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ESSAYS

From Nuts and Bolts to Toolkits

Theorizing With Mechanisms

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This essay examines a mechanisms-oriented approach to theory building in organization studies and identifies conditions under which such an approach is likely to be fruitful. Mechanisms-oriented theorizing is a promising path to reviving organization theory but has the potential pitfalls of overly reductionist models of organizations and the complete abandonment of grand theorizing. These undesirable side effects can be reduced when researchers act as playful pragmatists and treat mechanisms as toolkits for working on theoretical puzzles. The article describes some tactics for accomplishing this goal.

Keywords: *social mechanisms; theory building; pragmatism; cultural toolkits*

If there is at all a problem with theory in organization studies, scarcity is probably not it. In fact one is sometimes struck by the diversity of theories, views, perspectives, and paradigms and also by the ferocity with which authors dress mundane but eminently worthwhile empirical investigations in the sacred language of high theory. Evoking theory and making contributions to theory have become convention and a matter of good taste and good manners.

My concern is not with the volume of theory but with its quality: I believe that what is currently in short supply is theory that is generative, theory that does not seek to close the book once and for all but that invites new possibilities, creates new sensitivities, and keeps the process of theorizing alive. A focus on mechanism holds the promise to make theory more generative, but as with any good idea, there is a danger too. A focus on mechanisms has the potential to be rather mechanistic and may threaten to squeeze whatever life is left out of the process of writing, talking, and reading theory. Mechanisms are the tools for constructing theories of organization, and we should heed Karl Weick's (1996) advice not to over-rely on standard tools that we have come to like.

In this essay, I fully affirm the promise of a mechanism-oriented approach not only for generating theory but for creating generative theory. But there is an element of skill in just how mechanisms are used in theory construction, and this less tangible spirit is where I want to focus. The thesis (and plea) is For mechanism-oriented research to be generative of theory, researchers should act as playful pragmatists and

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treat mechanisms as toolkits for working on theoretical puzzles. Note the emphasis—the concern is with theoretical puzzles, not with explaining empirical phenomena, and with theories of organizing, not with organizations as concrete empirical forms.

THE PROMISES AND DANGERS OF MECHANISMIC THEORY

Arguments for paying attention to mechanisms are ripe with machine metaphors: Mechanisms provide the "nuts and bolts" (Elster, 1989) and the "cogs and wheels" (Hernes, 1998) of social theories. Although that is not necessarily objectionable, the subtly different image of mechanisms as researchers' "cultural toolkits" (Swidler, 1986, 2001) is a more appealing metaphor that evokes a set of desirable associations.

Anderson et al. (this issue) rightly argue for the need to better understand mechanisms in theories of organization. Their call is based on an accurate reading of the current state of the field. This is an important point because the issue is not "mechanisms yes or no?" but "how much?" The validity of a plea for more or less consideration of mechanisms depends on where we stand now. In my view, the plea for mechanisms is justified by the assessment of the present state of affairs in organization studies in three respects.

First, there is a fascination with variables and statistical associations that comes at the expense of understanding processes and causality. Organization studies likely shares this focus with social science in general, given that Swedberg, Hedstrom, Elster, and Hernes are social not organization theorists. Elaborating mechanisms promises to add precision and depth to theories. A second diagnosis is that our vocabulary and conventions lead us to engage in theoretical debates at the level of overarching paradigmatic perspectives and metatheoretical claims. The unfortunate consequence is that critical engagement across these perspectives is highly abstract, difficult, and often avoided because it touches on scholarly identities and divergent epistemological and ontological commitments that are ultimately hard to resolve (e.g., Pfeffer, 1993, 1995; Van Maanen 1995a, 1995b). This is where Stinchcombe's (1991) suppleness argument comes in, and in a multiparadigm field, serious scholarly engagement is facilitated by a discourse on mechanisms rather than on ontological assumptions. The third argument put forward by general proponents of mechanism-focused approaches is perhaps less pressing for organization studies but nevertheless valid. Mechanism-based theorizing is sometimes seen as an antidote to "grand theory" and as a pathway to generate better grounded "theories of the middle-range" (Merton, 1957). My own reading of the field though suggests that most theories in organization studies are already midrange theories of bounded formations and processes.

The promises of a mechanism-centered approach to theory construction are thus to foster understanding of why and when observable relationships exist and to foster engagement and dialogue across areas of specialization by moving debates to a more tractable level, all of which would make our collective endeavor more generative (Campbell, 1969).

A greater focus on mechanisms, however, also carries two potential dangers. One is that in the quest to identify mechanisms and to assemble them into causal models, researchers end up with theory that is mechanistic and neither interesting nor generative. The temptation is to focus too much on input-output relationships, on linear chains of causality, and on building tightly knit models of arrows and boxes—in short using the nuts and bolts to create a reductionist, machinelike view of organization. This would be a dangerous path to take as the complexity and situatedness of much organizational activity begs for a style of theory that preserves some ambiguity. It is that residual ambiguity that makes theories of organization more generative and supple. A focus on mechanism does not thus eliminate the need for theorizing as sensitizing through analogues and resonance with experience, as concept construction and incomplete language game. An overly linear problem-solving approach to creating organizational theories likely yields unremarkable outcomes (Weick, 1989).

A second temptation with a focus on mechanisms in theory construction is to throw out the need to understand and work with broader frameworks and paradigms all together. Mechanisms are attractive not only for theory construction but also for phenomenon-driven empirical research. Why engage in serious theorizing if I can plug and play with a few handy mechanisms to explain my phenomenon of interest? The prospect of a return to an overly empiricist approach to organization studies is not appealing, at least not to me. Such an overly empiricist use of mechanisms would also be detrimental to our field. For one, it would likely increase the intellectual distance of organization studies to more general social theory and discipline-based research as the producers of mecha-

nisms. And it would also weaken the intellectual base of our research because of the lack of engagement with more fundamental and integrated questions. Let's not forget that mechanisms are usually specified in relation to and often only make sense as part of a larger body of theory. Mechanisms "serve to make the higher-level theory more supple, more accurate, or more general" (Stinchcombe, 1991, p. 367). They elaborate, sharpen, transpose, and connect theories, but they do not substitute for them.

These unintended side effects of mechanism-based approaches are by no means inevitable, but the nuts and bolts imagery may unwittingly foster them. Hence, I plea for a pragmatist stance toward theorizing with mechanisms, which I argue is more likely to preserve the advantage of suppleness and generativeness while avoiding the potential downsides of mechanistic closure and empiricism. The remainder of this essay outlines central tenets of such a style of theorizing that can be seen as supplements to the points made in Anderson et al.'s essay.

THE SPIRIT OF ENGAGING MECHANISMS IN THEORY CONSTRUCTION

Treating Mechanisms as a Toolkit

Instead of nuts and bolts that can be nicely fitted and assembled, mechanisms should perhaps better be seen as general purpose toolkits. The difference is subtle but important. As general tools of the theorist, mechanisms take on a greater sense of generality as they can be recombined more freely than the tightly fitting parts of a machine. In addition, because they are not designed to tightly fit each other in the first place, any recombination retains a level of imprecision and ambiguity. The theorizing project is never complete and thus never exhausts itself. It stimulates continued development. (This lack of closure may of course also be seen as negative, however, only if one assumes that the complexity and dynamism of organization can be grasped in its entirety by a theory—dream on, Sisyphus!).

The researcher then becomes a theory bricoleur in Levi-Strauss's (1966) sense, performing many diverse tasks with a limited but heterogeneous repertoire of mechanisms. Levi-Strauss contrasts the approach of the bricoleur with that of the scientific engineer who designs custom solutions to each problem (with nuts, bolts, cogs, and wheels I would add). The analogy to the engineering approach in research is theorists who precisely articulate an internally coherent body of theory but who do not integrate well with others—for example, Oliver Williamson's (1975, 1989) transaction cost economics or Edwin Locke's (Locke & Lathan, 1990, 2002) goal setting. For theoretical bricoleurs, the mechanisms bear only limited inherent relation to a theoretical project, and the meaning of particular mechanisms is dependent on the project toward which they are put. Flexibility is gained and connectivity encouraged with this mind-set (e.g., network theorists, some institutionalists). The repertoires of mechanisms in use by researchers within a field of study are thus akin to a cultural toolkit (Swidler, 1986), a set of resources to accomplish goals and solve puzzles of theory. When seeing themselves as pragmatic bricoleurs, researchers are less likely to develop overly closed and mechanistic theories and are prompted to engage with a wider set of theoretical perspectives.

Playfulness in Theorizing With Mechanisms

The Hedström and Swedberg (1998) bathtub model and the elaboration of its temporal dimension by Barley and Tolbert (1997) are useful in mapping out some general classes of mechanism and combining them into a sort of grammar for assembling mechanisms into models of more complex social processes. This is useful, especially in terms of linking levels of analysis. Yet toolkits are quite flexible and have only very minimal grammatical structure for recombination. That is exactly the advantage and promise of working with mechanisms. It may therefore be useful to think of theory development with mechanisms as much in terms of play as in terms of structuring. In the process of play, conventional grammatical rules are suspended.

For example, Hedström and Swedberg's (1998) model sneaks in a preference for methodological individualism because it leaves no place for endogenous context mechanisms (macro to macro). Being rational choice theorists, they also emphasize precision, abstraction, and reduction. Yet alternatives to methodological individualism that are sometimes portrayed as antitheses to mechanism-based approaches, such as field theory (Martin, 2003), systems theory (Luhmann, 1995), or narrative theory (Czarniawska, 1998), may nevertheless supply mechanisms for a less constrained theoretical toolkit. Is there really a good reason for not thinking of institutional contradictions (Seo & Creed, 2002) or semiotic properties of cultural

codes (Fairclough, 2003; Levi-Strauss, 1966) as endogenous macromechanisms? It may even be useful to turn the bathtub model on its head and think, for example, of subjective sensemaking as the context or the pretext of institutional structures instead of the other way. The point is that thinking in terms of mechanism is more useful the more it simply stays with the concept of mechanism as small bits of theory that explain relationships and the less it is structured by metatheoretical orientations that restrict recombination. One person's black box is another person's mechanism.

Testing the Mechanisms Too

Contrary to Stinchcombe's (1991) view, it may even be a good idea to not only articulate mechanisms to make theories better but to empirically test theories at the level of their constituent mechanisms, or at least to have others do it for you. Examples are the aggregation market mechanism in finance theories of corporate governance or the contextual mechanism of cognitive constraint through taken-for-grantedness in neo-institutional theory. Both are plausible explanations, but they could be used with more confidence if they were tested directly. There is a need to distinguish good from poor mechanisms, and the only question is, what criterion should be used? The criterion for a good mechanism in relation to a larger theoretical explanation should not merely be the logical consistency with other mechanisms in the larger theory (the engineering approach described above). It should also be the mechanism's standalone predictive utility. For example, institutional and financial researchers could draw on research by social psychologists to select robust and validated action-formation mechanisms for their macrotheories (see DiMaggio, 1997, for a good example). Generally, researchers who take to a mechanisms-based approach to theory building should be careful to use mechanisms that are not only convenient or resonant with their theoretical project but that are also empirically discernable from alternatives and hence testable.

Still a Place for Engaging in Big T Theory

Perhaps ironically, a focus on mechanisms does not at all suggest that the time for grand theory is past and gone. In fact, quite the opposite may be true if the emphasis is shifted to grand theorizing processes and away from a commitment to the results of these endeavors (Weick, 1995).

One attraction of mechanisms-based research is that the smaller bits of theory give the researcher greater precision at sensing and understanding a phenomenon. A research context focuses the theoretical tools of the researcher through the empirical logic of the phenomenon. This focus is the creative moment in phenomenon-driven research. Instead of, for example, trying to understand organizational accidents as a set of agency relations, mechanisms-based research would seek to identify a multitude of mechanisms that interact to generate the observed events (see Snook, 2000, for a good example of this approach). One source of creativity in theorizing is therefore new empirical problems that prompt researchers to assemble new sets of tools to solve puzzles that are left unexplained by existing conventions (e.g., network organizations, globalization).

Yet empirical phenomena alone are insufficient as sources of creativity in theory evolution. What is on researchers' radar screens is often shaped by their theory toolkits, and one role for grand theory is thus in providing larger optics and logics that allow researchers to see phenomena in the first place. Creative recombinations and innovations of mechanisms may be triggered by imperfect attempts at integrating a set of tools to solve an empirical problem or by imperfect attempts at integrating the tools to build a grander theory. What grand theorizing can do then, from a pragmatist perspective of knowledge creation, is to induce to research practice a sense of constant doubt of existing theories (Dewey, 1958; Joas, 1993). That doubt is just as likely generated by grand theories as it is by empirical phenomena. Arguably, much of the abundant supply of mechanisms as small bits of theory was inspired and generated in the context of much grander theoretical projects. Mechanisms-oriented researchers would be wise not to throw out the baby with the bathtub.

CONCLUSION

Kathie Sutcliffe's seminar on mechanisms of organized action (Anderson et al., this issue) demonstrated quite well the advantages of a mechanisms-based approach: When researchers enter conversations around mechanisms instead of broad paradigms, they find connections and many creative ideas for their respective research agendas, however diverse these

agendas may be. In fact, it can at times be almost scary to realize just how much in common one has with paradigms and research programs with which, as a whole, one does not exactly identify. Such discussions energize and certainly get your head spinning. Our field needs more conversations like that.

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