

Social Mechanisms and Scientific Realism: Discussion of ‘Mechanistic Explanation in Social Contexts’

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The social mechanisms approach to explanation (SM) has filled a very important gap in the theory of social explanation in the past twenty years, between the covering-law model and merely particularistic accounts of specific events. The SM approach is particularly prominent in the emerging programme of analytical sociology, but has made its mark in comparative historical sociology and other areas of the social sciences as well. But what exactly do various contributors mean by a “social mechanism”? And how does reference to hypothesized mechanisms help in explaining social outcomes? The literature is still not very specific in its responses to these questions. James Mahoney includes some 24 definitions of mechanism in “Beyond Correlational Analysis: Recent Innovations in Theory and Method” (Mahoney 2001), and it is not clear to me that the field has settled on a shared definition in the subsequent ten years.

One of the early contributors to the SM approach is Jon Elster. Mahoney includes two of Jon Elster’s definitions in his compendium:

[mechanisms are] “nuts and bolts, cogs and wheels – that can be used to explain quite complex social phenomena” (Elster 1989, p. 3)

“Roughly speaking, mechanisms are frequently occurring and easily recognizable causal patterns that are triggered under generally unknown conditions or with indeterminate consequences” (Elster 1998, p. 45)

One of Mahoney’s complaints is that philosophers and social scientists have not been sufficiently rigorous or specific in their formulations of what, precisely, they mean by a social mechanism. Johannes Persson’s essay is a welcome exception to that generalization. It is careful, rigorous, and to the point; and I believe it forces an important rethinking in Elster’s position. This is how we make progress in philosophy: by taking the specifics of a position seriously, by examining the implications of the position, and by pointing out unexpected but unpalatable consequences.

Persson believes there is a serious logical implication contained in Elster’s discussion of mechanisms that creates unacceptable consequences for the theory of explanation. I find his reasoning convincing, and I think it reveals an important underlying issue: the importance of treating causal mechanisms realistically rather than epistemically.

The paradox that Persson uncovers in Elster’s treatment of mechanisms has to do with Elster’s definition of a mechanism (Elster 1998, Elster 2007). Persson focuses on the second of the two definitions quoted above by Mahoney.[1] He points out that the definition includes epistemic features that are likely to change over time (“unknown conditions,” “indeterminate consequences”); therefore what was once a mechanism is no longer a mechanism when our knowledge of the process improves. And a set of facts that were considered explanatory at one point is no longer explanatory when we know more. Here are several statements of Persson’s core argument against Elster: “On

Elster's account, a causal relationship with determinate consequences that is not assumed to be an instantiation of a general law will qualify neither as a mechanism nor a law" (346). "However, if indeterminacy is resolved, it follows from Elster's understanding of mechanisms that, instead of providing ourselves with an improved mechanistic explanation, we shall lose the mechanism in the context we are interested in" (347). And: "What Elster is prepared to (and has to) accept is that his kind of mechanism is lost when, for instance, the triggering condition is identified. What he claims is that in these instances it is replaced by a law" (347). My solution is to agree with this logical criticism of Elster's formulation, but to argue that Elster ought to have separated a scientific-realist definition of "mechanism" from an epistemic analysis of what we often don't know about mechanisms (instigating conditions, variable consequences). (Persson addresses this possibility in his first footnote under the rubric of "ontic" conceptions of mechanisms, but does not amplify the point.)

The key question is this: Are mechanisms "in the world," or are they a feature of our current state of knowledge? According to Persson, Elster places the mechanism within our knowledge system rather than in the world. This seems like a mistake on Elster's part, however, and one that leads to a substantial problem in the way he frames his definition. What Elster seems to be confusing is the state of our knowledge of instigating conditions for a causal process, with the causal process itself.[2] But I find the scientific-realist approach much more appealing when it comes to mechanisms: the causal process is a part of the social world, and our knowledge of the process may be more or less specific. And this point turns out to be central in considering the import of Persson's key arguments against Elster.

Let's reframe the definition that Elster offers and that Persson subjects to close reading. The definition possesses three components:

"Roughly speaking, mechanisms are

- (a) frequently occurring and easily recognizable causal patterns
- (b) that are triggered under generally unknown conditions
- (c) or with indeterminate consequences."

Clause (a) can and should be treated realistically; the causal process or pattern is in the world. As it stands, it needs more specification before it can serve as a definition of the category of "mechanism". It is this lack of specificity that is of concern to Mahoney. But clauses (b) and (c) are not parts of an appropriate definition of the notion of "mechanism". They are statements about characteristics of our knowledge and are variable over time as more information about the identified mechanism is available. It is this variability over time that is at the heart of Persson's critique: what once was a mechanism later is not (because we know what triggers it or because we now know what its determinate consequences are).

Consider an analogy that demonstrates why Elster's definitional framework is fundamentally flawed, in the form of a parallel definition of "gravity":

“Roughly speaking, gravity is

- (a) a force causing objects to attract each other in proportion to the product of their masses and inverse relation to the square of the distance separating them
- (b) concerning which we do not yet have a full mathematical-physical theory.”

The first clause, according to a realist, picks out an important feature of the physical world; whereas the second clause describes a feature of our knowledge of how gravity works. Contemporary physics is in fact approaching the mathematical-physical theory of gravity mentioned in the second clause; but it would be patently absurd to conclude that “gravity no longer exists” when condition (b) is satisfied. Likewise with a causal mechanism. So mixing referential criteria (or what Persson calls ontic criteria) with epistemic criteria is a fundamentally flawed approach to attempting to define a scientific concept that purports to refer to the world.

Further, this is not a slip of the pen on Elster’s part. Persson is right in thinking that Elster’s conception of mechanism is epistemic in the way noted. Elster reiterates the point explicitly a few pages later: “When defining mechanisms, I also said that they ‘are triggered under generally unknown conditions or with indeterminate consequences’” (2007: 39). Elster speaks frequently of mechanisms as conceptual constructs rather than real events and powers. He implies that mechanisms-talk is *façon-de-parler* rather than referential. And this is a serious mistake on Elster’s part, in my view. In fact, it is much more common for mechanism theorists to treat mechanisms realistically, as part of what the ongoing reality consists of. This line of thought extends back to Rom Harré’s realism about causal powers (Harré and Madden 1975), through Roy Bhaskar and critical realism (Bhaskar 1975), through Nancy Cartwright’s treatment of capacities (Cartwright 1989). My own account in *Varieties of Social Explanation* was likewise advanced as a realist account of mechanisms (Little 1991).

My reading of the analytical sociology literature on mechanisms makes me think they too intend a realist interpretation of mechanisms. These philosophers and sociologists hold that social explanations need to be grounded in a hypothesis about the concrete social causal mechanisms that constitute the causal connection between one event and another. Mechanisms rather than regularities or necessary/sufficient conditions provide the fundamental grounding of causal relations and need to be at the center of causal research. Hedström characterizes mechanisms in these terms:

The position taken here, rather, is that mechanism-based explanations are the most appropriate type of explanations for the social sciences. The core idea behind the mechanism approach is that we explain a social phenomenon by referring to a constellation of entities and activities, typically actors and their actions, that are linked to one another in such a way that they regularly bring about the type of phenomenon we seek to explain. (24)

A social mechanism, as defined here, is a constellation of entities and activities that are linked to one another in such a way that they regularly bring about a particular type of outcome. (25)

These comments plainly position the mechanism in the world, not in the domain of what we know.

So I would suggest paraphrasing Elster's statement differently:

Mechanisms are real causal sequences [in the world, amenable to empirical investigation]; and it is often the case that we can recognize the mechanism without having much knowledge about its triggering circumstances or its outcomes in different circumstances.

The first part of this statement is semantic and ontological: it is intended to specify what aspect of the world we are referring to with the noun "mechanism", and it is the definitional part of the statement. The second part of this statement is pragmatic and epistemic. It is a pragmatic fact about how we use mechanisms in explanations rather than a semantic fact about what a mechanism is thought to be. It is an observation about the common limitations on our knowledge of mechanisms; but it is not part of the definition of what a mechanism is. The fact that Elster combines this feature of our knowledge about mechanisms with the definition of mechanisms seems to be a conceptual mistake on his part, combining what we think the thing is with what we know about it.

Or in other words: if Elster had taken a realist view of mechanisms, then his account would not be subject to the logical criticism that Persson raises against it. It is the relativization of "mechanism" to "what we know" that causes the problem. Elster's mistake was to import into the conceptual specification of a mechanism, conditions that properly speaking pertain to the pragmatics of our use of mechanisms in explanations in the context of incomplete knowledge. If we separate clearly between the mechanism and what we know about it, we don't get the paradoxical consequence that Persson draws out. But this would require a realistic interpretation of causal mechanisms — something I am very happy to do, but Elster may not.

There is a second important issue that I won't develop fully here, because it is primarily a disagreement with Elster, but is important nonetheless. Persson's article highlights an even deeper weakness in Elster's position on mechanisms: Elster's concession that the best explanations are covering-law explanations. This makes mechanism-based explanations second-best, at best. Elster believes (as I do) that robust social laws are hard to come by; but he holds out the hope that this defect might be remedied in the future. I maintain, by contrast, that the lack of general laws of social phenomena is systemic; given the nature of the social world, we will never have strong laws and we shouldn't expect them. Therefore social-mechanism explanations are the very best explanations we can hope for or should expect. And Elster's assumption that the gold standard for explanation is a law-based explanation is unjustified.

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[1] Elster offers the same definition in Elster 1998 and Elster 2007.

[2] Renate Mayntz puts the contrast in these terms: "The term 'mechanism' is used both to designate a certain class of real phenomena (mechanisms are such and such, they do such and such) and to designate a class of (causal) propositions referring to such phenomena." Mayntz, R. (2004). "Mechanisms in the Analysis of Social Macro-Phenomena." *Philosophy of the Social Sciences* 34(2): 237-259.