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Conclusion

The distinction between rationality and irrationality in the Western tradition goes back at least to Aristotle (1976, p. 90), who wrote that the "irrational part of the soul" is persuaded and admonished by the rational part "in the sense that a child pays attention to its father." It is all too easy to say that this distinction is misleading or at the very least simplistic. For example, there seems to be a neurological connection between emotion and decision making in human beings; this is suggested by the phenomenon of people who, as a result of prefrontal brain damage, become both emotionally unresponsive and bad at making everyday decisions, even though their "pure reasoning" abilities, as measured by standard intelligence tests, for example, are undiminished (Damasio 1994).

Compared with the great complexity and richness of individual and social life, simple distinctions are by definition crude. But the standard argument is that to understand the social world in any generality, if one has ambitions other than chronicling infinite detail, one must use simple and crude concepts; for example, this book employs a very simple conception of individual thought and action and applies it widely. Theories and explanations can thus be much more clearly demarcated than reality itself. For example, although few would say that there is a clear distinction between the "rational part" and the "irrational part" of a human being, it seems obvious that there is a distinction between explanations based on rationality and explanations based on irrationality or nonrationality; Vilfredo Pareto institutionalized this distinction, calling it the dividing line between economics and sociology (see Swedberg 1990, p. 11).

This distinction, related to a whole series of distinctions,

such as reason-culture, thinking-feeling, calculation-emotion and so on, is easily found in recent scholarship. For example, Jean Cohen (1985, p. 687), in an article on collective action dichotomously entitled "Strategy or Identity," distinguishes between the "resource-mobilization paradigm" and the "identity-oriented paradigm": "One cannot . . . simply add a consideration of solidarity, collective identity, consciousness, or ideology to the resource-mobilization perspective without bursting its framework. Clearly, the resource-mobilization perspective . . . operates with a concept of rational action that is too narrow and hence unable to address these questions." James Carey (1988, pp. 15, 18–20) writes that the "transmission view of communication . . . defined by terms such as 'imparting,' 'sending,' 'transmitting,' or 'giving information to others'" has in American scholarship dominated the "ritual view of communication . . . linked to terms such as 'sharing,' 'participation,' 'association,' 'fellowship,' and 'the possession of a common faith.'" This is because of "our obsessive individualism, which makes psychological life the paramount reality . . . [and] our Puritanism, which leads to disdain for the significance of human activity that is not practical."

This book tries to show that this distinction cannot be so easily maintained. It starts with a narrow, unadorned conception of rationality in the context of coordination problems and shows that the common knowledge required is substantially related to issues of intersubjectivity, collective consciousness, and group identity. It starts with isolated individuals facing real, practical problems of coordination and shows that transcending the "transmission" view of communication (first-order knowledge) and including the "ritual" view (common knowledge) is exactly what is required.

The material-cultural distinction is located by William Sewell (1993, p. 25) in Christian metaphysics' distinction between base and spirit, and he argues against it on the grounds of reality: for example, the economic world of production and exchange is not solely material because money, pieces of paper with pictures on them, is essentially sym-

bolic; the world of ideas is not solely cultural because it involves "the manipulation of physical substances — paper, ink, or computer keyboards; vibrating columns of air, lecterns, pulpits, or soapboxes; lecture halls, churches, studies, or libraries." This book argues against this distinction also, but not on the grounds of actual human experience, which is of course valid. The argument here is based on the logic of rationality itself. That is, even narrowly rational *Homo economicus* when solving coordination problems must form common knowledge, which we understand here as an aspect of rituals.

The idea that rational choice theory, in particular game theory, might be helpful in looking at cultural practices might seem novel, but was in fact advocated more than thirty years ago by Erving Goffman (1969) in, among other books, *Strategic Interaction*, and Claude Lévi-Strauss (1963, p. 298), who explicitly stated that game theory allowed the "increasing consolidation of social anthropology, economics, and linguistics into one great field, that of communication." The explicit application of game theory to symbolic action and culture, presaged by the work of Schelling ([1960] 1980), has recently been pursued in several directions (notably O'Neill 2000 and Schuessler 2000; see also Bates and Weingast 1995, Lichbach and Zuckerman 1997, and Bermeo 1997 for discussion). I argue that this development should not be considered a diversion or side application but rather a necessary step in game theory's own internal agenda. The argument is not that cultural practices are additional side topics that it would be nice for rational choice theory to look into. The argument is that the agenda of rational choice theory itself demands it.

Game theory is often used simply because it can make some kind of prediction when other kinds of reasoning do not. The textbook example in economics, for instance, is that of oligopoly. When there is a monopoly (a single firm), a prediction can be made by assuming profit maximization; when there is a competitive market (numerous firms, each too small to influence the equilibrium price), a prediction can

be made by assuming that supply equals demand. In oligopoly, in which several firms interdependently influence prices, game theory is called upon to find an equilibrium, to make a prediction.

Sometimes, however, game theory is simply not good at prediction. Many game theoretic models have a large number of equilibria. For example, take the case of whether people drive on the right side of the road or on the left. Everyone driving on the right is an equilibrium in the sense that given that everyone else drives on the right, no one wants to "deviate" and drive on the left. Everyone driving on the left is also an equilibrium. Here there are two equilibria; we might be able to predict that everyone will drive on the same side, but we cannot predict whether that side will be the left or right. This is a very simple example, but, in general, the problem of indeterminacy can be severe, with many equilibria possible.

There are several ways of responding to this problem, which is a fundamental one. One is to try to squeeze as much predictive power as possible from the game itself, assuming that the objective is to make a unique prediction in any game and developing axioms that allow one to do so (as exemplified by Harsanyi and Selten 1988). Another is to consider explicitly the social process, external to the game, by which people coordinate on an equilibrium. Broadly speaking, there are at least three kinds of models that do this.

Much recent work in game theory models individuals in a game as learning, adapting, or being selected in an evolutionary process (e.g., Samuelson 1998, Young 1998). The idea is that some equilibria might be more likely than others to result from a dynamic process of adaptation. This approach, which typically assumes that people follow simple learning rules or adaptations, is also often intended to counter the common objection that game theory assumes hyperrationality. The second approach is focal points, as discussed earlier, which are often interpreted as an aspect of a society's culture; for example, New Yorkers are more likely to choose

Grand Central Station as a place to meet while non–New Yorkers are more likely to choose the Empire State Building; the "focalness" of Grand Central Station can be understood as part of New York local culture.

Both of these approaches are important, but assume that the coordination process is not purposeful. The adaptive or evolutionary approach is reminiscent of "invisible hand" explanations in that people do not purposefully coordinate; coordination "just happens" without anyone planning or even thinking about it. Focal points are usually understood as something given exogenously (e.g., Kreps 1990), despite Schelling's ([1960] 1980, p. 144; see also Calvert 1992) observation that "when there is no apparent focal point for agreement, [a person] can create one by his power to make a dramatic suggestion." The third approach, which we employ in this book, is to consider coordination as an active, purposeful process achieved through explicit communication (see Johnson 1993). Coordination is often achieved through adaptation and evolution, and implicit communication, but often people explicitly communicate. If we observe two people enjoying each other's company at a restaurant, it is possible that one of them "mutated" and just happened to walk in, and the other one adapted by following her in, and it is also possible that they met there by some implicit agreement, but it is safest to assume that they simply made a date. Of course, this communication process is much more complicated for more than two people, but this is what this book is about.

If we look at how people explicitly communicate in order to solve coordination problems, the issue of common knowledge immediately arises, from standard game theoretic reasoning as well as linguistic theories of meaning and strong commonsense intuitions. Looking at how common knowledge is formed in societies, one is necessarily drawn to communicative events that look like rituals: ceremonies, media events, and so forth. By associating common knowledge with cultural practices, this book suggests a close and reciprocal relationship between the perspectives of rationality and cul-

ture, which are often thought separate or even antagonistic. The idea of individual rationality, historically associated with atomistic market societies, can help in understanding cultural practices which seem to create social unity. The study of culture has long considered economic contexts; pursuing the logical consequences of "material" rationality, game theory finds culture.