Toward A Method Of
Middle-Range Theorizing

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Most of the current generation of organizational researchers attempt to either extend or verify extant theory through empirical investigation; in contrast, few undertake an exercise in theory construction. One might reasonably attribute part of the imbalance to the preponderance of empiricism in most doctoral-level training. That is, one could conjecture that the scarcity of theoretical literature reflects a lack of teaching emphasis on how to use theoretical tools. This paper represents an attempt at beginning a catalog of such tools.

After discussing the type of theory to which this effort is directed, I will address such methodological issues as how to organize the theory-building effort, where to conduct it (e.g., in observation or in reflection), what types of information to rely on, and whose examples to follow.

Middle-Range Theory

I intend that the tools proposed here be applied to the formation of theories of the middle range, which Merton defines as those "that lie between the minor but necessary working hypotheses that evolve... in... day-to-day research and the all-inclusive systematic efforts to develop a unified theory" (1968, p. 39). This is because, as a discipline, organization and administrative science relies on behavioral theory, which contrasts with theories of the "hard" sciences, such as physics, in which theory is defined as "a system of interrelations among highly abstract concepts which serves to organize a very large number of laws that were previously unrelated" (Farber, 1965, p. 439). This definition outlines the nature of comprehensive theories — those organizing a considerable number of laws — whose construction is a function of the state of knowledge in a field, i.e., where many known empirical relations are present. Behavioral theory has not yet reached this level because the development of a body of empirical laws is only in the early stages, so the possible unifying power of theory is relatively small at this point.

Auguste Comte was the first to suggest that physical science methods were appropriate to the study of social phenomena (Martindale, 1960); since his time, there has been a tendency to attempt theory building on the comprehensive scale evidenced by Newtonian physics. As argued above, behavioral theory is too immature for such attempts to succeed. One important inadequacy is that the field has yet to settle on operational definitions of constructs that have won a high degree of intersubjective agreement. Until it matures, then, the field should concentrate on middle-range theorizing.

There are two possible unfavorable consequences of behavioral scientists' failing to invest their efforts in middle-range theorizing. On the one hand, theories cast at too high a level of abstraction — on the scale of comprehensive theories — are so distant from actual observations that they run the danger of either generating such varied analytical perspectives and derived operational definitions as to render empirical studies noncomparable, or failing to generate empirical studies altogether. On the other hand, empiricism practiced without middle-range theory building as a goal carries the risk of running rampant. The result can be empirical studies that culminate in mere description, that count things for the sake of counting, or that generate data primarily for the purpose of applying rigorous statistical techniques. Verification of comprehensive theory is not possible without a foundation of middle-range theory; and empirical investigation, as a
cumulative activity performed by social scientists as a whole, would flounder without the hypothesis-generating function of middle-range theories.

Merton decryes as premature the sociologist's attempt to formulate the all-encompassing sociological theory: "We are not ready. Not enough preparatory work has been done" (1968, p. 45). Logically, if all sociologists developed their own theories in the tradition of Engels or Parsons, the field would factionalize and hinder accumulation of empirical verification. But by appraising their own efforts using physical sciences as a standard, social scientists react with the defensive urge to create total systems. Merton suggests that we join instead the quest for "theories of the middle range" which are used principally to guide empirical inquiry. Such middle-range theories are not logically derived from a comprehensive one, though once developed they may be consistent with one. Merton cites Durkheim's *Suicide* as the classic instance of the use and development of middle-range theory. (See Merton [1968, p. 68] for a full listing of the attributes of middle-range theories. For a thorough analysis of the logical structure of middle-range theory, see Zetterberg [1966].

Middle-range theory can be further classified into substantive and formal theory. Substantive theories tend to center on their data bases; thus, we have theories applicable to business firms or hospitals or voluntary organizations. Formal theory is generated through the comparative analysis of various substantive theories, yielding more general applications. There is, then, a hierarchy even within theories of the middle range (Glaser, 1968), which suggests that the theory-building task itself must proceed by stages. (A detailed discussion of the procession through these stages is given in Glaser and Strauss [1974], chap. 4.)

**Theory-Building Methods**

In preparing an inventory of procedures to use in the construction of middle-range theories, I found in surveying the literature that the outlining of method comes in three basic forms: It is the subject of an entire book (Blalock, 1969; Glaser & Strauss, 1967; Hage, 1972; Zetterberg, 1966), or a section of a book (Blalock, 1970; Merton, 1968; Wallace, 1971), or, more frequently, it is mentioned in prefaces or introductions as a framework for the substantive material that follows (Glaser, 1967; March & Simon, 1958; Price, 1968). However, as Hage points out (1972, p. 2), few, with the exceptions of Blalock (1979) and Glaser and Strauss (1967), provide techniques for constructing theories. What follows, then, is both a preliminary cataloging of techniques and a reference document that will direct the reader to lengthier treatments.

**Theory-Building Format**

Let me first speculate on the form that a theoretical piece should take. Unlike empirical work, theoretical pieces — owing to their paucity — have few good models to follow. As a result, the following is based somewhat on my intuition. I will contrast the suggested outline with that of the usual empirical thesis, which usually follows the following format:

1. problem statement
2. review of theoretical and empirical literature
3. method
4. results
5. discussion, implications, conclusion.

The theoretical work, however, might look as follows:

1. partitioning of the field (topic) under investigation
2. method of theory construction
3. review of literature
4. construction of theory — induction from empirical base
5. extension of theory — deduction into propositions
6. metaphysical elaboration
7. conclusion.

At first glance, it appears that a theoretical work might merely be an inflated version of steps 1, 2, and 5 of the empirical model, but closer scrutiny of the "how to" literature (cited above) indicates that considerably more rigor than this may be required. As will be shown in the ensuing discussion, the biggest conflict for the theory builder comes in reconciling the order in which steps 3, 4, and 5 of the theoretical model are undertaken. They are not discrete processes, although the output may lead a reader to infer a sequential ordering of thought. The processes underlying these three steps entail a rather sticky swim through the morass created by their simultaneous interactions. Additionally, a theoretical work normally entails the concurrent juggling of a larger number of constructs and spanning
a longer hierarchy of abstractions; in contrast, an empirical study tends to apply a large number of measurements to a smaller number of variables than might be found in a theoretical piece. One way out, in terms of written presentation, is to take the route that Peery (1974) did and first state the general theoretical propositions (he had four) and then devote one section to each, subsuming steps 3, 4, and 5 under each generalization and confining the discussion to the relevant literature, inductions, and extensions applicable to or derived from it.

A final word on format: The inclusion of the sixth step listed above, “metaphysical elaboration,” is my own notion. This kind of writing does not appear often in management journals, nor does it get much mention in any of the literature on theory building. I have included it to provide a receptacle for the occasional intuitions that surface into consciousness as one pursues the theory-building task, conceptualizations that might not fit the categories delineated or forced by the imposed rigor of the general theory building. In other words, it could be the theory builder’s chapter for philosophizing, for expressing those ideas and deductions that cannot, because of their speculative and perhaps untestable nature, be properly subjected to the rigor of analysis that middle-range theory building requires. It would be the “wisdom” of the theoretician, expressed in a more discursive form.

The product of theorizing is usually a set of relational statements that range from discursive essays to highly formalized propositional or conceptual inventories. Examples of the former are Cyert and March (1963), Etzioni (1961), and Weick (1969). Propositional inventories are statements of the type “if x, then y” or “the more of x, then the more of y,” which assume that important relationships have already been explored through the empirical work of others, and are frequently built on a review and synthesis of often unconnected earlier empirical work. Examples include such works as Hage (1965), March and Simon (1958), Peery (1974), and Price (1968). Conceptual inventories assume plausible relationships between variables but tend to lack systematic evidence. They rely more on case examples, illustrations, and the like. The prime example of this type of work is James Thompson’s (1967).

Modes of Human Reasoning

How does one come to arrive at the construction or derivation of these propositions? Does one build on assembled empirical evidence or on conceptual logic and wisdom? As an answer, Kerlinger contrasts two “ways of knowing”: the method of intuition or a priori method, which relies on rationalistic propositions that are “agreeable to reason” and self-evident, and the method of science, wherein beliefs are “determined by some external permanency — by something upon which our thinking has no effect” (1964, p. 6), i.e., by observable phenomena. By valuing knowledge that agrees with experience over that which agrees with reason, Kerlinger seems to settle the scientific philosopher’s dilemma (see below) in favor of empiricism. Lewin, on the other hand, argues that pure empiricism may result in mere counting, measuring, and classifying observable phenomena without making contact with the facts that lie “below the surface” (1965, p. 202).

Neither empiricism nor cerebral logic, however, should drive out intuitive insight. Arguing along this vein, Pirsig posits the classical versus romantic modes of human understanding (1974, pp. 66-67). The classical mode is his term for the rational process of discovering or creating a world of underlying form as opposed to surface appearance, comparable to the logician versus empiricist. It proceeds by use of reason and laws; it is straightforward, unadorned, unemotional, economical. This is the manner in which the theoretical piece must be built and communicated. The romantic mode, on the other hand, is what step 6 above provides. It relies on inspiration, imagination, creation, and intuition more than on observation of facts. That intuition and data-based theorizing should go hand in hand is supported by Glaser and Strauss, who devote an entire chapter to the topic (1967, chap. 11).

These dichotomies parallel the induction/deduction dilemma discussed below, and the theory building versus theory testing divergence in academe today. (See Wallace [1971, pp. 16-25] for a discussion of the interrelations between these segments of the scientific process.) The dilemma for the scholar occurs if these modes of thinking are seen as mutually exclusive, a position suggested by Bla-
lock: "The resolution of this particular difficulty appears to require a division of labor between those who would construct the abstract theories and those who wish to test them" (1969, p. 5).

It is hoped that any such dichotomies indicate merely predispositions and not mutual exclusions. Lewin's description of the "Galilean Period" of social science, in which theory building and testing occur either simultaneously or in leapfrog manner in a systematic exploration for truth, is appealing and encouraging (1965, p. 202).

The Deduction/Induction Dilemma

The dilemma described here was prefaced in the discussion on the sequence of mental processes involved in the production of steps 3, 4, and 5 in a theoretical research paper. The dilemma arises not out of the question of "how does one arrive at 'knowing'?," but "how does one begin the search?" The question finds its genesis in the fact that there is no pure induction or deduction. Inductive inferences start with observations of a set of phenomena, after which one arrives at general conclusions — i.e., reasoning from particular experiences to general truths. Deduction starts with general knowledge and predicts a specific observation. The "arrival" at knowledge involves no dilemma because "the solution of problems too complicated for common sense to solve is achieved by long strings of mixed inductive and deductive inferences that weave back and forth between the observed (event) and the mental hierarchy" (Pirsig, 1974, p. 99).

So the issue is: Does one start by going to a mountain top and meditating, or by inducting oneself in facts and literature (i.e., others' accumulated observations)? None of the sources I have encountered advise starting by deduction from "grand" theories. Most state an imperative for theory grounded in data. But given that one must get exposure to data, should one go out with an idea of what one is looking for? Glaser suggests not; rather, one should begin without any preconceived hypotheses (1968, p. 4). Blalock, in contrast, suggests that in building deductive (testable) theories that will combine with the inductive theories sufficiently complex to give new insights, one must begin with simple models (which may not mirror the real world) and add new variables and complications a few at a time, resulting in the construction of more realistic theories by what amounts to an inductive process (1969, pp. 3-4).

Merton's approach to the dilemma is to recognize it for what it is and discuss both sides of the issue. Should one read others' thoughts on a subject first or should one pursue one's own line of reasoning? Erudition has been known to stifle creativity if for no other reason than that it consumes inordinate amounts of valuable time, but not checking with predecessors runs the risk of rediscovery — again, a consumption of resources. Taking the dilemma by the horns, Merton suggests that one selectively read the writings relevant to one's own work, or, alternately, turn first to one's own ideas and then check on the antecedent literature before publishing one's results (1968, p. 33). I suggest that the theoretician might combine both approaches. That is, start with preconceived notions, develop them a bit, then check the literature for support and (perhaps, grudgingly) make modifications where necessary.

A related dilemma involves how far back to take the literature review. Merton discusses the value not only of exposing oneself to the literature in anticipation of "the search" in order to be able to exercise better judgment by comparing what one reads and what one sees together, but also of reading the classics in one's field. This suggestion is particularly thorny because, as a science midway between the humanistic and physical sciences, social science can neither reject the "ancients" in favor of the "moderns" nor rely totally on recent work. That is, one cannot rely on old masters (as one should in philosophy or English literature) because scientific discovery tends to make the ancients obsolete. However, setting an arbitrary cutoff date (as Peery [1974] does in his literature search in order to make an already exhaustive review more manageable) runs the risk of losing the vital functions served by studying classical theory (Merton, 1968, pp. 35-37). Of the functions Merton lists, perhaps the most important for our purpose are: (1) Occasionally, one finds one's independent ideas are merely a rediscovery of a classical "prediscovery." Though initially deflating, the result is usually the satisfaction of having confirmation of one's own ideas by the powerful mind of an old master. (2) It validates one's
own ideas by citing the independent agreement of the earlier master. And perhaps most important, (3) classics produced by penetrating theoretical minds provide a model for intellectual work.

Theory-Building Blueprints

In summary, then, some beginning blueprint items for theory construction would include:

1. Read some of the "old masters."
3. Generate the theory through comparative analysis of empirical laws and substantive theories (Glaser, 1968, pp. 7-10; Martindale, 1960, pp. 73-75).
4. Codify your theory, either through propositional statements of the if-then variety (Bla
clock, 1970, p. 82) or the employment of a paradigm (Merton, 1968, pp. 69-72).
5. Take advantage of serendipity (Merton, 1968, pp. 157-162) and record intuitive insights as they arise (Glaser & Strauss, 1967, pp. 251-257).

The above list is frightfully short, but notwithstanding Bla
clock’s assertion that “there seem to be very few really useful guidelines that the practicing social scientist can use in constructing specific theories and then moving in some systematic way to explanation of a more general nature” (1970, p. 85), one can be heartened by the successful attempts of the authors cited in this article.

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