

Disaggregating Historical Explanation: The Move to Social Mechanisms in the Philosophy of History

Daniel Little, University of Michigan-Dearborn

Melinda Fagan makes two valuable contributions to the debate on the *Social Epistemology Review and Reply Collective* surrounding Johannes Persson's critique of Jon Elster's account of "explanation by mechanisms" (2012). First, she skillfully demonstrates that Elster's position tacitly presupposes a monistic approach to explanation: the gold standard of explanation is subsumption under exceptionless regularities. Mechanismic explanations are *faut de mieux*, to be wheeled out when we have not yet discovered the underlying general laws.¹ This is a venerable approach, extending back to Carl Hempel's advocacy of the covering law model for all areas of science, including history.

Fagan's second important contribution in this piece is to review a parallel debate in the philosophy of biology, where mechanismic explanations have come to enjoy full status as legitimate scientific explanations. Here she shows how the appeal to mechanisms in biology can be supported by James Woodward's important interventionist theory of causal relations (Woodward 2003). The biological explanations she offers do not reduce to sketchy covering-law explanations; and yet they appear to be legitimate instances of scientific explanation of the phenomena in question. Her central claim is that we need to take a pluralistic approach to explanation. The mechanismic approach is genuinely distinct from the covering-law approach, and both are legitimate approaches to the task of providing a scientific explanation of a phenomenon.

In this brief comment I want to extend the discussion by showing how poorly the covering law model works as an ideal for historical explanations, and the important improvements made possible in our conception of historical explanation by appeal to social mechanisms in history. This appeal makes especially good sense when we consider carefully the "stuff" of which historical processes consist: socially situated human persons acting within the circumstances of institutions and natural environments.

So examination of the problem of historical explanation adds support to Fagan's call for a pluralistic theory of scientific explanation.

The covering-law model

Carl Hempel published his sole contribution to the philosophy of history in 1942, just over 70 years ago (Hempel 1942). The article is "The Function of General Laws in History", and it set the stage for several fruitless decades of debate within analytic philosophy about the nature of historical explanation. Hempel argued that all scientific

¹ I prefer the term "mechanismic" rather than "mechanistic" as the qualifier identifying the mechanisms approach to scientific explanation, because the latter term gives an impression of greater determinacy in causal mechanisms than is actually to be found.

explanation has the same logical structure: a deductive (or probabilistic) derivation of the explanandum from one or more general laws and one or more statements of fact. Explanation, in Hempel's view, simply is "derivation of the explanandum from general laws." He is emphatic, moreover, in insisting that valid explanations in history **must** have this form:

We have tried to show that in history no less than in any other branch of empirical inquiry, scientific explanation can be achieved only by means of suitable general hypotheses, or by theories, which are bodies of systematically related hypotheses. (44)

Hempel concedes the point that few existing historical explanations actually look like this, with explicit law statements embedded in a deductive argument; but he argues that this shows only that existing explanations are elliptical, incomplete, or invalid. And often, he finds, what is offered as a historical explanation is in fact no more than an "explanation sketch" (42), with placeholders for the general laws.

This set of assumptions leads to large problems for historical explanation if we accept Hempel's account, however, because it is hard to think of a real historical research question where there might be a set of social or individual regularities sufficient to deductively entail the outcome (Little 2010). Bluntly, the social and behavioral sciences have never produced theories of individual or collective behavior that issue in statements of general laws that could be the foundation for a covering law explanation. This is a point on which Elster and I agree. And given that social phenomena are formed by actors with a range of features of agency and decision-making, we have very good reason to think that this lack of regularities is inherent in the social world. The social world is simply not governed by a set of social or individual laws. Let's look at that point at several levels.

Individuals

The social sciences provide a good basis for advancing theories of the actor, which in turn support certain generalizations about action. For example: People act out of self interest. People act morally. People pay attention to the example of others. People care about their families and friends. People follow charismatic leaders. People follow the precepts of their religious beliefs. People are emotional and short-sighted. People make decisions based on specific heuristics and rules-of-thumb. Each of these statements takes the form of a generalization. And each is true — of some delimited groups of agents some of the time. But there is no generalization about agency that is true of all agents all the time. Rational choice theory attempts to provide a single theory of agency and decision making that replaces all of these variant grounds of action. But rational choice theory has proven notoriously unsuccessful as a foundation for explanation of a large and complex event — war, revolution, economic crisis.

Groups

When we shift our focus upward, from individuals to groups, we find a similar result. Here too we can identify some partial regularities: Groups tend to coalesce in action when they have prominent shared characteristics. Groups are more prone to panic than individuals. Groups tend to fail to accomplish collective purposes. Groups are hyper-sensitive to racial and ethnic markers. And so forth. It is evident that these are partial, tendential, exception-laden, and inexact; not at all like the generalizations that characterize metals, liquids, or proteins. There is no possibility of a unified theory of group behavior that encompasses groups under a compact set of general laws of behavior.

Organizations and institutions

What about mid-level social arrangements like labor unions, congregations, and terrorist cells? It's not that there aren't any generalizations to be had concerning items at this level; it is that there are too many, and they are highly contingent, conditioned, and contradictory. *Certain types of organization are more prone to accidents than others.* This is true; but we have more confidence in our analysis of the most important features of the high-safety organization than we have in the corresponding generalization. So there isn't a stockpile of laws that might be produced to apply to a social situation and then turn the crank and derive the deductive consequences.

Finally, what about **large-scale events and structures** — wars, revolutions, civil conflict? Here too there are some generalizations that social scientists have asserted. For example: Democracies don't go to war with each other. War is made more likely when two powers have conflicts of interest over important resources. Wars create propaganda. Revolutions don't happen when the general population is satisfied. But generalizations about these sorts of social entities too are bounded and unreliable. They are conditional, we recognize immediately that they have exceptions, and they don't permit prediction. It is not at all plausible for an historian to set out to explain the outbreak of World War I by beginning with a set of "laws of inter-state warfare."

So the strong, governing generalizations that would be needed for a covering law explanation do not exist in historical research. There are regularities and generalizations; but they are small in scope and do not aggregate through deduction to the derivation of regularities among large events or structures. Social regularities are phenomenal, not governing; they reflect characteristics of the actors rather than governing the behavior of the ensembles (Little 1993). Does this mean that historical explanation is impossible? It does not. Early critiques of the covering-law model commonly turned to interpretation theory and hermeneutics for an alternative to the covering law model: we explain an historical outcome when we have reconstructed the states of mind and intentions of the actors whose actions brought it about (Collingwood 1946; Dray 1957). A defect of this strategy, however, is that it downplays the role of causal arguments in historical explanation.

A more promising solution for observers who think there is a key role for causal reasoning in historical explanation is to turn our attention from large social regularities to causal mechanisms and powers in order to see what a good historical explanation looks like. A good historical explanation identifies a number of independent mechanisms and processes that are at work in a particular circumstance, and then demonstrates how these mechanisms, and the actions of the actors involved, lead to the outcome. We explain the emergence of Chicago as the major Midwestern metropolis in the nineteenth century when we uncover the several independent causal processes and mechanisms that brought this outcome about (Cronon 1991).

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 (Mahoney 2001), (Ylikoski 2012). The SM approach is particularly prominent in the emerging programme of analytical sociology (Hedström and Swedberg 1998; Hedström and Bearman 2009), but has made its mark in comparative historical sociology and other areas of the social sciences as well.

Social mechanisms are concrete social processes in which a set of social conditions, constraints, or circumstances combine to bring about a given outcome.² On this approach, social explanation does not take the form of inductive discovery of laws; rather, the generalizations that may be discovered in the course of social science research are subordinate to the more fundamental search for causal mechanisms and pathways in individual outcomes and sets of outcomes. This approach casts doubt on the search for generalizable theories across numerous societies. It looks instead for specific causal influence and variation. The approach emphasizes variety, contingency, and the availability of alternative pathways leading to an outcome, rather than expecting to find a small number of common patterns of development or change.³ The contingency of particular pathways derives from several factors, including the local circumstances of individual agency and the across-case variation in the specifics of institutional arrangements — giving rise to significant variation in higher-level processes and outcomes.⁴

² Authors who have urged the centrality of causal mechanisms for both explanatory and purposes include Nancy Cartwright (1989), Jon Elster (2007), Rom Harré (1975), and Wesley Salmon (1984). Hedström and Swedberg's collection (1998) is a useful source. There is now an important second generation of scholarship on mechanisms, including Mahoney (2001), Mayntz (2004), Woodward (2003), and Steel (2004).

³ An important expression of this approach to social and historical explanation is offered by Charles Tilly: "Analysts of large-scale political processes frequently invoke invariant models that feature self-contained and self-motivating social units. Few actual political processes conform to such models. Revolutions provide an important example of such reasoning and of its pitfalls. Better models rest on plausible ontologies, specify fields of variation for the phenomena in question, reconstruct causal sequences, and concentrate explanation on links within those sequences" (Tilly 1995, 1594).

⁴ McAdam et al describe their approach to the study of social contention in these terms: "We employ mechanisms and processes as our workhorses of explanation, episodes as our workhorses of description. We therefore make a bet on how the social world works: that big structures and sequences never repeat themselves, but result from differing combinations and sequences of mechanisms with very general scope.

There is an ontological side of the concept of a mechanism — the idea that there is a substrate that makes the mechanism work. By referring to a nexus between *I* and *O* as a “mechanism” we presume that there is some underlying ontology that makes the observed connection a “necessary” one: given how the world works, the input *I* brings about events that lead to output *O*. In evolutionary biology it is the specifics of an ecology conjoined with natural selection. In the social world it is the empirical situation of the actor and the social and natural environment in which he/she acts.

The central tenet of causal realism is a thesis about the reality of causal mechanisms or causal powers. We can only assert that there is a causal relationship between X and Y if we can offer a credible hypothesis of the sort of underlying mechanism that might connect X to the occurrence of Y. The sociologist Mats Ekström puts the view this way: “the essence of causal analysis is ... the elucidation of the processes that generate the objects, events, and actions we seek to explain” (Ekstrom 1992, 115).

On this approach, the causal capacities of social entities are to be explained in terms of the structuring of preferences, worldviews, information, incentives, and opportunities for agents. The causal powers or capacities of a social entity inhere in its power to affect individuals’ behavior through incentives, preference-formation, belief-acquisition, or powers and opportunities. The micro-mechanism that conveys cause to effect is supplied by an account of the actions of agents with specific goals, beliefs, and powers, within a specified set of institutions, rules, and normative constraints.

Instead of imagining the social world in analogy with the law-governed world of natural phenomena, we need to approach social science theorizing in a way that emphasizes agency, heterogeneity, and contingency in the makeup of social facts. The causal mechanisms approach is highly compatible with this perspective on the social world. This approach recognizes that there is a degree of pattern in social life – but emphasizes that these patterns fall far short of the regularities associated with laws of nature. It emphasizes contingency of social processes and outcomes. It insists upon the importance and legitimacy of eclectic use of social theories: the processes are heterogeneous, and therefore it is appropriate to appeal to different types of social theories as we explain social processes. It emphasizes the importance of path-dependence in social outcomes. It suggests that the most valid scientific statements in the social sciences have to do with the discovery of concrete social-causal mechanisms, through which some types of social outcomes come about.

Closing

Seventy years after Hempel’s classic article, the covering law theory is now generally regarded as a fundamentally wrong-headed way of thinking about historical explanation.

Even within a single episode, we will find multiform, changing, and self-constructing actors, identities, forms of action and interaction” (McAdam et al 2001, 30).

Logical positivism is not a convenient lens through which to examine the social and historical sciences. There is too much contingency in the social world. Rather than being the result of law-governed processes, historical outcomes proceed from the contingent and historically variable features of the actors who make them. So the attention of many people interested in specifying the nature of historical and social explanation has focused on social mechanisms constituted and driven by common features of agency. This results in a different kind of explanation: accounts of particular episodes that shed light on the causal processes that appear to have been involved in their production, but no general accounts of large scale historical patterns or outcomes. And this in turn supports the view of explanatory pluralism advocated by Melinda Fagan.

Contact details: delittle@umich.edu

References

- Cartwright, N. 1989. *Nature's capacities and their measurement*. Oxford: Oxford University Press.
- Collingwood, R. G. 1946. *The idea of history*. Oxford: Clarendon Press.
- Cronon, W. 1991. *Nature's metropolis: Chicago and the great west*. New York: W. W. Norton.
- Dray, W. 1957. *Laws and explanation in history*. London: Oxford University Press.
- Ekstrom, M. 1992. "Causal explanation of social action: The Contribution of Max Weber and of Critical Realism to a Generative View of Causal Explanation in the Social Sciences." *Acta Sociologica* 35 (2): 107-116.
- Elster, J. 2007. *Explaining social behavior: More nuts and bolts for the social sciences*. Cambridge; New York: Cambridge University Press.
- Fagan, Melinda. 2013. "Social mechanisms and explanatory pluralism: Reflections on the Persson-Little-Chuang debate." *Social Epistemology Review and Reply Collective* 2 (7): 6-11.
- Harré, R. and E. H. Madden. 1975. *Causal powers: A theory of natural necessity*. Oxford: Basil Blackwell.
- Hedström, P. and P. Bearman, eds. 2009. *The Oxford handbook of analytical sociology*. Oxford: Oxford University Press.
- Hedström, P. and R. Swedberg, eds. 1998. *Social mechanisms: An analytical approach to social theory*. Cambridge: Cambridge University Press.
- Hempel, C. 1942. "The function of general laws in history." In *Aspects of scientific explanation*. New York: Free Press.
- Little, D. 1993. "On the scope and limits of generalizations in the social sciences." *Synthese* 97: 183-207.
- Little, D. 2010. *New contributions to the philosophy of history*. Dordrecht: Springer Science.
- Mahoney, J. 2001. "Beyond Correlational Analysis: Recent Innovations in Theory and Method." *Sociological Forum* 16 (3): 575-593.
- Mayntz, R. 2004. "Mechanisms in the Analysis of Social Macro-Phenomena." *Philosophy of the Social Sciences* 34 (2): 237-259.

Little, Daniel. 2013. "Disaggregating Historical Explanation: The Move to Social Mechanisms in the Philosophy of History." *Social Epistemology Review and Reply Collective* 2 (8): 1-7.
<http://wp.me/p1Bfg0-QM>

- McAdam, D., S. G. Tarrow, et al. 2001. *Dynamics of contention*. New York: Cambridge University Press.
- Persson, Johannes 2012. "Mechanistic explanation in social contexts: Elster and the problem of local scientific growth." *Social Epistemology* 26 (1): 105-114.
- Salmon, W. C. 1984. *Scientific explanation and the causal structure of the world*. Princeton, Princeton University Press.
- Steel, D. 2004. "Social Mechanisms and Causal Inference." *Philosophy of the Social Sciences* 34 (1): 55-78.
- Tilly, C. 1995. "To Explain Political Processes." *American Journal of Sociology* 100: 1594-1610.
- Woodward, J. 2003. *Making things happen: a theory of causal explanation*. New York: Oxford University Press.
- Ylikoski, P. 2012. "Micro, macro, and mechanisms." In *The Oxford handbook of philosophy of social science*, edited by Harold Kincaid, pp. 21-45. New York: Oxford University.