

Mechanisms of the Middle Range

for presentation to the conference on the work of
Robert K. Merton and its implications for sociology
and related fields today,
Columbia University, 9-10 August 2007

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22 July 2007

Along with *esprit d'escalier* and *Schadenfreude*, Robert Merton found the loanword *chutzpah* "especially congenial" (Merton 2004: 251). So do I. But so far I have never had the *chutzpah* to write so ostentatiously learned and self-referential an essay as Merton's vigorously visionary Afterword to the Barber and Merton book on serendipity, finally written and published in English more than forty years after the main text's consignment to the unpublished treasury of Merton works in 1958.

Having already published a review of *Serendipity* (Tilly 2005a), I have no intention of repeating my *recensione* here. Instead, I want to point out that Merton's analysis of serendipity performs two feats of great importance to social scientific description and explanation. First, it identifies serendipity not just as an intriguing concept but as a causal mechanism in that middle range Merton famously recommended. Second, it makes the distinction between serendipity seen as an individual disposition and as an event that occurs in what he called "serendipitous sociocognitive microenvironments." Merton rejects the first view as unwarranted psychological reductionism (Merton 2004: 257-258). Instead, he portrays serendipity as a mechanism in which environment and cognition interact to produce an unexpected and significant discovery.

Although the unpublished Merton treasury may yet yield an essay on social mechanisms, the term "mechanism" does not figure centrally in Merton's published methodological writings. Nevertheless, I claim that the recent revival of interest in mechanistic explanations within the social sciences advances the program Merton was already advocating half a century ago: developing theoretically sophisticated accounts of social processes somewhere between the stratosphere of global abstraction and the underground of thick description. I also claim that the mechanistic middle range opens social science to history much more readily than do competing approaches to explanation of social processes. I claim, finally, that beyond epistemology and ontology, mechanistic explanations offer a distinctive, superior grasp of how social processes actually work.

Epistemologies and ontologies provide the (often invisible) philosophical grounding of social analysis. Epistemologies and ontologies limit what sorts of explanations are logically possible - a holist can't appeal to individual motivations as her ultimate causes - but they do not dictate logics of explanation by themselves. Social scientists and historians have experimented with a number of different competing logics for the explanation of social processes. They include:

1. proposal of covering laws for complex structures and processes; explanation here consists of subjecting robust empirical generalizations to higher and higher level generalizations, the most general of all standing as laws
2. specification of necessary and sufficient conditions for concrete instances of the same complex structures and processes
3. variable analyses in which statistical analysis shows the extent to which one or more predictor variables (often called "independent variables") account statistically for variation in an outcome variable (often called the "dependent variable")
4. location of structures and processes within larger systems they supposedly serve or express, for example through the claim that element X exists because it serves function Y within system Z
5. stage models in which placement within an invariant sequence accounts for the episode at hand, for example the stages of revolution or of economic growth
6. identification of individual or group dispositions just before the point of action as causes of that action - propensity or disposition accounts
7. reduction of complex episodes, or certain features of those episodes, to their component mechanisms and processes

A full accounting of the last half century's social science and history includes all seven logics on the list.

Most of these explanatory modes, however, exclude history as a significant shaper of social processes. Covering-law, necessary-sufficient condition, and system accounts generally resist history as they deny the influence of particular times and places. Stage models do incorporate time, but they usually run roughshod over the actual complexities of historical social processes. Propensity accounts respond to history ambivalently, since in the version represented by rational choice they depend on transhistorical rules of decision making, while in the versions represented by cultural and phenomenological reductionism they treat history as infinitely particular.

Mechanism-process accounts, in contrast, positively welcome history, because their explanatory program couples a search for mechanisms of very general scope with arguments that initial conditions, sequences, and combinations of mechanisms concatenate into processes having explicable but variable overall outcomes. Mechanism-process accounts reject covering-law regularities for large structures such as international systems and for vast sequences such as democratization. Instead, they lend themselves to "local theory" in which the explanatory mechanisms and processes operate quite broadly, but combine locally as a function of initial conditions and adjacent processes to produce distinctive trajectories and outcomes (McAdam, Tarrow, and Tilly 2001, Tilly 2001).

Mechanisms compound into processes: combinations and sequences of mechanisms that produce some specified outcome at a larger scale than any single mechanism. Within contentious politics, analysts commonly invoke such processes as escalation, framing, identity shift, and scale shift (Tilly and Tarrow 2006). But they rarely identify the component mechanisms, much less their combinations and sequences. Nevertheless, in social science as a whole, a substantial intellectual movement has formed to adopt mechanism- and process-based explanations as complements to variable-based explanations, or even as substitutes for them.

As is always the case in new movements, competing definitions and practical proposals for the analysis of mechanisms and processes have proliferated wildly (Bunge 1997, 1998, 2004, Campbell 2005, Cherkaoui 2005, Elster 1999, George and Bennett 2005, Goodin and Tilly 2006, Hedström 2005, Hedström and Swedberg 1998, Little 1991, 1998, McAdam 2003, Norkus 2005, Pickel 2006, Stern, Dietz, Dolšak, Ostrom and Stonich 2002, Stinchcombe 2005, Tarrow 2004, Tilly 2000, 2001, 2004). No conceptual, theoretical, or methodological consensus has so far emerged.

Instead of proliferating catalogs of mechanisms, Merton himself commonly identified one or two mechanisms at a time, but explored their operations with reflective care and multiple examples. When it came to discussing inequality, for example, he approached it from two different ends. His famous essay "The Self-Fulfilling Prophecy" specified one small bundle of mechanisms by which in-groups help create the apparent inferiority they attribute to members of out-groups. In "Social Structure and Anomie" and "Continuities in the theory of Social Structure and Anomie" Merton identified mechanisms that help produce the apparently deleterious *consequences* of inequality. Both sets of mechanisms depend on the

capacity of people in higher-ranking categories to impose constraints on people in lower-ranking categories.

"The specious validity of the self-fulfilling prophecy," according to Merton, "perpetuates a reign of error" (Merton 1949: 423). Since he was about to analyze ethnic and racial conflict in the US, I imagine Merton chuckling at his play on the Reign of Terror. In any case, the central mechanism in his pernicious prophecy consists of justifying a group's exclusion from a superior group's advantages on the basis of inferior or undesirable attributes, and thus reproducing the ostensible evidence of those inferior or undesirable attributes. That mechanism bears second-cousin kinship to the central mechanism in "Social Structure and Anomie," where:

It is only when a system of cultural values extols, virtually above all else, certain *common success-goals for the population at large* while the social structure rigorously restricts or completely closes access to approved modes of reaching those goals *for a considerable part of the same population*, that deviant behavior ensues on a large scale (Merton 1949: 146; emphasis in original).

Although the specter of "a system of cultural values" as a social agent makes me very uneasy, it doesn't take much imagination to convert Merton's insights into an agent-centered argument concerning the process by which powerful and privileged groups perpetuate their power and privilege.

My own mechanism-centered analyses of categorical inequality proceed in a similar spirit. To give it a full, cumbersome label, we might call my line of argument an "interactive resource control theory of material inequality generation." Here is how the argument runs:

- material inequality results from unequal control over value-producing resources (example: some wildcatters strike oil, while others drill dry wells)
- paired and unequal categories such as male-female or white-black consist of asymmetrical relations across a socially recognized (and usually incomplete) boundary between interpersonal networks; such categorical pairs recur in a wide variety of situations, with the usual effect being unequal exclusion of each network from resources controlled by the other (example: in US urban ghettos,

immigrant merchants often make their livings by selling mainly to black people, but never simply integrate into the black community)

- an inequality-generating mechanism we may call *exploitation* occurs when persons who control a resource a) enlist the effort of others in production of value by means of that resource but b) exclude the others from the full value added by their effort (example: before 1848, citizens of several Swiss cantons drew substantial revenues in rents and taxes from non-citizen residents of adjacent tributary territories who produced agricultural and craft goods under control of the cantons' landlords and merchants)
- another inequality-generating mechanism we may call *opportunity hoarding* consists of confining disposition of a value-producing resource to members of an ingroup (example: Southeast Asian spice merchants from a particular ethnic-religious category dominate the distribution and sale of their product)
- two further mechanisms reinforce the effects of exploitation and opportunity hoarding: emulation and adaptation; *emulation* occurs when those who control an inequality-generating set of social relations import categorical distinctions (e.g. by gender or caste) that bring with them readily available practices and meanings (example: early 20th century operators of South African gold and diamond mines build the distinction between "Europeans" and "Natives" directly into the workforce, with white workers enjoying supervisory positions and enormously higher pay)
- *adaptation* involves subordinates' adjustment of their daily routines (e.g. their meetings with friends) so that they actually depend on the social arrangements generating inequality (example: factory workers meet their production quotas through speedups and collaboration in order to create time for sociable leisure with their workmates, but by that very effort commit themselves to management-imposed quotas)
- both exploitation and opportunity hoarding generally incorporate paired and unequal categories at boundaries between greater and lesser beneficiaries of value added by effort committed to controlled resources (example: the distinction between professionals and non-professionals - registered nurses and aides, scientists and laboratory assistants, optometrists and optical clerks,

architects and architectural drawers, et cetera -- often marks just such boundaries)

- local categorical distinctions gain strength and operate at lower cost when matched with widely available paired, unequal categories so that their boundaries coincide (example: hiring women as workers and men as bosses reinforces organizational hierarchy with gender hierarchy)
- over a wide range of circumstances, mobility across boundaries does not in itself change the production of inequality, but alters who benefits from inequality (example: so long as college degrees remain essential for engineering jobs, acquisition of those degrees by immigrants reinforces the exclusion of non-degree holders, even among immigrants)
- inequalities produced in these ways become more durable and effective to the extent that recipients of the surplus generated by exploitation and/or opportunity hoarding commit a portion of that surplus to reproducing a) boundaries separating themselves from excluded categories of the population and b) unequal relations across those boundaries (example: landlords devote some of their available wage-labor to building fences and chasing off squatters)

Those are the theory's bare bones (for more sustained treatments, see Tilly 1998, 2005). Taken in these terms, it provides no direct explanations for individual-by-individual variation in success and failure or for change and variation in the overall distribution of a country's wealth and income. Yet the theory has direct implications for Merton's recurrent concern: exclusion. It centers on exclusion (complete or partial) from benefits generated by control of resources. Both exploitation and opportunity hoarding exclude members of subordinate categories from benefits. If the argument is correct, that exclusion usually produces categorical boundaries between ins and outs.

I confess that only in writing this paper did I notice the Mertonian tones of my decade-old argument. Call it serendipity. I claim nevertheless that the argument falls into Merton's preferred middle range, and does so with a mechanism-process specification he would probably have found congenial.

These days, bright new energy is flowing into mechanism-process explanations of social processes, including generation of inequality. Douglas Massey's sweeping

synthesis of changes in American patterns of inequality since 1900 not only focuses its explanations specifically on categorical mechanisms but begins by quoting Barbara Reskin's ASA presidential address with its stirring call for mechanistic explanations (Massey 2007: xv). With less stress on inequality and more stress on organizational processes, Ronald Burt has built a whole research program around the mechanisms of brokerage and closure (Burt 2005). Although Massey does not cite Robert Merton, Burt does so extensively. The revival of interest in mechanisms of the middle range tells us that Merton's inspiration continues to work its magic, with or without chutzpah.

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