ECONOMICS AND ITS NEIGHBOURING AREAS

BRUNO S. FREY
Institute for Empirical Research,
University of Zurich,
Blumlisalpstrasse 10,
CH-8006 Zurich (Switzerland)
E-Mail: bsfrey@iew.unizh.ch

ABSTRACT
Economic imperialism has been a great success within the social sciences. While progress can certainly be made by further applying the economic approach to areas outside the economy, diminishing returns have set in.

It is now time to embark on a new course and to switch from an exporter to an importer of ideas. The social and literary sciences contain many ideas which can enrich future economics without giving up its sound foundations. The areas of behavioural anomalies and human motivation are pertinent examples.

Keywords: Economic imperialism, Human behaviour, Social science, Interdisciplinarity

I. Economic Imperialism

Economics is often considered to be “the Queen of the Social Sciences”. It has a well established and generally accepted core (neoclassics) and it is rigorous. This rigour normally takes the form of mathematically formulated models. Therefore, both the assumptions and the results of the analysis are clearly specified and explicit.

Economic theory is based on a particular model of how human beings act. This economic model of human behaviour (see Becker 1976, McKenzie and Tullock 1975, Kirchgässner 1991, Frey 1992) is based on five elements.

Properties of the Economic Model of Human Behaviour

1. Individuals Act: What happens on the social level is explained by the behaviour of persons (methodological individualism). This does not mean at all that human beings are considered isolated; rather, their behaviour can only be understood as the result of interactions with their surroundings, other people and institutions.

This approach differs fundamentally from theories in which collectivities act on their own, as is assumed, for example, in the organic conception of the state. No further distinctions are made below the level of the individual. This distinguishes the economic approach from several variants of psychology where split personalities are studied, and also from sociobiology where there is a level of genes below the individual person.
To take the individualistic stand also means that a person’s evaluations and normative views are accepted. Statements such as “something is socially desirable” are taken to be meaningless because “society” is no behavioural unit which could proffer an evaluation. What counts is how people in society evaluate the various possibilities open to them.

2. Incentives Determine Behaviour: People do not act randomly but react systematically and predictably when they consider a possibility for action to be more advantageous or more disadvantageous.

Human beings have resources at their disposal; they seek and find solutions, learn and invent (but they are not fully informed); they form expectations about the future; they compare the advantages and disadvantages of the possibilities of action available to them in an implicit and sometimes explicit way.

The economic model of behaviour is thus quite distinct from the view that man is a perfectly informed being acting like an automaton. Homo oeconomicus is characterized by limited knowledge which is extended if found worthwhile.

3. Incentives are Produced by Preferences and Constraints which are Strictly Distinguished: Changes in human behaviour are attributed (as far as possible) to observable and measurable changes of the opportunity set determined by the constraints. Behavioural changes are thus not attributed to non-observable and non-measurable preference changes. This procedure enables us to develop theoretical hypotheses and to test them empirically.

A simple example may be given for illustration. Assume that an increasing tendency is observed to buy smaller cars than formerly was the case. This change in behaviour could be explained by arguing that the consumers have shifted their preferences and now put a higher value on small cars (e.g., following “post-industrial norms”). Such an explanation is difficult or even impossible to test empirically. What would be needed is an observation of a preference change independent of the behaviour observed. There are a variety of methods available for this purpose (see Pommerehne 1987) but they are often not applicable. If the “change in preferences” cannot be observed independently, an “explanation” only consists in a description using different words: a preference change must have occurred because behaviour has changed. Conversely, had there been no change in behaviour, there would be no preference change. An empirical test of such an “explanation” is meaningless because it must always be true. Accordingly, no new empirical insights are gained.

The economic model of behaviour proceeds in a different way. It first asks in what way the individuals’ possibility set has changed. The opportunities for action available to a person are attributed to observable changes in the constraints. Primarily, changes in the prices or costs of goods and actions are considered which may have caused the change in behaviour. The economist then speaks of a shift in relative prices because the price change compared to alternative goods and actions is relevant. To explain the increased purchase of smaller cars one may, for example, refer to the following possibilities: an increase in the fuel price (small cars use less petrol); more favourable taxation or insurance premiums for small compared to large cars; government regulations to the
disadvantage of larger cars (such as speed limits); or other changes in environmental conditions (such as smaller public parking lots).

In contrast to changes in values the economic approach based on changes in constraints is empirically testable. Thus, it is easy to measure a rise in the price of petrol. As may be seen from the example, the notion of “price and cost” is understood in an extensive way. It includes not only monetary prices (such as the price of petrol) or monetary burdens (such as taxes or insurance premiums) but all costs which arise when undertaking an action (smaller parking lots lead, e.g., to greater time loss and more inconvenience).

4. Individuals Pursue Their Own Interests and Generally Behave in a Selfish Way: This assumption about preferences seems at first sight to represent a negative evaluation of man: an egoist is not likeable. This is, however, a misunderstanding. Selfish behaviour means that it cannot be assumed that every person acts magnanimously towards others — this would certainly be unrealistic. Nor does it mean that every person always endeavours to harm others. Selfish behaviour takes a middle position. Most people are, with few exceptions, neither saints nor criminals. Most are selfish, while only a few are consistently good or bad.

Human behaviour is thus characterized by neither love, nor hate, nor envy; people act neutrally in this respect (Collard 1978). Selfish behaviour can be relied on, it may as a rule be expected that human beings act to their own advantage.

Selfishness may take quite different forms under varying conditions. In the family or among friends, for instance, to be selfish means that in one’s own interest one takes other people’s welfare into account. The same holds in recurrent situations such as between regular customers and tradesmen. Those who, under such conditions, act badly towards others are likely to harm their own reputation and interest (Frank 1988). On the other hand, in an anonymous environment selfishness normally means that each person acts in his or her own narrow self-interest, or in an opportunistic way (Williamson 1985, 1986).

5. Constraints Determine the Human Possibility Set and are Mainly the Result of Institutions: The most important restrictions are:

- disposable income, including wealth and the possibility to get credit;
- the (relative) prices for goods and services;
- the time required for consuming and acting.

The first two conditions define a person’s disposable real income. (In simple graphical expositions this income is given by the “budget constraint”). A person’s income may be increased by relinquishing leisure hours and working more. As total time is limited to 24 hours per day, from which time needed for sleeping, eating and recreation must be deducted, someone with a given endowment can only reach a certain maximum income, even if he or she does nothing else. A person’s possibilities are thus determined by a full income constraint. In addition to the monetary and time constraints there are other physical and psychic limits.

The Law of Demand. On the basis of these five elements of the economic model of human behaviour, it is possible to derive a central law - the generalized law of demand. Suitably applied, it allows us to theoretically and empirically explain how people act.
The law of demand states: if the price (or cost) of a good or activity rises in comparison to other goods or activities (i.e., if the relative price rises) the particular good is demanded less and the particular activity is carried out less.

This central law is based on the principle of *marginal substitution*. A relative price rise does not provoke a total or abrupt change in behaviour but rather a more or less strong adjustment to changing scarcities. The law only applies provided other influences stay constant (this is the *ceteris paribus* assumption). The influence of other factors on demand must be taken into account separately. To take up again the example of a switch from large to small cars: if the price of petrol rises (which benefits buyers of smaller, petrol-saving cars), but income rises at the same time (which induces the purchase of more expensive, larger cars), it may not necessarily be expected that relatively more small cars are bought (the substitution and the income effects work in opposite directions).

An important property of the law of demand is that the direction of the expected change in behaviour is well determined. The relatively more expensive activity is undertaken to a lesser extent, and the relatively more expensive good is purchased and consumed less, and *vice versa*. This property does not normally obtain for other influences on demand. In particular, no general theoretical hypotheses exist about whether a higher income raises or lowers demand. The demand for larger cars may increase with rising income, the demand for plain food may decrease. Theoretically, however, the direction of the influence of a higher income is uncertain; it can only be determined by empirical observation.

**Differences from Other Social Sciences’ Views of Man**

In sociology and many parts of political science, but implicitly also in law, a model of human behaviour is generally assumed which differs strongly from the economic concept. Since Durkheim (1885), the “father of modern sociology,” and in particular since Parsons (1949, 1951), people’s actions are taken to be influenced by moral and social factors. These social determinants of human behaviour are acquired by socialization and internalization processes. Persons deviating from these norms imposed by society are punished, with the aim of restoring a morally desirable behaviour. The model of “homo sociologicus” (see Dahrendorf 1958) consists of three central elements (Opp 1979, 1986, Lindenberg 1985a,b):

(a) Human behaviour is determined by society. Society is an entity from which the behaviour of people derives. Human beings are programmed by their social environment.

(b) People act within roles. Society consists of a network of behavioural norms in which an individual is placed. This system of roles provokes behavioural expectations which make coexistence possible. Deviations from roles are only possible if socialization is insufficient.

(c) Norm deviations are sanctioned by society. Punishment, mainly in youth and within the family, serves to strengthen and supplement socialization.

This sketch should make it clear that homo sociologicus is not attributed powers which would allow him to learn and to find solutions of his own. He has no possibility to choose between different actions and to substitute, and to decide himself on the most
advantageous solution. Constraints are only set by sanctions and role expectations of other people, but not by income, prices, time, physical and psychic factors. As a result, the scarcity of possibilities is insufficiently taken into account.

In empirical social research based almost exclusively on the survey method, a somewhat different model of human behaviour is assumed (see Lindenberg 1985b). Opinions, attitudes and orientations are taken to be social processes which determine people's behaviour. It is accordingly taken for granted that behaviour can be deduced from attitudes.

This sociological model again provides no space for active behaviour based on learning and choosing, and again, there are no constraints on actions due to scarcities of income and time. All that matters is the pressure imposed by other people's expectations.

Economics can certainly also learn from sociology. In particular, it is necessary to include the great variety of values, wishes, internalized norms, as well as aspects of perception which are transmitted by social processes into the economic approach. Both views of man have their strengths: economics seems to be better equipped to explain changes in human behaviour, while sociology seems to be better equipped to explain historically existing levels. In the case of voting participation, economists concentrate on explaining why at a given instance it is higher or lower than average, and sociologists try to explain average participation (Kirchgässner 1980).

Imperialistic Extensions

The economic model of human behaviour has been applied to many areas beyond the economy. Examples are:

(a) Politics: This area has been called public choice (see e.g., Mueller 1989), the economic theory of politics, or new political economy (e.g., Frey 1978). Important subareas are Constitutional Economics (Buchanan and Tullock 1962, Buchanan 1987, Brennan and Buchanan 1980, 1985, Frey 1983), and International Political Economy (e.g., Magee, Brock and Young 1989, Frey 1984).

(b) Law: This area is called law and economics (e.g., Posner 1986, Cooter and Ulen 1988). It deals both with its public branch, with criminal law (the economics of crime, Becker 1968, Cameron 1988), and private law (theory of property rights, Coase 1960, Alchian and Demsetz 1972, Furubotn and Pejovich 1974, and the theory of transaction costs, Williamson 1985).

(c) History: This application of economics is known as new economic history (Temin 1973, North 1981), and its econometric testing is called cliometrics (Fogel 1965).

(d) Art: This extension of economics is known as the economic analysis of the arts or the economics of culture (see Baumol and Bowen 1966, Throsby and Withers 1979, Frey and Pommerehne 1989).

Economic thinking has also been applied to other areas. Well established are the economics of education (Blaug 1968, 1969) and the economics of health (Cooper and Culver 1973). Newer areas are the economics of women (e.g., Blau and Ferber 1986,
Bergman 1986) and the economics of sports (Goff and Tollison 1991). The economic approach has also been used to explain particular areas of human life connected with the family: marriage, children, divorce, suicide (Becker 1971, 1981) and even to the determinants of abortion (Medoff 1988), drug addiction (Winston 1980, Becker and Murphy 1988), religious practices (Ehrenberg 1977, lannacone 1988, 1991), and lying and cheating (Tullock 1967).

**Interdisciplinarity and the Social Science Paradigm**

The economic view of the world applies the same theoretical approach to many different areas. Interdisciplinarity does not refer to the scientific method but to the topic. The use of a unitary approach makes it possible to look at distinct parts of society from one point of view and to thereby integrate them closely. The social sciences are no longer distinguished according to their dominant field of application - in particular economics is no longer restricted to the study of the economy. The “unity of the social sciences” is achieved.

Some scholars (such as Stigler 1984) consider it as a matter of course that this unity is to be undertaken under the leadership of economics. The approach explaining changes in human behaviour by changes in constraints may indeed be understood as a general social science paradigm: while this procedure is employed in this book one should not dismiss the possibility that another discipline’s approach can also fruitfully be applied to various areas.

The economic view of the world has been evaluated in quite different ways in the sciences traditionally dealing with the subjects treated. Some think that “economic imperialism” has to be rejected as a matter of principle - but the same “imperialism” undertaken by other sciences is found to be acceptable. Many opponents of the economic approach welcome as a matter of course that sociology, psychology or law are applied to various topics. The sociology, psychology or law of the family, or the sociology, psychology or law of art are taken to be completely legitimate, but not economics of the family or of art. This asymmetric evaluation of the sociological, psychological and legal approaches as opposed to the economic approach suggests that the problem does not lie in imperialism as such, but rather in the economists’ way of thinking.

More widespread than an outright rejection of the economic approach is that it is little known, and what is known is often a seriously biased picture.

It has become generally accepted within the economics profession to apply economic reasoning beyond the area of the economy. In particular, the invasion of Rational Choice into politics has proved to be a major success, and this approach is also likely to have a major impact on sociology. (see, e.g., Opp 1985, Lindenberg 1985b, Coleman 1990). However, there are signs that the easy gains in insights achieved when a paradigm is applied to a new area are diminishing (see Hirshleifer 1985). Public Choice, for example, is no longer as exciting as it used to be; for better or for worse, normality has taken over. Progress on the whole is marginal, the subject becomes more and more standardized (i.e. orthodox). Many contributions are rather mechanistic, while originality and innovation tend to disappear. Today, people fancy other areas such as evolutionary or chaos theory, but it is of course an open question whether these new currents will ever reach a degree of popularity comparable to Public Choice.
This rather sober evaluation of the present state does not imply that there are no fascinating areas and topics in the field. Over the last few years, relevant new insights have been gained even in traditional subjects.

II. The Future: Social Science Inspirations

The diminishing marginal returns of the “imperialist programmes” of economics suggests that the time has come for a change in direction: In the future, the main emphasis should not lie on exporting economics but rather on importing aspects and insights from other broadly conceived social sciences. Inspirations from other social (and literary) sciences are very well compatible with the basis of modern economics, which has proved to be so useful. Indeed, the economic model of human behaviour properly understood perfectly lends itself to the integration of so far neglected aspects of people’s actions. What is needed, however, is an effort to overcome the model of “homunculus economicus” who is at all times in full control of his or her emotions, who does not know any cognitive limitations, who is not embedded in a personal network, who is but extrinsically motivated and whose preferences are not influenced by processes of discussion.

There is already a considerable body of literature pointing the way in which this future development may go, and there are a great number of ideas from various social sciences which have been fruitfully introduced into economics. In order to illustrate how economics in general, and Public Choice in particular, can profit from such “social science inspirations”, I shall discuss two areas in which experimental cognitive social psychology has proved to enlighten economics: the areas of behavioural anomalies, and of human motivation. A third area borrows from sociology and philosophy, emphasizing the role of verbal discourse and personal connections for human interaction.

Behavioural Anomalies

Experiments by psychologists (see Kahneman, Slovic and Tversky 1982, Arkes and Hammond 1986, Dawes 1988) as well as by economists (see Schoemaker 1982, Hogarth and Reder 1987, Thaler 1992) have by now revealed overwhelming evidence that humans, as well as animals (see McDonald, Kagel and Battalio 1991), do not act rationally in the sense of following the von-Neumann/Morgenstern axioms. They systematically deviate from expected utility maximization. Related anomalies of individual behaviour have been identified in “real life”, and even in a market which almost completely corresponds to perfect competition, i.e. the stock exchange (see Thaler 1992, ch. 11-13). The reaction of economists to these empirical findings has overwhelmingly been to expand the classical subjective expected utility model or to formulate a more general non-expected utility model of preferences (see e.g., Machina 1987). Maximizing these utility functions yields behavioural aspects which are consistent with the empirical observations; the former “anomalies” therefore become integrated into formal theory.

The efforts to reestablish logical consistency have only been partly successful. While many of the behavioural anomalies such as certainty effect, preference reversals or probability biases can be integrated into a more generalized utility theory, there are other anomalies, in particular framing effects, which have proved evasive.
It may, nevertheless, be argued that economists’ efforts to integrate behavioural anomalies into the existing narrow notion of individual rationality is ill conceived. Individuals are in fact more rational than orthodox theory thinks them to be, and this in two respects:

(a) Due to their cognitive limitations, individuals are not able to act consistently all the time and under all circumstances. But it is one of the defining characteristics of human beings (see Frankfurt 1971) that they are able to recognize their weaknesses and to overcome them (at least partly). A much-discussed way to circumvent anomalies, or to reduce the cost incurred when falling prey to them, is to establish rules of self-commitment. Probably more importantly, individuals resort to social institutions in order to get help when struggling with their weaknesses (Frey and Eichenberger 1989). For example, individuals who know that they are unable to resist the temptation to consume more and faster than they wish have an incentive to support political actions forcing them to care more for the future, e.g., by introducing an obligatory old age pension scheme run by the state.

(b) Under some circumstances, individuals do not desire to act rationally in a narrow sense. Among close friends, but especially within the family, humans deviate from axioms of logical consistency in purpose in order to acknowledge a particular relationship. A large share of the fine arts (literature and drama) deals with this kind of behaviour, the most prominent case being “l’amour fou” or infatuation, where a lover rationally choses to act irrationally, in order to express his or her emotions and feelings. The reverse emotion of intense hatred irrespective of the cost has also been the subject of many novels and plays, a famous example being Heinrich von Kleist’s “Michael Kohlhaas”. Maybe economists are not exactly the kind of people who experience this sort of sensation, but they should at least be prepared to acknowledge that it exists (for a similar argument, see Frank 1988).

As in the case of cognitive limits to consistent behaviour, this does not mean that the rational choice approach has to be relinquished. Rather we should look at rationality with a broader mind. Individuals are superrational in the sense that in general they are able to guard themselves against self-destructive infatuation and hatred by resorting to appropriate rules and institutions. Thus, for example, in most countries of the world, political action has led to laws forcing individuals to let a certain time pass before getting married.

Analyzing behavioural anomalies by accepting that human beings are either not able or not willing to act consistently - rationally in the orthodox sense - differs fundamentally from accounting for the same empirical observations by generalizing individuals’ utility functions. The latter “integrating” approach models human behaviour by adjusting individual utility functions; the former “institutional” approach looks at the institutions arising as a reaction. The difference becomes particularly clear in an extreme case. If no behavioural anomalies are observed empirically, the individual’s utility functions are, according to the “integrating” approach, unchanged, but, according to the “institutional” approach, there may well be individual rules and social institutions owing their existence to the anomalies; i.e. if the institutions were removed, these anomalies would reappear.
**Human Motivation**

Economic analysis is based on the idea that individuals respond systematically to changes in relative prices. The incentives set from outside motivate people to act in a predictable way. This (generalized) law of demand has proved to be extremely successful for explaining voters', politicians' and bureaucrats' behaviour. However, perceptive Public Choice economists are well aware that there must be other motivating forces. In particular, the standard rational choice calculus is not able to explain the level of vote participation (but it serves quite well to account for the variations).

There are a great many other cases where individuals free ride far less than predicted by economists. For instance, the expected punishment for tax evasion is so small that even risk-averse citizens should cheat much more than they actually do. The reason for the surprisingly high tax contributions has widely been attributed to tax morale (e.g., Witte and Woodbury 1985, Graetz and Wilde 1985). Tax morale indeed provides a good explanation for the difference in tax compliance in the case of Switzerland, where this factor can (indirectly) be identified (Frey 1997a).

Psychologists and sociologists more generally distinguish two kinds of motivation: Extrinsic motivation induced by manipulations of rewards or sanctions from the outside (the economist's relative prices), and intrinsic motivation, where people perform an activity for its own sake because of reasons lying within their own person (DeCharm 1968, Deci 1971). Anybody looking at people's behaviour must be aware that a phenomenon such as intrinsic motivation does exist. As a consequence, important aspects of the political and social life are left unexplained by rational choice analysis. This position becomes fully untenable when intrinsic motivation is not an (unexplained) constant, but is influenced by social factors. Experimental research in psychology has shown that under identifiable conditions external interventions affect people's sense of self-determination, of self-perception and of their feeling of justice, which in turn influences intrinsic motivation (e.g., Deci and Ryan 1985, Pittman and Heller 1987). Among psychologists, much attention has been paid to the "hidden costs of reward" (see Lepper and Greene 1978), stating that introducing a reward into a situation where people already have a high interest in an activity results in a decrease in their intrinsic motivation. The damaging influence on intrinsic motivation by changing external instruments helps to explain why pricing (monetary rewards) and regulating (the use of punishment) under identifiable conditions prove to have little or sometimes counterproductive effects. Thus both, the use of regulations and of effluent charges may undermine environmental ethics because individuals perceive that the locus of control has shifted from internal to external forces and that their own mental involvement is depreciated. Similar effects can be identified for crime deterrence by punishment, in social and in manpower policy (Frey 1997b).

The detrimental effect of external controls on intrinsic motivation is directly relevant for Constitutional Economics. Following David Hume and James Stuart Mill, Brennan and Buchanan (1983) argue that a constitution should be designed so that it is able to check the behaviour of the men of worst intentions trying to free ride and to exploit the system. "Average" behaviour is deemed to be of no concern, because the costs imposed on society by the most immoral men dominate. This argument overlooks that people's intrinsic motivation to act as good and responsible citizens is undermined
when the constitutional provisions suggest that everyone acts as a knave anyway. It may well be that a constitution should give its citizens the feeling that they are trusted and that they will not in general act as free riders. Such an approach bolsters citizens’ self-determination and self-perception, and meets their sense of fairness. Such a constitutional policy is consistent with the empirical evidence collected on free riding behaviour and tax evasion.

Speechless Economics and Human Discourse

In economics, language and verbal exchange are attributed a minor role. Economists are particularly fond of models with no communication between the actors. Thus, the classical prisoner’s dilemma game, which has shaped our thinking on free riding, artificially constructs a situation in which the prisoners are not able to speak to each other. Clearly, communication as such does not guarantee that no free riding occurs, but it definitely helps to form enforceable contracts to prevent it. While there may be some implicit agreements, the vast majority of contracts designed against free riding are in verbal and often written form.

A related aspect disregarded by economists are personal relationships which again serve efficiently to prevent free riding. Economists tend to overlook that a large part of all activities within firms of all sizes and between firms is based on personal connections (Osterloh 1992). The same holds for other institutions, in particular for interest groups, public bureaucracies, parties and government. Indeed, in small countries - such as Switzerland - virtually all the politicians know each other, and the situation is not much different in larger countries. The interaction has the character of a repeated game, or, in sociological terms, “embeddedness” (Granovetter 1985) matters, leading to quite different outcomes than if the personal relationship did not exist.

These considerations are relevant for political decision-making, but they have been largely neglected so far. In Public Choice, direct democracy is exclusively looked at as a particular form of taking a social decision between known alternatives (see Mueller 1989, part II). The discourse among the citizens, which puts the issues on the individuads’ agenda, raises their perception and exchanges the arguments in the media and among individual persons, is of crucial importance and should therefore be studied. The choice between known alternatives is only one aspect of direct democracy; perhaps even more important is the process of verbal exchange which takes place before casting the vote in a referendum or initiative, i.e. before an issue is well defined and put on the ballot. According to the philosophical and sociological theories of Habermas (1983) and Apel (1990), such discourse not only improves citizens’ perception and information, but may also shape the normative evaluation of the problem at stake (though the basic preferences may well stay constant; see Stigler and Becker 1977).

III. Conclusions

Economic imperialism has been a great success within the social sciences. While progress can certainly be made by further applying the economic approach to areas outside the economy, diminishing returns have set in. Economics has joined the ranks of normal science, originality and innovation play an increasingly smaller role.
It is now time to embark on a new course and to switch from an exporter to an importer of ideas. The social and literary sciences contain many ideas which can enrich future economics without giving up its sound foundations. The areas of behavioural anomalies and human motivation are two fields where economics can benefit from insights from psychology; and discourse and personal embeddedness are aspects which economics can learn from philosophy and sociology. Many other concepts and ideas can fruitfully be borrowed from other social sciences. If economists are ready to take up this challenge, their science will further prosper in the future.

References


The Current State of Economic Science


Throsby, David C. and Glenn A. Withers (1979), The Economics of the Performing Arts. London and Melbourne: Arnold.


