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The Mystery of Rationality

Mind, Beliefs and the Social Science

Springer

To the memory of Raymond Boudon

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Chapter 1

Introduction: Rationality as an Enigmatic Concept

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The analysis of the concept of rationality, which is central to various research fields, is a leitmotiv in the history of the social sciences and has involved endless disputes. It has been argued that rationality can be recognized and understood, but cannot be defined (e.g. Boudon 1995). According to this view, it could be said about rationality what Saint Augustine ([398]2009, p. 244) famously said about time: “What, then, is time? If no one asks me, I know what it is. If I wish to explain it to him who asks me, I do not know”. The indefinability thesis is by no means universally shared. However, it is evident that it is impossible to provide a commonly accepted definition of rationality, and that there is a lack of agreement on the meaning of the concept. As a consequence, it can be said that there is a ‘mystery of rationality’. What is it to be rational? The disagreements concerning the meaning of rationality can be related to (often intermingled) debates on six well-known dichotomies: **(i)** normative versus descriptive; **(ii)** instrumental versus non-instrumental; **(iii)** Cartesian versus non-Cartesian; **(iv)** tacit versus explicit; **(v)** explanation versus interpretation; and **(vi)**; intended versus unintended.

Normative/descriptive dichotomy. Rationality was originally understood as the analysis of the rules of correct meaning. Many thinkers, such as, for example, Aristotle, Cicero, Malebranche, Descartes, Hume, Condorcet and Kant, have tried to define those rules and warned against false evidence and logical fallacies. The concept of rationality was thus for long regarded as essentially normative. According to this interpretation, this concept provides a criterion of rationality,

i.e. a principle of objective optimization that allows one to establish whether or not an action is rational. This normative theory of rationality, which is still very popular today especially in economics, but also in broad sectors of sociology and psychology (regarding psychology, consider, for example, Amos Tversky's and Daniel Kahneman's prospect theory), is challenged by a descriptive theory of rationality. According to the latter, rationality is not an objective principle, but a simply explanatory assumption that can be applied also to actions that fail to fulfill the objective optimization standard because they are based on false and mistaken beliefs. On this view, rationality must be conceived in wider terms, i.e. as subjective, bounded and situated. In addition, false and mistaken beliefs must be regarded as the product of the normal ways of functioning of the human mind rather than of illogical tendencies. The descriptive notion of rationality is rooted in argumentation theory, hermeneutics and interpretative sociology, and it is supported also by heterodox economists such as Ludwig von Mises and Herbert A. Simon.¹

Instrumental/non-instrumental dichotomy. According to a view widespread in economics, but also in other fields, rationality is purely instrumental, which means that it must be defined in terms of appropriate choice of means to achieve a goal. There are both normative theories of instrumental rationality (e.g. Gary Becker) and non-normative theories of instrumental rationality (e.g. Simon), but all share the assumption that, while the choice of means can be explained in rational terms, the choice of values, understood as the ends of human action, usually cannot and must be explained either in terms of illogical tendencies or in terms of socio-cultural determinism. By contrast, the non-purely instrumental theory of rationality (e.g. Raymond Boudon), which is rooted in the hermeneutic tradition and supported by major sectors of interpretative sociology, assumes that even the choice of values is rational, and that rationality is not exclusively instrumental. According to this wider theory of rationality, the endorsement of values is rational not in the sense of a Cartesian and demonstrative rationality, but rather in that of an argumentative rationality based on rhetorical and intuitive skills, i.e. on what Pascal called *spirit of finesse* as opposed to the *spirit of*

¹ According to some supporters of the descriptive theory of rationality such as Ludwig von Mises, even akratic actions, i.e. actions characterized by weakness of will, must be regarded as rational because, even if the agent will later regret having carried them out, akratic actions attempt to "remove a certain uneasiness" (1998 p. 15) in the way that the agent considers, when he/she acts, the action most appropriate given his/her subjective knowledge.

geometry. Supporters of this wider theory of rationality argue that the ability to perform value-judgments is part of human intelligence.

Cartesian/non-Cartesian dichotomy. According to the Cartesian tradition, only actions based on clear demonstrative arguments (e.g. $2+2=4$) can be regarded as rational, whereas actions whose meaning cannot be explained in explicit, precise and clear manner cannot. This Cartesian theory of rationality, which is normative, is exemplified by the mind/computer analogy developed in cognitive science. This view on rationality is challenged by a non-Cartesian approach. According to the latter, even actions that do not stem from precise demonstrative reasoning such as value-judgments based on vague arguments must be regarded as the product of human intelligence and its interpretative skills, which are partly tacit. This second theory of rationality is rooted in the theory of argumentation and is exemplified by the so-called 'new rhetoric' (e.g. Chaïm Perelman; Lucille Olbrechts-Tyteca).

Using the first three dichotomies outlined above, it is possible to argue that the dominant model of rationality in economics is different from the model of rationality used in sociology (see Sen 1993). This is because the first is instrumental, Cartesian (axiomatized) and normative, while the second, which is more closely linked to the hermeneutic tradition, is quite often non-Cartesian, descriptive and not purely instrumental (see Boudon 1993).² As pointed out by Lévy-Garboua (1981, p. 30), sociologists tend to conceive rationality in terms of simple intentionality, while economists tend to conceive rationality in terms of effectiveness, which means that economists tend to use a notion of rationality narrower than the one employed by sociologists.

Tacit/explicit dichotomy. The connection between intentionality and rationality, which is acknowledged by the majority of economists and sociologists, is far from being unproblematic. It is partly rejected by neurosciences, which usually define intentionality in terms of "conscious will" as opposed to the sub-intentional mental activities, i.e. the so-called tacit skills. Neurosciences maintain that, since conscious skills are anatomically intermingled with tacit skills and

² This point is stressed not only by sociologists, who often criticize the model of rationality used in economics, but also by many economists (e.g. Sen 1977; Vandberg 1994; Ben-Ner and Putterman 1998). However, this difference should be not regarded as excessively radical. As argued by Wolfesperger (2010), there are a number of works in econometrics that consider ethics and social prestige as important explanatory factors. See also Gächter and Ferhr (1999).

cannot be clearly distinguished from the latter, rationality is linked to our overall mental activity, which cannot be reduced to our consciousness (see Berthoz 2003; Cleeremans 2003; Naccache 2006; see also: Lachaux 2013, Brass et Haggard, 2007). Neurosciences have shown, for example, the importance of nonverbal reasoning, i.e. of a kind of reasoning that is prior to our verbalized and conscious mental activities. This analysis of the relationship between intentionality and rationality developed by neurosciences is of great significance from a philosophical viewpoint because it induces, among other things, a rethinking of the ancient problem of the freedom of the will. This is because the findings of neurosciences entail that it is problematic to consider the conscious will as the foundation of the decision-making process.

Explanation/interpretation dichotomy. According to some authors, such as Wilhelm Dilthey and Benedetto Croce, rationality, understood as an explanatory assumption, is inconsistent with the principle of causality. This is because explaining the motivation of an action requires understanding its meaning by 're-experiencing' the thoughts and feelings of the agents. This empathic view of understanding, which supports a radical difference between the methodology of the natural sciences and that of the social sciences, is rejected by Carl Gustav Hempel and other authors. The latter argue that explanations in terms of rationality are, like explanations in natural sciences, causal explanations based on the deductive-nomological model. According to this anti-dualist epistemology, understanding the reasons of action presupposes the use of the causality principle and the determination of a cause-effect relationship through covering laws. Hempel and the other supporters of the unity of science stress that the covering laws used in the social sciences are usually commonsense laws about human behavior that are, like some laws employed in natural sciences, probabilistic rather than deterministic.

Intended/unintended dichotomy. Another problematic aspect of the concept of rationality consists in the tendency to overestimate its range of applicability that is rooted in the old religious interpretations of social phenomena in animistic terms. The dangers of such a tendency, which still exists in some sectors of the social and political thought, are particularly evident in the case of conspiracy theories. The above-mentioned tendency is well-known by psychologists, who use different expressions to refer to it: for example, "illusion

of external agency” (Gilbert, Brown, Pinel, Wilson, 2000), “hyperactive agency detection” (Tempel and Alcock, 2015), and “biased attributions of intentionality” (Brotherton, and French, 2015). Authors such as Max Weber, Carl Menger, Friedrich Hayek and Karl Popper, following the Scottish Enlightenment thinkers, cautioned against the simplistic analysis of social phenomena in terms of intentionality. They argued that quite often, because of their complexity, these phenomena cannot be interpreted as intended outcomes. On this view, the understanding of the social world depends on the study of both the individual’s intentions, which are related to rational evaluations, and the emergent unintended consequences, which are, to use Adam Ferguson’s words, “the result of human action, but not the execution of any human design” (Ferguson 1767-1996, p. 119).

The debates related to the six above-mentioned dichotomies inform the fifteen chapters of this book, which analyze issues related to rationality from different standpoints. It is the hope of both the editors and the authors of this work that it may contribute usefully to the above-mentioned debates and shed some light on the mystery of rationality.

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