

ROYAL SOCIETY OF TASMANIA

PROGRAMME FOR JULY AND AUGUST 1989


JULY 4 Mr J.C.S. Bowler, Director, Tasmanian Office of Science and Technology, will give a lecture on Science and Technology - our future.

AUGUST 1 Dr Peter Earl, Senior lecturer in Economics, University of Tasmania, will give a lecture on Psychology and Economics.

Meetings are held at 8.00 p.m. in the Royal Society Room, Tasmanian Museum and Art Gallery, Hobart, on the 1st Tuesday of each month.

Other speakers for 1989 are Dr Lloyd Robson, University of Melbourne (September); Dr Victor Eastop, British Museum (Natural History) (October); Mr J.R. Gumley, Critic Corporation Pty Ltd (November).

GPO Box 1166M
Hobart 7001
19 June 1989


(Don Gregg)
Honorary Secretary

From 140 years ago---

11TH JULY, 1849.—Monthly evening meeting; His Excellency Sir W. T. Denison, President, in the chair.

Lieut. Joseph Henry Kay, R.N., F.R.S., Director of the Observatory, Hobart Town, read a paper on the new portable Barometer, the Aneroid—its principle, construction, and applications; and submitted a diagram of its behaviour as compared with the action of the standard barometer at the Observatory during 120 consecutive observations: with an account of its action during a journey to the summit of Mount Wellington.

A discussion followed on the derivation of the word *Aneroid*. It seems to be formed from the old Greek word *Narōs*, or *Nērōs*, *humidus* fluid, with the privative *a* prefixed. *Narōn* appears to have been the name of a river (Narenta?) on the borders of Illyria; and *Nērō* is stated to be the modern Greek word for *water*. *Aneroid barometer* would thus signify that which the instrument actually is—a barometer without a fluid.

A paper by Lieutenant-Governor Sir William Denison, on the nature and construction of Docks—*dry*, *wet*, and *floating*—was read, illustrated by a series of elaborately-finished diagrams, which were placed upon the table by His Excellency.

Psychology and Economics: Lecture to Royal Society of Tasmania, Delivered at the Tasmanian Museum and Art Gallery, 1 August 1989

Interdisciplinary work in economics began to thrive in the 1980s and there are growing signs that it is achieving professional maturity: specialist journals and societies, large conferences, many books, setting up of specialist centres of excellence and the occasional interdisciplinary senior post. Attempts to produce text books would further indicate that this kind of work is becoming more akin to what Kuhn would call 'normal science', though as yet there are few courses that specialise in this kind of teaching. However, there is still considerable resistance to the integration of economics and psychology among mainstream economists. Paradoxically, their choices of approaches to theorising seem to lend themselves to study from the interdisciplinary perspective.

As far as such work in economics and psychology is concerned, two kinds of activity need to be distinguished: psychological economics (attempts to study economic phenomena with the aid of material from psychology, often known also as behavioural economics - not behaviourist...) and economic psychology (the extension of the study of human behaviour to encompass economic behaviour). The noun adjective relationships give a strong clue as to the starting points of many researchers in the two fields. Collaborative research has been relatively limited; often specialists in either psychology or economics feel rather out of their depths in their secondary fields, realising they may be straying into minefields of controversy. This may result in gaping holes in coverage of relevant literature, which can place potentially sympathetic reviewers in a difficult position, while making life very easy for those who wish to dismiss such work as ratbagery.

Interest in a psychological approach to economics is not new: from the 1870 to the 1930s some attempts were made to suggest that economists might understand why and how choices were made if they made use of emerging ideas from psychology. But these suggestions ran counter to the simultaneous attempts of economists to formalise their work and make it more 'scientific' in a Newtonian sense. It proved convenient for economists to develop a very simple kind of psychology of their own: people seek to maximise their utility; they know what they want and they know how to get it; they can rank alternative combinations of goods and services in order of preference (by the mid 1930s ordinal utility theory attempted to get away from any need to quantify the elusive 'utility'), and these rankings were assumed, for analytical purposes, to involve a willingness to make substitutions at an ever decreasing rate. The mathematically inconvenient idea that people might have hierarchies of needs and/or wants, which had figured in early explanations of marginal utility and was to figure strongly in the work of Maslow in psychology years later, was cast aside. If the price was right, anyone could be made to make substitutions and rational actors would ignore sunk costs as so much water under the bridge; there was no room for people to cling steadfastly to particular lines of action in the face of changing circumstances, no room for obsessions, hangups and powerful principles.

The second coming of psychological economics should have been triggered by Keynes' attempt to introduce some homespun psychology into his work on business cycles and unemployment in the 1930s. One of the images he presented of investor behaviour

centred on the psychology of the crowd, superstitions and rules of thumb, rather than on rational calculation. But for the majority of the economics profession it was not until the 1960s, and particularly the 1970s, that the time came to consider how decision-makers cope with uncertainty.

When this time came, most economists paid little attention to the work of the two thinkers who stand out as giants in the field of psychological economics, Simon and Katona. Katona has taken a degree in psychology but had then worked as an economic journalist before emigrating from Hungary to the USA in the 1930s. One of his contributions was the study of the relationship between consumer sentiment and business cycles, which led him to stress that consumption was not merely a function of the ability of consumers to spend but also of their willingness. Attitudes became an intervening variable between economic circumstances and choices about resource allocation. Despite the mass of research data gathered by Katona and his associates in many countries, economists have not seen it as implying a need to study how, in practice, people form their attitudes. The argument has been that changes in objective economic circumstances (e.g. a rise in unemployment or in the rate of inflation) lead to changes in attitudes and thence to altered behaviour, so one can leave out the intervening variables and just model the relationship between economic variables. This approach would not have been tremendously helpful in anticipating the 1957-8 US downturn or behaviour in the face of discontinuities such as the 1973 Oil Crisis and the 1987 Crash.

Simon's work had been sufficiently unloved by economists for him not to come into the top 620 living authors of works cited in economics journals when the first edition of Who's Who in Economics was being prepared in 1980; yet it was he, a professor of computing science and psychology, who had been awarded the Nobel Prize in Economics in 1978, much to the dismay of most of the profession. His work had been too subversive, challenging the hard core of the orthodox research programme. Simon called into question the wisdom of assuming that people engaged in optimising behaviour, by confronting well-defined sets of preferences with objective constraints in the form of technology and their budgets. Psychological limitations instead forced them to frame problems for themselves in a partial way and act in the face of limited information often only partially processed. To cling to their optimisation assumptions economists ignored the problem of infinite regress associated with assuming people would undertake the optimal amount of search for information, or assumed that, by repeated experimentation, agents would stumble upon an optimal set of rules of thumb. Increasingly, though, the 'rational expectations' revolution took hold: agents were assumed to see the world in the same way as the economist and to know the underlying structure of the systems in which they were making their choices; in the long run they would not be systematically wrong. This way of looking at expectation formation

The ostrich-like or Procrustean attitude of many economists towards the use of psychology in economics may be borne in mind as I outline how I have found it helpful to use psychology in my studies of choice. In an attempt to understand what makes the consumer 'tick' I have found much inspiration in the literature inspired by George A. Kelly (1955) The Psychology of Personal Constructs. (Personal construct theory is abbreviated to PCT.)

Kelly argued that instead of seeing human action as 'motivated' by sex-drives or imprinted tendencies, it may be useful to see people rather as if they are intent on trying to predict and control events. Given the difficulties of being a successful consumer and the social pressures exerted on people to be 'cool', 'streetwise' and 'in the know', Kelly's suggestion seems not unreasonable. If this is what people are up to, they are not fundamentally different from scientists who formulate hypotheses and then see whether or not these fit in with observations. If I buy a product, I usually have in mind some idea of what I should be getting and I am disappointed or delighted depending on how its performance seems to match up with my expectations. Thus PCT sees people as forming 'templates' in their minds and then testing to see how they fit reality. If things never fit, a person is hardly going to be able to control what happens to her and will feel at the mercy of events - not a 'happy' state to be in. But sometimes a wrong 'construction' of reality involves underestimating product performances in areas where there seems scope for enhancing one's control - no wonder one is then delighted. It should be noted here that how a person feels about a choice she has made does not in the event depend on the product's objective properties by on what she expected of it and how she comes subsequently to see it.

From this standpoint it seems appropriate to construe the things people buy as if they are ends to the means of prediction and control (this is a key theme in my own work, see also the article by J. Gutman in the Journal of Marketing, Spring 1982, pp. 60-72). Many household gadgets, for example, are devices for stopping the forces of entropy from taking one's environment over completely: if someone expects her home to look like a showhouse, there are plenty of products that can be used to prevent it from looking like a tip. Convenience products basically make life easier to manage: they reduce the skill one needs (and the time one needs away from other pressing activities) in order to produce, say, a particular meal. Clothing and cosmetics products assist those who wish to create particular images of themselves in the eyes of other people. In trying to create such images we test the robustness of our theories of what kinds of people we are, and possibly increase at the same time our control over some situations (for example, people take us seriously because of how we look, or find us interesting as potential partners). Sometimes we recognise the limits of our self-control and make choices, as Ulysses did before sailing towards the Sirens, that tie us down by precommitments (contractual savings via life assurance policies may often serve this role). Sometimes we find we can't control ourselves no matter how hard we try - for example in dieting - and spend a good deal on aids to such endeavours. The diagrams accompanying this summary are from the work of Gutman and his associates and they show some of the underlying ways in which more obvious 'surface' features of products can be related to consumers' higher level goals. Clearly, in marketing a particular product one needs to know what ends consumers may see it as being relevant, either as an aid or as a hindrance.

Many leisure choices may be basically inquisitive in nature: we put ourselves in particular situations to 'find out what they are like', testing our prior beliefs or seeing whether we can make sense of the events on the spot, as they happen. But how much we discover depends on how demanding are the questions we ask of the situations we encounter, how brittle we dare to make our hypotheses.

PCT suggests that when a person chooses she opts for the activity from those on her list of possibilities that seems to open up the most scope for her being able to

experiment with choices that will increase the range or clarity of her view of the world. However, she will be restrained insofar as she suffers from anxiety, which PCT sees as the awareness that one is facing events that she is poorly able to predict and control. (The word 'awareness' is very important here: people who don't see the limitations of their predictive skills may confidently plunge into situations that others, who are better to deal with them, are afraid to carry out.) Like students, consumers will not choose new 'courses' in life if they expect to end up failing them, or passing in them only at the cost of letting other areas, where they could have achieved control, crumble into chaos.

An uncertain prospect will only represent a welcome challenge to a consumer if she does not see it as too risky. But she will also avoid devoting her time to familiar activities that offer no challenge (which are 'boring') unless everything else is too terrifying or the abandonment of rituals will make her life seem like it has major holes in it. Like corporations, consumers will be torn in areas that they know but where there is little further prospect for growth, and diversification into hazardous new territories. (For similar but non-PCT-inspired views, see J. Taylor, 'The role of risk in consumer behaviour', in the April 1974 Journal of Marketing, or T. Scitovsky, 'The desire for excitement in modern society', in Kyklos, 1981.)

Some things a consumer will be loathe to try out because they would make her feel excessively guilty. In PCT, guilt is defined as a person's realisation that she is (about to be) acting in a way which would reveal her not to be the sort of person she thought she was. In other words, she resists because such consumption would conflict with her view of herself relative to others (at least this is how she sees things). The example of consumers who preferred eggless cake mixes to egg-included ones that were more convenient - because the latter choice seemed to imply they were lazy - reminds how one should not underplay the significance of self-image even for low-value purchases.

In terms of PCT, the consumer will feel threatened when she sees a significant change coming up in the position of herself relative to others (who might include the sales personnel she is dealing with, members of her reference group - those whom she looks to when judging herself - or other groups in society). By changing her pattern of choice, she can seek to restore her relative position. However, if this change involves an act of conspicuous consumption, she will be securing her own position for the moment while threatening someone else's.

There appears considerable scope for designing marketing campaigns to exploit consumer emotions and desires to predict and control events. Firms can, and do, try to show consumer that, if they do not buy a particular products they will find life less easy to control. Firms can also try to improve sales by offering no-quibble guarantees, user-friendly designs and images of friendly staff. But there is great scope for getting things wrong, too. Telling the consumer, in effect, that she is an idiot not to have tried to product in the past is very different from telling the consumer that even the experts have now admitted that they had under-estimated the product. A threatened consumer might purchase a product to prove herself relative to a sales person (or to avoid embarrassment), or she may try to remove the threat by getting out of the selling situation altogether. Anxieties of entirely the wrong kind may inadvertently be created, with disastrous results: a classic error was made by the Raleigh Cycle

company in India, when its sales staff used advertisements that they construed as showing Indians pedalling at great speed away from pursuing tigers. The target market saw things differently: buy a Raleigh bike and you'll get chased by tigers!

Individuality in consumption involves choosing differently because one thinks differently from other people. Fortunately for those in marketing, people can be grouped into segments of the population with fairly similar ways of seeing things and hence of behaving as consumers. These segments are usually called lifestyles ('ways of life') and the activity of investigating them is known as psychographics ('mind-mapping'). The word 'ways' suggests that people are pretty systematic and consistent in how they see the world, and in PCT a person's personality is seen very much as the outward manifestation of how she forms her expectations. Here, of course, we are concerned essentially with consumption personalities. If firms can understand processes of expectation formation, they have a hope of presenting their products in ways which fit in with expectations (if that suits them) or of seeking to exert leverage on consumers' expectation amendment mechanisms.

When ideas conflict, judgments have to be made. A person can try to believe anything that suits her and can seek to justify her beliefs by (a) trying to obtain social corroboration; (b) selectively emphasising negative ideas about alternative views that clash with her own (cf. the 'sour grapes' attitude to choices that one is precluded from exercising); highlighting suggestions that are consistent with the optimistic views she holds ('wishful thinking' is something that those involved in marketing have to guard against in their own behaviour!). However, if a person wants to justify or force-fit particular constructs the implication seems to be that she has a prior way of forming expectations that shapes the choice of what to try to justify.

In PCT it is argued that people organise their ideas in a systematic hierarchical manner, with some constructs being used to determine others, though the systems may not always be obvious to onlookers. In other words, people have sets of rules and procedures for forming and changing expectations. There is a parallel here with judgmental process in a courtroom: a set of rules, administered and interpreted by the judge, determines what can be laid before the jury and what is deemed 'out of court', while appeals to higher courts are used to resolve contested judgments. Because people organise their ideas differently marketing claims that are not deemed admissible by one consumer's rules for forming expectations may be suggestions that other consumers can take on and use as a basis for action.

An example may help indicate how the construing process works. Suppose I have a car which is turning out unexpectedly expensive to keep on the road: what kind of a problem do I have? Is the car a lemon, or is the trouble due to incompetence or guileful activities at the dealer's workshops? If my judgmental procedures simply assume that the dealer is OK, then I must conclude that the car is the problem. But if my judgment about the dealer is built up around other assumptions about how to appraise car repairers then I cannot make up my mind without going back further in my mental hierarchy. For example, if I rely on the recommendation of a friend, on what basis do I trust that person's judgment? Clearly, such thinking can't go on ad infinitum: we must have some basic foundations on which we build our lives 'because we do', as simple as that. These 'core constructs' are (in terms of a cliché) the concepts 'around' which we let our lives 'revolve'. It is going to be very difficult to

get consumers to purchase products if the activity of doing so cannot be shown to be consistent with their core beliefs.

It may be useful here to note the parallels between these ideas, including the concept of lifestyle, and the notions of corporate strategies and corporate cultures. In a paper which argues that the way in which a firm's personnel view the world is a major barrier to attempts to change its direction, J. Lorsch (California Management Review, 1986) notes that 'By strategy I mean the decisions taken over time by top managers, which, when understood as a whole, reveal the goals they are seeking and the means used to reach these goals. Such a definition of strategy is different from common business use of the term in that it does not refer to an explicit plan. In fact by my definition strategy may be implicit as well as explicit'. The 'implicit' part of a strategy involves things which managers will bring to mind only if they realise they are considering possible courses of action which conflict with their unwritten views of themselves and/or their firm's business; indeed, for much of the time they may not even be conscious of some of the means they use to reach particular goals and a lot of the time could be thought of as being on 'autopilot'. Very much the same can be said for consumer strategies for coping with life: most of the time, people get on with things according to particular rules, rather than getting bogged down in questioning whether they should be changing their way of life.

When a person chooses what to buy, she will be sacrificing some possibilities in order to gain others. How much of a sacrifice an activity involves will depend on how a person ties her ideas together: what one person sees as very bad news, because it carries a lot of damaging implications for her ability to predict and control events (it may destroy many of her expectations, leaving a gaping hole in her view of the world) may be seen by someone else as implying little or nothing that is going to get in the way of her life. Such different thought processes are relevant for our abilities to sell a person something: which might seem a pretty minor purchase to ourselves might be an act that the consumer will, unless we change our mode of presentation, see as involving a pretty major, damaging change of expectations, so she will avoid it like the plague. But some products may be shown to have major helpful implications despite seeming fairly trivial on the surface.

As someone who stumbled upon Kelly's work at an early stage in my career without having made the kind of investment in modern mathematical approaches to consumer theory that many orthodox economists have made, I found it easy to 'buy' Kelly's ideas in an economics context. But it is easy to see the threat such an approach to consumer behaviour poses to the intellectual capital and status of orthodox theorists. It is difficult to see how this situation can be changed until the university teaching of economics adopts a multi-paradigm, horses for courses approach to the subject.

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Dr Peter Earl
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Dear Dr Earl

Thank you very much for the interesting and stimulating lecture on Psychology and Economics which you delivered to the Society on 1 August.

For the Royal Society minutes, I would be grateful to receive a summary of your lecture in about 150 words.

Yours sincerely


(Don Gregg)
HONORARY SECRETARY