

**TWO OPTIMISTIC TRADITIONS IN
THE DISMAL SCIENCE: RATIONALISM
AND THE 'INVISIBLE HAND'**

INAUGURAL ADDRESS: PROF STAN DU PLESSIS FEB 2007



AANGAANDE DIE SKRYWER



Stan du Plessis was 18 jaar oud toe hy die Hoëveld vir die Boland verruil het om as voorgraadse student by die Universiteit van Stellenbosch in te skryf. Dit is hier waar hy die opwinding van die akademie en veral Ekonomie leer ken het en dit is hierheen waarna hy teruggekeer het om 'n akademiese loopbaan te ondersoek na 'n vyf jaar lange verblyf in die buiteland. Met sy navorsing en sy lesings bemoei hy hom met Makro-Ekonomie, veral Monetêre Ekonomie, met Ekonometrie en met Institusionele Ekonomie. Maar sy lekkerste werk steeds is om oor ekonomie te gesels.

Hy is 34 jaar gelede in Johannesburg gebore en het in Kempton Park grootgeword en skoolgegaan. Na Matriek het hy die grade BComm (Wisk) en HonsBComm (Ekonomie) albei met lof op Stellenbosch verwerf en daarna 'n magistergraad in Ekonomie by Clare College aan die Universiteit van Cambridge. Hy verwerf sy PhD in Ekonomie op Stellenbosch in 2003. Vanaf 1996 tot 1999 het hy as privaatsektor-ekonoom in Londen gewerk in wat vir hom 'n tipe vakleerlingskap was in die analitiese krag van Ekonomie en die opwinding en kompleksiteit van markte. Sy beste, enkele dag se werk het hy dan ook daar in Junie 1998 gedoen deur sy maatskappy te ontmoedig om in Russiese staatseffekte te belê. Rusland se staatseffektemark het in Augustus van die-

selfde jaar in duie gestort.

Stan is getroud met Helena Lategan en hulle het 'n eenjarige dogtertjie Julia Rosalie. Stan speel graag golf met die hoopvolle verwagting dat hy dié spel eendag beter sal kan speel en put veel plesier daaruit om geskiedenis te lees.

ACKNOWLEDGEMENTS

I am very grateful to Helena Lategan, Rulof Burger, Rachel Jafta and Ben Smit for comments on the text, to Nicola Theron for help with the case study, to Mattie van der Merwe and Edwin Hees for excellent editorial advice and to Carina Smit for research assistance.

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

Inaugural lecture delivered on 28 February 2007
Prof S.A. du Plessis
Department of Economics
Faculty of Economic and Management Sciences,
Stellenbosch University

Editor:	Mattie van der Merwe
Language editing:	Dr Edwin Hees
Design:	Heloïse Davis
Photograph of author:	Stellenbosch Centre for Photographic Services
Printing:	Africa Digital Printing Services

ISBN: 0-7972-1165-9

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 co-ordination, 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 perceived to be 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”.¹ Yet, not long after Bagehot’s observation an economist of rising reputation mentioned that a great teacher of his, an economist of widespread and lasting fame, said “if he had seven sons they should all study economics”.² 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, I speculate, 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 authority³ 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 the disposal of each decision-maker. “We have been turned out of Paradise”, as Lionel Robbins (1932 [1962]: 15) said; “we have neither eternal life nor unlimited means of gratification” and the unity of our subject matter lies in this dismal state of affairs.

More recent scholarship has, however, brought into question these widely held explanations for Carlyle’s insult. David Levy and Sandra Peart have recently argued that the original context in which Carlyle labelled economics the “dismal science” was the struggle to end slavery in the British Empire (Levy, 2001; Levy and Peart, 2001). And what made economics so dismal was the economist’s optimism 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 owners.⁴ Of course this only sounds dismal to those, like Carlyle and Ruskin, who fancied for themselves a greater role in guiding the 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 to cut the Gordian knot of market relations with the keen edge of our most enlightened plans. I will use “rationalism”, or more precisely “constructivist rationalism”,⁵ 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, as indicated by the two quotations from two Nobel laureates at the heading of this lecture.

I contrasted the views of two Nobel laureates to avoid the impression that this is mainly an ideological divide. The difference is, I believe, a theoretical one and my view and yours should consequently be open to persuasion when confronted with objections of logic and the force of evidence. I will use an example from contemporary policy-making in South Africa to contrast the optimisms of the invisible hand and of rationalism. And I will argue that the expected outcomes of policies based on these contrasting theories are likely to differ sharply, and that transformation as I understand it, is consistent with one of these theories and not the other.

ORDER, OPTIMISM AND TRANSFORMATION

Let me start with a small amount of housekeeping on the terminology concerning three concepts: optimism, order and transformation. By optimism I do not mean the Panglossian doctrine, associated with Leibniz, that ours is the “best of all possible worlds”, nor do I mean 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 Karl Popper (for example, Popper, 1997).

The optimism described above was about 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 two traditions I have chosen for my topic express two views on the order we observe in society, a distinction that will not only trace a fault-line through the history of economics between spontaneous (grown) order and rational (made) order. This same fault-line runs through many other social sciences.

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 (whether optimistic or pessimistic). By implication, the analysis precludes revolutions, of which

it was said by Kolakowski (1979 [1990]: 219) that they are “spontaneous processes in the course of which the institutions of power disintegrate through the participation of the great masses of society”. One cannot form expectations about revolutions; though, of course, one might hope. Instead I will focus more narrowly on those configurations of society where “optimism” is an appropriate noun.

The position I have taken on “optimism” and “order” already suggests some limits on what I might reasonably mean with “transformation”. It cannot be revolutionary, and it has to be forward-looking and consistent with optimistic expectations. In a recent lecture on the concept of a transformative Constitution, held at this university, Chief Justice Langa argued that on one reading “Transformation ... is a social and economic revolution” (Langa, 2001: 3). I have already argued that I am going to put such revolutionary doctrines to one side in this discussion. But the Chief Justice also referred to the argument of my colleague in Public Law at this University, Andre van der Walt, who tries to dissuade us from seeing transformation as a process that “merely moved the battlefield of revolutionary struggle to the courtroom of constitutional due process” (Van der Walt, 2001: 295). He invites us to imagine that “there might be further options and more complex alternatives to the two places between which we have chosen” (Van der Walt, 2001: 29). This understanding contrasts transformation not with “preservation” but with “transition”, and it will allow us to talk about the process of such change as envisioned by the two theories under consideration.

From this I suggest the following outline: transformation in South Africa is the progressive process whereby the social order changes and becomes more inclusive over time, without fixing on a particular configuration for the “transformed” society along any of the potential fault-lines in society, such as race, gender and class and without trading off gains by some against losses by others. I do not prejudge the form this process should take, though this lecture is meant to inform that discussion. I do, however, reject explicitly the sharp contrast that is often drawn when the role of the Constitution in transformation is discussed, between “preservative” and “transformative” constitutions (for example, Sunstein, 2001). In this distinction a transformative constitution is assumed to mean that the power of the state be used to shape the distribution of property directly on the argument that transformation would be unlikely without such interventions (Davis, 2003). The latter may be true, but should not be

assumed without studying the process of economic change and the role of constitutions in it more closely.

Allow me an example from my own field of macro-economics to illustrate the debate between proponents of these two types of optimism in public policy. 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, as their predecessor, Wicksell, had proposed some thirty years earlier (Bäckström, 1999). This view 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, and that the exercise of monetary discretion would often be destabilising. I have argued elsewhere (Du Plessis, 2005b) that the modern cousin of the price level target, the inflation target as implemented in South Africa, shares many of the desirable features of the former system.

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, 193; 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, but economists – who understand 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 optimism.

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.⁶ Once lost, it would take sixty years, and a switch to inflation-targeting, for the kind of monetary stability to return which they had enjoyed between 1931 and 1937.

RATIONALISM: A FIRST OPTIMISTIC TRADITION

The optimistic tradition that I will call “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 “social” regularities as a degenerative version of an earlier more robust state, or of some ideal state, as with Plato's Republic (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).

Descartes was, for example, much impressed by the constitution of ancient Sparta, especially since it was the design of a single mind (Hayek, 1945 [1984]-a). But more interesting for my purpose is that the first school of economists, the Physiocrats of the 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 society⁷ (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 under-

stood. 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.⁸

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 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. Throughout the 19th century the idea of a rational reordering of society based on the study of economics was kept alive by various socialist thinkers, for example Saint Simon, but our interest lies 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). For example, he 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”.

The root of their disagreement was Keynes’s rejection of Hayek’s assumption of divergent ends: his argument was that the latter would be addressed by restoring “right moral thinking”, since “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 discov-

ery 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 macroeconomic 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. The quotation by Ragnar Frisch – a leading econometrician of that era, and the first winner of the Nobel prize in economics, jointly with Jan Tinbergen – shows the optimism of that generation of constructivist rationalists. Frisch emphasises the role of the econometric model, which adequately 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.

Frisch’s quotation is a little outrageous and it risks creating the impression that modern 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 reasons,⁹ social engineering has since acquired a bad odour and the leading econ-

omists of our time would not lightly follow Frisch in referring to themselves as “econometricians and social engineers” (for example, Frisch, 1970: 24). Even Jeffrey Sachs objects to such a characterisation of the Big Push – a plan to end world poverty consisting of 54 points, all of which have to be implemented simultaneously (Sachs, 2005) – as “top down” planning or social engineering.

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 and scheduled substances sold in South Africa.

It is also an instructive example, because the motivation for the regulation and its design fit the tradition of constructivist rationalism that I have been discussing. Furthermore, the legal trail in a succession of courts, ultimately ending in the Constitutional Court, gives us the benefit of the extensive judgements of the Constitutional Court from which we can learn about the Constitutional implications of such regulations in South Africa and about the analytical tools used by the judges on the Constitutional bench.

A short summary of the regulations follows. 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 in this country 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 in this country, which is a constitutionally protected social and economic right.¹⁰

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. Instead the medicine must pass at a single price (called the single exit price) from the manufacturing firm, through the wholesale and retail chains, to the final consumer. The Department of Health believes that the dispensing fees are adequate to ensure the economic survival of pharmacies with a business model that matches the Department's conception of efficiency (Tshabalala-Msimang, 2006). Though the Department believes that some pharmacies will close or merge with other pharmacies following these regulations, the Department does not fear that the availability of medicine might be impaired through the consequences of price regulation and its possible impact on the viability of pharmacies; nor is the Department concerned about the fate of the pharmacies as such.

A broad alliance of pharmacies objected to these regulations in court, ending ultimately in the Constitutional Court. The Constitutional 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 above. But the Court found the precise dispensing fee inadequately justified, and also ruled that the special position of rural and courier pharmacies have to be taken into account in a revision of the pricing scheme (Minister of Health v New Clicks and others, 2006: 13).

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 the pharmacies.¹¹ And though the Court paid lip service the interest of the pharmacies, they offered no compensation for what is a reasonably clear-cut regulatory taking.¹² 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. The Constitutional Court regarded the appropriate dispensing fee as an objective matter.¹³
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 re-distributive initiative, that could be open to a charge of unreasonableness."¹⁴ 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.

THE INVISIBLE HAND: A SECOND OPTIMISTIC TRADITION

The second optimistic tradition in economics, which Pete Boettke 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 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 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 abstract 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.

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 historically¹⁶

(Coase, 1937). The quotation from Hayek that I placed at the top of this text summarises this penetrating, though counterintuitive, idea. 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 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 Smith's famous argument, "by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for society that it was no part of it. By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it" (Smith, A., 1776 [1981]: 456).

The "invisible hand"¹⁷ is a metaphor for the co-ordinating mechanism of a decentralised society and it refers to the feedback mechanism, often prices, but sometimes quantities too, that signal to the participants whether their decisions and expectations are consistent with the decisions and expectations of others (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). The contrast is not between a planned economy and an unplanned economy, but between comprehensive plans and what Coase (1991 [1994]) called "areas of planning" embedded in a complex market. Firms are such "areas of planning" and exist partly to overcome transactions costs. A spontaneous order society is one where the actions of these areas of planning are coordinated even though none of the planners can conceive of the order in advance.

For Adam Smith the division of labour, which entails specialisation and trade, was key to the progressive expansion of a spontaneous order society. Hayek (1936 [1984]; 1945 [1984]-b) and more recently North (2005) have argued that the division of labour is really a special

case of the more general division of knowledge, which is the fundamental problem to be solved by a social order.¹⁸ It is the price mechanism and the institutional matrix which, in a competitive market, solves the information problem to a satisfactory extent¹⁹ and provides the incentives for using that information (Hayek, 1945 [1984]-b; Wagner, 1993). On this view “the market” is the institutional framework, or network of links, within which voluntary exchange manifests itself (Buchanan, 1999 [1964]). And competition is the means by which information is acquired and disseminated along this network (Hayek, 1946 [1984]).

Competition means something very different in this context than it had done in the discussion of the rationalist tradition in economics. The competition that moves the invisible hand – and co-ordinates the spontaneous order – is a rivalrous process and not much related to market structure, i.e. the number of firms in a market and their relative sizes (Hayek, 1946 [1984]). 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]). In contrast, competition in the rationalist tradition refers to market structure and has no behavioural content.

However, to compete in the older sense of the word requires institutions – or rules of the game (North, 1984, 1990, 1991) – that would help to identify the successful strategies in the competition of specialisation and trade. 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 charged with the enforcement of contract and property rights (Greif, 2005).

Since these rules of the game (institutions) affect the costs of social interaction, they shape the incentives facing decision-makers in economics and in politics (North, 1991). For example, an institution like a legal contract backed by the state – or an entrenched custom of honesty, enforced by social sanction – renders behaviour more predictable and diminishes the information requirements for a transaction. Likewise, capital becomes more mobile when local knowledge is no longer essential for successful transacting, as happens when commercial practices and commercial law become standardised between societies.

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 manner.²⁰

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 an economic system, 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 reopened 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, 2005a). 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.²¹

To make this less abstract let us return to the example of medicine prices. This plan violates both principles derived above. 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 on medicine: 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. The complex nature of the social order requires from the Court that they protect the private spheres of control of individual decision-makers, if they wish to take a step in the progressive direction. It is perhaps counter-intuitive, but in this sense a "preservative" judgement creates precisely the dynamic and transformative social order which the judges have found envisaged in the Constitution (for example, Langa, 2006).

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. This was an objective task in the view of the Constitutional Court judges.

Our first concern might involve the sheer volume of information at stake, but this is 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).

A further aspect of this problem 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. The resulting strategies are again open to revision as we receive feedback from our interaction with others and with nature. James Buchanan has articulated this point more clearly than

most and I find it useful to quote a sentence or two:

...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, as Hayek (1973) had done elsewhere, 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 with the unfolding of the process. It is manifestly not an "end-state" question that could equally well be solved, if only we had sufficient information and sufficient computing power. Nor can this process be described as preservative of the *status quo*; strictly speaking there is no *status quo* in a complex system.

Then plans of constructivist rationalism are always inadequate, the result of which is not a slightly more boring version of the dynamic spontaneous order society, as I was told as a child. For example, I remember the probably apocryphal 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 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 paragraph – an 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)

This critical perspective on the task assumed by the Department of Health's pricing committee should not leave the reader 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 all of human history (Diamond, 1997; Landes, 1998; Maddison, 2002).

Second, the spontaneous order society is a process that matches the requirement for transformation that I mapped out at the start. It is a dynamic process with feedback that responds much more rapidly and sensitively than we could hope to do through planning. And, 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 previously 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 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 each other.

BIBLIOGRAPHY

- Acton, J. E. D. (2000). *Lectures on the French Revolution*. Indianapolis, Liberty Fund.
- Bäckström, U. (1996). Price Stability Policy in Perspective. Stockholm, Address by the Governor of Sveriges Riksbank at the annual gathering arranged by Swedish Bond Promotion and Dagens Industri on 26 September 1996.
- Barro, R. J. and D. B. Gordon (1983). "Rules, Discretion and Reputation in a Model of Monetary Policy." *Journal of Monetary Economics*, 12: 101-121.
- Barry, N. (1982). "The Tradition of Spontaneous Order." *Literature and Liberty*, v(2): 7-58.
- Berg, C. and L. Jonung (1998). *Pioneering Price Level Targeting: The Swedish Experience 1931-1937*. Stockholm, SSW/EFI Working Paper Series in Economics and Finance No 290.
- Berlin, I. (1997). *The Romantic Revolution: a Crisis in the History of Modern Thought*. In: H. Hardy (eds.). *The Sense of Reality. Studies in Ideas and their History*. London, Pimlico.
- Brancato, K. and R. E. Wagner (2004). "Inefficient Market Pricing: an Illusory Economic Box." *Journal of Public Finance and Public Policy*, 22: 3-13.
- Buchanan, J. M. (1982 [1999]). *Order Defined in the Process of its Emergence*. In: J. M. Buchanan (eds.). *The Collected Works of James M. Buchanan. The Logical Foundations of Constitutional Liberty*. Indianapolis, Liberty Fund.
- Buchanan, J. M. (1999 [1964]). *What Economists Should Do?* In: J. M. Buchanan (eds.). *The Collected Works of James Buchanan. Volume I. The Logical Foundations of Constitutional Liberty*. Indianapolis, Liberty Fund.
- Buchanan, J. M. (2005). *Why I, too, am not a Conservative. The Normative Vision of Classical Liberalism*. Cheltenham, Edward Elgar.
- Carlyle, T. (1849 [1897]). *Occasional Discourse on the Nigger Question*. In: Carlyle (eds.). *The Works of Thomas Carlyle in Thirty Volumes, vol. XXIX, Critical and Miscellaneous Essays IV*. London, Chapman and Hall Limited.
- Chamberlin, E. H. (1933). *The Theory of Monopolistic Competition*. Cambridge, Ma., Harvard University Press.

- Coase, R. H. (1937). "The Nature of the Firm." *Economica*, 4: 386-405.
- Coase, R. H. (1991 [1994]). The Institutional Structure of Production. In: R. H. Coase (eds.). *Essays on Economics and Economists*. Chicago, Chicago University Press.
- Cunningham, R. L. (1979). Complexity, Change, and Control. In: R. L. Cunningham (eds.). *Liberty and the Rule of Law*. College Station, Texas A&M University Press.
- Davis, D. (2003). Elegy to Transformative Constitutionalism. In: H. Botha, A. J. van der Walt and J. van der Walt (eds.). *Rights and Democracy in a Transformative Constitution*. Stellenbosch, SUN Press.
- Diamond, J. (1997). *Guns, Germs and Steel. The fates of human societies*. New York, W.W. Norton and Company.
- Du Plessis, S. A. (2005a). "Proposals for Strengthening the SARB's Inflation Targeting Regime." *South African Journal of Economics*, 73(2): 337-354.
- Du Plessis, S. A. (2005b). "The Democratic Deficit and Inflation Targeting." *South African Journal of Economics*, 73(1): 93-104.
- Du Plessis, S. A. and S. W. F. du Plessis (2005). "Regulatory Takings." *South African Journal of Economics*, 73(1): 121-132.
- Easterly, W. (2001). *The Elusive Quest for Growth*. Cambridge, Ma., The MIT Press.
- Fischer, S. (2005). Modern Central Banking. In: S. Fischer (eds.). *IMF Essays from a Time of Crisis. The International Financial System, Stabilization and Development*. Cambridge, Ma., The MIT Press.
- Friedman, M. (1962 [2002]). *Capitalism and Freedom*. Chicago, The University of Chicago Press.
- Friedman, M. (1977). "Nobel Lecture: Inflation and Unemployment." *Journal of Political Economy*, 85(3): 451-472.
- Friedman, M. and A. J. Schwartz (1963). *A Monetary History of the United States 1867 to 1960*. Princeton, Princeton University Press.
- Frisch, R. (1970). From Utopian Theory to Practical Applications: the case of Econometrics. Stockholm, Lecture to the Memory of Alfred Nobel, June 17, 1970.
- Gide, C. and C. Rist (1964). *A History of Economic Doctrines from the Time of the Physiocrats to the Present Day*. London, George G. Harrap & Co. Ltd.
- Greif, A. (1993). "Contract Enforceability and Economic Institutions in Early Trade: the Maghribi Trader's Coalition." *American Economic Review*, 83(3): 525-548.
- Greif, A. (2005). Commitment, Coercion, and Markets: the Nature and Dynamics of Institutions Supporting Exchange. In: C. Ménard and M. Shirley (eds.). *Handbook of New Institutional Economics*. Rotterdam, Springer.
- Harrod, R. F. (1972 [1951]). *The Life of John Maynard Keynes*. Harmondsworth, Penguin Books Limited.
- Hayek, F. A. (1936 [1984]). Economics and Knowledge. In: F. A. Hayek (eds.). *Individualism and Economic Order*. Chicago, Chicago University Press.
- Hayek, F. A. (1944). *The Road to Serfdom*. London, Routledge.
- Hayek, F. A. (1944 [1991]). On Being an Economist. In: W. W. Bartley and S. Kresge (eds.). *The Collected Works of Friedrich August Hayek, Volume 1. The Trend of Economic Thinking. Essays on Political Economists and Economic History*. London, Routledge.
- Hayek, F. A. (1945 [1984]-a). Individualism: True and False. In: F. A. Hayek (eds.). *Individualism and Economic Order*. Chicago, Chicago University Press.
- Hayek, F. A. (1945 [1984]-b). The Use of Knowledge in Society. In: F. A. Hayek (eds.). *Individualism and Economic Order*. Chicago, The University of Chicago Press.
- Hayek, F. A. (1946 [1984]). The Meaning of Competition. In: F. A. Hayek (eds.). *Individualism and Economic Order*. Chicago, Chicago University Press.
- Hayek, F. A. (1960). *The Constitution of Liberty*. London, Routledge.
- Hayek, F. A. (1973). *Law, Legislation and Liberty. Volume 1: Rules and Order*. London, Routledge.
- Hayek, F. A. (1974 [1989]). "The Pretence of Knowledge." *American Economic Review (Special Issue)*, 79(6): 3-7.
- Hayek, F. A. (1988). *The Collected Works of Friedrich August Hayek, Volume 1. The Fatal Conceit. The Errors of Socialism*. London, Routledge.
- Heilbroner, R. (1953 [1991]). *The Worldly Philosophers (Sixth Edition)*. London, Penguin Books.
- Hendry, D. F. (1980). "Econometrics: Alchemy or Science?" *Economica*, 47(188): 387-406.
- Keynes, J. M. (1923). *A tract on monetary reform*. London, Macmillan.
- Keynes, J. M. (1931). *Essays in Persuasion*. New York, Norton.

- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. Cambridge, Cambridge University Press.
- Kolakowski, L. (1979 [1990]). Revolution – A beautiful sickness. In: L. Kolakowski (eds.). *Modernity on endless trial*. Chicago, The University of Chicago Press.
- Kydland, F. E. and E. C. Prescott (1977). “Rules Rather than Discretion: the Inconsistency of Optimal Plans.” *Journal of Political Economy*, 85(1): 473-491.
- Landes, D. (1998). *The wealth and poverty of nations. Why some are so rich and some so poor*. New York, W.W. Norton and Company.
- Langa, P. (2006). Transformative Constitutionalism. Stellenbosch, Prestige Lecture delivered at Stellenbosch University on 9 October 2006.
- Leamer, E. E. (1983). “Let’s Take the Con Out of Econometrics.” *American Economic Review*, 73(1): 31-43.
- Levy, D. M. (2001). “How the Dismal Science Got its Name: Debating Racial Quackery.” *Journal of the History of Economic Thought*, 23(1): 5-35.
- Levy, D. M. and S. J. Peart. (2001). “The secret history of the dismal science.” Retrieved 5 October 2006, 2006, from <http://www.econlib.org/library/columns/LevyPeartdismal.html>.
- Lucas, R. J. (1976). Econometric Policy Evaluation: a Critique. In: K. Brunner and A. H. Meltzer (eds.). *The Phillips Curve and Labour Markets*. Amsterdam, North Holland.
- Maddison, A. (2002). *The World Economy: a Millennial Perspective*. Paris, OECD.
- McCloskey, D. N. (2001). The Genealogy of Postmodernism. An Economist’s Guide. In: S. Cullenberg, J. Amariglio and D. F. Ruccio (eds.). *Postmodernism, Economics and Knowledge*. London, Routledge.
- McNulty, P. J. (1967). “A Note on the History of Perfect Competition.” *Journal of Political Economy*, 75(4): 395-399.
- Meek, R. L. (1962). *The Economics of Physiocracy: Essays and Translations*. London, George Allen & Unwin Ltd.
- Minister of Health v New Clicks and others (2006). CCT 59/04.
- Moore, B. J. (2006). *Shaking the Invisible Hand. Complexity, Endogenous Money and Exogenous Interest Rates*. Basingstoke, Palgrave Macmillan.
- Mundell, R. A. (2000). “A Reconsideration of the Twentieth Century.” *American Economic Review*, 90(3): 327-340.
- North, D. C. (1984). “Transaction Costs, Institutions, and Economic History.” *Journal of Institutional and Theoretical Economics*, 140: 7-17.
- North, D. C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge, Ma., Harvard University Press.
- North, D. C. (1991). “Institutions.” *Journal of Economic Perspectives*, 5(1): 97-112.
- North, D. C. (2005). *Understanding the Process of Economic Change*. Princeton, Princeton University Press.
- Nozick, R. (1974). *Anarchy, State, and Utopia*. Oxford, Basil Blackwell.
- Popper, K. R. (1961). *The Poverty of Historicism*. London, Routledge and Kegan Paul.
- Popper, K. R. (1966). *The Open Society and its Enemies. Volume 1: The Spell of Plato*. Princeton, NJ., Princeton University Press.
- Popper, K. R. (1997). *The Lessons of this Century*. London, Routledge.
- Pritchett, V. S. (1964). *Foreign Faces*. London, Chatto & Windus.
- Robbins, L. (1932 [1962]). *An Essay on the Nature and Significance of Economic Science*. London, Macmillan.
- Robertson, J. (1987). Scottish Enlightenment. In: J. Eatwell, M. Milgate and P. Newman (eds.). *The New Palgrave. The Invisible Hand*. London, The Macmillan Press Limited.
- Robinson, J. (1933). *The Economics of Imperfect Competition*. Cambridge, Cambridge University Press.
- Romer, C. D. and D. H. Romer (2002). The Evolution of Economic Understanding and Postwar Stabilisation Policy. Boston, Ma., NBER Working Paper, 9274.
- Rosser, J. B. J. (1999). “On the Complexities of Complex Economic Dynamics.” *Journal of Economic Perspectives*, 13(4): 169-192.
- Rubin, P. H. (2005). *Why was the Common Law Efficient?* In: F. Parisi and C. K. Rowley. Cheltenham, Edward Elgar.
- Sachs, J. D. (2005). *The End of Poverty: Economic Possibilities for Our Time*. New York, Penguin Press.
- Samuelson, P. A. (1993). “Some Uneasiness with the Coase Theorem.” *Japan and the World Economy*, 7: 1-7.
- Smith, A. (1776 [1981]). *An Inquiry Into the Nature and Causes of the Wealth of Nations. Volume 1*. Indianapolis, Liberty Fund.

- Smith, V. L. (2003). "Constructivist and Ecological Rationality in Economics." *American Economic Review*, 93(3): 465-507.
- Stigler, G. J. (1988). *Memoirs of an Unregulated Economist*. Chicago, The University of Chicago Press.
- Sunstein, C. A. (1993). *The Partial Constitution*. Cambridge, Ma., Harvard University Press.
- Sunstein, C. A. (2001). Social and Economic Rights? Lessons from South Africa. Chicago, John M. Olin Law and Economics working paper no 124.
- Tanzi, V. (1997). The Changing Role of the State in the Economy. Washington, IMF Working Paper, WP/97/114.
- Tanzi, V. (2005). "The Economic Role of the State in the 21st Century." *Cato Journal*, 25(3): 617-638.
- Taylor, J. B. (1993). "Discretion versus Policy Rules in Practice." *Carnegie-Rochester Conference Series on Public Policy*, 39(2): 195-214.
- Tshabalala-Msimang, M. (2006). Announcement of the New Dispensing Fee for Medicine, from <http://www.doh.gov.za/docs/sp/2006/sp1031.html>
- Van der Walt, A. J. (1999). "Compensation for Excessive or Unfair Regulation: a Comparative Overview of Constitutional Practise Relating to Regulatory Takings." *South African Public Law*, 14: 273-331.
- Van der Walt, A. J. (2001). "Dancing with Codes – Protecting, Developing and Deconstructing Property Rights in a Constitutional State." *South African Law Journal*, 118: 258-311.
- Wagner, R. E. (1993). Parchment, Guns and Constitutional Order. In: C. K. Rowley (eds.). *Property Rights and the Limits of Democracy*. Aldershot, Edward Elgar Publishing Limited.
- Wagner, R. E. (2002). "Complexity, Governance and Constitutional Craftsmanship." *American Journal of Economics and Sociology*, 61: 101-117.

FOOT NOTES

- ¹ Bagehot's remark is recorded in Hayek (1944 [1991]: 39).
- ² Hayek (1944 [1991]: 35) told this story about the famous late-nineteenth-century economist Carl Menger.
- ³ Robert Heilbroner (1953 [1991]).
- ⁴ Economists of a liberal persuasion still assume the natural equality of all individuals, as Adam Smith had done (Buchanan, 2005).
- ⁵ Hayek (1988) used the term "constructivist rationalism" for this tradition in economics.
- ⁶ Christina and David Romer (2002) discuss the connection between the disappointing consequences of monetary policy during the sixties and seventies while policy-makers used what we now know to be a mistaken model of monetary policy's role in the economy. The consequences of monetary policy improved notably following the revision of the underlying model of the economy during the seventies (see also, Friedman, 1977).
- ⁷ Hence the name by which they came to call themselves, Physiocrats, from the Greek *physis* (natural) and *kratos* (power).
- ⁸ Extract from a letter by Quesnay to his disciple Mirabeau, reproduced in Meek (1962: 71).
- 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).
- ¹⁰ Professor McIntyre, the chairperson of the pricing committee, testified to the Constitutional Court on the justification for these far-reaching 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).

Sachs argued that “It may be unclear whether the distress of the pharmacists arises from self-induced [*sic*] 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).

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).

16 The self-regulated order of a decentralised society has variously been called a “spontaneous order” (by Hayek), “ordered anarchy” (by Buchanan) or the “invisible-hand order” (by Nozick). The common intuition in these terms is that the social order is not the result of conscious effort by any of its constituent parts (Cunningham, 1979).

17 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.

18 Hayek (1936 [1984]: 50) regarded the division of knowledge as the “really central problem of economics as a social science” while North (2005: 84) concluded that “Adam Smith’s specialization and division of labour... is really specialization of knowledge”.

19 Towards the end of his career Paul Samuelson tried to capture what economists had learnt from the lengthy debate between proponents of decentralised decision-making and those who argued for the “feasibility of socialist rational pricing” and his conclusion was both gracious (to Hayek, a long-standing academic opponent) and modest (in its claims for the decentralised system). “Hayek has been persuasive,” Samuelson admitted “in arguing that experience suggests that only with heavy dependence on market pricing mechanisms can there be realised quasi-efficient and quasi-progressive organisation of societies involving humans as Darwinian history has bequeathed them” (Samuelson, 1993).

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

21 Wagner (2002) overstates the case when he argues that in a spontaneous order economic policy can only be “constitutive”, i.e. it can change some of the rules of the game (the institutions), but the allocative outcomes will emerge with the newly constrained system and cannot be anticipated in advance. His claim is correct for comprehensive allocative plans though and this mirrors Popper’s long-standing argument for piecemeal policy rather than social engineering (Popper, 1961).