Jon Elster’s Social Science Methodology: Nuts and Bolts Are Not Enough

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Originally conceived as revision of Elster’s 1989 book, *Nuts and Bolts for the Social Sciences*, the work under review became in the author’s own words a “different and more ambitious book,” growing from roughly 200 pages into a tome of just under 500. Both are designed as introductory textbooks of sorts, though in the case of *Explaining Social Behavior* with “a methodological and philosophical slant not usual in introductory-level presentations.” (ix) The book documents the evolution and in some respects fundamental changes in Elster’s views over the two intervening decades. For those who associate the author with the rational choice crowd, the book contains a few surprises.

The internationally most well-known Norwegian social scientist today, Elster has spent most of his career in France and the United States. He studied in Paris in the 1960s and wrote his dissertation, a fundamental and irreverent critique of Marx, under the supervision of Raymond Aron. Being out of step with the prevailing ideological currents of the time, his critique was not published for another thirteen years (*Making Sense of Marx*, 1985). Fleeing from the dominant linguistic turn of postmodern approaches, which around that time were making their own way across the Atlantic, Elster’s intellectual home was with Anglo-Saxon analytical philosophy. At the University of Chicago where he started teaching in 1979 while still at the University of Oslo (1975-1985), he was professor of political science and philosophy from 1984-1995. Chicago was the centre of the new rational choice movement, home to eminent scholars such as neoclassical economists and Nobel Laureates Gary Becker and George Stigler, sociologist James Coleman and jurist Richard Posner. Elster was never an orthodox rational choice practitioner, yet he took the problem formulation of this approach to be fundamental for the social sciences. Searching for rational choice explanations of individual behavior, he was also willing to confront the many “non-rational” sources of individual action, in particular norms, values, and feelings. *Logic and Society* (1978) and *Ulysses and the Sirens* (1979) established Elster as a formidable critic of the methodological holism inherent in much functionalist and structuralist explanation. With
Nuts and Bolts (1989) he offered a concise statement of his own version of methodological individualism which might be characterized as a sophisticated rational choice approach. It is not without irony that Elster occupied the Robert K. Merton Chair in Social Science at Columbia University from 1995 to 2005, given Merton’s own functionalist leanings. Disillusioned with “a crippling narrowness and a self-defeating obsession with the ranking of one’s department” (464) in U.S. academe, Elster has been a Professor at the Collège de France in Paris since 2006.

Following an introductory chapter, Explaining Social Behavior is divided into five main sections: I Explanation and Mechanisms; II The Mind; III Action; IV Lessons from the Natural Sciences, and V Interaction - followed by a particularly interesting and revealing Conclusion: Is Social Science Possible. Each of the 26 chapters comes with a bibliographical note in which Elster suggests some further literature. This way of referencing in a textbook useful for the novice student looking for direction. From a scholarly perspective, however, it is unfortunate that the author does not engage with a broader range of literature and approaches in the social sciences. Instead of standard footnotes citing recent scholarly literature, the text refers extensively to political philosophers, especially Aristotle and Tocqueville as well as, more unusually, classical French writers like Montaigone, La Rochefoucauld, Stendhal, and Proust whose works he considers rich sources for the student of the mechanisms of human motivation. While rational choice theorists do not generally spend any time discussing philosophers, let alone writers of fiction, Elster is sending a somewhat confusing message when he proclaims Thomas Schelling (a game theorist), Kenneth Arrow (a public choice theorist), and Daniel Kahneman and Amos Tversky (psychologists famous for their empirical critique of rational choice assumptions) to be “responsible for what were arguably the most decisive advances in social science over the last fifty years.” (454) For clearly the main target of his criticisms in the book are not functionalists or postmodernists, but rational choice theorists.

Early in the book Elster confesses: “I now believe that rational-choice theory has less
explanatory power than I used to think.” (5) While this statement does not indicate the extent to which his thinking on rational choice has changed, the serious nature of his misgivings emerges with full force in the conclusion where he reflects more widely on fundamental questions in the philosophy of social science. His provocative answer to the question whether rational choice modeling should be considered scientific is that it tends to be a “form of science fiction” driven by an “aesthetic motivation.” (461) “[W]hat rational choice practitioners do is often so removed from reality that it is hard to take seriously their claims that they are engaged with the real world.” “Come on! Get real!”, a clearly impassioned Elster exclaims. (462) In line with his critique of the “soft obscurantism” of much social theory, on which he touches only very briefly, he refers to the rational choice way of doing science as a form of “hard obscurantism,” a charge he also levels against those social scientists preoccupied with measurement or data analysis as the true hallmarks of a scientific approach. He proceeds to finish up his case against rational choice theory with a set of ten major criticisms (462-3), most of which, though around for decades, were rarely taken seriously by its followers, including sophisticated rational choice theorists like Elster himself.

His form of methodological individualism would probably now be summarily rejected by more orthodox practitioners of rational choice, and not only because of Elster’s extensive use of Aristotle and Proust, or his focus on the role of norms, values, and emotions in individual decision making. Elster’s conception removes the hard core of rational choice theory by presenting convincingly and at length its fatal flaws and the untenability of the orthodox economic rationality assumption for an empirically oriented social science. Elster’s conception, it should be noted, also differs fundamentally from Karl Popper’s “situational logic” (Philosophy of the Social Sciences 1998). Whereas Popper and his followers among methodological individualists try to empty or de-psychologize the rationality assumption by placing as much of the explanatory burden on external factors of “situation” and “context,” Elster heads in the opposite direction. “Even though I’m critical of many rational-choice explanations, I believe the concept of choice is fundamental [and] that the subjective factor of choice has greater explanatory power than
the objective factors of constraint and selection.” (6)

Elster, as he outlines in Section I (ch.1-3), is a proponent of the hypothetico-deductive method, but he believes that in contrast to the natural sciences, there are few solid laws to be had in the social sciences. His focus is therefore on explanation by mechanisms rather than laws. This means that identifying causal variables is not enough; rather, “the causal mechanism must also be provided, or at least suggested.” (21) This disqualifies approaches based on correlations, statistical explanations, instrumentalist “as-if” fictions, or prediction as their central mode of explanation. Mechanisms are “frequently occurring and easily recognizable causal patterns that are triggered under generally unknown conditions or with indeterminate consequences.” (36) The basic elements of explanation are in terms of “atomic” mechanisms - “elementary psychological reactions that cannot be reduced to other mechanisms at the same level.” (42) Atomic mechanisms, in turn, can be used as “building blocks in more complex “molecular” mechanisms.” (43) To continue Elster’s analogy for a moment, he believes there are no “cellular” mechanisms in the social world that could not be reduced to the molecular and ultimately atomic level. “Interpreting an action requires us to explain it in terms of antecedent beliefs and desires (motivations) of the agent. Moreover, we should explain these mental states themselves in a way that makes sense of them, by locating them within the full desire-belief complex” (53) or the “belief-desire system of the agent” (55) - presumably the “molecular” level of the social. Surprisingly, Elster argues that “compulsive and phobic behavior is unintelligible because it is not part of an interconnected system of beliefs and desires.” (55) However, he does not further elucidate the status of such systems. Are we dealing here with ideologies, symbolic or semiotic systems, discursive systems, personality systems, or neurobiological systems? Given the explanatory centrality of these systems, how do they emerge in the first place? And how can we determine their shape and content?

Let us now briefly look at the substantive contributions and claims of the book. In the introduction, the author sets out the major puzzles he tries to resolve in the body of the analysis under the four headings of: the mind, action, lessons from the natural sciences,
and interaction. The conclusion identifies resolutions to the puzzles posed at the beginning and worked out in the body of the book. He offers almost fifty more or less general mechanisms to do the explanatory work. Two initial mechanisms emerge from game theory: the “availability heuristic” and the “representativeness heuristic” are typical cognitive mechanisms leading gamblers to deal irrationally with probability problems such as, is black or red more likely to come up next time, thus avoiding the unwelcome fact that the objective probability will always be 50-50. A third mechanism is called “hyperbolic discounting,” referring to the fact that preferences change over time because the emotions that originally generated them have subsided over time. Further cognitive mechanisms include magical thinking, false pride, surprise as magnifier of both positive and negative emotions, “blame-the-victim” attitudes, and cognitive dissonance. All of these mechanisms contradict in one way or another the rationality assumption of rational choice theory - they are mechanisms held responsible for systematically irrational behavior on the part of individuals. We are unlikely to find directly relevant work from psychologists on most of these mechanisms, and the reason, I believe, is simple. There are few rational choice psychologists that would take the homo oeconomicus model seriously in the first place. But without that model, Elster’s mechanisms lose much of their explanatory edge. It is only against the background of simplistic assumptions about maximizing behavior that many of the puzzles Elster tries to resolve emerge in the first place. In other words, his puzzles for the most part do not represent widely recognized profound questions about society.

Note that the major mechanisms he presents under the heading of Action are also cognitive or psychological rather than of a more clearly social nature. These include the counterproductive effects of excessively harsh punishments, loss aversion, decision myopia, individually felt shame, being risk averse, and weakness of will. This is not to say that these mechanisms are non-existing or irrelevant. They are important for explaining individual action in a variety of contexts, and thus parts of social outcomes. But they don’t seem to be social explanations of individual action in the sense that structural factors such as civil war, repressive regimes, economic collapse, democratic
participation, propaganda or high rates of economic growth are generally considered equally relevant social factors. But perhaps social mechanisms of this sort are discussed under the heading of Interaction. Before moving on to mechanisms of interaction, let us briefly consider the mechanisms Elster proposes under “Lessons from the Natural Sciences.”

All five mechanisms identified here are of the same kind, or variations of a presumed basic mechanism of evolution: genes that have been favored by group or natural selection produce/explain certain social behaviors, such as a mechanism inhibiting sexual desire for same-age members of the opposite sex in the same household, a tendency to cooperate and a tendency to punish noncooperators even if this means incurring material costs, and the basic cognitive mechanism of pattern seeking. These mechanisms are reminiscent of explanations proposed by the ultimately unsuccessful research program of sociobiology (Wilson 1975) according to which social behavior could be explained directly or exclusively through biological and ultimately genetic factors. But assuming that Elster has in mind non-reductive biosocial mechanisms, we might still ask: why these and not other biosocial mechanisms of individual perception, attention, consciousness, and memory as proposed in recent work in social neuroscience (e.g. Cacioppo et al. 2002)? The answer was already suggested above: the mechanisms identified by Elster gain most of their traction against the background of rational choice assumptions.

The mechanisms proposed under “Interaction,” one would expect, are the more specifically social - as opposed to psychological and biological - mechanisms. Several mechanisms here, however, are variations on individuals’ systematic failure to take into account the actual beliefs of other actors and their effects for the outcome of their own particular action (“younger sibling syndrome,” “older sibling syndrome”), in other words: failures of individual rationality. Another mechanism explains a social outcome in standard rational choice terms as the aggregate result of individually rational action. Thus former colonies with many languages are said to retain the colonizer’s language
because this is “everybody’s second-ranked option.” (452) An abstract psychological mechanisms of this kind is of limited help in identifying the actual social mechanisms explaining the highly varied postcolonial language histories and permutations (see e.g. Simpson 2008; 2007). The mechanisms explaining why individual voters vote even though their “vote is virtually certain to have no effect on the outcome” (452) are said to be twofold: first, magical thinking (already listed under mechanisms of the mind); second, acting on the categorical imperative. The mechanism explaining why people tip taxi drivers and waiters is that “the thought that others think badly about them is painful.“ (453) Whatever their merit as causal mechanisms, all of them are further instances of psychological mechanisms.

A small number of mechanisms discussed under “Interaction” might deserve the label “social mechanisms.” For example, “people are more averse to open displays of economic inequality than to hidden ones.” (453) Being averse is of course once again a psychological mechanism, but we might shift our emphasis on the structural aspect of the mechanism, i.e. economic inequality and its display. To what extent and how this mechanism may be at work would seem to depend on other - sociocultural - mechanisms, such as a society’s status system, dominant ideology and legitimation processes in this respect (cf. the United States versus Sweden). Another mechanism Elster identifies is the well-known tit-for-tat behaviour based on ongoing interaction over longer periods of time. Cooperation is undoubtedly a fundamental social mechanism on par with conflict. But in such general terms, such mechanisms are of little explanatory value unless combined with other social mechanisms such as the working of particular organizational structures and collective belief systems under specific historical conditions.

Social scientists are not usually considered experts in the working of the human mind/brain. They tend to hold assumptions about the human mind, simplistic or sophisticated, which may or may not be informed by the discipline of psychology. It is a sign of the high degree of disciplinary insulation that social scientists tend to adopt a set
of assumptions about the mind without any explicit reference to the work of psychologists. (Conversely, most approaches in psychology rest on assumptions about social factors - “they can be ignored” - that are never spelled out, let alone checked against social science research.) Social scientists with a structuralist orientation (methodological holists) have a strong, though not unproblematic argument that individual subjectivity matters very little in explaining larger social phenomena. Thus there is really no point in conceptualizing what is assumed to have little or no causal significance. Methodological individualists like Elster, on the other hand, can not take this route to justify their lack of interest in psychology for their own work on the human mind and individual action. So the question is, how do the cognitive mechanisms identified by Elster relate to the results of psychological research? He doesn’t say, even though he is committed in principle to draw lessons from other sciences.

If a student were to ask me how Elster’s toolbox could be used to explain rising class inequality in the twenty-first century, the breakdown of states in the periphery, social effects of the internet, the exportability of Western institutions to the rest of the world, the causes of the Iraq war, or the actual functioning of political institutions in the United States, my answer would be: Follow Elster’s general advice to look for causal mechanisms, but don’t spend too much time on the largely psychological mechanisms contained in Elster’s toolbox. Your questions call above all for identifying a variety of social mechanisms - economic, political, cultural - as well as knowledge of historically specific structures and systems. Unfortunately, our toolbox of social mechanisms is neither well organized nor sufficiently explicit at this point to be easily picked up and put to use (Mayntz 2004). Elster’s book is a partial, but valuable contribution in the larger effort to advance this agenda.¹

¹ It is regrettable that Explaining Social Behavior does not even mention, let alone engage, the literature on mechanism-based explanation produced over the last two
decades. The only exception is Hedström’s *Dissecting the social: on the principles of analytical sociology*, an author who shares Elster’s view that social mechanisms are really *psychological* mechanisms. The alternative view of social mechanisms, in addition to psychological mechanisms, includes relational or structural and environmental mechanisms (see e.g. Bunge 2004; McAdam et al. 2001; Pickel 2006; Tilly 2001, two special issues on “systems and mechanisms” in this journal 2004).
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