Undermining the market: rationality and the use of anthropological approaches in analysing psychology of the market.

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For presentation to the Association for Heterodox Economics Annual Conference 'Economics, Pluralism, and the Social Sciences' 14-16 July 2006, LSE, London, UK.

Abstract

The central position of the market in what may loosely by called neoclassical economics is assumed to provide a justification for broadly neoliberal conceptions of the state where the relative position of the state is one of subordination to the market. Institutional theory, however, has historically used anthropological data to critique the assumptions of the neoclassical economics and create alternative approaches stressing realism, producing models with varying degrees of tractability.

Whilst the work of the New Institutional economics has been widely criticised in heterodox thought for its close relationship to the mainstream neoclassical theories, it has encouraged a reappraisal of institutions and their relationship to social and psychological factors. Some of this work, together with the older work of the Old or American institutional school, provides a significant and effective critique of the neoclassical theories even whilst often using broadly similar assumptions and fundamental principles to that of the neoclassicals, and opening economics to a more inclusive approach with a recognition of the validity of alternative approaches within the social sciences for the conduct of economic research.

Within the framework established by this body of institutional thought, this paper examines the implications for market theory of two particular pieces of anthropological research with psychological implications relevant to the principles of both rationality and market behaviour. It concludes that a realistic economics must find ways to incorporate alternative forms of rationality as seen within the body of evidence anthropology and the other social sciences if it is to protect itself from criticisms of the fundamental validity of its models and analysis.

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May 2006

I Introduction

It is now some 108 years since Thorstein Veblen (1898) declared economics to be 'in need of rehabilitation' (p.373) to accommodate new evidence being produced by researchers across the range of social sciences in their existing theories. He stated:

> 'It may be taken as the consensus of those men who are doing the serious work of modern anthropology, ethnology, and psychology, as well as of those in the biological sciences proper, that economics is helplessly behind the times, and unable to handle its subject matter in a way to entitle it to standing as a modern science.' (p.373)

It seems unthinkable that after such a long period has elapsed, a similar criticism might still be levelled against economics, but the progress of economics towards a 'realistic' social science has been slow and interrupted. Veblen's belief in the value of evidence from the other social sciences for the development of economic analysis was founded on his belief in the necessity of explaining economic processes in the context of all their determinants, eschewing the tendency adopted from some physical sciences to analyse phenomena in isolation of 'extraneous' influences. He criticised this tendency in Marshall's work, although mindful of his acknowledgement of the existence of other relevant influences (1898: 373).

Veblen's own attempts at anthropological observation of the behaviours within modern economies produced some of the most telling criticisms of mainstream theory, for instance his 'Theory of the Leisure Class' (1899/1994). He criticised as ridiculous the standard economic models of decision-making due to their assumptions of rationality and extreme computational ability (1919: 73). He believed that national culture incrementally altered economic institutions (1898: 137), but this left the need for social studies to examine the mechanism through which this was brought about: whether through altering preferences (which we might call subversion), or restricting the available opportunities (some form of social regulation), or by some combination of the two. His own work demonstrated how cultural institutions directly influenced preferences (through the 'instinct of emulation'), relating anthropological research to individual behaviour to infer psychological features of the individual. This approach, tracing the anthropological and psychological evidence surrounding economic phenomena, anticipates more recent attempts to rehabilitate economics and produce a more relevant economics.

[Table I about here]

The influence of Veblen on economic thought has declined significantly during the rise of the modern orthodoxy based on Friedman's monetarism and complemented by the New Institutional Economics. Whilst admitting the need to develop beyond 'static' economics and develop dynamic models of the economy, the reluctance to engage with the intractable

problems of real human behaviour and cultural influences fundamentally undermines the analysis of the NIE. Williamson's (2000) review of the nature of institutional economics almost entirely neglects the nature of social institutional influences on economic behaviour, despite presenting them as the fundamental determinants of all successive layers of economic institutions (see Table I). This neglect has only gradually been addressed by authors such as North (1971; 1994), but even in the recent institutional debate the nature of cultural influences is too easily reduced to an analysis at the microeconomic level of individuals' acquisition of cultural or social capital. The anthropological approach, in its relative diversity and complexity, appears sorely needed.

The title 'anthropology', like economics, has suffered a progressive decline in academic popularity in recent years which may wrongly suggest to the casual observer that it is in some way irrelevant, or fundamentally bankrupt, in it subject matter and its analysis. It has to a large extent been relegated in favour of the more accessible, although no less rigorous, cultural analysis, this again paralleling the substitution of economics, in many practical situations, with its sub-elements of 'business' and even 'accounting' which once constituted central parts of the subject, but ones which appear to economists' eyes essentially incomplete when taken out of their wider economic context. From the sidelines of the current struggle in economics between those content with traditional orthodox approaches to economics and those who consider it necessary for the subject to undergo some fundamental revolution in order to rescue it from itself, anthropology, however, seems much more the innocent victim of circumstance than economics which has been the agent of its own demise.

This paper explores the relevance of anthropology to economic theory and research, and shows how the evidence gathered by the wider social-science community has relevance to the current attempts within economics to re-orient the subject along more realistic and pluralistic lines. It concludes that orthodox economics, like 'cultural studies' or 'business studies', must be viewed as fundamentally limited by its ignorance of the wider context of the activities which it attempts to analyse, and that anthropological, and psychology studies provide an essential complement to the subject which will be necessary if it is to successfully rehabilitate itself in a world where an MBA or ACA is viewed as the expert of choice in the marketplace, and economics is more often used to bolster neoliberal tendencies of government.

II The rational principle and the 'universal science' of economics.

Whilst a range of decision making approaches are recognised in the decision sciences (see McGrew & Wilson, 1982) economics focuses on a narrowly define and simple assumption of 'rationality'. The central position of the 'rational' market in what may loosely by called neoclassical economics is assumed to provide a justification for broadly neoliberal conceptions of the state where the relative position of the state is one of subordination to the

market. Institutional theory, however, has historically used anthropological data to critique the assumptions of the neoclassical economics and create alternative approaches stressing realism, producing models with varying degrees of tractability.

Homo economicus

Economics' 'physics envy' encouraged the exclusion of human behaviour, in its true form, from economic theory to a remarkable extent. Marcuse's (1989) complaint that in physical science 'The reality being reduced (or reducible) to its physical mathematical structure entailed that "truth" became defined by what could be measured or calculated, or by propositions which fulfilled these conditions' (p.120) can be seen in economics' reduction of individual choice to a simplified and universal model of 'rationality'. As a consequence of its assumption, economics' reality becomes 'a reality independent of individual and social factity.' (p.120) The precise relationships depicted in economic theory generally reduce complex and heterogenous economic characteristics to simple rules that are significantly more tractable, although less realistic.

Strangely, as inaccurate models are sometimes capable of producing accurate descriptions of behaviour, the inaccuracy of fundamental assumptions is not considered to be a significant problem with these models. Friedman's 'F-twist' creates an instrumental tendency amongst theorists to adopt unrealistic but functional assumptions in pursuit of accurate prediction, despite the fundamental fallibility of the models' sub-theoretical elements and, consequently, the interactions between the elements of theory.

Many approaches used in anthropology run entirely contrary to the methodology described above. It is all about the accurate encapsulation of the full context of social processes. As Kroeber (1953) states:

> 'We anthropologists will never know China as intensively as a Sinologist does, or prices, credit and banking as well as an economist, or heredity with the fullness of the genetic biologist. But we face what these more intensive scholars only glance at intermittently and tangentially, if at all: to try to understand in some measure how Chinese civilization and economics and human heredity, and some dozens of other highly developed special bodies of knowledge do indeed interrelate in being all parts of "man" – flowing out of man, centered in him, products of him' (p.xiv)

It was one of Veblen's key contributions to economics to emphasise how the generality of facts interrelated to determine the nature and pattern of economic processes, and that without knowledge of these factors, economics was purely a descriptive, rather than an analytical discipline (1898). Otherwise we have an economics devoid of true understanding, and consequently a weaker subject.

When examined in detail, cultures from around the world in fact demonstrate that rationality is significantly more complex than portrayed in the economic literature. Economics is characterised by anthropologists as possessing an outdated sense of 'rationality' tainted by the mistaken views of enlightenment philosophers that the 'natural' and 'rational' was in accord with (ideal) human nature, and that the unnatural was not (Bidney, 1953, p.683). Adam Smith's depictions of calculated self interest therefore blurs different concepts of the 'rational' and effectively leads modern readers to an interpretation that individual behaviour can be objectively determined to be 'optimal' or 'good' in some way that was neither justified or fully intended.

True anthropological studies show wide variations in calculated behaviours that force individual anthropologists to 'seek contextually given criteria according to which they may appear rational.' (Lukes, 1970, p.203), or find universal criteria of rationality (although universal criteria are viewed with suspicion), or satisfy a small number of criteria that the culture may 'pass' or 'fail'. Rationality is in fact a complex whole, tied up with culture and the needs of those living in it. Is a logical search for explanation, and attempt to validate against experience, rational if it defies western 'common sense'?

Culture and cognition combines both anthropological and psychological theories, and produces interesting results for those convinced of the validity of the economic conception of rationality. Gladwin (1964/1974) shows how, starting with studies of sub-normal rationality, and then moving on to the study of comparative cultures, rationality is difficult to quantify using standard conceptions. Indeed, successful cultures are not clearly associated with intelligence in testing with 'non-European peoples, many of whom do rather bright things, [being] given intelligence tests by both psychologists and anthropologists… … and had consistently come out with low IQs.' This problem of quantifying intelligence has since become widely recognised. In his study of the Trukese people, Gladwin established that whilst 'we seek a unifying concept which will comprehend all the relevant facts more or less simultaneously, developing an overall principle or plan from which individual steps toward a solution can be derived deductively. In contrast the Trukese work toward a solution by improvising each step but always with the final goal in mind.' (p.30) the Western view valued relational or abstract thinking whilst the Trukese valued concrete knowledge.

The apparent disadvantages of this method appeared not to follow in practice. Gladwin studied how the Trukese often set out on journeys of over one hundred miles of open ocean, relying on the skills of a traditionally trained navigator who used no compass, successfully arriving at islands as little as one mile across, using initial starting courses based on the stars, and then adjusting by dead reckoning. Even when stars were not visible, good navigators successfully directed canoes over the journey. The timing of course changes, where

required, was executed without benefit of timepieces or measurement of distance travelled. In effect the navigator set out, and then constantly re-estimated course over the time period of the 'decision' (pp.31-33).

Contrast this to the process of navigation of a BA flight, as outlined by Colin Marshall, Chairman of British Airways, who states in the foreword to Thompson (1995) a practical example of strategic planning, using the case of a 'simple' British Airways flight:

> 'the flight crew will have been briefed on conditions en route – prevailing winds, areas of known turbulence – and on conditions for landing at the destination. In the light of this information, the Captain will select the most efficient routing and the optimum flight levels. Once airborne, programmed navigation systems will keep the aircraft on track. Radar and radio contact with the ground will warn of potential hazards. Sufficient fuel will have been loaded to cope effortlessly with diversions, should problems occur at the intended destination airport. Such strategic planning and actions goes, as a matter of everyday course' (Thompson, 1995, pp. ix).

Whilst the principles of navigation are based on the Western 'rational' belief on prior calculation and decision-making, the execution of such decisions in practice involves integration of various 'incidental' pieces of information, consciously and even unconsciously perceived, into 'a constantly changing *gestalt* which defines his relative position' (Gladwin, 1964/1974, p.33). In effect, all decision making over processes that are sustained over a period of time is iterative in nature. Surely this is the true model that should be used in the description of forms of economic behaviour.

III Evidence from Psychology

It seems fair to say, following anthropological evidence, that economics has an unrealistic view of rational decision-making. Indeed this has been a point on which economists are willing to laugh at themselves to some extent:

> "Two policemen are considering the problem of catching the bandit. One of them starts to calculate the optimal mixed strategy for the chase. The other policeman protests. 'While we're doodling,' he points out, 'he is making his getaway.' 'Relax,' says the game-theorist policeman. 'He's got to figure it out too, don't he?'"
>
> (Williams, 2006)

The replacement of these unrealistic assumptions with more thoroughly grounded ones has been the objective of a number of authors from various schools. Some of these have even met with partial success. Authors such as Simon (1957) who base their work in psychology, and particularly organisational studies appear able to improve the model of decision making

significantly whilst reconciling their work with many fundamental economic principles. Simon's 'bounded rationality' accepts that individuals won't always (or even frequently) make decisions in possession of full information due to its cost relative to the potential benefits of its possession (pp.xxv) and so individuals 'satisfice' rather than optimise their achievement of objectives. Frequently decisions create long-term patterns of behaviour due to both the habit-forming tendency of individuals and the sunk-costs relating to decisions that encourage persistence of behaviours once decided upon (pp.65, 88-96). Simon's study was also one of the first to recognise that decisions in organisations involve two 'guesses' as both the impact of current decision in the future (where they take effect) and the future likely preferences of the individual or organisation are unknown at the time of the decision. These fundamentally change the nature of 'rational' decisions, recognising aspects of uncertainty raised in pure economic theory by Keynes (1937) and in business analysis by Knight (1921).

An increased attention to the psychological underpinnings of economic behaviour has been greatly encouraged by the work of psychologists such as Kahneman and Tversky's whose contribution to economics has been widely or at least publicly recognised. Whether these contributions have been sufficiently tractable (and successful) to tempt economists using simpler but inaccurate methods justified by 'F-twist' reasoning remains to be seen. Camerer (1999), however, indicates a range of formalised and tractable 'technologies' that convert behavioural approaches to usable elements for mathematical modelling of economic agents. These, and likely future developments in the formalisation of behavioural theory, appear likely to leave economics with few excuses to ignore the real aspects of decision making. Kahneman and Tversky's introduction of relative valuations and exponential discounting are only the start of the process of integrating realist behavioural models into economic theory.

Whilst Rabin (1998) bemoans the fact that economics rarely recognises the significance of realistic psychological models of behaviour, Elster (1998) similarly bemoans the exclusion of 'emotion' from psychological and behavioural explanations of such behaviour. There appears to be a 'pecking order' of realistic phenomena, where emotion is viewed as less scientific, or possibly more challenging in its implications for economics, so leading to its exclusion despite the apparent opening-up of the subject of economics. Whilst problematic for our theories, emotions also appear to make a significant contribution to our individual decision-making and behaviour patterns. Recent work by neurosurgeons such as Damasio (1994) suggest that, rather than being irrational, emotions in fact serve reasonable and logical purposes. Fear can obviously be justified, particularly in the way it operates rapidly by bypassing many of the reasoning parts of the brain to cause action via the 'amygdala' in the human brain, thus increasing the speed of survival responses.

Gifford (2005) indeed summarises a wide body of literature which now suggests that rationality, rather than being objective, can only be considered in the context of those values

by which we assess the benefits of a decision's outcome (see also Audi, 2001). Rational choice depends crucially upon the subjective evaluation of information and determination of meaning. Gifford also shows how values are often rapidly and unconsciously assigned by the brain, helping to enable 'rational' decision making in the presence of only limited relevant data. This 'fabrication' of relevant data allows it to calculate in the existence of essential ineradicable uncertainties (at that moment) in order to fill-in gaps in the information set required for a decision to be calculated. This fabrication, rather than being neutral 'white noise' in fact uses peoples' general preconceptions and impressions from experience which are called upon by the brain in order to enable such 'objective' rational decision making.

IV Other evidence on optimal strategies

It would appear overall that 'rational' behaviours are in fact emotional or value-driven in nature, whilst irrational behaviours may in fact have some basis in rationality. Surely the weight of evidence must surely sway opinion of orthodox economists? The survival of 'unrealist' economics in the face of the demands for 'realist' approaches within the subject are potentially explained by the influence of Friedman's methodological approach and its implications. The 'F-twist' removes the usual mechanism by which competition between paradigms might lead to scientific progress. The conflict between paradigms is often envisioned as being one where opposing groups attack the fundamental assumptions, or building blocks, of the others' theory. Friedman's instrumentalism means that such criticism is seen as irrelevant and is therefore incapable of forcing the orthodox paradigm to evolve into a more efficient form.

An experiment, using our subconscious and instinctive judgement may act to clarify the true situation.

The 'Star Wars' defence initiative of the 1980s produced few noticeable leaps in technology, despite the public commitment of the United States of America to fund research into weapons capable of preventing nuclear war. One of the few by-products that has been publicly demonstrated in a conflict was the anti-missile system used to protect Saudi Arabia and Israel in 1991 during the first Gulf War. The decision making ability of an anti-missile missile system known as the 'Patriot' missile was tested by real missile attacks and, in Saudi Arabia, was initially said to have an 80% effectiveness rating (later revised down to 70% - Israel's rate was only 40%).

Hypothetically, which decision-making algorithm would each of us prefer to operate such an interception device for missiles? Economic rationality is based on a scientific approach, evaluating and integrating data in a pre-calculative strategy. It is said to have the most statistically efficient property, being equivalent to the mathematical expected value. Alternatively, behavioural sciences have a number of methods of relative evaluation that can

explain why increases and decreases have different impacts on ideal solutions, in view of individual psychology. Finally anthropology suggests that good effects can be had from reliance on memory, dead reckoning, and constant re-calculation of information in an iterative process.

Strangely, the anthropological evidence coincides strongly with some of the 'search' or procedural behaviours for decision-making used in other fields such as cybernetics, and it is this method that gives the Patriot missile its effectiveness. It takes its first estimate as just that – an approximation – and uses a 'phased array' radar to monitor the area around the predicted path a number of times to allow corrections to course, etc. This has saved considerable numbers of lives. So which [rational] economist would like to be protected by a missile using the algorithm of economic rationality?

V Conclusion – the implications of evidence on behaviour

Evidence from the social sciences suggests that decision-making is heterogenous rather than homogenous in nature. Whilst rationality is not reduced in theory to a 'binary opposition' or dichotomous choice, it is still over-simplified with rationality and bounded rationality being only two recognised strategies for individuals to follow. Dismissal of alternatives as irrational appears hard to justify given the true complexity of the concept of rationality, the role of both objective and subjective 'facts' in the process of creation of knowledge, and the existence of many alternative strategies that, given their contexts, are either clearly effective (and rational by at least one measure for that reason) or at least debatably rational in their response to the situations in which agents in fact make decisions.

In the discussion above we have highlighted three aspects of real-world behaviour which research suggests may be relevant to economic theory. In particular it has significant implications for orthodox economic theory that proposes the market as a 'rational' allocative mechanism that arrives at optimal outcomes for economic agents under any particular endowment of resources, given the 'simple' assumption of rational self-interested behaviour on the part of individual actors in the market.

Firstly, actual decision often takes place in the absence of even essential information for such calculations to be made. The brain is continually 'filling-in' to get around problems of information scarcity. Experience consequently improves the ability of the brain to calculate strategies under problems of information shortage.

Secondly, rather than 'cold calculation' being optimal, emotions are in fact used as a short-cut in real-world decisions to bypass lengthier decision-making processes. Emotions may either speed survival responses, or give initial impressions of likely calculated outcomes.

In fact even economics concept of when, as well as how, decisions are made appears to be unrepresentative. Rather than being made in advance of action, decision-making often develops iteratively in response to the unfolding events, influencing each stage of an activity towards a final goal some way in the future.

These have findings have implications for the nature of market relationships. Firstly, exchange is not equitable, as suggested by market theory. In fact, experience is favoured, with those with greater experience having a greater ability to calculate decisions. In addition, (heterogeneous) individual values affect the evaluation of opportunities in the market. Even given equal access to information, differences will exist between individual's decisions.

Secondly, emotions, which the brain uses to short-cut more intensive decision-making processes, are significant determinants on the evaluation of opportunities. This helps explain the central role of persuasion in the process of selling. Rather than a competition between sellers for the attention of buyers, market exchange in fact constitutes a competition between the persuasive powers of the seller and the calculative/deliberative powers of the buyer. This reflects the old institutional view of Commons (1931) that the individual transaction, rather than the market, should be the appropriate unit of analysis in economics.

Finally, the true nature of the market is a venue for transactions subject to a range of complex influences, and not the focus of a set of 'rational' optimising processes for decision-making over allocation and distribution in the economy. Rationality itself is not a key distinguishing feature of real world markets. The confidence of orthodox economists in the ability of the market to solve economic problems appears significantly over-stated in the light of this evidence from behavioural studies in the real world. This evidence also has wider implications, therefore, in those areas where economics has been used as a justification of laissez-faire and neo-liberal approaches to government. These political conclusions seem untenable in practice given the true nature of decision-making institutions in the market.

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Table I: Economics of Institutions (NIE view)

Level		**Frequency (years)**	**Purpose (NIE view)**
L4: Neoclassical economics/agency theory	Resource allocation and employment (prices and quantities; incentive alignment)	Continuous	Get the marginal conditions right. 3rd order economizing
L3: Transaction cost economics	Governance: play of the game – esp. contract (aligning governance structures with transactions)	1 to 10	Get the governance structures right. 2nd order economizing
L2: Economics of property rights/positive political economy	Institutional environment: **formal** rules of the game – esp. property (polity, judiciary, bureaucracy)	10 to 100	Get the institutional environment right. 1st order economizing
L1: Social theory	Embeddedness: **informal** institutions, customs, traditions, norms, religion	100 to 1000	Often noncalculative; spontaneous

Source: adapted from Williamson (2000) p.597. Each level determines the institutions of that level above, and is in turn susceptible to feedback effects from those institutions above. North (1971) calls levels 1&2 fundamental/primary and level 3 secondary institutions. The classification of the formal, hierarchical and market levels as 'economizing', and the social level 'non-calculative' reflects the NIE, and particularly not the OIE, view of social institutions.