

## **CATALLACTICS: Hayek's 'evolutionary' theory of Economics, applied to public policy and education through competition and market forces. ®**

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In this paper I am going, loosely, to use the method described by Michel Foucault as 'genealogy' to shed some light on the assumptions and practices of those who construct education in the form of a series of exchanges between interested parties. By examining the ancestry of these ideas and practices I aim to shed some doubt on their claims to pre-emptive rationality. In part this relies on a challenge to the 'displacement' as Derrida calls it, of ideas from one discipline to another through the medium of metaphor. I am not trying to establish a series of causal links, and I do not discuss here the method of dissemination of these ideas. For listeners/readers interested in the process by which this set of ideas have become common currency, I recommend *Thinking the unthinkable* by Richard Cockett, (1994) and for New Zealand readers, particularly, *First Knights* by Paul Harris and Linda Twiname (1998).

In this paper I shall use the writings of the 'Austrian School' economist F.A. Hayek, who has been an important source of ideas for economists and public officials seeking to use the principles of economics to reform the nature of government. More recent followers of Hayek in the belief that economics offers guidelines for practice in other fields have called themselves 'Public Choice Theorists'. The principle architects of 'Public Choice Theory' are James Buchanan and Gordon Tullock. Many economists who do not identify themselves in such a way have also adopted the view that the principles of economics can be generally applied to all fields of human interaction, among them Milton Friedman, and the very significant New Zealand public policy bodies, the Treasury and the State Services Commission, who have been the principal agents in the reform of education in New Zealand along economic lines. I shall try to show that the ideas formulated by Hayek have been used by a variety of people to construct the general acceptance of the role of markets and competition in education, and at the same time I shall use another economist, Joseph Schumpeter, to demonstrate that there is room for disagreement, even between conventional economists, as to the effects of markets and competition in the business world, which might well be used to question their effects in the world of education.

### **Catallaxy**

The term 'catallaxy' was adopted by Friedrich Hayek, although it was invented, or reinvented, by Archbishop Whately:

(Owing to the inadequacy of the term 'market economy').. I proposed some time ago ... that we introduce a new technical term, one obtained from a Greek root that had already been used in a very similar connection. In 1838 Archbishop Whately suggested 'catallactics' as a name for the theoretical science explaining the market order, and his suggestion has been revived from time to time, most recently by Ludwig von Mises. The adjective 'catallactic' is readily derived from Whately's coinage, and has already been used fairly widely. These terms are particularly attractive because the classical Greek word from which the stem, *kattalattein* or *katalassein*, meant not only 'to exchange' but also 'to receive into the community' and 'to turn

from enemy into friend', further evidence of the profound insight of the ancient Greeks in such matters ... This led me to suggest that we form the term *catallaxy* to describe the object of the science we generally call economics, which then, following Whately, itself ought to be called catallactics. ...(Hayek:1988:111)

Hayek described Catallaxy as the *science* of exchange. He is anxious to put the study of economics, or catallaxy on the same footing as other sciences, although he recognises the difficulties posed for economics by the Popperian burden of falsifiability.

...To somebody whose conception of science was shaped by mechanics, catallactics may well not look like science, but as the theories of natural phenomena advanced into more complex fields (even organic chemistry, or biology in particular), they came to look more and more like catallactics: the theory of biological evolution is as incapable of predictions of specific events as catallactics and was not confirmed by falsification since it could not make any specific predictions, or ever ascertain all the relevant marginal conditions, but was confined to asserting the probability of the formation of certain kinds of patterns or structures. (Hayek 1984:327)

*Exchange* is the closest neo-classical economists get to a notion of the *social*, and therefore exchange has to bear a great deal of weight in explaining phenomena which are not individual in nature. For instance, Hayek asks catallactics to explain the evolution of non-rational behaviour, which he calls 'moral'.

Catallactics is in fact an attempt to discover in retrospect why man succeeded to do better than he ever foresaw or understood. It is a sort of rational reconstruction of what he did not and could not have done deliberately on the fictitious assumption that the explainer knows the particular facts to the discovery of which the market prices guide the individuals, I am inclined to claim that only an economist, i.e. someone who understands the process of the formation of the extended order of cooperation, can explain the selective evolution of the morals of property and honesty - how they arose as well as what effects they had on the development of mankind. They are matters which are problems of science and not value problems. (Hayek 1984)

### **The relationship of 'catallactics' to Public Policy:**

Hayek's re-construction of 'economics' as the 'science of exchange' lends a scientific authority to economics which is unique among social sciences. 'Economics' has a kind of positivist appeal which sociology or philosophy do not have. Consequently, as governments search for solutions to economic and social problems they are more comfortable with the scientific certainties offered by economics than with the debate and uncertainty of other disciplines. Moreover, economists themselves are usually confident that they 'know'. Therefore they are prone to both defining 'problems' and offering 'solutions' in ways which adherents of other disciplines might find problematic.

The sub-discipline known as 'Public Choice' specifically applies the understandings of economics to the realm of government and political life. This goes beyond the practice of metaphor and model: in their confidence in economics as a 'positive science', as Milton Friedman (1953) calls it, public choice enthusiasts offer normative prescriptions for the organisation and conduct of public affairs which utilise the concepts of economics in fields

which are very far from the original domains of economic thought. The usual characteristics of these prescriptions are: diminished size and scope of government, emphasis on value-for-money- to the taxpayer, i.e. 'efficiency', and the substitution of government administration by market or pseudo-market formations.

In this discussion of the characteristics of catallaxy I hope to shed some light on the reasons for the preference for markets as a form of political organisation, and particularly on the importance of 'competition' in the restructuring of education.

## Darwinism

If one starts, as economists do, with the assumption that the individual is rational and self-interested -which is the nature of homo economicus, or the rational utility maximiser - then many of our social institutions and elements of human life which are not directly attributable to individual self interest and rationality are very difficult to explain. If altruism is ruled out, why should stronger or richer people abide by contracts? Why should people stay together to raise children, - a difficult and often unrewarding task - ; why should people form groups to do something as irrational as worship a god , a concept which this form of rationalism, by its very nature, rejects? Yet, the socially conservative temperament of many of the adherents of different forms of neoclassical economics makes it difficult - and politically imprudent - for them to reject these institutions.

How then, can they reconcile their *rationalism* with their social conservatism? How also, can they explain the continued existence of irrational forms of behaviour, given that the rational choices of individuals should bring about a coherent rational and order? These are serious problems for neoclassicism, and are neatly solved by Hayek, by using a combination of a Darwinism that can only be called social, and reducing the significance of the rationality component of individual decisions.

Capitalism presumes that apart from our rational insight we possess a traditional endowment of morals, which has been tested by evolution but not designed by our intelligence. We have never invented private property because we understood these consequences. Nor have we ever invented the family. It so happens that these traditions, essentially a religious tradition, and I am ... an agnostic ..., but I must admit that the two decisive traditions which make it possible for us to build up an order which extends our vision cannot be the result of our intellectual insight but must be the result of a moral tradition, which as I now put it is the result of group selection and not of individual selection, something which we can ex post interpret. (Kresge: 1994:72-3)

Hayek argues that institutions have *evolved* in a manner which transcends the rationality of any one of the individuals who take part in that evolution: there is a form of 'group selection' which ensures that the strongest forms of social organisation survive, whilst other, less fit, presumably perish. The forms of organisation which Hayek nominates as instances of the survival of the socially fittest, are the market, the family and the church.

The fact that cultural evolution operates chiefly through group selection has very important consequences. It is the reason why, as David Hume so clearly understood, " the rules of morality are not the conclusions of our reason." The human groups have been selected for the effects of their habitual practices, effects of which the individuals were not and could not be aware. Customs are mostly group properties, beneficial only if they are common properties of its individual members but referring to reciprocal action. Morals have not only

(not) been designed by man, but man also usually does not understand their reason. In some fields such as language and law, the fact that these institutions could develop only through group selection is obvious: language could clearly be of no use to its sole possessor, and the benefits derived from it will normally accrue to all those who can communicate through it. All the paradigms of culturally evolved institutions, morals, exchange, and money refer to such practices whose benefits transcend the individuals who practice them in the particular instances. The result is that whole groups may be helped by them to expand into what I shall call extended orders, through the effects of practices of which the individuals are not aware. (Hayek: 1984) (my emendation in brackets)

Hayek is aware that 'Social Darwinism' has a rather poor press, and mounts a defence which relies on his pivotal point of criticism in relation to both socialism and fascism, that these forms of thought or government rely on human ability to *know* sufficient, and to be sufficiently *rational* that large-scale planning or decision-making can be done by government rather than by the market:

Social Darwinism is wrong in many respects, but the intense dislike of it shown today is also partly due to its conflicting with the fatal conceit that man is able to shape the world around him according to his wishes. Although this too has nothing to do with evolutionary theory properly understood, constructivist students of human affairs often use the inappropriateness (and such plain mistakes) of Social Darwinism as a pretext for rejecting any evolutionary approach at all. (Hayek:1988:27)

Hayek disputes whether economics is appropriating Darwinism as an explanation for the evolution of human institutions, or if Darwin appropriated the classificatory, hierarchical and distributive thinking of earlier liberals: Smith argues that Darwin got his grand idea from Adam Smith:

Not only is the idea of evolution older in the humanities and social sciences than in the natural sciences, I would even be prepared to argue that Darwin got the basic ideas of evolution from economics. As we learn from his notebooks, Darwin was reading Adam Smith just when in 1838, he was formulating his own theory... In any case, Darwin's work was preceded by decades, indeed by a century, or research concerning the rise of highly complex spontaneous orders through a process of evolution.  
....(Hayek:1988:25)

Adam Smith actually uses the image of the 'Invisible Hand', a metaphor derived from mediaeval theocracy to express a process by which the temporal ruler is guided to achieve divine purpose. (Kantorowicz:1956) The metaphor, although highly regarded by economists as a way of describing the semi-miraculous way in which markets achieve distribution of goods, and regulate prices according to demand, is not really consonant with the scientific spirit of the modern age: Darwin's equally teleological but less overtly theological explanation is a more acceptable formulation.

Darwin himself however acknowledged his debt to Malthus (Darwin, 1929) rather than to Adam Smith.

I am not sure that it really matters which came first: what is important is that because there is a Puritan notion of just deserts and eternal strife in Malthus, this survives sufficiently in Darwin's work to offer a ready source of metaphor to a neo-liberal ethic which valorises hard

work and sturdy independence, and preaches acceptance of the injustice of Providence combined with a clear understanding that the Good Lord recognises his own.

### **Schumpeter's Darwinism:**

Joseph Schumpeter has a darker view of the Darwinian process, acknowledging to a greater extent than Hayek does, the fate of those who do not qualify as the 'fittest':

Capitalism is evolutionary...by nature a form or method of economic change and not only never is but never can be stationary ... This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in ....

...we must judge its performance over time, as it unfolds through decades or centuries.

...Since we are dealing with an organic process, analysis of what happens in any particular part of it ....may indeed clarify details of mechanism but is inconclusive beyond that. (Schumpeter:1947:82-83)

The New Zealand Treasury (1987:13) uses the Darwinian notion, but without invoking Schumpeter, or acknowledging the costs and risks in an evolutionary process:

Social institutions have developed through a process of evolution in order to minimise these problems (scarcity; interdependence; uncertainty or bounded rationality; information costs; and opportunism or incentive problems). These institutions do not fall like manna from heaven but arise from the efforts of individuals either alone, or in coalitions.

### **Market form of social organisation**

This notion, that the market is the highest evolution so far of exchange in practice, has been widely taken up. It is often claimed that the market is superior because it offers most in the way of *freedom*, freedom being construed in the negative liberal sense of *freedom from* coercion. Buchanan and Tullock (1962) for instance see the advantage of markets in terms of their ability to achieve social co-operation without coercion: markets have a degree of *moral* superiority over political solutions because they do not intrude upon the rights of free men to make free decisions :

'Both the economic relation and the political relation represent co-operation on the part of two or more individuals, The market and the State are both devices through which co-operation is organized and made possible. Men co-operate through exchange of goods and services in organized markets, and such co-operation implies mutual gain. The individual enters into an exchange relationship in which he furthers his own interest by providing some product or service that is of direct benefit to the individual on the other side of the transaction. At base, political or collective action under the individualistic view of the State is much the same. Two or more individuals find it mutually advantageous to join forces to accomplish certain common purposes. In a very real sense, the "exchange" inputs in the securing of the commonly shared output.' (Buchanan and Tullock:1962:19)

Hayek offers another reason for the superiority of the market: it compensates for the *lack* of perfect rationality and information by creating and disseminating information, and motivating people to use it:

I believe that the science of catallactics can demonstrate that the dispersed and market-determined distribution of property in the means of production is the only condition under which men can employ their, of necessity equally dispersed, abilities to make use of the greatest amount of information possible, and that this process can function only if those who dispose of this property are rewarded not according to some recognizable merit (or 'justice'), but according to actual success. (Hayek 1984:326)

The New Zealand Treasury combines all these reasons for the superiority and teleological, even eschatological, nature of markets: (New Zealand Treasury 1987):

The general arguments for the use of markets or private contracting as a potential means of solving economic and social problems tend to focus on three main features of markets - first how markets enable efficient use to be made of information, second how markets, through the price mechanism, coordinate individual actions and resolve interdependencies, third how market competition puts in place a selection mechanism that over time tends to guide resources those users and uses that maximise the value of production secured from the resources, as measured by consumers' willingness to pay. Markets at their best resolve conflicts impersonally and ensure that over the longer term less efficient producers are penalised and the more efficient rewarded.

In this statement, Treasury combines the notion of willing exchange, lack of coercion, use of information, sturdy independence, the invisible hand, and the Darwinian notion that 'over time' improvement in general will take place. The phrase 'over time' is a consistent indicator of the assumption that market forms are to be preferred on an evolutionary basis.

## **Competition**

In the market, competition is generally agreed to be the mechanism which achieves the constantly closest approximation to perfection - the progression which is the essence of teleology.

..(biological and cultural evolution) both rely on the same principle of selection: survival or reproductive advantage. Variation, adaptation and competition are essentially the same kind of process, however different their particular mechanisms, particularly those pertaining to propagation. Not only does all evolution rest on competition; continuing competition is necessary even to preserve existing achievements. (Hayek:1988:26)

There is however some disagreement as to how this mechanism works: Hayek regards competition as the mechanism which discovers the best, (Hayek: 1979) i.e. it is a research mechanism which is necessary because human rationality is limited: if we were totally rational and informed we would not need competition or markets to tell us the best way to do things: in the absence of such qualities, competition especially in the form of markets has *evolved* as a superior mechanism to planning or single individual decision. The weakness to the argument is that the Darwinian theory explains the loss of life forms better than the development of new ones: Darwin himself remarked that what his theory did not

adequately account for was diversity. Hayek however, considers that diversity is an outcome of competition:

its results are diversity, not uniformity. ....(Hayek:1988:26)

Schumpeter, rather unusually among economists, puts the Darwinian process into a historical context which is not unlike that of Karl Marx. To Schumpeter there are two reasons why the market is a superior and evolutionary form of social organisation. One is because the very awfulness of the prospect of failure drives people onto greater efforts, and the prospect of success, even though such success cannot be universal, motivates far more people than will actually attain to it:

...Unlike the class of feudal lords, the commercial and industrial bourgeoisie rose by business success...Prizes and penalties are measured in pecuniary terms.... that social arrangement is, or at all events was, singularly effective. In part it appeals to, and in part it creates, a schema of motives that is unsurpassed in simplicity and force. The promises of wealth and the threats of destitution that it holds out, it redeems with ruthless promptitude.....Spectacular prizes much greater than would have been necessary to call forth the particular effort are thrown to a small minority of winners, thus propelling much more efficaciously than a (p.74) more equal and more "just" distribution would, the activity of that large majority of businessmen who receive in return very modest compensation or nothing or less than nothing, and yet do their utmost because they have the big prizes before their eyes and overrate their chances of doing equally well.

The second is because competition for profits elicits *entrepreneurial behaviour*. This behaviour gives the entrepreneur a commercial edge, which is then emulated by other players in the market, so the general standard is lifted by the adoption of the new practice, which becomes the new norm.

An analogy to this is the current emphasis on 'best practice': presumably a practice which has emerged from the competition as a current survivor. The usual thing is to try to identify 'best practice' and circulate the idea among practitioners. There is an inherent irony to this however: the insistence upon the implementation of 'best practice' may preclude the evolution of a 'better practice'.

### **Application to education**

The idea that the market should be applied to education is not new: Adam Smith reflected upon the desirability of schoolmasters being paid by the clientele:

...the master being partly, but not wholly paid by the public; because if he was wholly, or even principally paid by it, he would soon learn to neglect his business.(Smith:1811)

'Exchange' in education, often in the form of competition, or can be seen or engineered at all different 'levels' or locations of education and schooling: or of knowledge itself.

At the national, inter-governmental level, education can be seen in itself as an entrepreneurial tool for winning the competition between nations. A good, or innovative education system will give the nation the winning edge. If a nation does not have that winning

edge, then the education system has failed: Bob Matthews of the New Zealand Business Round Table makes the point:

'The last six years have revealed major weaknesses in the business sector many companies failed to handle the new environment with the skill it required. Hundreds of manufacturers disappeared because they couldn't deal with the competition from overseas. ... Where was the well educated and flexible Kiwi when we needed her, and him?' (Matthews:1991:250-251)

### **Government responsibility for education**

At the governmental level, education can be seen as a business, which is in competition with other businesses for the resources of the country: At this level the general dislike of neo-classicists for government-run business comes into play. For a variety of reasons government: should be as small as possible; is inherently unable to run business efficiently; and its activities constitute a threat to the efficient conduct of the economy.

Education therefore should not be a government responsibility, not because this lays education open to government interference - a classical liberal concern - , as for the inverse of the reasons given above for the superiority of the market: if government runs education, then the processes of exchange do not run freely.

There are a number of ill effects claimed as a result of government taking active part in the delivery of education, among which are: People are coerced into forms of education they do not want: they are coerced to pay for the education of the children of others: costs can be expected to rise because the 'discipline' of the market ( accountability) does not obtain; genuine private enterprise is driven out of the field; government regulation will provide opportunities for 'rent-seeking' which is a waste of resource; agents allow their interests to override those of their principals (in this sense principal' means 'employer'). This last is the issue of 'provider capture, which has been the most favoured or most notorious concept of the reforms in education in New Zealand depending on which side of the exchange you identified with). Yet it is unclear from this plethora of claims which are the substantial ones and which amount to rationalisations. In the end, I think it is the notion that the intervention of government interferes with the evolutionary function of markets to bring about perpetual improvement, to evolve towards ever greater 'fitness', which is the nub.

The principle that the market is the best means of providing and delivering education, and that it prevents something dire from happening, is well expressed by Stanley Dennison, chancellor of Hull University, and a long-time friend and political ally of Hayek (Cockett 1994):

'Far from the state being necessary (to the provision of education), a market is usually superior in meeting the wants of individuals as they themselves judge them in the light of their own circumstances; and the market does so with economy and efficiency in the use of scarce resources. Further, in meeting the genuine wants of individuals 'social' objectives are more likely to be achieved than by imposing *political* objectives administered by bureaucrats. Finally, state provision, especially if a monopoly, creates problems which profoundly affect not only the operation of the service but also the whole political, economic and social structure.' (Dennison:1984:8)

For the purposes of this argument it is the claim that the participation of government creates problems which 'profoundly affect...the whole political , economic and social structure', which



are of interest: it is the potential for interruption of the evolutionary process which causes most anxiety to adherents of the 'market model'.

### **Competition between schools**

In line with the teleological view of markets in general, it is believed that competition between schools for students, and for resources, will improve the standard of service schools offer to their pupils.

'I see it as imperative that the education industry accepts that it exists for a market - not just for itself. The market, that is the customers, are students and parents choosing on their behalf. With the right to choose they will demand value for money - an essential performance requirement for educationalists along with all other producers/providers of goods and services.  
(Matthews:1991:253)

The reasons for this, in business terms, are: that it will force the business to be more responsive to its market, to use resources wisely, to be innovative, to raise productivity. But, even within the context of economics theory respectable economists could have pointed out to the proponents of market in education that there would be a heavy price to pay. In a discussion of the unlikelihood of the eventuality of pure competition along the lines contemplated by earlier economists, Schumpeter pointed out the degree of waste imposed by the effort to win the competition which had nothing whatever to do with improving the business: strategic plays which could not contribute to the achievement of 'equilibrium' (which is another term for the milestones of perpetual improvement)

'In the general case of oligopoly there is in fact no determinate equilibrium at all and the possibility presents itself that there may be an endless sequence of moves and countermoves, an indefinite state of warfare between firms.....the "beneficial" competition of the classic type seems likely to be replaced by "predatory" or "cutthroat" competition or simply by struggles for control in the financial sphere. These things are so many sources of social waste, and there are many others such as the costs of advertising campaigns, the suppression of new methods of production (buying up of patents in order not to use them) and so on. And most important of all: under the conditions envisaged, equilibrium, even if eventually attained by an extremely costly method, no longer guarantees either full employment or maximum output in the sense of the theory of perfect competition. It *may* exist without full employment; it is *bound* to exist, so it seems, at a level of output below that maximum mark, because profit-conserving strategy, impossible in conditions of perfect competition, now not only becomes possible but imposes itself. (Schumpeter:79)

Schumpeter however has not been as popular as Hayek, and there is little suggestion, except in the odd reference to the importance of entrepreneurial skills (which has led to the absurdities of proposals to teach entrepreneurship), that Schumpeter has been read by the Treasury Group, (as Brian Easton named the influential loose association of Treasury officials and their connections in New Zealand). (Easton:1988). Competition therefore has been introduced at all levels of the education system, including, at the top level, a significant degree of competition between the policy bodies, ERO, (Education Review Office), the Ministry, and NZQA, the Qualifications body, for the Ministers 'ear'.

Readers will be familiar in Australia I expect as in New Zealand, with the myriad ways in which 'competition' has been introduced to or reinforced in the education field. The

assumption of many is that the competitive model of organising schooling, will deliver 'better' forms of schools, because they must compete with each other for students, and for parent support - that is for funding.

At the research level, funds should be contestable, that is, they should be awarded as a prize.

Innovations in essential components of school systems, like curricula and assessment are produced through 'Writing contracts' for they should also be allocated on a contractual, competitive basis, to ensure that the 'best' possible standard is achieved.

### **Teaching as exchange**

Teaching is peculiarly difficult to incorporate in an economy of exchange, partly because the two common characteristics of teachers; extensive knowledge and low pay, are difficult to reconcile in terms of economic theory. Treasury does it by assuming that, because of 'provider capture', teachers pay is high, while ERO (the Education Review Office) on the other hand, comparing teacher wages with those of their OECD counterparts, attributes the 'poor quality' of teachers to their poor wages.

A number of problems arise in relation to the quality of service that can be expected from a relatively low wage industry (ERO:1995:2)

However, the principles of catallactics would suggest that if teaching can be regarded as the provision of a service, so that teachers are 'sellers' and the clients, whoever that might be are 'buyers', and the relationship between the two is an exchange, preferably of money, then the usual benefits, of fairness, of freedom, of efficiency, will flow. Because of the preference for non-government forms of organisation, governance of schools has been placed in community hands, with the intention, at least on the part of Treasury and the State Services Commission, that eventually the Boards of trustees will become the 'employers', or buyers of services - a fiction that is in part already insisted upon.

The continued strong opposition of the teacher unions to this form of market-exchange between teachers and the Board of trustees has taken the form of a sustained campaign against 'bulk funding', although the term now used is 'direct resourcing' 70% of New Zealand schools have still not opted into bulk funding, despite the financial advantages offered to participating schools. Since teachers have effectively resisted the institution of exchange at the community or school level, the government has to cope itself with the problem of 'provider capture' of funds, or in more sophisticated terms, with the 'principal-agency problem. According to this theory, if sellers of services are not directly exposed to the discipline of the market, they promote their own interests rather than those of their employer, inflate their expenses, expand their own power, and as Treasury puts it, 'shirking'. In this extract Treasury is speaking of the firm, but the principles apply to any large organisation:

Within a large firm the checks on shirking can be comparatively low and the costs of monitoring and effectively encouraging efficient production may be weaker than when transactions are organised across markets. ...These disabilities suggest that individuals may rely more on market oriented solutions to contracting problems, that may retain a higher level of competitive checks and incentives...

In the absence of an appropriate market, the model suggests that teachers should be rewarded, through 'performance management' and performance bonuses for 'good' teaching. This incentive will bring about 'efficient production', which is assumed to equate to good teaching.

### **The classroom**

At the classroom level, children should be rewarded for winning the scholastic competition. Failure is a necessary component part of 'winning and 'competition' but is seldom acknowledged as such. Failure has to be individualised, or 'targeted' as an instance of unfortunate exception to the general rule which deserves remedial action. 'Targeting' allows the government to address embarrassing inequities, that is, the failure of the market to deliver, without taking the inadmissible step, that poverty is a structural rather than individual problem. Hence, large-scale failure has to be individualised; it is either the result of teacher failure - hence the ERO discourse of 'incompetent teachers' or the result of student/family failure - hence the MOE discourse of 'at risk pupils'. When a whole schools' population can be regarded as 'at risk' the notion becomes ridiculous. The 'Smithfield Report' and the research of Hugh Lauder (1999), Martin Thrupp (1999) and others, document substantially the costs in terms of social justice of market-oriented provision of education. However, 'social justice' is quite specifically not a term with any meaning in the world of neo-classical economics. (Hayek:1976:62 et seq)

### **Conclusion: why the market?**

Catallactics is the 'science of exchange', and the findings of that 'science', which is substantially the neo-classical theory of markets, are applied to institutions and situations in which 'exchange' might be held to be happening, even if they are not traditionally thought of as economic institutions.

The Darwinism of catallactics enables liberals, who start from the presumption that the source of rationality is not God but man -the Cartesian 'I think therefore I am' - to reconcile their rationality with conservative (and irrational) forms of behaviour such as religious belief (or at least religious practice) and family life. These phenomena are the 'fittest' in terms of cultural evolution. This goes some way perhaps to explain the phenomenon Michael Apple describes, of the alliance between neo-liberals, and religious fundamentalists. (Apple: 1991)

The market is accorded similar status: it is an expression of human will which has evolved, without human design, from countless decisions over millennia. For this reason, it is regarded as a superior model of human interaction. Yet, from the point of view of social evolution the family or the church might be seen as equally satisfactory models for education as the market.

Catallactics does not explain why non-market institutions such as the church or family life are not regarded as satisfactory paradigmatic models for education, or why government education systems are not accorded the same respect as market systems, since they also might be seen as an evolution from earlier forms of providing education which were 'unfit' and perished. There is an important contradiction here, which I think is not entirely explained away by reference to the presumed superiority of the market. 'Government' as an expression of collective will, might as well be seen as 'fittest' for its purpose as the preferred neo-liberal forms of social organisation. The 'evolutionary' metaphor provides economists with a pseudo-scientific basis for preferring the market, but does not adequately account for the diversity of cultural formations, nor does it give any adequate reason why any other existing social formations should not be regarded with the same respect, even awe, which they

reserve for the market. In the end, the evolutionary notion of catallaxy does not quite encompass the same functions as the original notion of the 'Invisible Hand'.

I leave the last word to Hayek however:

I do claim that whether we like it or not, without the particular traditions I have mentioned, the extended order of civilisation could not continue to exist ....and that if we discard these traditions, out of ill-considered notions... of what it is to be reasonable, we shall doom a large part of mankind to poverty and death.

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