follett. In her collected papers, *Dynamic Administration* (1940), she argued that there is, or should be, no authority or power in an organisation; that power and authority are merely a convenient explanation of a phenomenon that she considered not the following of commands or orders but obeying 'the law of the situation'. 'One person should not give orders to another person, but both should agree to take their orders from the situation. If orders are simply part of the situation, the question of someone giving and someone receiving does not come up. Both accept the orders given by the situation. Employers accept the orders given by the situation; employees accept the orders given by the situation.' (Follett 1940: 59) There is no authority, no 'orders', in a firm; instead there is a search for information, for 'facts' (105), 'to unite all concerned in a study of the situation to, to discover the law of the situation and obey that…The head of the sales department does not give orders to the head of the production department, or vice versa. Each studies the market and the final decision is made as the market demands. This is, ideally, what should take place between foremen and rank and file, between any head and his subordinates.' (58-59) (Schlicht makes the exact same point: 'If the sales department provides notification that more production is needed, this is not a command in the usual sense of the word: what it is is a piece of information that serves to coordinate various economic activities in accordance with a shared understanding of roles and responsibilities.' (Schlicht 1998: 222-223) Obviously, this shows Coase's example of a command (1988: 35) in a different light.)

This insight then allows Follett to explain how firms function in a changing market. 'If the situation is never stationary, then the order should never be stationary… How is the order to keep up with the situation? External orders never can, only those drawn freshly from the situation.' (65) Thus, all employees and executives in a firm follow the same law of the situation. 'The leader gets an order followed first, because men do really want to do things in the right way and he can show them that way, and secondly, because he too is obeying.' (276)

Similar problems with command were noted in a 1958 article in the *Harvard Business Review* (Kline and Martin 1958). In this article the authors argued that: 'the chief characteristic of the command hierarchy, or any group in our society, is not knowledge but ignorance. Consider that one person can only know a fraction of what is going on around him… we may really be institutionalizing ignorance. While making better use of what the few know, we are making sure that that the great majority are prevented from exploring the dark areas around our knowledge.' They proposed that within firms rules 'provide a nonpersonal and objective method of supervision and coordination… They are *rules of reason*. The implication is that any rational person would come up with the same course of action as set forth in the rule. The administration of freedom requires the existence of a comprehensive system of rules in order to insure a maximum of "elbowroom" for each individual and at the same time a maximum of coordination and efficient action.'

Jensen and Meckling (1995) come to the same conclusion by a somewhat interesting route. They start by citing Hayek's (1945) article on the 'distribution' (Jensen and Meckling's word) of knowledge among market participants. They note Hayek's conclusion that this knowledge problem, including tacit knowledge, can only be solved by allowing the person on the spot to make decisions. But they seem unaware of Hayek's later writings, saying: 'Hayek assumes that markets automatically move decision rights to the agents with the relevant knowledge, and that those agents will use the decision rights properly. Unfortunately, he never discusses how this occurs.' They then analyse the problem themselves and come to the conclusion that '[b]ecause agency costs inevitably result from the delegation of decision rights, the CEO must devise a control system (a set of rules) that fosters desirable behaviour…' These rules are the 'common law' traditions of a firm and 'our empirical observations indicate that knowledge of these "rules of the game" enables one to make good predictions about an organization's behaviour and effectiveness.'

If a command is given by one person to another, this causes a knowledge problem (Sautet 2000; Foss 1999; Foss and Foss 2002; see also the appendix to this paper). As we have seen, Hayek demonstrated (1948) that every individual has unique knowledge not known to any other individual, even if it is only the knowledge of time and place or the knowledge of self. Much of this knowledge may be tacit and thus it may be difficult, if not impossible, to articulate; 'we know more than we can say.' (Polanyi 1966) A command inevitably results in some degree of loss of that knowledge. Furthermore, as a person who is given the command performs the task, further knowledge will become available and this knowledge too is, to some degree or other, lost. If we think through this knowledge problem of command a number of problems with command as a coordination mechanism may become clearer:

- There can be no learning for a person who is commanded; the person giving the command is 'the only one who would be allowed to profit from experience' (Hayek 1978: 141). With command previous experience can be no guide to future actions; a command contains no information about future action.
- In any firm, there is an opportunity for a large number of persons to give commands. However, any particular command, given the unique knowledge of the person giving the command, may appear almost random to others and place an intolerable burden on intra-firm coordination. On the other hand, allowing individuals to act based on their own unique knowledge but within common rules, may provide others with a more accurate picture of what is going on – knowledge of this fact is useful in itself. Hayek pointed out: '[T]he captain of a battleship may sometimes recognize the nature of an observed object less from his direct perception of it than from the response of his ship…' (Hayek 1952: 91) If any part of the organisation can supersede this with a command, this knowledge is destroyed completely. (See also Polanyi 1951: 141)
- If an individual in the firm is commanded or ordered to do something the individual may, mistakenly, ascribe to that instruction the status of a rule. (Schlicht 2008) The individual then may, in similar circumstances, follow that rule as he or she understands it. However, if the instruction was a command, and by definition (see the appendix to this paper) not in conformity with the rules of the firm, the individual is now constructing a set of rules that is in conflict with the other rules of the firm; the order within the firm starts to break-down. In fact, this is such an important point that we could expect that making the distinction between a rule and a command would be a central feature of every instruction. Every time a subordinated was told to do something it would seem vital that the subordinate was told whether this instruction was a rule, to be undertaken in all similar circumstances in the future, or a command, to be undertaken only for this particular foreseeable result. Any examination of our own personal experience and tested elsewhere seems to show that this may not always be done. (Brady and Walsh 2008)
- Foss and Foss in their paper *Authority in the Context of Distributed Knowledge* (2002) argue that in certain circumstances that the loss of knowledge in

giving a command is overcome by the advantages of command. They give a series of examples of such circumstances: an urgent decision required or the coordination of decomposed tasks. However, these explanations may not be complete as, for example, one of the pieces of knowledge missing to a commander may be to make what was thought was urgent into not urgent at all or what appears to be a decomposable task actually has invisible inter-dependencies.

- Finally, a command aims at a particular foreseen result. However, all business, all firms, function in a dynamic environment. Very often in business the solution to a problem cannot be foreseen; the goal is ill-defined (Klein 1998: 146). Members of the firm will proceed towards the solution to a problem by a process of clarifying the goal as they try to achieve it. A command may not be useful in such circumstances as a command given in the past may not be congruent with the goal as perceived now. When Ford established his company he had only a vague, *inexpressible,* purpose in mind, a purpose that he articulated using some simple rules: '(1) Quality in materials... (2) Simplicity in Operation...(3) Power in sufficient quantity ....[etc]' (Ford 1923: 68) Rules that applied to his actions and to everyone else's. Even if the overall task is well-defined the mere fact that the problem is ill-structured may cause a problem for command; an ill-structured problem cannot be broken up into well-defined sub-problems and so command cannot be used as a coordination mechanism in the solution of the component parts of the problem.

Given these problems with command we could see command as a cumbersome coordination mechanism. We may be able to take this a step further: given these difficulties with command it may be that management within a firm may actively seek to avoid using command as a coordination mechanism; 'mixing very different coordination mechanisms may lead to efficiency losses' (Foss 2002). Rule-following behaviour is a useful coordination mechanism, particularly in a dynamic environment, but rule-following behaviour is disrupted by command. Therefore, even if the power of command does exist within the firm, over time, the practice may have arisen that this power is suppressed and managers within a firm would avoid command as a coordination mechanism. It is possible that the distinction between a rule and a command is tacit but, in some firms, this seems less likely as interviews with executives and an examination of experience seems to show that some managers do expect employees, when told to do something once, to do similar things in similar circumstances even if not told. (Brady and Walsh 2008; see also Schlicht 2008)

Ioannides also argued, because the firm functions in a dynamic environment, in a discovery procedure, ever stepping into the unknown, rules and not command may be the more useful coordination mechanism: 'In this view, the promotion of the entrepreneur's business conception requires the information absorption capacity, the creativity and the problem solving capability of firm members. All these capabilities presuppose that the individual member acts within a framework of sufficiently abstract rules … In other words, the firm *cannot* but, at the same time, *must not* operate on the basis of commands. Therefore, we must think of the exercise of entrepreneurship as consisting primarily in the execution of a plan that unfolds in an uncertain future, thus making necessary the constant absorption of new knowledge by all team members, its interpretation, and the implementation of the necessary adjustments to the firm's operations.' (Ioannides 2003a; emphasis in original)

One reason why rule-following may be under-privileged as a coordination mechanism within the firm is because firms are, ubiquitously, hierarchical; a superior gives articulated 'commands', 'orders' to a subordinate. As Alchian and Demsetz (1972), among others, have pointed out, this hierarchy is not a, visible, feature of other rule-following orders like the market. Hierarchy would seem to be inconsistent with rule-following. The argument is made that authority/command and hierarchy go together (see for example, Foss 2002). This may not be correct; rule-following behaviour could be consistent with hierarchy. Given the complexity of rules, as part of the division of knowledge within a firm, it may be that there may be a division of knowledge of the rules. The youngest trainee's entire knowledge of the rules within the firm may be of a series of rules that guide his or her daily actions. In turn, he or she will be taught the rules by a supervisor who will know, to some degree, these rules and the other rules of the firm that allow him or her to instruct others in the rules and to deal with unforeseen or non-routine events. In turn, the supervisor may be instructed in the rules by a manager who may not know many of the rules that other members of the firm know (for example, shop floor rules) but may have a greater knowledge of the rules of the firm outside that particular location and of the rules in the larger market order. These rules of the larger market order may appear too abstract (Langlois 1995) and, thus, unintelligible to the young trainee or even the supervisor. This division of knowledge of the rules may be one reason why hierarchy exists within the firm. (This point has been made before: for example, Langlois 1995; Grant 1996).

It may be helpful, when looking at this 'hierarchy' of rule knowledge, to compare the common law judge (a central institution within a spontaneous order created by rule-following behaviour) with the executive in the firm; both appear to be people who make decisions based on particular circumstances and issue, consequent, orders or decisions. Hayek (1973: 99) has shown how the common-law judge is, in fact, merely articulating a rule or an order of rules that was not apparent before a particular set of facts resulted in a dispute about which rule to follow. Both Chester Barnard (1938: 279) and Edith Penrose (1959: 16) have compared executives in a firm to judges:

> 'There is no escape from the judicial process in the exercise of executive functions. Conflicts in the codes in organizations are inevitable… The judicial process, from the executive point of view, is one of morally justifying a change or definition or new particularizing of purpose so that the sense of conformation to moral codes is secured. One final effect is the elaboration and refinement of morals – of codes of conduct.' (Barnard 1938: 280)

Rules as to who has the final say, when there is disagreement or confusion as to which rule to follow are, as with a common law judge, important features of spontaneous orders and, it seems, may be an essential feature of the business firm.

4. An invisible hand explanation for the origins of the modern business firm.

At this point we need to step away from the business firm for a few minutes. In his *Principles of Economics*, first published in 1871, Carl Menger (1840 - 1921), using Adam Smith's simile of the 'invisible hand' showed how money came about:

Step 1: Exchange.

Individuals, at some distant stage in history, discover 'the economic gains that can be derived from exploitation of existing exchange opportunities' (Menger 2007: 257). For example, A has a sword but this has a 'smaller use value' (258) to him than a plough. B has a plough, but this has a smaller use value to him than a sword. A and B exchange the sword for the plough.

Step 2: The problem.

There is a problem resulting from this exchange opportunity: 'How rarely does it happen that a good in the possession of one person has a smaller use value to him than another good owned by another person who values these goods in precisely the opposite way at the same time!' (258)

Step 3: The solution.

'This difficulty would have been insurmountable, and would have seriously impeded progress in the division of labour, and above all in the production of goods for future sale, if there had not been … a way out.' (258) This way out was to interpose an additional transaction or transactions in the exchange process. A smith in ancient Greece has made a suit of amour of copper. He wishes to exchange this for food and for raw materials for his trade. It is unlikely that he will meet a person who wants to exchange food and copper ingots for a suit of armour. Therefore, our smith solves this problem indirectly. He exchanges his suit of armour for cattle, even though he does not need the cattle. Cattle are the most marketable commodity in ancient Greece. He then exchanges these cattle for food and copper ingots. In other words, our smith follows the rule of exchanging goods of limited marketability for goods of more or general marketability; this happens 'naturally' and 'everywhere' (260) people were guided by their own self-interest to the same solution.

Step 4: A refinement of the solution.

Over time, 'under the powerful influence of custom', certain goods become 'acceptable to everyone in trade and thus capable of being given in exchange for every other commodity.' (260) And this commodity may change over time: for example, as a people becomes more urbanised cattle may lose their marketability and be replaced by a metal like copper or tin or gold. 'Since there is no better way in which men have become enlightened about their economic interests then by observation of the economic success of those who employ the correct means of achieving their ends, it is evident that nothing favoured the rise of money, so much as the long-practiced, and economically profitable, acceptance of eminently saleable commodities in exchange for all others by the most discerning and most capable economizing individuals.' (261)

Step 5: The influence of the state.

There is one final step in the origin of modern money: 'Within the boundaries of a state, the legal order usually has an influence on the money character of commodities which, though small, cannot be denied.' (261) However, this does not mean that one can go too far in looking for a role of the state in the origin of money: 'Money is not an invention of the state. It is not the product of legislative act.' (262) But the state can have a role, when the money character of a good has emerged: 'Thus the sanction of the state gives a particular good the attribute of being a universal substitute in exchange, and although the state is not responsible for the existence of the money character of the good, it is responsible for a significant improvement of its money-character.' (262) And so gold coins issued by the state become acceptable to everyone and tin plate loses any former money-character.

In conclusion, Menger wrote: 'Money is not the product of an agreement on the part of economizing men nor the product of legislative acts. No one invented it. As economizing individuals in social situations became increasingly aware of their economic interest, they everywhere attained the simple knowledge that surrendering less saleable commodities for others of greater saleability brings them substantially closer to the attainment of their specific economic purposes.' (262)

A Mengerian theory of the Firm.

How could an 'invisible hand explanation' (Nozick 1974: 19; Haller 2000) allow us to conjecture a theory of the origins of the business firm? Again, we should approach the problem step by step. However, the problem is more complex, and the solution less visible, than the bilateral problem solved by money.

Step 1. The market order.

We have seen above that a market order arises spontaneously. As we have also seen, it arises naturally, spontaneously, because individuals follow certain common rules of behaviour. The larger this market order becomes, the more people that it involves, generally, the greater prosperity involved. Therefore, there is always the general tendency for a market to grow in size until, as we have now, one market encompassing nearly all of humanity.

Step 2. The problem.

But there is a problem resulting from this extended market order. Hayek argued that in the extended market order that the common rules of behaviour must become 'attenuated', that is they must be thinned out as compared to the rules of a small tribe where, for example, everyone is known to everyone else and everyone owes intricate duties to everyone else:

> 'This application of the same rules of just conduct to the relations to all other men is rightly regarded as one of the great achievements of a liberal society. What is usually not understood is that this extension of the same rules to the relations to all other men (beyond the most intimate group such as the family and personal friends) requires an attenuation of at least some of the rules which are enforced in the relations to other members of the smaller group. If the legal duties towards strangers or foreigners are to be the same as those towards the neighbours or inhabitants of the same village

or town, the latter duties will have to be reduced to such as can also be applied to the stranger. No doubt men will always wish to belong also to smaller groups and be willing to assume greater obligations towards self-chosen friends or companions… A system of rules intended for an Open Society and, at least in principle, meant to be applicable to all others, must have a somewhat smaller content than one to be applied in a small group.' (Hayek 1976: 88ff)

It is not central to this discussion whether the rules of the Open or Great Society are more attenuated than in a small tribe (although, it is submitted that this is true), more important is the fact that the rules are common to all. This fact alone creates a problem. Individuals solve problems by following the rules. Different cultures have different rules and so will be guided in different ways: 'Since different values legitimate different objectives, and different objectives generate different kinds of problem[s], societies with different cultures will tend to focus on distinctive types of problem solving. "Learning by doing" is an important aspect of problem solving and so learning effects will give each culture a distinctive type of problem-solving expertise.' (Casson 1995: 89) It may be that an extended market order creates a problem. If everyone in a market order follows the same rules, then there may only be a limited number of ways that any problem may be solved, only a limited range of options may appear to be open, open options may appear to be closed and so on. (Heiner 1983; Witt 1998, 1999; see also Loasby 2007)

Step 3A. The solution.

'This difficulty would have been insurmountable, and would have seriously impeded progress in the division of labour, and above all in the production of goods for future sale, if there had not been … a way out.' (Menger 2007: 258) This way out may have been for an entrepreneur to see or realise that individuals are capable of following different rules in different 'settings'; by noticing say the behaviour of a company of soldiers or a community of religious.

The entrepreneur has a 'notion' (Witt 1999), that, for example, pins can be produced more cheaply his or her 'way' than the methods in the larger market order. So the entrepreneur, who 'must be a natural leader of *men*', (Marshall quoted in Streissler 1990: 58) like a general, a Wallenstein (Roscher quoted in Streissler 1990: 58), 'a cognitive leader' (Witt 1999, 2000, Ioannides 2003a) convinces others that his or her 'way' is a good way to produce pins. Of course, this 'way' requires that all the individuals involved follow rules of behaviour that are different, to a greater or lesser extent, to the rules in the larger market order. Furthermore, the entrepreneur may not articulate his 'way' in terms of rules or in terms of rule-following behaviour. He or she may clearly envisage a 'process' or, more likely, the goal may be still quite vague, and he or she may just tell the other individuals to 'do what I say' or 'follow what I do'.

Step 3B: The solution.

Simultaneously with Step 3A, other individuals make choices and act; they have their goals, but realise that they can, also, only achieve them indirectly. These individuals realise that, in the long or the short term, their self-interest is served best if they do not sell their services, directly, into the larger market order. Instead, he or she realises that if they participate, if they commit, to the sometimes new but always changing order, outside of the market, in a firm that they may obtain benefits that they might not obtain in the larger market order and bring themselves closer to their personal goals. In fact, an entrepreneurial notion may fail because no person may believe that their personal goals can be best achieved directly or indirectly through committing to a particular entrepreneur's firm. (Witt 1999)

One reason an individual may wish to become an employee is that it allows that individual the opportunity to convert what might otherwise not be an economic good into an economic good. (The individual is, of course, unconscious of this directly but is conscious of the higher remuneration available in a firm, particularly early in a career, and the individual also, as Hayek pointed out, may have a preference for assuming greater obligations towards certain self-chosen companions.) That good, that might otherwise not be an economic good, is the ability of humans to follow complex and usually tacit rules and the ability to follow different rules in different 'settings'. We are all entrepreneurs in selling our labour; it is natural that individuals would seek, even if unconsciously, a return on all their assets, including the ability to follow complex, tacit, rules of behaviour and the ability to follow different rules in different settings.

Step 4: A further refinement of the solution.

Over time, under the powerful influence of custom, establishing firms, becoming an employer or an employee become well-established behaviours. Thus firms become common in the economy. The skills to manage and control employees in firms become more widespread – skills like double-entry bookkeeping or even reading and writing. In addition, often the habits and practices that are required of employees in a firm become widespread in the larger market order; for example, punctuality.

Step 5: The influence of the state.

There may be one final step in the origin of the firm: within the boundaries of a state, the legal order usually has an influence on the character of the firm which, though small, cannot be denied. 'A firm' – it is submitted is an order created by the rule following behaviour of individuals (rules different to the rules in the larger market order) to achieve some purpose, however vague. Firms are, by this definition, larger than the cognitive abilities of any one individual to create, survey or control. The legal personality of the firm may have somewhat blinded observers; Sautet is right and the 'firm can be seen as a pulling together of entrepreneurial activity by a central entrepreneur… the essence of the firm, in that context, is coordination rather than ownership.' (Sautet 2000: 134)

However, there is no doubt that the legislative acts of a state can improve the character of firms in many ways and can improve the chances that firms will be created and that the individuals in them will prosper. However, this does not mean that one can go too far in looking for a role of the state in the origin of the firm: firms are not an invention of the state. But the state can have a role, when the firm has already emerged as an economic institution. For example, individuals may be more inclined to establish a firm when there is limited liability and individuals may be more inclined to become employees of a legal fiction than of a particular individual.

Conclusion – A Mengerian, an invisible hand, explanation of the existence of the firm as an economic institution.

In conclusion, we may be able to follow Menger: a firm is not the product of an agreement on the part of economizing individuals nor the product of legislative acts. No one invented it. As economizing individuals in social situations became increasingly aware of their economic interest, they everywhere attained the simple knowledge that participating in a rule-bound order to achieve some purpose, however vague, where the rules being followed are different to those in the larger market order may bring them substantially closer to the attainment of their own individual goals.

As we have seen money arises naturally in the market order; but each individual gold coin is purposively minted. *The* firm, as an institution, arises naturally, spontaneously, in the larger market order. However, each individual firm is not a spontaneous order; it does results from human action and not human design but, unlike a spontaneous order (as we have seen), *a* firm is deliberately created to fulfil some purpose, however vague. Each firm, as a new rule-bound order, is one further new 'solution to the fundamental problem of strategic interaction.' (Haller 2000) A firm is not created by the once off act of the entrepreneur alone but by more than one person committing to the rules, as yet vague and largely unknown, of this new order. Richard Langlois is almost exactly right, firms 'emulate in some degree a spontaneous order.' (Langlois 1995) This may refine Coase's conclusion: the firm may not 'supersede' the market; the firm may arise naturally as part of the market order but the solution to any particular problem within a firm may supersede a solution to the same problem in the market, even if only for a time.

In Hayek's writings the clear distinction between spontaneous orders and organizations was a useful tool in the arguments that he had to make. However, the purpose of this paper has been to conjecture that to understand the fine details and inner workings of the firm we may need to blur that border and erode that distinction.

Appendix: 'Command', 'order', and 'rule'.

Making the distinction between a command and a rule is harder than it appears because, upon examination, the distinction is only rarely, if ever, made in our day to day lives. Therefore, it may be useful to attempt, however vainly, to be clear on this point.

Any reader may immediately think that the essence of coordination within a firm is an individual telling other individuals what to do, where to do it, how to do it and when to do it (see Coase 1988: 35). However, these instructions may not be commands. The Shorter Oxford English Dictionary defines 'command', inter alia, as '…The act of commanding; an authoritative statement that a person must do something; an order, bidding…' An 'order' is defined as, including, ' … bid, command, direct...' A command is given by one individual to another. A command must, by definition, be aimed at a particular foreseen result: 'do this', 'perform that task'. According to Hayek a command 'aims at a particular result or particular foreseen results, and together with the particular circumstances known to him who issues or receives the command will determine a particular action.' (Hayek 1976: 14; see also Hayek 1976: 128-129) A command must not be in accordance with the rules; otherwise the 'command' is merely rule articulation.

Hayek contrasts a command with a rule: 'a rule refers to an unknown number of persons, and merely states certain attributes which any such action ought to possess.' (Hayek 1976: 14) 'Rule' is defined in the Shorter Oxford English Dictionary as, including, '… A principle regulating practice or procedure; a dominant custom or habit. Also accepted or prescribed principles, method, practice custom etc.; *rare* rigid system or routine.' As Becker points out (Becker 2004): 'If {condition A}, then {do B}' is a rule and not a command. The fact that the first part of this statement is often not articulated but is merely tacitly understood can lead an observer astray:

- Simon called the following instructions 'commands' (Simon 1991): 'repair this hinge…all purchases must be made through the purchasing department…manufacture as cheaply as possible consistent with quality… Always decide in such a way as to maximize company profit!' These are not, it is submitted, commands but rules: rules aimed at known and unknown individuals solving as yet not fully known problems.
- Even the first of Simon's rules: 'repair this hinge' is not a command despite its close resemblance to a command. It is merely information and not a command (as repairing faulty hinges is a rule known to all; 'repair this hinge' is merely an alternate way of saying 'I have noticed this

> hinge is broken and I think the rule is that this hinge should be repaired'). A command would only come into play if the rule was not to repair broken hinges and someone in authority decided that a particular hinge should be repaired by a particular person.

What is often considered a command may just be the transmission of information. For example, Mary Parker Follett wrote: 'The head of the sales department does not give orders to the head of the production department, or vice versa. Each studies the market and the final decision is made as the market demands. This is, ideally, what should take place between foremen and rank and file, between any head and his subordinates.' (Follett 1940: 58-59) As Schlicht points out: 'If the sales department provides notification that more production is needed, this is not a command in the usual sense of the word: what it is is a piece of information that serves to coordinate various economic activities in accordance with a shared understanding of roles and responsibilities.' (Schlicht 1998: 222-223) Obviously, this shows Coase's example of a command, an employee being moved from one department to another, (1988 35) in a different light.

In every case an instruction to a machine, including a computer, is a command. It is given by the commander to the machine and aims at a particular foreseen result. A command is always outside the rules, arbitrary and ad hoc, it never creates a precedent or an expectation. Knowing the purpose of a command is irrelevant to the person commanded. When we think of a command in that way, we can see how it differs from any instruction we give to another human being. (Schlicht 1998: 232 and Schlicht 2008) Rule following necessarily requires an individual to search for the appropriate rule to follow. The actual expression may be a fumbling phrase that sounds like a command but it is, nevertheless, rule articulation and not a 'command' or an 'order'.

Mary Parker Follett's understanding of the correct nature of intra-firm coordination, and the limited circumstances when a command is actually given, allowed her to redefine the word 'order' as merely 'a symbol' (Follett 1940: 65). She wrote: 'I may say to an employee, "Do so and so," but I should say it only because we have both agreed, openly or tacitly, that that which I am ordering done is the best thing to be done. The order is then a symbol.' (Follett 1940: 65) 'The best leader has not followers, but men and women working with him.' (Follett 1940: 262) The leader 'knows how to encourage initiative, how to draw out from all what each has to give.' (Follett 1940: 247).

Acknowledgements: Thanks to Malcolm Brady, Frederic Sautet and the participants in the above conference (particularly Gus diZerega and David Andersson) for comments. The usual caveats apply.

References:

Alchian, Armen A and Harold Demsetz. 1972. "Production, Information Costs and Economic Organization," *American Economic Review,*62(5): 777.

Barnard, Chester. 1938. *The Functions of the Executive*, 1968 edition, Cambridge MA: Harvard University Press.

Becker, Markus C. 2004. "Organizational Routines: A review of the literature," *Industrial and Corporate Change,* 13(4): 643-677.

Bennis, Warren. 1999. "The end of leadership: Exemplary leadership is impossible without full inclusion, initiatives and cooperation of followers," *Organizational Dynamics,* 28(1): 71-79.

Brady, Malcolm and Aidan Walsh. 2008. "Setting Strategic Direction: A top down or bottom up process," *Business Strategy Series,* 9(1): 5.

Burgelman, Robert A, and Andrew S. Grove. 2007. "Let Chaos Reign, Then Rein in Chaos - Repeatedly: Managing strategic dynamics for corporate longevity," *Stanford Graduate School of Business, Research Paper Series,* 1954.

Caldwell, Bruce J (ed). 1990. *Carl Menger and his legacy in economics,* Durham, NC: Duke University Press.

Casson, Mark. 1995. *Entrepreneurship and Business Culture,* Aldershot, UK: Edward Elgar.

Coase, RH. 1988. *The Firm The Market and The Law,* University of Chicago Press.

Follett, Mary Parker. 1940. *Dynamic Administration. The Collected Papers of Mary Parker Follett,* New York: Harper and Brothers.

Ford, Henry (with Samual Crowther). 1923. *My Life and Work,* Kessinger Publishing.

Foss, Kirsten and Nicolai J. Foss. 2002. "Authority in the Context of Distributed Knowledge."

Foss, Nicolai J. 1999. "Research in the strategic theory of the firm: 'isolationism' and 'integrationism,'" *Journal of Management Studies,* 36(6).

Foss, Nicolai J. 2002. "'Coase v Hayek': Economic Organization and the Knowledge Economy," *International Journal of the Economics of Business,* 9(1): 9-35.

Grant, Robert M. 1996. "Prospering in dynamically-competitive environments: Organizational capability as knowledge integration," *Organization Science,* 7(4): 375.

Grove, Andrew S. 1997. *Only the Paranoid Survive,* London: HarperCollins Business.

Halberstam, David (ed). 2003. *Defining a Nation,* San Diego: Tehabi Books.

Haller, Markus. 2000. "Carl Menger's theory of invisible-hand explanations," *Social Science Information,* 39(4): 529.

Hayek, FA. 1948. *Individualism and Economic Order,* University of Chicago Press.

Hayek, FA. 1952 (1972 paperback edition). *The Sensory Order*, University of Chicago Press.

Hayek, FA. 1967. *Studies in Philosophy, Politics and Economics,* London: Routledge & Kegan Paul.

Hayek, FA. 1973. *Law, Legislation and Liberty, Vol I, Rules and Order*, University of Chicago Press.

Hayek, FA. 1976. *Law, Legislation and Liberty, Vol II, The mirage of Social Justice*, University of Chicago Press.

Hayek, FA. 1978. *New Studies in Philosophy, Politics, Economics and the History of Ideas,* London: Routledge.

Heiner, Ronald A. 1983. "The Origins of Predictable Behavior," *The American Economic Review,* 73(4): 560-595.

Horwtiz, Steven. 2008. "The Sensory Order and Organizational Learning," working paper; July 2008.

Ioannides, S. 2003a. "The Business Firm as a Hybrid Hayekian Order: What is the Role of the Entreprenuer," *Advances in Austrian Economics,* 6: 153-171.

Ioannides, Stavros. 2003b. "Orders and Organization: Hayekian insights for a theory of economic organization - Novel insights about Organization," *American Journal of Economics and Sociology*, July, 2003.

Jensen, Michael C. and William H. Meckling. 1995. "Specific and General Knowledge, the Organizational Structure," *Journal of Applied Corporate Finance,* 8(2): 4.

Klein, Gary. 1998. *Sources of Power, How People Make Decisions*, London: The MIT Press.

Kline, Bennett E and Norman H. Martin. 1958. "Freedom, authority and decentralisation," *Harvard Business Review,* 36(3): 69-75.

Langlois, Richard N and Paul L. Robertson. 1995. *Firms, Markets and Economic Change. A dynamic theory of Business Institutions, London:* Routledge.

Langlois, RN. 1995. "Do Firms Plan?" *Constitutional Political Economy,* 6: 247-261.

Loasby, Brian J. 2007. "The Ubiquity of Organization," *Oganization Studies*, 28(11): 1729.

Menger, Carl. 2007 (1871). *Principles of Economics,* Auburn AL: Ludwig von Mises Institute.

Mises, Ludwig von. 1949 (1998 edition). *Human Action,* Auburn, AL: Ludwig von Mises Institute.

Nozick, Robert. 1974. *Anarchy, State and Utopia,* Basic Books.

Penrose, Edith. 1959. *The Theory of the Growth of the Firm*, Oxford University Press.

Polanyi, Michael. 1966. *The Tacit Dimension,* Gloucester, MA: Peter Smith.

Polanyi, Michael. 1998. *The Logic of Liberty*, Indianapolis: Liberty Fund, Inc.

Sautet, FE. 2000. *An Entrepreneurial Theory of the Firm*, London: Routledge.

Schein, Edgar H. 1994. *Organizational Culture and Leadership* (2nd edition), San Francisco: JosseyBass.

Schlicht, Ekkehart. 1998. *On Custom in the Economy,* Oxford: Clarendon Press.

Schlicht, Ekkehart. 2008. "Consistency in Organization," *Journal of Institutional and Theoretical Economics,* 164: 612-623.

Simon, Herbert A. 1947. *Administrative Behaviour,* New York: Free Press.

Simon, Herbert A. 1991. Organizations and Markets, *Journal of Economic Perspectives,* 5(2)24-44.

Sloane, AP. 1963. *My Years with General Motors*, New York: Currency Books.

Stewart, Rosemary. 1963. *The Reality of Management,* London: Pan Books.

Streissler, Erich W. 1990. "The influence of Germany economics on the works of Menger and Marshall", in Caldwell (1990).

Welch, JF with JA Byrne. 2001. *Jack, Straight from the Gut*, London: Headline Books.

Williamson, Oliver E. 1967. *The Economics of Discretionary Behaviour: Managerial Objectives in a Theory of the Firm,* London: Kershaw Publishing.

Witt, Ulrich. 1998. "Imagination and Leadership - The neglected dimension of an evolutionary theory of the firm," *Journal of Economic Behaviour and Organization,* 35: 161-177.

Witt, Ulrich. 2000. Changing Cognitive Frames - Changing Organizational Forms: An Entrepreneurial Theory of Organizational Development, *Industrial and Corporate Change*, 9(4): 733.

Witt, Ulrich. 2007. Firms as Realizations of Entrepreneurial Visions, *Journal of Management Studies,* 44(7): 1125-1140.

Witt, Ulrich. 1999. Do Entrepreneurs Need Firms? A Contribution to a Missing Chapter in Austrian Economics, *Review of Austrian Economics,* Vol 11: 99-109.

Yu, Tony Fu-Lai. 1999. Toward a Praxeological Theory of the Firm, *Review of Austrian*

Economics, 12: 25.