R

RATIONAL CHOICE THEORY

'Rational choice theory' is not a unified approach in sociology and particularly not in economic sociology. The term refers to a family of approaches that proceed from the twin assumptions that human beings pursue goals and that, being confronted with opportunities and limitations for reaching their goals, they do so in a more or less intelligent way. The term 'rational' refers to this 'more or less intelligent' way of goal seeking, and it minimally implies the anticipation of the consequences of one's action and the evaluation of these consequences for the realization of one's goal(s). For economic sociology, rational choice theories have been very important, either as tools for analysis or as a foil against which specific sociological arguments have been developed. Roughly speaking, there are two major groups of rational choice theory. First, there are the theories that assume individual rationality as given and focus on social phenomena (such as institutions and social networks) that increase collective rationality (i.e. often called 'Pareto improvement', meaning the achievement of situations in which at least one individual involved is better off than before and no other individual involved is worse off). These theories work either with the assumption of full information or of less-than-full information (the so-called bounded **rationality** belongs to the latter), as will be explained below. Second, there are theories that assume that not just collective but also individual rationality can be (positively or negatively) affected by social phenomena. The latter approaches can be lumped together under the label of **social rationality** theories. Theories using social rationality conceptions seem to grow in the social sciences in general and in economic sociology in particular.

The place of economics

Economists since the classical times of Adam Smith assumed more or less intelligent goal-directed behaviour. However, it is only in the 1950s that economists became fully committed to *individuals* as the basic units of analysis (methodological individualism supplanting households, firms and states as basic units of analysis). At first, it was only a few economists who turned to full methodological individualism. Later, increasingly more did so, aided by the development of decision and game theory. This turn towards founding economics on individual behaviour brought the term 'rational choice' to prominence. With a delay of about twenty years, methodological individualism and rational choice theory also entered sociology (in the 1970s). With only a slight exaggeration one might say that economic sociology thrives to the degree that the mainstream sociology admits rational choice theory as at least one

legitimate way of doing sociology. In the long reign of structural functionalism, economic sociology did not do well because there was no theory integrating into one field the various phenomena that are now lumped together under the term 'economic sociology'. Rational choice theory plays an important role for developing the field, because it provides a fairly solid basis for recognizing roles of producer, trader and consumer and the ensuing relationships between them in virtually every walk of life, even as these roles and relationships are sociologically embedded in important social aspects such as network structure, power and elite structures, culture, trust, gender. For this reason, the impressive comeback of economic sociology in the 1990s can be seen as having been greatly aided by the steady growth of rational choice sociology in the 1970s and 1980s. In those two decades, rational choice analyses of economically relevant phenomena created a toolkit for economic sociology that has inspired and is likely to keep inspiring the work in economic sociology both by the use of these tools and by attempts to either refine or replace them by something better. In the next paragraph, this toolkit will be briefly described.

The basic toolkit (given full information)

Active agents

First of all, in rational choice theories, the individual is an *active agent*. This is implied by goal-directed behaviour but needed much elaboration in order to grasp the many ramifications of this assumption. In functionalist sociology, dominant after the Second World War until about the early 1980s, the individual was mainly a passive role player, subject to learning. This also holds for the only integrative treatise on sociology and economics of that time (Parsons and Smelser 1956). The individual as an active agent draws attention to search behaviour (for example in imperfect markets), to the interest in regulating the effects of other people's behaviour ('regulatory interest'), to entrepreneurs and risk-taking behaviour, and, of course, to investment behaviour. The latter made possible theories of following education in relation to its expected returns ('human capital theory') and theories of investment in social networks (**social capital** theory). The 'active agent' of the individual eventually to led to the view of the individual as 'producer' even in daily life, which gave a completely new turn to the study of households. Finally, the active agent view made game theory relevant for the study of social situations (see 'Institutions' below).

Scarcity

The active agent is confronted with *scarcity*. Most means to achieve goals are naturally or socially scarce, so that the individual has to make choices on how to allocate these means. One concept related to scarcity among active individuals has been particularly important: substitution effects ('relative price effects') and their derivative, the law of demand. The reaction of individuals to changes in relative prices probably belongs to the most robust behavioural regularities of rational choice theory. 'Rationality' in rational choice theory is conceptually based on the individual's handling of goal achievement in the face of scarcity.

Interdependence

The social side of rational choice theory is mainly linked to various analyses of interdependencies among active agents; the problems that arise from interdependencies; and the solutions to these problems we are likely to observe under certain circumstances. Especially the analysis of groups, **collective action**, norms and institutions has received a considerable boost by the

rational choice-inspired analyses of interdependencies. There is, first of all, the prime generator of interdependencies: *positive or negative external effects* (i.e. side-effects of people's behaviour on third parties). For example, practising the trumpet creates negative external effects on neighbours; painting one's house creates positive external effects on neighbours; producing electricity with coal creates negative external effects for a large number of people in the area. Since external effects (especially negative ones) directly impact the goal realizations of third parties, they create *regulatory interests* in the third parties and, under certain conditions, pursuit of these interests will lead to devices that regulate external effects, be that the formation of groups, collective action, the formation of norms or formal institutions, or some combination of these. In the economically most interesting cases of external effects, both positive and negative externalities are combined (such as social dilemmas involving 'impure' public goods). There are few products people can produce on their own, so they often need the cooperation of others (positive externalities). However, cooperation also creates dependencies and other negative side-effects which are exacerbated by the strategic behaviour of active agents. Arrangements that foster positive and mitigate negative external effects are thus of utmost importance for economic activity. Examples are farmers, combined in a sharing group, who share irrigation facilities and their upkeep and devise rules for the maintenance of this arrangement, including arrangements to create compliance. Many social norms and the accompanying ways of sanctioning can also be explained as the result of converging regulatory interests in a group of people. Institutions, such property rights, are formal rules for the regulation of external effects. Rules for the coordination of activities (such as teamwork and driving on the right or the left side of the road) also belong to these kinds of arrangements. The functioning of markets and market failure can be analysed in terms of these concepts, implying that markets are also a nexus of groups, norms and institutional arrangements. It is clear that the overall structure of arrangements is one of nested groups and rules with possibly conflicting requirements.

Finally, the very conception of norms and institutions based on rational choice also allows, at least conceptually, a clear criterion of the quality of an externality-regulating arrangement: Pareto optimality (sometimes simply called 'efficiency'). Arrangements which improve the well-being of at least one person in a particular system of arrangements without reducing the well-being of any other are 'better' in the sense that they produce less waste and better balance individual and social outcomes. Efficiency is thus both the result of regulatory interests and the measure of the quality of improvements through externality-reducing arrangements. However, due to the possibly conflicting nested arrangements, this Pareto criterion can often only be used in a very limited way.

The basic toolkit (given less than full information)

The analysis of interdependencies bases on rational choice made another leap forward through the explicit introduction of the twin assumptions of opportunistic behaviour and incomplete information (either through **asymmetrical information** or through inherent limitations of the information-processing capacity of human beings). Both assumptions had been made much earlier but only came to prominence in the 1970s, partly under the influence of a more open exchange between economics and sociology, fostered by Simon, Arrow, Stigler, Alchian, Akerlof, Jensen, Williamson and others.

Opportunism and limited information

Once we explicitly introduce the possibility that individuals may be differently informed, we also allow the possibility that active individuals twist the information to their own advantage. This twisting has been called 'opportunism'. Individuals may lie, distort, mislead, conceal, disguise, obfuscate, feign and confuse, and they may evade sanctions by creating or taking advantage of information asymmetries (such as shirking, cheating, stealing or getting others to do so). Opportunism creates problems of **trust** when there are information asymmetries and this opens up a whole new field of inquiry into norms and institutions that deal with problems of trust. For economic sociologists, especially, the ramifications of these problems for the analysis of markets, contracting and organizations are most important.

Markets

Given asymmetric information, certain markets may not come about unless the trust problem is solved. When it is solved in a particular way, it may create very specific markets. For example, the market for used cars uses different solutions to the trust problem than the market for medical services. In the latter case, the state may even grant quasi-monopolies through licensing. Often proxies are used as quality signals (such as educational credentials on the labour market) and may involve reputation effects and personal networks. The more (potential) trust problems there are in a market, the more likely that informal mechanisms (such a strong ties, gossip, direct monitoring) will play an important role in running the market.

Contracting

Contracting in the face of incomplete information means at least two things. First, there is a **principal and agent** problem about how a 'principal' can motivate an 'agent' to represent the principal's interest and not act opportunistically. Second, there is a problem of incompleteness of the contract because with limited information, limited capacity to predict the future and limited means of language (which includes the important problem of tacit knowledge), not all contingencies can be accounted for in advance. This causes transaction costs. Principal–agent theory thus deals with the question of how to use incentives in order to align the interests of the agent with the principal (and avoid 'moral hazard', as opportunistic behaviour is called in this theory). It also deals with the question how to use incentives to avoid attracting the wrong kind of agents for the contract ('adverse selection effects'). **Transaction costs theory** deals with both problems at the same time. They occur jointly particularly in situations in which one or both contract partners have to invest specific assets in the contractual relationship, assets which would be lost if that relationship were to break up. The situation is exacerbated when opportunistic behaviour is difficult to detect. For economic sociology, the most important aspects of both theories (but especially of transaction cost theory) is that they throw light on a socially and economically relevant class of institutions and contractual 'embeddings' that create credible commitments and provisions for dealing with contractual problems that occur ex post (i.e. in the ongoing contractual relationship).

Organizations

Both theories have greatly impacted the study of organizations. First of all, there is the question why there are organizations at all and not just markets. The answer is directly related to the trust problem. If it cannot be solved in the marketplace (because the required asset specificity is too high), it may be still solvable by the use of

hierarchical relations, i.e. in organizations. It is obvious that principal–agent and transaction cost theories are directly applicable to questions of job design (how much asset specificity? What trust problems will a certain design create? How much involvement?), of recruitment (avoiding adverse selection) and of governing employment relations (aligning interests; creating credible commitments; offering efficiency wages; seniority rules and internal labour markets; grievance procedures). The same holds for **corporate governance**. To what degree is the organizational form and size driven by technology or by transaction costs? How is the flow of information (and thereby the chance of opportunistic behaviour) affected by centralization and decentralization? How would the function and composition of the board of directors affect the change of opportunistic behaviour? What are the consequences of compensation schemes for aligning interests, and how is this related to corporate ownership and takeover practices? What should the relation to the various stakeholders be in the light of firm-specific investments (say, in and of the community and by suppliers) and other trust-sensitive relationships (such as brand names, reputation effects and service relationships)?

In sum, rational choice theory has created a toolkit for economic sociology mainly through working out the institutional ramifications of interdependencies (creating 'externalities') among active and strategic agents and of limited information (creating opportunism and trust problems). Whether this toolkit is used in moderately modified ways (as in 'the new institutionalism') or attacked in different ways (as allowing too little room for culture, social networks and/or non-rational behaviour, see Guillén 2002) it is difficult to imagine a blooming economic sociology without it.

References and further reading

Brinton, M. C. and Nee, V. (eds) (1998) *The New Institutionalism in Sociology*, New York: Russell Sage Foundation.

Eggertsson, T. (1990) *Economic Behaviour and Institutions*, Cambridge: Cambridge University Press,

Guillén, M., Collins, R., England, P. and Meyer, M. (eds) (2002) *The New Economic Sociology*, New York: Russell Sage Foundation.

Parsons, T. and Smelser, N. (1956) *Economy and Society*, London: Routledge and Kegan Paul.

Williamson, Oliver E. (1985), *The Economic Institutions of Capitalism*, New York: Free Press.

SIEGWART LINDENBERG

RATIONALITY

In its broadest sense, rationality may be defined as the 'disciplined use of reasoning and reasoned scrutiny' (Sen 2002; 19). The capacity for reasoned scrutiny is the ultimate 'black box' to which scientists and philosophers appeal to explain how human beings make inferences and deductions, unify facts under propositions, and justify assumptions like 'the duality of agency and structure'. In the sciences that make economic relationships their subject matter, rationality refers more narrowly to the capacity of an 'actor' or 'agent' to deliberate over ends and means, to weigh alternatives, and to select those means and methods that the chooser considers effective in practical conduct. Due to its intimate connection to human agency, some conception of rationality is implicated in the theories of action of all the social sciences, including anthropology.

One conception of rationality, however, proved to be particularly attractive in explanatory social science: reasoned scrutiny governed by the principle of **maximization**. Under this conception, it is not enough for actors to identify alternatives, to sort them into better or worse based on their understanding of how the world