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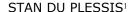
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This paper explores two traditions of optimism in economics. In one of these traditions optimism is based on the comprehension of a spontaneous (and often progressive) order in a decentralised (or market) economy – what I will call the optimism of the "invisible hand". Against the optimism of the invisible hand stands another optimistic tradition in economics, whereby we might take courage from our ability to do right by society through instructing governments with the keen edge of our most enlightened plans. This tradition is called "constructivist rationalism" here. The paper explores the logic of each tradition and their historical development and applies both to a recent example of policy making in South Africa: government's fundamental regulatory overhaul of the pharmaceutical industry based on the Medicines Act of 1997, specifically, the decision to implement price controls on medicines.

Keywords: Spontaneous order, Modernism, Planning, Optimism, Information, Uncertainty, Price

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Two optimistic traditions in the dismal science: rationalism and the "invisible hand"

"Compared with this method of solving the economic problem by means of decentralisation plus automatic coordination, the more obvious method of central direction is incredibly clumsy, primitive and limited in scope."

Friedrich Hayek (1944: 37)

"For simplicity let me describe how to attack the problem for a given political party...
the expert [economist/econometrician] will go back to his electronic computer in which he had already entered
the data regarding the core of the economy. To this he will now add the formalization of the preferences in the
quantitative form as he now sees it. From this will come out a solution, in the form of an optimal development
path for the economy."

Ragnar Frisch (1970: 31-32)

Introduction

Optimism is a strange topic for an economist, a practitioner of a science so peculiarly dismal that even the grave does not evoke sympathy; as Walter Bagehot observed a long time ago, "the public has never yet been sorry to hear of the death of an economist" ². Yet, not long after Bagehot's observation an economist of rising reputation mentioned that a great teacher of his said "if he had seven sons they should all study economics" ³. Such optimism, at least in a tempered version, is encountered frequently enough within economics and I have chosen to speak about two traditions that support these optimisms.

In one of these traditions, optimism is based on the comprehension of a spontaneous (and often progressive) order in a decentralised (or market) economy – what I will call the optimism of the "invisible hand". Paradoxically, it is this optimistic tradition that earned economics the label of "dismal science" from the pen of Thomas Carlyle. Since the story of this insult is both interesting and relevant to the topic at hand I will summarise it briefly.

Until recently an author of considerable authority⁴ could claim that Carlyle had called economics the "dismal science" upon reading the grim Malthusian predictions of population growth outstripping the expansion of the food supply. Others have found in economics a "dismal science" which incessantly studies the trade-offs between competing wants and needs; trade-offs required by the limited means at our disposal; it's guns or butter. Or as Lord Robbins (1932 [1962]: 15) said, economics reminds us that "We have been turned out of Paradise".

More recent scholarship has, however, brought into question these widely held explanations for Carlyle's insult. David Levy has argued that the original context in which Carlyle labelled economics the "dismal science" was the struggle to end slavery in the British Empire. And what made economics so dismal was the economist's optimism

² Bagehot's remark is recorded in Hayek (1944 [1991]: 39).

³ Hayek (1944 [1991]: 35) told this story about the famous late-nineteenth-century economist Carl Menger.

⁴ Robert Heilbroner (Heilbroner, 1953 [1991]).

that emancipated slaves, since they share our common humanity, would be quite capable of living lives of virtue and prosperity without the paternalistic hands of their former owners. Of course this only sounds dismal to those, like Carlyle and Ruskin, who fancied for themselves a greater role in guiding the so-called inferior slave races to gainful labour and, perhaps, civilisation. Only a "dismal science", cried Carlyle, "...finds the secret of this Universe in 'supply and demand', and reduces the duty of human governors to that of letting men alone" (Carlyle, 1849 [1897]: 353-354).

But there was more to the economist's optimism for emancipated slaves than the doctrine of the "rights of man"; there was also a conception of society in which the actions of each, focussed as they are on needs and benefits perceived by the decision-maker and informed by her information set and budget constraints, serve the needs of others – as if guided by an invisible hand – in a complex and spontaneous order that is the result of human decisions but not of human design. We must look here – at the theory of spontaneous order – for the wellspring of one tradition of optimism in economics.

Against the optimism of the invisible hand stands another optimistic tradition in economics, whereby we might take courage from our ability to do right by society through instructing governments with the keen edge of our most enlightened plans. I will use "rationalism", or more precisely "constructivist rationalism", for optimism of this second kind. The tension between these two groups of optimists runs through the history of economic thought and both groups include leading economists in their ranks.

1. Order and optimism

Let me start with a small amount of housekeeping on the terminology concerning two concepts: optimism and order. By optimism I do not mean the Panglossian doctrine that ours is the "best of all possible worlds", or the doctrine that some conception of the "good" will ultimately triumph over "evil". By optimism I mean the expectation that, whatever our present troubles, our society has the capacity for improvement to meet these challenges. It is the kind of optimism found in the work of the philosopher Karl Popper (for example, Popper, 1997).

The optimism just described is centred on society, and that is also the reason for defining order as patterns of behaviour by individuals in a society which are mutually consistent to such an extent that each person is able to pursue her several goals. Such order requires a highly successful co-ordinating mechanism, and it is about the nature of this mechanism that the two traditions of optimism discussed here will part ways.

The focus on order is necessary to sustain the optimism of either tradition. Optimism implies an expectation of a better future and it is only in a social order that a person might find the unfolding events consistent with her expectations. By implication, the analysis precludes revolutions. One cannot form expectations about revolutions.

⁵ Hayek (1988) used the term "constructivist rationalism" for this tradition in economics.

Allow me an example from my own field of macroeconomics to illustrate the debate between proponents of the two types of optimism in economics. Sweden's monetary system was under severe pressure in 1931, as the Krona suffered speculative attacks in the wake of Britain moving off the gold standard in September of that year (Berg and Jonung, 1998). The government of the day turned to Swedish economists for advice, especially Cassel and Heckscher, who suggested a new framework for monetary policy organised around an explicit target for the price level (Bäckström, 1996). This regime places a limit on the policy discretion of the Central Bank, and is based on the optimistic expectation that the market economy would provide for a general increase in prosperity, if the monetary system provided a stable backdrop for market exchanges, together with the view that the exercise of monetary discretion would often itself be destabilising.

I want to emphasise that this was not "conservative" policy advice, if "conservative" means obstructing change or expressing some longing for a past order or for preserving some conception of the *status quo* distribution of income and wealth (see also, Hayek, 1960). And it was a success: the price level stabilised and Sweden was spared the worst of the recession, which had, especially in the USA, been associated with grave mistakes by monetary policy-makers (Friedman and Schwartz, 1963; Mundell, 2000) – mistakes which would probably not have been made under a price-level target.

In 1937 the price-level target came up for evaluation, and though it received a favourable review from a panel of economists, a group of young economists, including Ohlin and Myrdal, turned the public debate in favour of a more ambitious role for monetary policy (Berg and Jonung, 1998). These economists were optimistic too, but based their optimism on a very different model of the economy and of the role of monetary policy: the economy was depressingly unstable, or so they believed, but economists – who understood the malaise – might wield the tools of policy, like engineers or dentists as Keynes (1931) would famously have it, to correct these faults and restore the prosperity.

But in Sweden during the thirties the results were less commendable. There, as elsewhere, removing limits to the discretion on monetary policy-makers had unfortunate consequences. Sweden was not spared the sustained inflation which affected market economies in the post-War era, and which can plausibly be connected to a mistaken model of the economy in which monetary policy plays an expanded role. Once lost, it would take sixty years, and a switch to inflation-targeting, for the kind of monetary stability to return which Sweden had enjoyed between 1931 and 1937.

2. Rationalism: a first optimistic tradition

The optimistic tradition that I will call "constructivist rationalism" has ancient roots reaching back at least to the Greek philosophers of the first millennium BC, especially to Plato. A critical distinction underlies much of this tradition, i.e. the distinction between "natural" and "social" regularities, where the latter is the result of deliberate human design and the former should be regarded as given and immutable. This was not usually an optimistic tradition, as it often regarded the society of the day as a degenerative version of an earlier more robust state

(Popper, 1966). Not surprisingly this tradition was often profoundly conservative, and it was only in the 17th century, but especially during Enlightenment of the 18th century, that it received an optimistic reformulation. From Descartes onwards an important line of Western thinkers – including especially Rousseau, the Encyclopaedists, and Comte – argued that, if people had designed some of the important institutions in society, people might also change them and that Reason might guide their reforming hands. It is this optimistic version of rationalism that Hayek calls Cartesian or Constructivist rationalism (Hayek, 1945 [1984]-a, 1988).

But more interesting for my purpose is that the first school of economists, the Physiocrats of 18th century, stand in this tradition. They – like so many progressive thinkers of their province and time – were enthusiastic proponents of the Natural Law, especially of the branch that argued for the application of Natural Law reasoning to society⁶ (Gide and Rist, 1964). The various Natural Law doctrines shared three main themes (Berlin, 1997: 171). First, they conceived of a distinct "human nature" which could, in principle, be understood. Second, this human nature implied certain specific human goals following from the very design of the human being by an impersonal nature, or God. And, finally, these goals were harmonious between people and with the laws governing nature. Such assumptions might yield a model of the natural social order to the talented theorist, and that is precisely what the Tableau Économique did for the leading Physiocrat, Dr Quesnay.

I have tried to construct a fundamental Tableau of the economic order for the purpose of displaying expenditure and products in a way which is easy to grasp, and for the purpose of forming a clear opinion about the organisation and disorganisation which government can bring about... you have seen the tableau in these days - it is a way of meditating on the present and on the future.⁷

These were optimistic insights, but also centralising, as a prominent Physiocrat, Le Mercier de la Rivière explained: "the despotism of the laws and the personal despotism of the lawgiver are one and same: that of the irresistible power of evidence" (quoted in Berlin, 1997: 173). Though they respected liberty and wanted to extend the scope of free initiative, especially in economic matters, they also argued that the informed exercise of freedom by the citizens will, necessarily, co-ordinate with the plans of an enlightened ruler.

"The problem" for the Physiocrats, said Lord Acton (2000: 10), "is to enlighten the ruler, not to restrain him". In the dark years leading up to the French Revolution these economists, impressed as they were with the immense social problems of their day, reasoned that though society was in no position to recover under its own steam, the government which had ruined it might still recover its prosperity. They stood ready "to undo the work of absolutism by the hand of absolutism... Transformation, infinitely more difficult in itself than preservation, was not more formidable to the economists because it consisted mainly in revoking the godless work of a darker age" (Acton, 2000: 11).

A contemporary South African will be struck by the following familiar themes from the story of the Physiocrats: the appreciation of immense social problems; the clear understanding that a former government was responsible

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⁶ Hence the name by which they came to call themselves, Physiocrats, from the Greek physis (natural) and kratos (power).

⁷ Extract from a letter by Quesnay to his disciple Mirabeau, reproduced in Meek (1962: 71).

for all these problems; the doubt that society would be dynamic enough to meet these challenges without government taking the leading role in transforming society; and, finally, the conclusion that to effect such transformation, government must not be restrained, as would perhaps have been wise if the needs of society were simply preservative. We will encounter these ideas again below.

These Physiocratic doctrines, with their unhappy consequences in France, did not, however, enter the main line of economic thinking, which at that time was already developing in Scotland. My interest this evening lies chiefly in the emergence of this rationalism in the mainstream of economics during the 1930s.

The Great Depression of the early thirties dealt a tremendous blow to the public's confidence in a decentralised or market-based society across the industrialised world, especially in England, but also in America. Leading English economists, such as John Maynard Keynes, no longer believed in the efficacy of the market's self-correcting mechanism (Keynes, 1936). He thundered that economists, who were confident that the hard times would eventually pass, had set themselves a useless task when they might be assisting the recovery in the short run (Keynes, 1923). In this climate Keynes wrote to Hayek to congratulate him on his book *The Road to Serfdom* (1944) and to share his agreement with much of the analysis (see the letter in Harrod's (1972 [1951]) biography of Keynes). Yet, from the same premises Keynes concluded more or less the opposite, i.e. "what we want is not no planning, or even less planning, indeed I should say that we almost certainly want more planning".

At the root of their disagreement was that Keynes, like the Physiocrats before him, assumed what Hayek would not, i.e. that our goals, yours and mine, are ultimately consistent. The Physiocrats based this assumption on the Natural Law, while Keynes assumed it would follow from what he called restoring "right moral thinking". Keynes believed "dangerous acts can be done safely in a community which thinks and feels rightly, which would be the way to hell if they were executed by those who think and feel wrongly." If harmonised morally, society would be in a position to enjoy the "fruits" of planning, as Keynes called it. Contra Keynes, Hayek (1973) has - with respect to the coercive power of government - insisted that "it will certainly remain an exceedingly dangerous power so long as we believe that it will do harm only if wielded by bad men."

Keynesianism was an important, but not the only, avenue along which constructivist rationalism re-entered economic thinking during the thirties and especially the post-War period. Economic theory received a formalisation and an extension to welfare economics from the thirties to the fifties at the hands of the great theorists Samuelson, Hicks, Arrow, Debreu and others.

Amongst these theoretical advances was the discovery that the actual economy differed in many respects from the idealised economies in our models, where assumptions about "perfect competition" and the rationality of the model's actor, "economic man", had delivered such encouraging results in the hands of the old masters (Chamberlin, 1933; Robinson, 1933). In these theories competition was thought to be a matter of market structure, essentially the number and size of firms involved in markets, and market failure seemed to be an ever-present danger if actual markets fell short, as they more or less have to, from the infinitely dispersed market

structure of the formal theory (Stigler, 1988). Nor was monopoly the only pathology of modern industrialised economies; externalities also caused markets to fail and governments had assumed the task of stabilising economic fluctuations (Tanzi, 1997).

Meanwhile the econometric society was founded in the early thirties and the first macroeconometric models appeared just before World War II. These models promised to guide the hands of governments as they wrestled with the many shortcomings that economists were discovering in the market economy. A quotation from Ragnar Frisch – a leading econometrician of that era, and the first winner of the Nobel prize in economics – shows the optimism of that generation of constructivist rationalists.

"For simplicity let me describe how to attack the problem for a given political party...
the expert [economist/econometrician] will go back to his electronic computer in which he had already entered
the data regarding the core of the economy. To this he will now add the formalization of the preferences in the
quantitative form as he now sees it. From this will come out a solution, in the form of an optimal development
path for the economy."

Ragnar Frisch (1970: 31-32)

Frisch emphasises the role of the econometric model, which comprehensively captures the dynamic structure of the economy, the formalisation of the political preferences and the optimality of the answer which the computer would yield in the hands of the skilful expert. Now, these plans of constructivist rationalism are always inadequate, whether made by great economists like Frisch or experts of lesser skill; I will discuss the logical reasons for this failure later in this lecture, but let us first consider the consequences of this failure.

The failure of comprehensive or system wide plans does not just deliver a slightly more boring version of the dynamic spontaneous order society, as I was often told at school. I'm sure you also know the following apocryphal stories too: Nikita Khrushchev, on a visit to America, believed that the American government had stocked - for the purposes of propaganda - the shelves of supermarkets with the immense variety of goods we take for granted; or the story that in the Soviet Union everybody had to have the same brand television set. But this focus on the lack of choice (though true) was misplaced, since the crucial points were (i) the difficulty of getting a television set, or the empty shelves in Soviet shops and (ii) the unfortunate habit of these television sets to explode. Soviet plans were not a little off, but wildly inadequate (North, 2005). The following extract from a visitor's journal to Poland during the sixties demonstrates this failure:

'The great mistake you Westerners make about us,' another Polish acquaintance said, 'is that you think we are enslaved by a rigidly organised system from which one cannot escape. But the truth is that there is no real system. There is a state of continual disorder. Planners make small miscalculations which lead to enormous mistakes. And the ordinary man spends a lot of his time picking his way through the chaos.' (Pritchett, 1964: 50)

Lest you think these problems are only associated with full blown communism and not the garden variety of systematic planning in our mixed economies, I want to remind you of the tremendous difficulties experienced by the American government in the face of hurricane Katrina's destruction of New Orleans in August 2005. Far from showing the bankruptcy of a decentralised market-based society, the response to this disaster highlights the contrast between problems facing a centralised authority and the tremendous flexibility of civil society; it was, for example, parishioners of surrounding churches, who had local networks and knew where people were, who rescued them, driving pickup vans into the city, often against federal regulation, and in this way kept the total fatalities down to 15% of the expected fatalities from disaster of this size in a city as large as New Orleans8 (Boettke, 2006).

Let me return to Frisch: admittedly the quotation is a little outrageous and such hubris should not leave you with the impression that modern economic theory and econometrics have been misguided. They have not. What is misguided is the belief that they offer a comprehensive or uniquely correct way of seeing the economy, the modernist belief that they "got it right". Modernism has its limitations in economics too, especially when theoretical or econometric overconfidence is joined by what McCloskey (2001) calls the "Promethean illusion" of social engineering or the "fatal conceit" as Hayek (1988) called it. And economists have discovered the same in various fields since the seventies: in econometrics (Lucas, 1976; Hendry, 1980; Leamer, 1983), in policy-modelling (Kydland and Prescott, 1977; Barro and Gordon, 1983; Taylor, 1993), from experience with policy-making (Tanzi, 1997; Fischer, 2005; Tanzi, 2005), with development assistance (Easterly, 2001) and with the help of experimental economics (Smith, V.L., 2003).

For these, and many other reasons⁹, social engineering has since acquired a bad odour and the leading economists of our time would not lightly follow Frisch in referring to themselves as "econometricians and social engineers" (for example, Frisch, 1970: 24). Though considerably less important in mainstream economic thinking at this time, constructivist rationality in economics still plays an important role in our domestic policy discussion. A recent and high-profile case was government's fundamental regulatory overhaul of the pharmaceutical industry based on the Medicines Act of 1997. I am going to highlight one specific regulation that has received widespread media attention and which will affect all of our lives, i.e. the decision to implement price controls on medicines.

Here, briefly, are the relevant details: The Department of Health convened a pricing committee to decide on a dispensing fee for medicines by pharmacies in South Africa. These regulations are intended to give effect to the goals in the National Drug Policy to lower the cost of medicine in the country and to encourage "cost effective and rational use of drugs" (Minister of Health v New Clicks and others, 2006: 202). At the same time the Department of Health is using this regulation to encourage changes to the business models of pharmacies towards becoming an industry with fewer pharmacies using fewer pharmacists and more assistants. In the Department of Health's view this regulation will enhance the access to health care, which is a constitutionally

⁸ There were 1600 fatalities compared with the expected 10 000 from a disaster of this magnitude (Boettke, 2006).

⁹ Not least of which the ethical concerns which arises from a greatly expanded public sector (Friedman, 1962 [2002]) and the technological advances which have made many markets more efficient on the one hand and diminished the technological arguments supporting claims of "natural" monopolies, on the other (Tanzi, 2005).

protected social and economic right¹⁰.

To that end the pricing committee collected information about costs and revenues from pharmacies, held hearings with interested parties and eventually published a schedule for dispensing fees. These fees are understood to be the remuneration for the professional services rendered by the pharmacists, while trading in medicine, i.e. buying medicine at one price and selling it at another, will now be forbidden. The Department of Health believes that the dispensing fees are adequate to ensure the economic survival of those pharmacies with a business model that matches the Department's conception of efficiency (Tshabalala-Msimang, 2006).

A broad alliance of pharmacies objected to these regulations in court, ending ultimately in the Constitutional Court. That court ruled that the price regulations as such were "coherent" and consistent with the Medicines Act of 1997, and that they would serve the important constitutional principle mentioned earlier. But the Court found the precise dispensing fee inadequately justified and asked for some revisions.

This is not the place to comment on the merits of the judgement from a legal perspective and I am certainly not the person to do so. So I will restrict my comments to the following economic issues raised by the judges:

- 1. A first issue is the matter of compensation for pharmacies. There was widespread agreement amongst the judges that the regulations would adversely affect pharmacies¹¹. And though the Court paid lip service to the interest of the pharmacies, they offered no compensation for what is a reasonably clear-cut regulatory taking¹². Justice Ngobo sees, for example, that "No doubt the interests of the pharmacists is a factor to be taken into consideration", but he proceeds immediately with the dismissal "However, they must yield to the interests of the general public" (Minister of Health v New Clicks and others, 2006: 519).
- 2. As a second issue, the Constitutional Court regarded the appropriate dispensing fee as an objective matter¹³.

¹⁰ Professor McIntyre, the chairperson of the pricing committee, testified to the Constitutional Court on the justification for these farreaching regulations. Her arguments fall within the tradition of constructive rationalism under discussion, i.e. she compared her analysis of the pharmaceuticals market to some idealised "perfect market" and found, as one would expect, many discrepancies: there is not "perfect competition"; consumers don't have "perfect knowledge"; the demand for medicine is "induced" by the supplier and, in any event, the demand for medicine is not price sensitive (Minister of Health v New Clicks and others, 2006: 730). Not only are there too many pharmacies in the country (Minister of Health v New Clicks and others, 2006: 372) with the result that their cost structure is inappropriate, Professor McIntyre also assured the Court that there are too few pharmacies in the country with the result that their pricing is monopolistic.

¹¹ Chaskalson found that "The regulation of prices in the disputed regulations adversely affects the rights of pharmacists and other persons in the pharmaceutical industry" (Minister of Health v New Clicks and others, 2006: 121).

Sachs found that "The price tag put on the activity of the pharmacists affects their interest materially adversely and in an immediately operative way" (Minister of Health v New Clicks and others, 2006: 646).

Moseneke found that "At best for the pharmacies the evidence raises the ever-present possibility that the new dispensing fee will exert downward pressure on the profitability of pharmacies and that some whose profit margins are already low may be forced to close" (Minister of Health v New Clicks and others, 2006: 783).

¹² Van der Walt (1999) analyses the legal precedents and implications of compensation for regulatory takings in an international perspective, while Du Plessis and Du Plessis (2005) use New Institutional Theory to demonstrate the inefficiency of failing to compensate for such takings.

¹³ Chaskalson argues that "Although the 'capped' fee must be 'appropriate', and to that extent is subject to objective criteria, regulation 5(2)(g) in effect leaves it to the Minister to determine the 'appropriateness' of the fee, instead of setting a maximum itself."

Ngobo argued that the fee had to be fair to both pharmacists and the public, and added that "its determination requires a consideration of conflicting interests of the public who are entitled to access to affordable medicines, on the one hand, and the interests of dispensers who, in terms of the Act, are essential to the public for the supply of medicines and whose economic viability is implicitly recognised by the Act and is of 'national importance', on the other hand'' (Minister of Health v New Clicks and others, 2006: 518).

3. The third issue was raised by Justices Sachs and Moseneke. Sachs argued that "the mere fact that a government measure could result in service-providers losing their competitive edge so as to face being driven out of business, would not in itself be enough to make a measure legally inappropriate (unreasonable). The maintenance of 'business as usual' is not a constitutional principle, and the concept of reasonableness should not be used as an apparently neutral instrument which, regarding the status quo as the settled norm, serves to block transformation and freeze challengeable aspects of our public life" (Minister of Health v New Clicks and others, 2006: 660).

I will start with the last issue, the argument by Sachs: "In a society where distributions are manifestly unequal and unjust, it is a defence of the status quo and the failure to make corrective intervention, rather than a redistributive initiative, that could be open to a charge of unreasonableness." Justice Sachs backed his argument with extracts from the book by the American jurist, Cass Sunstein, The Partial Constitution (Sunstein, 1993).

There, as elsewhere, Sunstein argues that the protection of property rights (or other legal entitlements, or wealth, etc.) should not be seen as neutral, and the violation of these rights by government should not perforce be seen as partial or inappropriate. The existing distribution of rights and wealth and income are all a result of the law (Sunstein, 1993: 4-5) and he admires the insight of the New Deal Court and President Roosevelt in particular for grasping that "We must lay hold of the fact that economic laws are not made by nature. They are made by human beings" (Roosevelt, quoted in Sunstein, 1993: 58).

Following Roosevelt – and the long line of this tradition back to the early Greek philosophers – Sunstein argues that since social problems, such as poverty, cannot have been caused by nature, they must result from human design. Since poverty is the "product of the law", while the law is in turn the product of the state, Sunstein concludes: "We should agree that poverty is in some sense a creation of the state" (Sunstein, 1993: 155).

Before I take issue with this claim, let me recapitulate the rationalist case for optimism in economics, which is also shared by Sunstein (from a Public Law perspective). The argument is that there are two types of regularities, natural regularities and those regularities caused by human design, call them social regularities. The social ills of our society are almost certainly not due to nature, so they must be social regularities. If human design – whether expressed through economic laws or legal entitlements – is the cause of social ills, then we could use the sciences of economics and of the law to reform the existing order and so remove the social ills.

3. The invisible hand: a second optimistic tradition

The second optimistic tradition in economics, which Pete Boettke (2006) has called the main line of economic thought, objects to the very first step of Sunstein's chain of reasoning: that there are only two categories of

Sachs argued that "It may be unclear whether the distress of the pharmacists arises from selfinduced [sit] and self-serving panic, or is based on objective fact" (Minister of Health v New Clicks and others, 2006: 663) and added that "It is important that the evidence be such as to show to all those affected and to the public in general, that the Pricing Committee has, after diligent enquiry into the basic issues involved and with a reasonably high degree of likelihood in relation to the material before it, 'got it right', or, at the very least, not got it wrong" (Minister of Health v New Clicks and others, 2006: 665).

¹⁴ See Minister of Health v New Clicks and others (2006 at 660, footnote 84).

regularities, those due to nature and those due to deliberate design. Adam Smith and the other leading figures of the Scottish Enlightenment (David Hume, Adam Ferguson, Thomas Reid, Sir James Steuart and John Millar) argued that there is yet a third category, regularities which are the result of human action, but not of deliberate design (Robertson, 1987).

The existing distribution of property, wealth and income in society, as well as prices, fall into this category. It was the great discovery of the Scottish Enlightenment that a spontaneous social order, and not unavoidable chaos, could emerge together with a set of institutions that enforce contracts and protect a private sphere of control, as indeed had happened historically (Coase, 1937). And it is not logically necessary for a state or even law to exist as a condition for the existence of property (Nozick, 1974).

But you don't have to agree with the theoretical point, as Sunstein's claim is also false historically. Economists have catalogued many different non-state institutions that emerged to serve the protection of property rights: for example, coalitions of Maghribi traders of the 11th century (Greif, 1993), Champagne fairs of the 12th and 13th centuries (Greif, 1993), the 17th-century Bourse in Amsterdam¹⁵ (Greif, 2005), the Commune of Genoa (Greif, 2005), and cattlemen's associations, land clubs and mining districts in the American West (Smith, V.L., 2003) to name but a few. Not only were there many alternatives to legally enforceable property rights with state backing, but there was also, historically, considerable competition between different systems of contract enforcement. The observed efficiency of the common law has been explained by, for example Rubin (2005), as the result of a rivalrous competition between competing enforcement mechanisms such as the ecclesiastical courts and the civil courts, and within the latter between royal, feudal, manorial, urban and mercantile law. This turns the table on Sunstein's argument: historically and logically, the common law developed in response to, and evolved with, the needs of the expanding market.

A decentralised economy works by allowing individuals to specialise on their own initiative and then to provide for the remainder of their needs through exchange. However, decentralised order requires, at a minimum, secure property and contract rights and an extravagant amount of information. It was not in the tradition of the Scottish Enlightenment to solve this problem of information by assuming 'perfect' knowledge either for individuals, or for some social planner. Rather, the emphasis was on people's epistemological limitations. For Hayek (1945 [1984]-a) this modest view of human capacity, or what he calls the "constitutional limitations of man's knowledge and interests, the fact that he cannot know more than a tiny part of the whole society and that therefore all that can enter into his motives are the immediate effects which his actions will have in the sphere he knows", is the central problem in economics.

Co-operation between people in such an order leads a person, or group, in Adam Smith's famous argument, "by an invisible hand to promote an end which was no part of his intention. ... By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it" (Smith, A., 1776)

¹⁵ "The Bourse in Amsterdam was the most important and best organised in Europe during the seventeenth century. Yet, many of the financial instruments traded in it, such as short sales, forward contracts, options, and hypothecation of shares as collateral, were either in legal limbo or actually illegal. Reputation sustained trade until the time when these instruments became legal" (Greif, 2005: 752).

[1981]: 456).

This "invisible hand" is a metaphor for the co-ordinating mechanism of a decentralised society and it refers to the feedback mechanism, often prices, but quantities too, that signal to the participants whether their decisions and expectations are consistent with the decisions and expectations of others¹⁶ (Barry, 1982). And these signals are usually generated under the pressure of competition, where competition is the rivalrous process of "decentralised planning by separate persons" (Hayek, 1945 [1984]-b: 79).

Competition means something very different in this context than it had done in the discussion of the rationalist tradition. In the invisible hand tradition competition is a behavioural concept, which McNulty (1967) has suggested we might associate with the verb "to compete" (see also, Hayek, 1946 [1984]). The competition that moves the invisible hand – and co-ordinates the spontaneous order – is a rivalrous process and not much related to market structure (Hayek, 1946 [1984]).

However, to compete in this sense of the word requires institutions – or rules of the game (North, 1984, 1990, 1991) – that would help to identify successful strategies. Such institutions include those required to enforce contract rights and those required to define and protect property rights. The latter also implies institutions to limit the scope of the state, even or perhaps especially where it is the state that is charged with the enforcement of contract and property rights (Greif, 2005).

A decentralised economy is not without planning, rather instead of comprehensive plans there are what Coase (1991 [1994]) called "areas of planning" embedded in a complex market. Firms, for example, are such "areas of planning"; In New Orleans, again, there was planning by the various groups in civil society too: the distinction is between "areas of planning" based on voluntary co-operation and system wide planning, often based on coercion. A spontaneous order society is one where the actions of these areas of planning are coordinated without coercion, even though none of the planners can conceive of the order in advance.

Some of the critical features of the spontaneous order society which I have been describing are: the centrality of individual decision-makers that act on local information and the far-reaching impact of local decisions; a modest view of the capacity of any specific decision-maker, including politicians and bureaucrats; feedback to these decision-makers about their decisions and plans through a highly non-linear process of competition in which the price system plays a central role - a process that disseminates information and co-ordinates the activities of the many participating decision-makers, creating a social order as a result of purposeful action by the participants, even though that order was not their intention. The order that emerges from such interaction will be influenced by its history (we call it path dependence), but not in a linear or otherwise simplistic manner¹⁷.

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¹⁶ Smith's conceptualisation of the spontaneous order society – or the Great Society, as he also called it – stands in a long tradition of thought that recognised this third category of regularity in society, starting with the 16th-century "School of Salamanca" at the summit of scholastic philosophy (Barry, 1982). After Smith, the crucial figures in this literature were Menger and Hayek, but also Friedman, Buchanan, Wagner and others in the Public Choice, New Institutional and Chicago traditions.

¹⁷ If current decisions have nonlinear and unexpected consequences, it is impossible to map present conditions linearly onto past decisions.

My colleague Basil Moore has recently described systems that show these characteristics as complex adaptive systems (Moore, 2006) and there is now an expanding literature in economics which applies the insights from complexity theory to social settings (Hayek, 1974 [1989]; Rosser, 1999).

An important insight of this literature is that the social order, including all the transactions in a market, is an emergent property, the features of which cannot be known in advance. A second insight from this literature is the difficulty (indeed one could say the impossibility) that any single decision-maker in such a system would have to collect sufficient information to mimic the system, or to anticipate the unintended consequences of a system-wide intervention.

These new insights have helped to revitalise the invisible hand tradition in economics and have also re-opened many policy issues (Rosser, 1999). This does not mean that there is no role for government policy, or merely a minimalist role: the efficiency of the institutional framework might be greatly affected by government, as I had argued above with respect to Sweden's monetary policy regime experiments (see also, du Plessis, 2005). And government can sometimes participate in a limited way as one of the areas of planning in the market, for example with the provision of particular education services. A problem arises however when government strives for a more comprehensive plan, especially where this plan undermines the other of areas of planning in the economy, or when it debilitates the flow of information.

To make this less abstract let us return to the example of medicines prices. The proposed regulations create both problems just mentioned. First, it undermines the areas of planning we know as private sector pharmacies. Individual decision-makers can only participate in the competitive process if they are able to exchange, and that requires security of contract and property rights. This speaks directly to the Constitutional Court's disregard for the regulatory taking implied by the price control: by failing to protect the value of businesses against regulatory takings, the Court has undermined the very feedback mechanism which generates the dynamic capacity of the social order.

Second, substituting the pricing committee for the price mechanism undermines the flow of information in the pharmaceuticals market. This committee faces the task of gathering and then internalising all the information held by the separate pharmacies in the country, and then to reflect this knowledge in the schedule for dispensing fees.

Our first concern with the committee assuming this task might involve the sheer volume of information at stake. Though a mammoth task, it is, in a sense only a practical problem and perhaps with sufficient computing power it might be resolved, just as Kasparov was eventually beaten in a standard match by IBM's Deep Blue. A second concern is more fundamental: the calculations of the pricing committee are indeed objective in so far as they try to calculate a dispensing fee that would allow pharmacies to earn a reasonable rate of return on invested capital. But this calculation is the "antithesis of the market function of price", in the words of Vernon Smith (2003: 473), since costs and price are subjective variables for the individual pharmacy, the pricing structure of which will

emerge with the spontaneous order. There is no one pricing structure that could be appropriate for many firms, especially not where uniform prices are enforced (Brancato and Wagner, 2004).

But the most fundamental concern is that even with perfect knowledge and even with limitless computing capacity, the pricing committee could still not mimic the decentralised system. If the spontaneous order society is truly a complex adaptive system, then the very configuration of society changes as we follow what we think are our best strategies, given the knowledge at our disposal and the goals we wish to pursue. James Buchanan has, to my knowledge, said this most clearly:

...the 'order' of the market emerges only from the process of voluntary exchange among the participating individuals. The 'order' is, itself, defined as the outcome of the process that generates it...The potential participants do not know until they enter the process what their own choices will be. (Buchanan, 1982 [1999]: 244-245)

The critical distinction that Buchanan (1982 [1999]) wishes to emphasise here is between "process" and "end-state". The "invisible hand" is a process, and we cannot conceptualise how even an omniscient planner could mimic that process: as the order of the process will only emerge in its unfolding. Nor can this process be described as preservative of the *status quo*; strictly speaking there is no *status quo* in a complex system.

This critical perspective on the task assumed by the Department of Health's pricing committee should not leave you pessimistic about the spontaneous order society or especially about the scope for improvement via policy. Such an impression would be wrong for two reasons: the first is that the spontaneous order society, or the market economy as we know it, is an incredibly dynamic process which has proven to be highly responsive to the needs of all members of the society. It is a highly progressive system and the just more than 200 years of its existence has seen the greatest material advance in the history of human kind, the greatest improvement in health and in the broad participation of all members of society in these advances. And these sustained gains are more impressive still when contrasted with the highly episodic character of growth and the pervasive material stagnation over the remainder of human history (Diamond, 1997; Landes, 1998; Maddison, 2002).

The quotation from Hayek that I placed at the top of my text summarises this penetrating, though counterintuitive, idea, as Hayek said:

"Compared with this method of solving the economic problem by means of decentralisation plus automatic coordination, the more obvious method of central direction is incredibly clumsy, primitive and limited in scope."

Friedrich Hayek (1944: 37)

For the first time in human history, the advance of some do not have to occur at the cost of others (North,

2005); we can conceive of a positive sum game in which there is considerable scope for helping the disadvantaged by creating equality of opportunity and by ensuring fair process. The main line of economic thought which has explored the spontaneous order of a decentralised society has always been optimistic, and for good reason. It is only a strong commitment to centralised or paternalistic interventions, such as Carlyle's, that finds in the council of economists a dismal science.

Conclusion

Many of us, myself included, look to the future in this country and on this continent with optimism, and my lecture was intended to strengthen that optimism, not by saying: look what we can do if only we unite our resources, thoughts, identities, and plan for the good of the cause. There is no need to repeat the usually frustrating and frequently tragic experiments down that road. Instead I argued that our optimism should be based on an understanding of the spontaneous market order where, sometimes together in larger or smaller groups, and often separately, we pursue those goals each of us value and so allow ourselves to be guided by an invisible hand in the service of one another.

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