

II ON SOCIOLOGICAL THEORIES OF THE MIDDLE RANGE

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LIKE SO MANY WORDS that are bandied about, the word theory threatens to become meaningless. Because its referents are so diverse—including everything from minor working hypotheses, through comprehensive but vague and unordered speculations, to axiomatic systems of thought—use of the word often obscures rather than creates understanding.

Throughout this book, the term *sociological theory* refers to logically interconnected sets of propositions from which empirical uniformities can be derived. Throughout we focus on what I have called *theories of the middle range*: theories that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research¹ and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change.²

Middle-range theory is principally used in sociology to guide empirical inquiry. It is intermediate to general theories of social systems which are too remote from particular classes of social behavior, organization and change to account for what is observed and to those detailed orderly descriptions of particulars that are not generalized at all. Middle-range theory involves abstractions, of course, but they are close enough to observed data to be incorporated in propositions that permit empirical testing. Middle-range theories deal with delimited aspects of

1. "A 'working hypothesis' is little more than the common-sense procedure used by all of us everyday. Encountering certain facts, certain alternative explanations come to mind and we proceed to test them." James B. Conant, *On Understanding Science* (New Haven: Yale University Press, 1947), 137, n. 4.

2. This discussion draws upon and expands a critique of Parsons' paper on the position of sociological theory at the 1947 meetings of the American Sociological Society as briefly published in the *American Sociological Review*, 1949, 13, 164-8. It draws also upon subsequent discussions: R. K. Merton, "The role-set: problems in sociological theory," *The British Journal of Sociology*, June 1957, 8, 106-20, at 108-10; R. K. Merton, "Introduction" to Allen Barton, *Social Organization under Stress: A Sociological Review of Disaster Studies* (Washington, D.C.: National Academy of Sciences-National Research Council, 1963), xvii-xxxvi, at xxix-xxxvi.

social phenomena, as is indicated by their labels. One speaks of a theory of reference groups, of social mobility, or role-conflict and of the formation of social norms just as one speaks of a theory of prices, a germ theory of disease, or a kinetic theory of gases.

The seminal ideas in such theories are characteristically simple: consider Gilbert on magnetism, Boyle on atmospheric pressure, or Darwin on the formation of coral atolls. Gilbert *begins* with the relatively simple idea that the earth may be conceived as a magnet; Boyle, with the simple idea that the atmosphere may be conceived as a 'sea of air'; Darwin, with the idea that one can conceive of the atolls as upward and outward growths of coral over islands that had long since subsided into the sea. Each of these theories provides an image that gives rise to inferences. To take but one case: if the atmosphere is thought of as a sea of air, then, as Pascal inferred, there should be less air pressure on a mountain top than at its base. The initial idea thus suggests specific hypotheses which are tested by seeing whether the inferences from them are empirically confirmed. The idea itself is tested for its fruitfulness by noting the range of theoretical problems and hypotheses that allow one to identify new characteristics of atmospheric pressure.

In much the same fashion, the theory of reference groups and relative deprivation starts with the simple idea, initiated by James, Baldwin, and Mead and developed by Hyman and Stouffer, that people take the standards of significant others as a basis for self-appraisal and evaluation. Some of the inferences drawn from this idea are at odds with common-sense expectations based upon an unexamined set of 'self-evident' assumptions. Common sense, for example, would suggest that the greater the actual loss experienced by a family in a mass disaster, the more acutely it will feel deprived. This belief is based on the unexamined assumption that the magnitude of objective loss is related linearly to the subjective appraisal of the loss and that this appraisal is confined to one's own experience. But the theory of relative deprivation leads to quite a different hypothesis—that self-appraisals depend upon people's comparisons of their own situation with that of other people perceived as being comparable to themselves. This theory therefore suggests that, under specifiable conditions, families suffering serious losses will feel *less* deprived than those suffering smaller losses if they are in situations leading them to compare themselves to people suffering even more severe losses. For example, it is people in the area of greatest impact of a disaster who, though substantially deprived themselves, are most apt to see others around them who are even more severely deprived. Empirical inquiry supports the theory of relative deprivation rather than the common-sense assumptions: "the feeling of being relatively *better off* than others *increases with objective loss* up to the category of highest loss" and only then declines. This pattern is reinforced by the tendency of public com-

munications to focus on "the *most extreme sufferers* [which] tends to fix them as a reference group against which even other sufferers can compare themselves favorably." As the inquiry develops, it is found that these patterns of self-appraisal in turn affect the distribution of morale in the community of survivors and their motivation to help others.³ Within a particular *class* of behavior, therefore, the theory of relative deprivation directs us to a set of hypotheses that can be empirically tested. The confirmed conclusion can then be put simply enough: when few are hurt to much the same extent, the pain and loss of each seems great; where many are hurt in greatly varying degree, even fairly large losses seem small as they are compared with far larger ones. The probability that comparisons will be made is affected by the differing visibility of losses of greater and less extent.

The specificity of this example should not obscure the more general character of middle-range theory. Obviously, behavior of people confronted with a mass disaster is only one of an indefinitely large array of particular situations to which the theory of reference groups can be instructively applied, just as is the case with the theory of change in social stratification, the theory of authority, the theory of institutional interdependence, or the theory of anomie. But it is equally clear that such middle-range theories have not been logically *derived* from a single all-embracing theory of social systems, though once developed they may be consistent with one. Furthermore, each theory is more than a mere empirical generalization—an isolated proposition summarizing observed uniformities of relationships between two or more variables. A theory comprises a set of assumptions from which empirical generalizations have themselves been derived.

Another case of middle-range theory in sociology may help us to identify its character and uses. The theory of role-sets⁴ begins with an image of how social status is organized in the social structure. This image is as simple as Boyle's image of the atmosphere as a sea of air or Gilbert's image of the earth as a magnet. As with all middle-range theories, however, the proof is in the using not in the immediate response to the originating ideas as obvious or odd, as derived from more general theory or conceived of to deal with a particular class of problems.

Despite the very diverse meanings attached to the concept of *social status*, one sociological tradition consistently uses it to refer to a position in a social system, with its distinctive array of designated rights and obligations. In this tradition, as exemplified by Ralph Linton, the related concept of *social role* refers to the behavior of status-occupants that is oriented toward the patterned expectations of others (who accord the rights and exact the obligations). Linton, like others in this tradition,

3. Barton, *op. cit.*, 62-63, 70-72, 140, and the Introduction, xxiv-xxv.

4. The following pages draw upon Merton, "The role-set," *op. cit.*

went on to state the long recognized and basic observation that each person in society inevitably occupies multiple statuses and that each of these statuses has its associated role.

It is at this point that the imagery of the role-set theory departs from this long-established tradition. The difference is initially a small one—some might say so small as to be insignificant—but the shift in the angle of vision leads to successively more fundamental theoretical differences. Role-set theory begins with the concept that each social status involves not a single associated role, but an array of roles. This feature of social structure gives rise to the concept of role-set: that complement of social relationships in which persons are involved simply because they occupy a particular social status. Thus, a person in the status of medical student plays not only the role of student *vis-à-vis* the correlative status of his teachers, but also an array of other roles relating him diversely to others in the system: other students, physicians, nurses, social workers, medical technicians, and the like. Again, the status of school teacher has its distinctive role-set which relates the teacher not only to the correlative status, pupil, but also to colleagues, the school principal and superintendent, the Board of Education, professional associations and, in the United States, local patriotic organizations.

Notice that the role-set differs from what sociologists have long described as 'multiple roles.' The latter term has traditionally referred not to the complex of roles associated with a single social status but to the various social statuses (often, in different institutional spheres) in which people find themselves—for example, one person might have the diverse statuses of physician, husband, father, professor, church elder, Conservative Party member and army captain. (This complement of distinct statuses of a person, each with its own role-set, is a status-set. This concept gives rise to its own array of analytical problems which are examined in Chapter XI.)

Up to this point, the concept of role-set is *merely* an image for thinking about a component of the social structure. But this image is a beginning, not an end, for it leads directly to certain analytical problems. The notion of the role-set at once leads to the inference that social structures confront men with the task of articulating the components of countless role-sets—that is, the functional task of managing somehow to organize these so that an appreciable degree of social regularity obtains, sufficient to enable most people most of the time to go about their business without becoming paralyzed by extreme conflicts in their role-sets.

If this relatively simple idea of role-set has theoretical worth, it should generate distinctive problems for sociological inquiry. The concept of role-set does this.⁵ It raises the general but definite problem of identify-

5. For an early version of this developing idea, see Merton, "The social-cultural environment and *anomie*," in Helen L. Witmer and Ruth Kotinsky, editors, *New*

ing the social mechanisms—that is, the social processes having designated consequences for designated parts of the social structure—which articulate the expectations of those in the role-set sufficiently to reduce conflicts for the occupant of a status. It generates the further problem of discovering how these mechanisms come into being, so that we can also explain why the mechanisms do not operate effectively or fail to emerge at all in some social systems. Finally, like the theory of atmospheric pressure, the theory of role-set points directly to relevant empirical research. Monographs on the workings of diverse types of formal organization have developed empirically-based theoretical extensions of how role-sets operate in practice.⁶

The theory of role-sets illustrates another aspect of sociological theories of the middle range. They are frequently consistent with a variety of so-called systems of sociological theory. So far as one can tell, the theory of role-sets is not inconsistent with such broad theoretical orientations as Marxist theory, functional analysis, social behaviorism, Sorokin's integral sociology, or Parsons' theory of action. This may be a horrendous observation for those of us who have been trained to believe that systems of sociological thought are logically close-knit and mutually exclusive sets of doctrine. But in fact, as we shall note later in this introduction, comprehensive sociological theories are sufficiently loose-knit, internally diversified, and mutually overlapping that a *given theory of the middle range*, which has a measure of empirical confirmation, can often be subsumed under comprehensive theories which are themselves discrepant in certain respects.

This reasonably unorthodox opinion can be illustrated by reexamining the theory of role-sets as a middle-range theory. We depart from the traditional concept by assuming that a single status in society involves, not a single role, but an array of associated roles, relating the status-occupant to diverse others. Second, we note that this concept of the role-set gives rise to distinctive theoretical problems, hypotheses, and so to

Perspective for Research on Juvenile Delinquency: Report on a conference on the relevance and interrelations of certain concepts from sociology and psychiatry for delinquency, held May 6 and 7, 1955 (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1956), 24-50, at 47-48.

6. If we are to judge from the dynamics of development in science, sketched out in the preceding part of this introduction, theories of the middle range, being close to the research front of science, are particularly apt to be products of multiple and approximately simultaneous discovery. The core idea of the role-set was independently developed in the important empirical monograph, Neal Gross, Ward S. Mason and A. W. McEachern, *Explorations in Role Analysis: Studies of the School Superintendency Role* (New York: John Wiley & Sons, Inc., 1958). Significant extensions of the theory coupled with empirical investigation will be found in the monographs: Robert L. Kahn et al., *Organizational Stress: Studies in Role Conflict and Ambiguity* (New York: John Wiley & Sons, 1964), see 13-17 and *passim*; Daniel Katz and Robert L. Kahn, *The Social Psychology of Organizations* (New York: John Wiley & Sons, 1966) 172 ff. and *passim*.

empirical inquiry. One basic problem is that of identifying the social mechanisms which articulate the role-set and reduce conflicts among roles. Third, the concept of the role-set directs our attention to the structural problem of identifying the social arrangements which integrate as well as oppose the expectations of various members of the role-set. The concept of multiple roles, on the other hand, confines our attention to a different and no doubt important issue: how do *individual* occupants of statuses happen to deal with the many and sometimes conflicting demands made of them? Fourth, the concept of the role-set directs us to the further question of how these social mechanisms come into being; the answer to this question enables us to account for the many concrete instances in which the role-set operates ineffectively. (This no more assumes that all social mechanisms are functional than the theory of biological evolution involves the comparable assumption that no dysfunctional developments occur.) Finally, the logic of analysis exhibited in this sociological theory of the middle-range is developed wholly in terms of the elements of social structure rather than in terms of providing concrete *historical descriptions* of particular social systems. Thus, middle-range theory enables us to transcend the mock problem of a theoretical conflict between the nomothetic and the idiothetic, between the general and the altogether particular, between generalizing sociological theory and historicism.

From all this, it is evident that according to role-set theory there is always a *potential* for differing expectations among those in the role-set as to what is appropriate conduct for a status-occupant. The basic source of this potential for conflict—and it is important to note once again that on this point we are at one with such disparate general theorists as Marx and Spencer, Simmel, Sorokin and Parsons—is found in the structural fact that the other members of a role-set are apt to hold various social positions differing from those of the status-occupant in question. To the extent that members of a role-set are diversely located in the social structure, they are apt to have interests and sentiments, values and moral expectations, differing from those of the status-occupant himself. This, after all, is one of the principal assumptions of Marxist theory as it is of much other sociological theory: social differentiation generates distinct interests among those variously located in the structure of the society. For example, the members of a school board are often in social and economic strata that differ significantly from the stratum of the school teacher. The interests, values, and expectations of board members are consequently apt to differ from those of the teacher who may thus be subject to conflicting expectations from these and other members of his role-set: professional colleagues, influential members of the school board and, say, the Americanism Committee of the American Legion. An educational essential for one is apt to be judged as an educational frill by another, or as

downright subversion, by the third. What holds conspicuously for this one status holds, in identifiable degree, for occupants of other statuses who are structurally related through their role-set to others who themselves occupy differing positions in society.

As a theory of the middle range, then, the theory of role-sets begins with a concept and its associated imagery and generates an array of theoretical problems. Thus, the assumed structural basis for potential disturbance of a role-set gives rise to a double question (which, the record shows, has not been raised in the absence of the theory): which social mechanisms, if any, operate to counteract the theoretically assumed instability of role-sets and, correlatively, under which circumstances do these social mechanisms fail to operate, with resulting inefficiency, confusion, and conflict? Like other questions that have historically stemmed from the general orientation of functional analysis, these do not assume that role-sets invariably operate with substantial efficiency. For this middle-range theory is not concerned with the historical generalization that a degree of social order or conflict prevails in society but with the analytical problem of identifying the social mechanisms which produce a greater degree of order or less conflict than would obtain if these mechanisms were not called into play.

TOTAL SYSTEMS OF SOCIOLOGICAL THEORY

The quest for theories of the middle range exacts a distinctly different commitment from the sociologist than does the quest for an all-embracing, unified theory. The pages that follow assume that this search for a total system of sociological theory, in which observations about every aspect of social behavior, organization, and change promptly find their preordained place, has the same exhilarating challenge and the same small promise as those many all-encompassing philosophical systems which have fallen into deserved disuse. The issue must be fairly joined. Some sociologists still write as though they expect, here and now, formulation of *the* general sociological theory broad enough to encompass the vast ranges of precisely observed details of social behavior, organization, and change and fruitful enough to direct the attention of research workers to a flow of problems for empirical research. This I take to be a premature and apocalyptic belief. We are not ready. Not enough preparatory work has been done.

An historical sense of the changing intellectual contexts of sociology should be sufficiently humbling to liberate these optimists from this extravagant hope. For one thing, certain aspects of our historical past are still too much with us. We must remember that early sociology grew up in an intellectual atmosphere⁷ in which vastly comprehensive systems

7. See the classical work by John Theodore Merz, *A History of European Thought in the Nineteenth Century* (Edinburgh and London: William Blackwood, 1904), 4 vols.

of philosophy were being introduced on all sides. Any philosopher of the eighteenth and early nineteenth centuries worth his salt had to develop his own philosophical system—of these, Kant, Fichte, Schelling, Hegel were only the best known. Each system was a personal bid for the definitive overview of the universe of matter, nature and man.

These attempts of philosophers to create total systems became a model for the early sociologists, and so the nineteenth century was a century of sociological systems. Some of the founding fathers, like Comte and Spencer, were imbued with the *esprit de système*, which was expressed in their sociologies as in the rest of their wider-ranging philosophies. Others, such as Gumplowicz, Ward, and Giddings, later tried to provide intellectual legitimacy for this still “new science of a very ancient subject.” This required that a general and definitive framework of sociological thought be built rather than developing special theories designed to guide the investigation of specific sociological problems within an evolving and provisional framework.

Within this context, almost all the pioneers in sociology tried to fashion his own system. The multiplicity of systems, each claiming to be the genuine sociology, led naturally enough to the formation of schools, each with its cluster of masters, disciples and epigoni. Sociology not only became differentiated with other disciplines, but it became internally differentiated. This differentiation, however, was not in terms of specialization, as in the sciences, but rather, as in philosophy, in terms of total systems, typically held to be mutually exclusive and largely at odds. As Bertrand Russell noted about philosophy, this total sociology did not seize “the advantage, as compared with the [sociologies] of the system-builders, of being able to tackle its problems one at a time, instead of having to invent at one stroke a block theory of the whole [sociological] universe.”⁸

Another route has been followed by sociologists in their quest to establish the intellectual legitimacy of their discipline: they have taken as their prototype systems of scientific theory rather than systems of philosophy. This path too has sometimes led to the attempt to create total systems of sociology—a goal that is often based on one or more of three basic misconceptions about the sciences.

The first misinterpretation assumes that systems of thought can be effectively developed before a great mass of basic observations has been accumulated. According to this view, Einstein might follow hard on the heels of Kepler, without the intervening centuries of investigation and systematic thought about the results of investigation that were needed to prepare the terrain. The systems of sociology that stem from this tacit assumption are much like those introduced by the system-

8. Bertrand Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1945), 834.

makers in medicine over a span of 150 years: the systems of Stahl, Boissier de Sauvages, Broussais, John Brown and Benjamin Rush. Until well into the nineteenth century eminent personages in medicine thought it necessary to develop a theoretical system of disease long before the antecedent empirical inquiry had been adequately developed.⁹ These garden-paths have since been closed off in medicine but this sort of effort still turns up in sociology. It is this tendency that led the biochemist and avocational sociologist, L. J. Henderson, to observe:

A difference between most system-building in the social sciences and systems of thought and classification in the natural sciences is to be seen in their evolution. In the natural sciences both theories and descriptive systems grow by adaptation to the increasing knowledge and experience of the scientists. *In the social sciences, systems often issue fully formed from the mind of one man.* Then they may be much discussed if they attract attention, but *progressive adaptive modification as a result of the concerted efforts of great numbers of men is rare.*¹⁰

The second misconception about the physical sciences rests on a mistaken assumption of historical contemporaneity—that *all cultural products existing at the same moment of history have the same degree of maturity.* In fact, to perceive differences here would be to achieve a sense of proportion. The fact that the discipline of physics and the discipline of sociology are both identifiable in the mid-twentieth century does not mean that the achievements of the one should be the measure of the other. True, social scientists today live at a time when physics has achieved comparatively great scope and precision of theory and experiment, a great aggregate of tools of investigation, and an abundance of technological by-products. Looking about them, many sociologists take the achievements of physics as the standard for self-appraisal. They want to compare biceps with their bigger brothers. They, too, want to *count.* And when it becomes evident that they neither have the rugged physique nor pack the murderous wallop of their big brothers, some sociologists despair. They begin to ask: is a science of society really possible unless we institute a total system of sociology? But this perspective ignores the fact that between twentieth-century physics and twentieth-century sociology stand billions of man-hours of sustained, disciplined, and cumulative research. Perhaps sociology is not yet ready for its Einstein because it has not yet found its Kepler—to say nothing of its Newton, Laplace, Gibbs, Maxwell or Planck.

Third, sociologists sometimes misread the actual state of theory in the

9. Wilfred Trotter, *Collected Papers* (Oxford University Press, 1941), 150. The story of the system-makers is told in every history of medicine; for example, Fielding H. Garrison, *An Introduction to the History of Medicine* (Philadelphia: Saunders, 1929) and Ralph H. Major, *A History of Medicine* (Oxford: Blackwell Scientific Publications, 1954), 2 vols.

10. Lawrence J. Henderson, *The Study of Man* (Philadelphia: University of Pennsylvania Press, 1941), 19-20, italics supplied; for that matter, the entire book can be read with profit by most of us sociologists.

physical sciences. This error is ironic, for physicists agree that they have not achieved an all-encompassing system of theory, and most see little prospect of it in the near future. What characterizes physics is an array of special theories of greater or less scope, coupled with the historically-grounded hope that these will continue to be brought together into families of theory. As one observer puts it: "though most of us hope, it is true, for an all embracing future theory which will unify the various postulates of physics, we do not wait for it before proceeding with the important business of science."¹¹ More recently, the theoretical physicist, Richard Feynman, reported without dismay that "today our theories of physics, the laws of physics, are a multitude of different parts and pieces that do not fit together very well."¹² But perhaps most telling is the observation by that most comprehensive of theoreticians who devoted the last years of his life to the unrelenting and unsuccessful search "for a unifying theoretical basis for all these single disciplines, consisting of a minimum of concepts and fundamental relationships, from which all the concepts and relationships of the single disciplines might be derived by logical process." Despite his own profound and lonely commitment to this quest, Einstein observed:

The greater part of physical research is devoted to the development of the various branches in physics, in each of which the object is the theoretical understanding of more or less restricted fields of experience, and in each of which the laws and concepts remain as closely as possible related to experience.¹³

These observations might be pondered by those sociologists who expect a sound general system of sociological theory in our time—or soon after. If the science of physics, with its centuries of enlarged theoretical generalizations, has not managed to develop an all-encompassing theoretical system, then *a fortiori* the science of sociology, which has only begun to accumulate empirically grounded theoretical generalizations of modest scope, would seem well advised to moderate its aspirations for such a system.

UTILITARIAN PRESSURES FOR TOTAL SYSTEMS OF SOCIOLOGY

The conviction among some sociologists that we must, here and now, achieve a grand theoretical system not only results from a misplaced comparison with the physical sciences, it is also a response to the ambiguous position of sociology in contemporary society. The very un-

11. Henry Margenau, "The basis of theory in physics," unpublished ms., 1949, 5-6.

12. Richard Feynman, *The Character of Physical Law* (London: Cox & Wyman Ltd., 1965), 30.

13. Albert Einstein, "The fundamentals of theoretical physics," in L. Hamalian and E. L. Volpe, eds. *Great Essays by Nobel Prize Winners* (New York: Noonday Press, 1960), 219-30 at 220.

certainty about whether the accumulated knowledge of sociology is adequate to meet the large demands now being made of it—by policy-makers, reformers and reactionaries, by business-men and government-men, by college presidents and college sophomores—provokes an overly-zealous and defensive conviction on the part of some sociologists that they must somehow be equal to these demands, however premature and extravagant they may be.

This conviction erroneously assumes that a science must be adequate to meet *all* demands, intelligent or stupid, made of it. This conviction is implicitly based on the sacrilegious and masochistic assumption that one must be omniscient and omnicompetent—to admit to less than total knowledge is to admit to total ignorance. So it often happens that the exponents of a fledgling discipline make extravagant claims to total systems of theory, adequate to the entire range of problems encompassed by the discipline. It is this sort of attitude that Whitehead referred to in the epigraph to this book: "It is characteristic of a science in its earlier stages . . . to be both ambitiously profound in its aims and trivial in its handling of details."

Like the sociologists who thoughtlessly compared themselves with contemporary physical scientists because they both are alive at the same instant of history, the general public and its strategic decision-makers often err in making a definitive appraisal of social science on the basis of its ability to solve the urgent problems of society today. The misplaced masochism of the social scientist and the inadvertent sadism of the public both result from the failure to remember that social science, like all science, is continually developing and that there is no providential dispensation providing that at any given moment it will be adequate to the entire array of problems confronting men. In historical perspective this expectation would be equivalent to having forever prejudged the status and promise of medicine in the seventeenth century according to its ability to produce, then and there, a cure or even a preventative for cardiac diseases. If the problem had been widely acknowledged—look at the growing rate of death from coronary thrombosis!—its very importance would have obscured the *entirely independent question* of how adequate the medical knowledge of 1650 (or 1850 or 1950) was for solving a wide array of other health problems. Yet it is precisely this illogic that lies behind so many of the practical demands made on the social sciences. Because war and exploitation and poverty and racial discrimination and psychological insecurity plague modern societies, social science must justify itself by providing solutions for all of these problems. Yet social scientists may be no better equipped to solve these urgent problems today than were physicians, such as Harvey or Sydenham, to identify, study, and cure coronary thrombosis in 1655. Yet, as history testifies, the inadequacy of medicine to cope with this particular problem scarcely meant that it lacked powers of development.

If everyone backs only the sure thing, who will support the colt yet to come into its own?

My emphasis upon the gap between the practical problems assigned to the sociologist and the state of his accumulated knowledge and skills does not mean of course, that the sociologist should not seek to develop increasingly comprehensive theory or should not work on research directly relevant to urgent practical problems. Most of all, it does not mean that sociologists should deliberately seek out the pragmatically trivial problem. Different sectors in the spectrum of basic research and theory have different probabilities of being germane to particular practical problems; they have differing potentials of relevance.¹⁴ But it is important to re-establish an historical sense of proportion. The urgency or immensity of a practical social problem does not ensure its immediate solution.¹⁵ At any given moment, men of science are close to the solutions of some problems and remote from others. It must be remembered that necessity is only the mother of invention; socially accumulated knowledge is its father. Unless the two are brought together, necessity remains infertile. She may of course conceive at some future time when she is properly mated. But the mate requires time (and sustenance) if he is to attain the size and vigor needed to meet the demands that will be made upon him.

This book's orientation toward the relationship of current sociology and practical problems of society is much the same as its orientation toward the relationship of sociology and general sociological theory. It is a developmental orientation, rather than one that relies on the sudden mutations of one sociologist that suddenly bring solutions to major social problems or to a single encompassing theory. Though this orientation makes no marvellously dramatic claims, it offers a reasonably realistic assessment of the current condition of sociology and the ways in which it actually develops.

TOTAL SYSTEMS OF THEORY AND THEORIES OF THE MIDDLE RANGE

From all this it would seem reasonable to suppose that sociology will advance insofar as its major (but not exclusive) concern is with develop-

14. This conception is developed in R. K. Merton, "Basic research and potentials of relevance," *American Behavioral Scientist*, May 1963, VI, 86-90 on the basis of my earlier discussion, "The role of applied social science in the formation of policy," *Philosophy of Science*, 1949, 16, 161-81.

15. As can be seen in detail in such works as the following: Paul F. Lazarsfeld, William Sewell and Harold Wilensky, eds., *The Uses of Sociology* (New York: Basic Books, in press); Alvin W. Gouldner and S. M. Miller, *Applied Sociology: Opportunities and Problems* (New York: The Free Press, 1965); Bernard Rosenberg, Israel Gerver and F. William Howton, *Mass Society in Crisis: Social Problems and Social Pathology* (New York: The Macmillan Company, 1964); Barbara Wootton, *Social Science and Social Pathology* (New York: The Macmillan Company, 1959).

ing theories of the middle range, and it will be retarded if its primary attention is focussed on developing total sociological systems. So it is that in his inaugural address at the London School of Economics, T. H. Marshall put in a plea for sociological "stepping-stones in the middle distance."¹⁶ Our major task today is to develop special theories applicable to limited conceptual ranges—theories, for example, of deviant behavior, the unanticipated consequences of purposive action, social perception, reference groups, social control, the interdependence of social institutions—rather than to seek immediately the total conceptual structure that is adequate to derive these and other theories of the middle range.

Sociological theory, if it is to advance significantly, must proceed on these interconnected planes: (1) by developing special theories from which to derive hypotheses that can be empirically investigated and (2) by evolving, not suddenly revealing, a progressively more general conceptual scheme that is adequate to consolidate groups of special theories.

To concentrate entirely on special theories is to risk emerging with specific hypotheses that account for limited aspects of social behavior, organization and change but that remain mutually inconsistent.

To concentrate entirely on a master conceptual scheme for deriving all subsidiary theories is to risk producing twentieth-century sociological equivalents of the large philosophical systems of the past, with all their varied suggestiveness, their architectonic splendor, and their scientific sterility. The sociological theorist who is *exclusively* committed to the exploration of a total system with its utmost abstractions runs the risk that, as with modern décor, the furniture of his mind will be bare and uncomfortable.

The road to effective general schemes in sociology will only become clogged if, as in the early days of sociology, each charismatic sociologist tries to develop his own general system of theory. The persistence of this practice can only make for the balkanization of sociology, with each principality governed by its own theoretical system. Though this process has periodically marked the development of other sciences—conspicuously, chemistry, geology and medicine—it need not be reproduced in sociology if we learn from the history of science. We sociologists can look instead toward progressively comprehensive sociological theory which, instead of proceeding from the head of one man, gradually consolidates theories of the middle range, so that these become special cases of more general formulations.

Developments in sociological theory suggest that emphasis on this orientation is needed. Note how few, how scattered, and how unimpressive are the specific sociological hypotheses which are *derived* from a master conceptual scheme. The proposals for an all-embracing theory run

16. The inaugural lecture was delivered 21 February 1946. It is printed in T. H. Marshall, *Sociology at the Crossroads* (London: Heinemann, 1963), 3-24.

so far ahead of confirmed special theories as to remain unrealized programs rather than *consolidations* of theories that at first seemed discrete. Of course, as Talcott Parsons and Pitirim Sorokin (in his *Sociological Theories of Today*) have indicated, significant progress has recently been made. The gradual convergence of streams of theory in sociology, social psychology and anthropology records large theoretical gains and promises even more.¹⁷ Nonetheless, a large part of what is now described as sociological theory consists of *general orientations toward data, suggesting types of variables which theories must somehow take into account, rather than clearly formulated, verifiable statements of relationships between specified variables*. We have many concepts but fewer confirmed theories; many points of view, but few theorems; many "approaches" but few arrivals. Perhaps some further changes in emphasis would be all to the good.

Consciously or unconsciously, men allocate their scant resources as much in the production of sociological theory as they do in the production of plumbing supplies, and their allocations reflect their underlying assumptions. Our discussion of middle range theory in sociology is intended to make explicit a policy decision faced by all sociological theorists. Which shall have the greater share of our collective energies and resources: the search for confirmed theories of the middle range or the search for an all-inclusive conceptual scheme? I believe—and beliefs are of course notoriously subject to error—that theories of the middle range

17. I attach importance to the observations made by Talcott Parsons in his presidential address to the American Sociological Society subsequent to my formulation of this position. For example: "At the *end* of this road of increasing frequency and specificity of the islands of theoretical knowledge lies the ideal state, scientifically speaking, where *most* actual operational hypotheses of empirical research are directly derived from a general system of theory. On any broad front, . . . only in physics has this state been attained in *any* science. We cannot expect to be anywhere nearly in sight of it. But it does not follow that, distant as we are from that goal, steps in that *direction* are futile. Quite the contrary, *any* real step in that direction is an advance. Only at this *end* point do the islands merge into a continental land mass.

At the very least, then, general theory can provide a broadly orienting framework [*n.b.*] . . . It can also serve to codify, interrelate and make available a vast amount of existing empirical knowledge. It also serves to call attention to gaps in our knowledge, and to provide canons for the criticism of theories and empirical generalizations. Finally, even if they cannot be systematically derived [*n.b.*], it is indispensable to the systematic clarification of problems and the fruitful formulation of hypotheses." (italics supplied)

Parsons, "The prospects of sociological theory," *American Sociological Review*, February 1950, 15, 3-16 at 7. It is significant that a general theorist, such as Parsons, acknowledges (1) that in fact general sociological theory seldom provides for specific hypotheses to be derived from it; (2) that, in comparison with a field such as physics, such derivations for most hypotheses are a remote objective; (3) that general theory provides only a general orientation and (4) that it serves as a basis for codifying empirical generalizations and specific theories. Once all this is acknowledged, the sociologists who are committed to developing general theory do not differ significantly in principle from those who see the best promise of sociology today in developing theories of the middle range and consolidating them periodically.

hold the largest promise, *provided that* the search for them is coupled with a pervasive concern with consolidating special theories into more general sets of concepts and mutually consistent propositions. Even so, we must adopt the provisional outlook of our big brothers and of Tennyson:

Our little systems have their day;
They have their day and cease to be.

POLARIZED RESPONSES TO THEORIES OF THE MIDDLE RANGE

Since the policy of focusing on sociological theories of the middle range was advocated in print, the responses of sociologists have understandably been polarized. By and large, it appears that these responses were largely governed by sociologists' own patterns of work. Most sociologists who had been engaged in theoretically oriented empirical research gave assent to a policy which merely formulated what had already been working philosophy. Conversely, most of those who were committed to the humanistic study of the history of social thought or who were trying to develop a total sociological theory here and now described the policy as a retreat from properly high aspirations. The third response is an intermediate one. It recognizes that an emphasis on middle-range theory does not mean exclusive attention to this kind of theorizing. Instead, it sees the development of more comprehensive theory as coming about through consolidations of middle-range theories rather than as emerging, all at once, from the work of individual theorists on the grand scale.

THE PROCESS OF POLARIZATION

Like most controversies in science, this dispute over the allocation of intellectual resources among different kinds of sociological work, involves social conflict and not merely intellectual criticism.¹⁸ That is, the dispute is less a matter of contradictions between substantive sociological ideas than of competing definitions of the role of the sociologist that is judged most effective at this time.

This controversy follows the classically identified course of social conflict. Attack is followed by counter-attack, with progressive alienation between the parties to the conflict. In due course, since the conflict is public, it becomes a status-battle more than a search for truth. Attitudes become polarized, and then each group of sociologists begins to respond largely to stereotyped versions of what the other is saying. Theorists of the middle range are stereotyped as mere nose-counters or mere fact-

18. The following pages draw upon Merton, "Social conflict in styles of sociological work," *Transactions*, Fourth World Congress of Sociology, 1961, 3, 21-46.

finders or as merely descriptive sociographers. And theorists aiming at general theory are stereotyped as inveterately speculative, entirely unconcerned with compelling empirical evidence or as inevitably committed to doctrines that are so formulated that they cannot be tested.

These stereotypes are not entirely removed from reality; like most stereotypes, they are inflexible exaggerations of actual tendencies or attributes. But in the course of social conflict, they become self-confirming stereotypes as sociologists shut themselves off from the experience that might force them to be modified. Sociologists of each camp develop highly selective perceptions of what is actually going on in the other. Each camp sees in the work of the other primarily what the hostile stereotype has alerted it to see, and it then promptly takes an occasional remark as an abiding philosophy, an emphasis as a total commitment. In this process, each group of sociologists becomes less and less motivated to study the work of the other, since it is patently without truth. They scan the out-group's writings just enough to find ammunition for new fusillades.

The process of reciprocal alienation and stereotyping is probably reinforced by the great increase in published sociological writings. Like many other scientists and scholars, sociologists can no longer 'keep up' with what is being published in the field. They must become more and more selective in their reading. And this increased selectivity readily leads those who are initially hostile to a particular kind of sociological work to give up studying the very publications that might have led them to abandon their stereotype.

These conditions tend to encourage polarization of outlook. Sociological orientations that are *not* substantively contradictory are regarded as if they were. According to these all-or-none positions, sociological inquiry must be statistical *or* historical; either the great issues and problems of the time must be the sole objects of study *or* these refractory matters must be avoided altogether because they are not amenable to scientific investigation; and so on.

The process of social conflict would be halted in midcourse and converted into intellectual criticism if a stop were put to the reciprocal contempt that often marks these polemics. But battles among sociologists ordinarily do not occur in the social context that is required for the non-reciprocation of affect to operate with regularity. This context involves a jointly recognized differentiation of status between the parties, at least with respect to the issue at hand. When this status-differentiation is present—as with the lawyer and his client or the psychiatrist and his patient—a technical norm attached to the more authoritative status in the relationship prevents the reciprocity of expressed feelings. But scientific controversies typically take place within a company of equals (however much the status of the parties might otherwise differ) and, more-

over, they take place in public, subject to the observation of peers. So rhetoric is met with rhetoric, contempt with contempt, and the intellectual issues become subordinated to the battle for status.

Furthermore, there is little room in the polarized controversies for the uncommitted third party who might convert social conflict into intellectual criticism. True, some sociologists will not adopt the all-or-none position that is expected in social conflict. But typically, these would-be noncombatants are caught in the crossfire between the hostile camps. They become tagged either as "mere eclectics," thus making it unnecessary for the two camps to examine what this third position asserts or how valid it is; or, they are labeled "renegades" who have abandoned the doctrinal truths; or perhaps worst of all, they are mere middle-of-the-rovers or fence-sitters who, through timidity or expediency, flee from the fundamental conflict between unalloyed sociological good and unalloyed sociological evil.

But polemics in science have both their functions and dysfunctions. In the course of social conflict, cognitive issues become warped as they are pressed into the service of scoring off the other fellow. Nevertheless, when the conflict is regulated by a community of peers, even polemics with their distortions which use up the energies of those engaged in mock intellectual battles, may help to redress accumulative imbalances in science. There is no easy way to determine the optimum utilization of resources in a field of science, partly because of ultimate disagreement over the criteria of the optimum.¹⁹ Social conflict tends to become marked in sociology whenever a particular line of investigation—say, of small groups or world societies—or a particular set of ideas—say, functional analysis or Marxism—or a particular mode of inquiry—say, social surveys or historical sociology—has engrossed the attention and energies of a rapidly increasing number of sociologists. This line of development might have become popular because it has proved effective for dealing with certain intellectual or social problems or because it is ideologically congenial. The currently unpopular fields or types of work are left with fewer recruits of high caliber, and with diminished accomplishments, this kind of work becomes less attractive. Were it not for such conflict, the reign of theoretical orthodoxies and imbalances in the distribution of sociological work would be even more marked than they are. Thus noisy claims that neglected problems, methods, and theoretical orientations merit more concerted attention—even when these claims are accompanied by extravagant attacks on the prevailing line of development—may help to diversify sociological work by curbing the tendency to

19. The physicist and student of science policy, Alvin M. Weinberg, has instructively addressed himself to this problem. See Chapter III, "The Choices of Big Science," in his book, *Reflections on Big Science* (Cambridge, Mass.: The M.I.T. Press, 1967).

concentrate on a narrow range of problems. Greater heterodoxy in turn increases the prospect of scientifically productive ventures, until these develop into new orthodoxies.

ASSENT TO THE POLICY OF MIDDLE-RANGE THEORY

As we noted earlier, resonance to the emphasis on middle-range theory is most marked among sociologists who are themselves engaged in theoretically oriented empirical research. That is why the policy of sociological theories of the middle range has taken hold today whereas earlier versions—which we shall presently examine—did not. In a fairly precise sense of the familiar phrase, “the time was not ripe.” That is, until the last two or three decades, with conspicuous exceptions, sociologists tended to be far more devoted either to the search for all-embracing, unified theory or to descriptive empirical work with little theoretical orientation altogether. As a result, pleas for the policy of middle-range theory went largely unnoticed.

Yet, as I have noted elsewhere,²⁰ this policy is neither new nor alien; it has well-established historical roots. More than anyone else before him, Bacon emphasized the prime importance of “middle axioms” in science:

The understanding must not however be allowed to jump and fly from particulars to remote axioms and of almost the highest generality (such as the first principles, as they are called, of arts and things), and taking stand upon them as truths that cannot be shaken, proceed to prove and frame the middle axioms by reference to them; which has been the practice hitherto; the understanding being not only carried that way by a natural impulse but also by the use of syllogistic demonstration trained and inured to it. But then, and then only, may we hope well of the sciences, when in a just scale of ascent, and by successive steps not interrupted or broken, we rise from particulars to lesser axioms; and then to middle axioms, one above the other; and last of all to the most general. For the lowest axioms differ but slightly from bare experience, while the highest and most general (which we now have) are notional and abstract and without solidity. But the middle are the true and solid and living axioms, on which depend the affairs and fortunes of men; and above them, last of all, those which are indeed the most general; such I mean as are not abstract, but of which those intermediate axioms are really limitations.²¹

Bacon, in turn, cites a more ancient version:

And Plato, in his *Theaetetus*, noteth well: ‘That particulars are infinite, and the higher generalities give no sufficient direction;’ and that the pith of all

20. Merton, “The role-set,” *British Journal of Sociology*, June 1957, 108.

21. Bacon, *Novum Organum*, Book I, Aphorism CIV; see also Book I, Aphorisms LXVI and CXVI. Herbert Butterfield remarks that Bacon thus seems in “a curious but significant way . . . to have foreseen the structure that science was to take in the future.” *The Origins of Modern Science, 1300-1800* (London: G. Bell & Sons, 1949), 91-92.

sciences, which maketh the artsman differ from the inexpert, is in the middle propositions, which in every particular knowledge are taken from tradition and experience.²²

Just as Bacon cites Plato as his predecessor, so John Stuart Mill and George Cornewall Lewis cite Bacon as theirs. Although differing with Bacon on the mode of logic connecting “most general laws” with “middle principles,” Mill nevertheless echoes him in these words:

Bacon has judiciously observed that the *axiomata media* of every science principally constitute its value. The lowest generalizations, until explained by and resolved into the middle principles of which they are the consequences, have only the imperfect accuracy of empirical laws; while the most general laws are too general, and include too few circumstances, to give sufficient indication of what happens in individual cases, where the circumstances are almost always immensely numerous. In the importance, therefore, which Bacon assigns, in every science, to the middle principles, it is impossible not to agree with him. But I conceive him to have been radically wrong in his doctrine respecting the mode in which these *axiomata media* should be arrived at . . . [i.e. Bacon’s inveterate addiction to total induction, with no place at all provided for deduction]²³

Writing at almost the same time as Mill, but, as the historical record shows, without having the same impact on contemporaries, Lewis draws upon Bacon to make a case for “limited theories” in political science. He advances the further idea that a large number of valid theorems can be developed by restricting observation to designated *classes* of communities:

. . . we are enabled to form limited theories, to predict general tendencies, and prevailing laws of causation, which might not be true, for the most part, if extended to all mankind, but which have a presumptive truth if confined to certain nations. . .

. . . it is possible to enlarge the region of speculative politics, consistently with the true expression of facts, by narrowing the range of observation, and by confining ourselves to a limited class of communities. By the adoption of this method, we are enabled to increase the number of true political theorems which can be gathered from the facts, and, at the same time, to give them more fulness, life, and substance. Instead of being mere jejune and hollow generalities, they resemble the *Media Axiomata* of Bacon, which are generalized expressions of fact, but, nevertheless, are sufficiently near to practice to serve as guides in the business of life.²⁴

Though these early formulations differ in detail—the contrast between Bacon and Mill is particularly conspicuous—they all emphasize

22. Francis Bacon, *The Advancement of Learning*, in *Works*, ed. by Basil Montague (London: William Pickering, 1825), II, 177; see also 181.

23. John Stuart Mill, *A System of Logic* (London: Longmans, Green and Co., 1865) 454-5; Mill explicitly applies the same conception to laws of social change as middle principles, *ibid.*, 520.

24. George Cornewall Lewis, *A Treatise on the Methods of Observation and Reasoning in Politics*, *op. cit.*, II, 112, 127; see also 200, 204-5.

the strategic importance of a graded series of empirically confirmed intermediate theories.

After those early days, similar, though not identical, formulations were advanced by Karl Mannheim, in his concept of "*principia media*"; by Adolf Löwe, in his thesis that "sociological middle principles" connect the economic with the social process; and by Morris Ginsberg, in his examination of Mill's treatment of middle principles in social science.²⁵ At the moment, then, there is evidence enough to indicate that theories of the middle range in sociology have been advocated by many of our intellectual ancestors. But to modify the adumbrationist's credo, if the working philosophy embodied in this orientation is not altogether new, it is at least true.

It is scarcely problematic that Bacon's widely known formulations were not adopted by sociologists for there were no sociologists around to examine the pertinence of his conceptions. It is only slightly more problematic that Mill's and Lewis's formulations, almost 240 years later, produced little resonance among social scientists; the disciplines were then only in their beginnings. But why did the formulations of Mannheim, Löwe, and Ginsburg, as late as the 1930s, evoke little response in the sociological literature of the period immediately following? Only after similar formulations by Marshall and myself in the late 1940s do we find widespread discussion and application of this orientation to sociological theory. I suspect, although I have not done the spadework needed to investigate the question, that the widespread resonance of middle-range theory in the last decades results in part from the emergence of large numbers of sociological investigators carrying out research that is both empirically based and theoretically relevant.

A small sampling of assent to the policy of middle-range theory will illustrate the basis of resonance. Reviewing the development of sociology over the past four decades, Frank Hawkins concludes that:

middle-range theories seem likely . . . to have the greater explicative significance [than total sociological theories]. Here much has been done relating to

25. These formulations have recently been earmarked by Seymour Martin Lipset in his Introduction to the American edition of T. H. Marshall, *Class, Citizenship and Social Development* (New York: Doubleday, 1964), xvi. The citations are to Karl Mannheim, *Mensch und Gesellschaft in Zeitalter des Umbaus* (Leiden, 1935) and *Man and Society in an Age of Reconstruction* (New York: Harcourt, Brace & Co., 1950), 173-90; Adolf Löwe, *Economics and Sociology* (London: Allen & Unwin, 1935) and Morris Ginsberg, *Sociology* (London: Thornton Butterworth Ltd., 1934). Just as this book goes to press, there comes to my attention a detailed account of these same historical antecedents together with an exacting critique: C. A. O. van Nieuwenhuijze, *Intelligible Fields in the Social Sciences* (The Hague: Mouton & Co., 1967), Chapter I: "The Quest for the Manageable Social Unit—Is There a Middle Range?" This work raises a number of serious questions about theories of the middle range, all of which, in my opinion, are clarifying and none of which is beyond an equally serious answer. But since this book is now in production, this opinion must remain unsupported by the detailed analysis that Nieuwenhuijze's discussion amply deserves.

mass communication, class stratification, bureaucracy, small groups of various types, and other important aspects of the social totality. [And then, in the polarizing fashion of all or none, Hankins concludes] It may be we shall find that only such have realistic and practical value.²⁶

This resonance of middle range theory occurs among sociologists with a variety of general theoretical orientations, providing that they have a concern with the empirical relevance of theory. So, Arthur K. Davis, oriented toward Marxist theory, suggests that the case for

'theories of the middle range' in contrast to Parsons' more comprehensive approach, was well conceived . . . A middle-range focus—empirical analysis in a limited conceptual setting—appears to assure more securely the necessary continuous contact with empirical variables.²⁷

A decade ago, Peter H. Rossi, a man deeply engaged in empirical research and an observer of the recent history of sociology, noted the complex consequences of an explicit formulation of the case for theories of the middle range:

The conception of 'theories of the middle range' achieved wide popularity both among sociologists primarily oriented to research and among those concerned with theory. It is still too early to estimate the extent to which this idea will affect the relationships between theory and research in American sociology. So far, its acceptance has brought with it mixed blessings. On the negative side, researchers who have been vulnerable to the charge of being 'mere empiricists' have in this conception of theory a convenient way of raising the status of their work without changing its form. On the positive side, it has tended to raise the status of research which is guided by theoretical considerations of a limited nature, for example, the study of small groups. In the opinion of this reviewer, there is a great benefit to be derived ultimately from redirecting theoretical activity from broad, theoretical schemes to levels which are more closely linked to the present capabilities of our research technology.²⁸

Of greatest interest in this set of observations is Rossi's abstention from a polar position. The concept of theories of the middle range has sometimes been misappropriated to justify altogether descriptive inquiries which reflect no theoretical orientation at all. But misuse of a conception is no test of its worth. In the end, Rossi, as a sociologist committed to systematic empirical research for its theoretical implications, supports this policy as one that captures the twin concern with empirical inquiry and theoretical relevance.

Durkheim's monograph, *Suicide*, is perhaps the classical instance of the use and development of middle-range theory. It is therefore not surprising that such sociologists in the Durkheimian tradition as Armand

26. Frank H. Hankins, "A forty-year perspective," *Sociology and Social Research*, 1956, 40, 391-8 at 398.

27. Arthur K. Davis, "Social theory and social problems," *Philosophy and Phenomenological Research*, Dec. 1957, 18, 190-208, at 194.

28. Peter H. Rossi, "Methods of social research, 1945-55," in *Sociology in the United States of America: A Trend Report*, ed. by Hans L. Zetterberg (Paris: Unesco, 1956), 21-34, at 23-24.

Cuvillier²⁹ should endorse this theoretical reorientation. Cuvillier's discussion reminds us that middle range theory deals with both micro- and macro-sociological inquiry—with experimental studies of small groups as much as with the comparative analysis of specified aspects of social structure. That macrosociological investigations do not presuppose a total system of sociological theory is the position also taken by David Riesman who maintains that it is best to “be working in the middle range, to talk less of ‘breakthrough’ or of ‘basic’ research and to make fewer claims all round.”³⁰

It might be assumed that the enduring European traditions of working toward total systems of sociology would lead to repudiation of middle-range theory as a preferred orientation. This is not altogether the case. In examining the recent history of sociological thought and conjecturing about prospective developments, one observer has expressed the hope that “*las teorías del rango medio*” will reduce mere polemics among “schools of sociological thought” and make for their continuing convergence.³¹ Others have carried out detailed analyses of the logical structure of this type of theory; notably, Filippo Barbano, in an extended series of monographs and papers devoted to “*theorie di media portata*.”³²

Perhaps the most thoroughgoing and detailed analyses of the logical structure of middle-range theory have been developed by Hans L. Zetterberg in his monograph, *On Theory and Verification in Sociology*³³ and by Andrzej Malewski in his *Verhalten und Interaktion*.³⁴ Most important,

29. Armand Cuvillier, *Où va la sociologie française?* (Paris: Librairie Marcel Rivière & Cie, 1953) and *Sociologie et problèmes actuels* (Paris: Librairie Philosophique J. Vrin, 1958).

30. David Riesman, “Some observations on the ‘older’ and the ‘newer’ social sciences,” in *The State of the Social Sciences*, ed. by L. D. White (Chicago: The University of Chicago Press), 319-39, at 339. Riesman’s announced orientation should be read in the light of the remark by Maurice R. Stein, soon to be discussed, that middle range theory “downgrades” the “penetrating efforts at interpreting modern society made by such men as C. Wright Mills and David Riesman . . .”

31. Salustiano del Campo in *Revista de Estudios Políticos*, Jan.-Feb. 1957, 208-13.

32. The long list of such works by Barbano includes: *Teoria e ricerca nella sociologia contemporanea* (Milano: A. Giuffrè, 1955), esp. at 100-108; “La metodologia della ricerca nella sua impostazione teorica,” *Sociologia*, July-Sept. 1958, 3, 282-95; “Attività e programmi di gruppi ricerca sociologica,” *Il Politico*, 1957, 2, 371-92; “Strutture e funzioni sociali: l’emancipazione strutturale in sociologia,” *Quaderni di Scienze Sociali*, April 1966, 5, 1-38. Along the same lines, see also: Gianfranco Poggi, “Momento tecnico e momento metodologica nella ricerca,” *Bollettino delle Ricerche Sociali*, Sept. 1961, 1, 363-9.

33. Totowa, N.J.: The Bedminster Press, 1965, third enlarged edition. See also: Zetterberg, “Theorie, Forschung und Praxis in der Soziologie,” in *Handbuch der empirischen Sozialforschung* (Stuttgart: Ferdinand Enke Verlag, 1961), I. Band, 64-104.

34. Translated from the Polish by Wolfgang Wehrstedt. Tübingen: J. C. B. Mohr (Paul Siebeck), 1967. His book lists the complete bibliography of singularly perceptive and rigorous papers by Malewski, one of the ablest of Polish sociologists, who cut his life short when only 34. Few others in our day have managed to develop with the same clarity and rigor the linkages between Marxist theory and determinate

both Zetterberg and Malewski transcend the polarizing tendency to regard middle-range theory as an array of unconnected special theories. They indicate, by both precept and detailed example, how special theories have been consolidated into successively enlarged sets of theory. This same orientation is manifested by Berger, Zelditch, Anderson and their collaborators, who regard theories of the middle range as applicable to all situations exhibiting specified aspects of social phenomena, and who go on to demonstrate the use of a variety of such theories.³⁵

A systematic inventory of middle-range theories developed in the last few decades would run far beyond the compass of these pages. But perhaps a small and arbitrary sampling will show the diversity of problems and subjects with which they deal. The essential point is that these are empirically grounded theories—involving sets of confirmed hypotheses—and not merely organized descriptive data or empirical generalizations or hypotheses which remain logically disparate and unconnected. A cumulative set of such theories has emerged in the investigation of bureaucracies; notably by Selznick, Gouldner, Blau, Lipset-Trow-and-Coleman, Crozier, Kahn and Katz, and a long list of other investigators.³⁶ Raymond Mack has developed a middle-range theory of the occupational subsystem; Pellegrin, a theory of mobility into topmost positions in groups; Junkichi Abe, an intermediate theory based on both micro- and macro-sociological data that relates patterns of deviant behavior to the structure of communities; Hyman, consolidation of empirical uniformities in public opinion into a composite theory and Hillery, a consolidation of demographic uniformities.³⁷

There is, however, a far more significant basis for assessing the present orientation of sociologists toward theories of the middle range than this

theories of the middle range. See his article of major importance: “Der empirische Gehalt der Theorie des historischen Materialismus,” *Kolner Zeitschrift für Soziologie und Sozialpsychologie*, 1959, 11, 281-305.

35. Berger, Zelditch and Anderson, *Sociological Theories in Progress*, *op. cit.*, at 29 and *passim*.

36. Philip Selznick, *TVA and the Grass Roots* (Berkeley: University of California Press, 1949); A. W. Gouldner, *Patterns of Industrial Bureaucracy* (Glencoe: The Free Press, 1954); P. M. Blau, *The Dynamics of Bureaucracy* (Chicago: University of Chicago Press, 1963, 2d ed.); S. M. Lipset, Martin Trow and James Coleman, *Union Democracy* (New York: The Free Press, 1956). A consolidation of the theoretical conclusions of these monographs is provided by James G. March and Herbert A. Simon, *Organizations* (New York: John Wiley, 1958), 36-52. As further major examples of middle-range theory in this field, see Michel Crozier, *The Bureaucratic Phenomenon* (Chicago: The University of Chicago Press, 1964); Kahn and Katz, *op. cit.*

37. Raymond Mack, “Occupational determinateness: a problem and hypotheses in role theory,” *Social Forces*, Oct. 1956, 35, 20-25; R. J. Pellegrin, “The achievement of high statuses,” *Social Forces*, Oct. 1953, 32, 10-16; Junkichi Abe, “Some problems of life space and historicity through the analysis of delinquency,” *Japanese Sociological Review*, July 1957, 7, 3-8; Herbert H. Hyman, “Toward a theory of public opinion,” *Public Opinion Quarterly*, Spring 1957, 21, 54-60; George Hillery, “Toward a conceptualization of demography,” *Social Forces*, Oct. 1958, 37, 45-51.

scanty list of examples. It is symbolic that Sorokin, though personally committed to developing sociological theory on the grand scale, repeatedly assigns a significant place to middle-range theory. In his most recent book, he periodically assesses current theoretical developments in terms of their capacity to account for "middle-range uniformities." For example, he reviews an array of statistical inquiries in sociology and finds them defective because they do "not give us general or 'middle-range' uniformities, causal laws, or formulas valid for all times and for different societies." Elsewhere Sorokin uses this criterion to appraise contemporary research which would be vindicated if it "has discovered a set of universal, or, at least . . . 'middle-range' uniformities applicable to many persons, groups, and cultures." And still elsewhere he describes selected typologies of cultural systems as acceptable if "like . . . 'middle-range generalizations' . . . they are not overstated and overgeneralized." In his overview of recent research in sociology, Sorokin distinguishes emphatically between "fact-finding" and "uniformities of a 'middle-range' generality." The first produces "purely local, temporary, 'informational' material devoid of general cognitive value." The second makes

intelligible an otherwise incomprehensible jungle of chaotic historical events. Without these generalizations, we are entirely lost in the jungle, and its endless facts make little sense in their how and why. With a few main rules to guide us, we can orient ourselves in the unmapped darkness of the jungle. Such is the cognitive role of these limited, approximate, prevalent rules and uniformities.³⁸

Sorokin thus repudiates that formidable passion for facts that obscures rather than reveals the sociological ideas these facts exemplify; he recommends theories of intermediate range as guides to inquiry; and he continues to prefer, for himself, the quest for a system of general sociology.

REJECTION OF MIDDLE-RANGE THEORY

Since so much sociological ink has been spilled in the debate over theories of the middle range, it may be useful to examine the criticisms of them. Unlike single systems of sociological theory, it has been said, theories of the middle range call for low intellectual ambitions. Few have expressed this view with more eloquence than Robert Bierstedt, when he writes:

We have even been invited to forego those larger problems of human society that occupied our ancestors in the history of social thought and to seek instead

38. Sorokin, *Sociological Theories of Today*, 106, 127, 645, 375. In his typically vigorous and forthright fashion, Sorokin taxes me with ambivalence toward "grand systems of sociology" and "theories of the middle range" and with other ambivalences as well. But an effort at rebuttal here, although ego-salving, would be irrelevant to the subject at hand. What remains most significant is that though Sorokin continues to be personally committed to the quest for developing a complete system of sociological theory, he nonetheless moves toward the position taken in this discussion.

what T. H. Marshall called, in his inaugural lecture at the University of London, 'stepping stones in the middle distance,' and other sociologists since, 'theories of the middle range.' But what an anemic ambition this is! Shall we strive for half a victory? Where are the visions that enticed us into the world of learning in the first place? I had always thought that sociologists too knew how to dream and that they believed with Browning that a man's reach should exceed his grasp.³⁹

One might infer from this quotation that Bierstedt would prefer to hold fast the sanguine ambition of developing an all-encompassing general theory rather than accept the "anemic ambition" of middle-range theory. Or that he considers sociological solutions to the large and urgent "problems of human society" the theoretically significant touchstone in sociology. But both inferences would evidently be mistaken. For middle-range theory is often accepted by those who ostensibly dispute it. Thus, Bierstedt goes on to say that "in my own opinion one of the greatest pieces of sociological research ever conducted by anyone is Max Weber's *The Protestant Ethic and the Spirit of Capitalism*." I do not question this appraisal of Weber's monograph—though I would nominate Durkheim's *Suicide* for that lofty position—for, like many other sociologists familiar with the library of criticism that has accumulated around Weber's work, I continue to regard it as a major contribution.⁴⁰ But I find it hard to reconcile Bierstedt's appraisal of Weber's monograph with the rhetoric that would banish theories of the middle range as sickly pale and singularly unambitious. For surely this monograph is a prime example of theorizing in the middle range; it deals with a severely delimited problem—one that happens to be exemplified in a particular historical epoch with implications for other societies and other times; it employs a limited theory about the ways in which religious commitment and economic behavior are connected; and it contributes to a somewhat more general theory of the modes of interdependence between social institutions. Is Weber to be indicted for anemic ambition or emulated in his effort to develop an empirically grounded theory of delimited scope?

Bierstedt rejects such theory, I suspect, for two reasons: first, his

39. Robert Bierstedt, "Sociology and humane learning," *American Sociological Review*, 1960, 25, 3-9, at 6.

40. I have even followed up some of the implications of Weber's special theory of the interdependence of social institutions in a monograph, covering much the same period as Weber's, that examines the functional interdependence between science conceived as a social institution, and contemporary economic and religious institutions. See *Science, Technology and Society in Seventeenth-Century England* in *Ostris: Studies on the History and Philosophy of Science, and on the History of Learning and Culture*, ed. by George Sarton (Bruges, Belgium: St. Catherine Press, Ltd., 1938); reprinted with a new introduction (New York: Howard Fertig, Inc. 1970; Harper & Row, 1970). Though Weber had only a few sentences on the interdependence of Puritanism and science, once I began my investigation, these took on special relevance. This is precisely the point of cumulative work in middle-range theory; one takes off from antecedent theory and inquiry and tries to extend the theory into new empirical areas.

observation that theories of the middle range are remote from the aspirations of our intellectual ancestors more than hints that this concept is comparatively new and thus alien to us. However, as I have noted earlier in the chapter and elsewhere⁴¹ the policy of middle-range theory has been repeatedly anticipated.

Second, Bierstedt seems to assume that middle-range theory completely excludes macrosociological inquiry in which a particular theory generates specific hypotheses to be examined in the light of systematically assembled data. As we have seen, this assumption is unfounded. Indeed, the main work in comparative macrosociology today is based largely on specific and delimited theories of the interrelations between the components of social structure that can be subjected to systematic empirical test using the same logic and much the same kinds of indicators as those employed in microsociological research.⁴²

The tendency to polarize theoretical issues into all-or-none terms is expressed by another critic, who converts the position of the middle-range theorist into a claim to have found a panacea for a contemporary sociological theory. After conceding that "most of the works of Marshall and Merton do display the kind of concern with *problems* which I am here advocating," Dahrendorf goes on to say:

My objection to their formulations is therefore not directed against these works but against their explicit assumption [*sic*] that all [*sic*] that is wrong with recent theory is its generality and that by simply [*sic*] reducing the level of generality we can solve all [*sic*] problems.⁴³

Yet it must be clear from what we have said that the theorists of the middle range do not maintain that the deficiencies of sociological theory result solely from its being excessively general. Far from it. Actual theories of the middle range—dissonance theory, the theory of social differentiation, or the theory of reference groups—have great generality, extending beyond a particular historical epoch or culture.⁴⁴ But these theories are *not* derived from a unique and total system of theory. Within wide limits, they are consonant with a variety of theoretical orientations. They are confirmed by a variety of empirical data and if any general theory in effect asserts that such data cannot be, so much the worse for that theory.

Another criticism holds that theories of the middle range splinter the

41. Merton, "The role-set," *British Journal of Sociology*, June 1957, 108.

42. For an extensive résumé of these developments, see Robert M. Marsh, *Comparative Sociology: Toward a Codification of Cross-Societal Analysis* (New York: Harcourt, Brace & World, 1967).

43. Ralf Dahrendorf, "Out of Utopia: toward a reorientation of sociological analysis," *American Journal of Sociology*, 1958, 64 115-127, at 122-3.

44. William L. Kolb has seen this with great clarity, succinctly showing that theories of the middle range are not confined to specific historical societies. *American Journal of Sociology*, March 1958, 63, 544-5.

field of sociology into unrelated special theories.⁴⁵ Tendencies toward fragmentation in sociology have indeed developed. But this is scarcely a *result* of working toward theories of intermediate scope. On the contrary, theories of the middle range *consolidate*, not fragment, empirical findings. I have tried to show this, for example, with reference group theory, which draws together findings from such disparate fields of human behavior as military life, race and ethnic relations, social mobility, delinquency, politics, education, and revolutionary activity.⁴⁶

These criticisms quite clearly represent efforts to locate middle-range theory in the contemporary scheme of sociology. But the process of polarization pushes criticism well beyond this point into distortion of readily available information. Otherwise, it would not seem possible that anyone could note Riesman's announced position in support of middle-range theory and still maintain that "the Middle Range strategies of exclusion" include a

systematic attack levelled against those contemporary sociological craftsmen who attempt to work at the problems of the classical tradition. This attack usually takes the form of classifying such sociological work as 'speculative,' 'impressionistic,' or even as downright 'journalistic.' Thus the penetrating efforts at interpreting modern society made by such men as C. Wright Mills and David Riesman, which stand in an 'organic relationship to the classical tradition just because they dare to deal with the problems at the center of the tradition, are systematically downgraded within the profession.⁴⁷

According to this claim, Riesman is being "systematically downgraded" by advocates of the very type of theory which he himself advocates. Similarly, although this statement suggests that it is a middle-range "strategy of exclusion" to "downgrade" the work of C. Wright Mills, it is a matter of record that one middle-range theorist gave strong endorsement to that part of Mills' work which provides systematic analyses of social structure and social psychology.⁴⁸

45. E. K. Francis, *Wissenschaftliche Grundlagen Soziologischen Denkens* (Bern: Francke Verlag, 1957), 13.

46. *Social Theory and Social Structure*, 278-80, 97-98, 131-94.

47. Maurice R. Stein, "Psychoanalytic thought and sociological inquiry," *Psychoanalysis and the Psychoanalytic Review*, Summer 1962, 49, 21-9, at 23-4. Benjamin Nelson, the editor of this issue of the journal, goes on to observe: "Every subject matter hopeful of becoming a science engenders its 'middle range' approach. The animus expressed against this development seems to me in large part misdirected." "Sociology and psychoanalysis on trial: an epilogue," *ibid.*, 144-60, at 153.

48. I refer here to the significant theoretical work which Mills developed in collaboration with the initiating author, Hans Gerth: *Character and Social Structure: The Psychology of Social Institutions* (New York: Harcourt, Brace & Co., 1953). In its introduction, I describe that signal work as follows: "The authors lay no claim to having achieved a fully rounded synthesis which incorporates all the major conceptions of psychology and sociology that bear upon the formation of character and personality in the context of social structure. Such a goal, they make it clear, is still a distant objective rather than a currently possible achievement. Nevertheless, they have systematized a substantial part of the field and have provided perspectives

Recent Soviet sociologists have gone on to interpret "the notorious 'theory of the middle range'" as a positivist conception. According to G. M. Andreeva, such theory is conceived at

the level of a relatively low order of abstraction, which on principle does not go beyond empirical data. "Theoretical" knowledge on this level is again in the category of empirical knowledge, for theory itself is in essence reduced to the level of empirical generalizations . . .⁴⁹

This misconception of middle-range theory requires little discussion here. After all, the chapter on "the bearing of sociological theory on empirical research" reprinted in this volume has been in print for nearly a quarter of a century. As long ago as that, I distinguished between a theory, a set of logically interrelated assumptions from which empirically testable hypotheses are derived, and an empirical generalization, an isolated proposition summarizing observed uniformities of relationships between two or more variables. Yet the Marxist scholars construe middle-range theory in terms that are expressly excluded by these formulations.

This misconception may be based on a commitment to a total sociological theory and a fear that this theory will be threatened by the role of theories of the middle range. It should be noted, however, that to the extent that the general theoretical orientation provided by Marxist thought becomes a guide to systematic empirical research, it must do so by developing intermediate special theories. Otherwise, as appears to have been the case with such studies as the Sverdlov investigation of workers' attitudes and behavior, this orientation will lead at best to a series of empirical generalizations (such as the relation of the level of education attained by workers to the number of their organizational affiliations, number of books read, and the like).

The preceding chapter suggested that sociologists who are persuaded that there is a total theory encompassing the full scope of sociological knowledge are apt to believe that sociology must be adequate here and now to all practical demands made of it. This outlook makes for rejection of middle-range theory, as in the following observation by Osipov and Yovchuk:

Merton's view that sociology is not yet ripe for a comprehensive integral theory and that there are only a few theories available at an intermediate

from which to examine much of the rest." This kind of scholarly work in collaboration with Gerth is of quite a different character than other books by Mills, such as *Listen Yankee: The Revolution in Cuba* and *The Causes of World War Three*. These are not "downgraded" by others as "downright 'journalistic'"; they are journalistic. But this judgment scarcely derives from the orientation of middle-range theory.

49. These opinions are expressed by A. G. Zdravomyslov and V. A. Yadov, "On the programming of concrete social investigations," *Voprosy Filozofii*, 1963, 17, 81 and by G. M. Andreeva, "Bourgeois empirical sociology seeks a way out of its crisis," *Filosofskie Nauki*, 1962, 5, 39. Extracts from both papers are translated by George Fischer, *Science and Politics: The New Sociology in the Soviet Union* (Ithaca, New York: Cornell University, 1964).

level of abstraction whose significance is relative and temporary is well known. We feel justified in believing that this definition cannot be applied to Marxist scientific sociology. The materialistic comprehension of history, first described by Marx approximately 125 years ago, has been time-tested and has been proved by the entire process of historical development. The materialistic understanding of history is based on the concrete study of social life. The emergence of Marxism in the 1840s and its further development has been organically linked to and supported by research on specific social problems.⁵⁰

This research on specific social problems—what the Soviet sociologists call "concrete sociological investigation"—is not logically derived from the general theoretical orientation of historical materialism. And when intermediate theories have not been developed, these investigations have tended toward "practical empiricism": the methodical collection of just enough information to be taken into account in making practical decisions. For example, there have been various time-budget studies of workers' behavior, not unlike the studies by Sorokin in the early 1930s. Workers were asked to record how they allocated their time among such categories as work-time, household duties, physiological needs, rest, time spent with children and "social useful work" (including participation in civic councils, workers' courts, attending lectures or doing "mass cultural work"). The analysis of the time budgets has two principal aims. The first is to identify and then to eliminate problems in the efficient scheduling of time. For example, it was found that one obstacle to evening school education for workers was that the time schedule of examinations required more workers to be released from their jobs than could be spared. The second aim of time budgets is to guide plans to change the activities of the workers. For example, when time-budget data were linked with inquiry into workers' motivations, it was concluded that younger workers could be counted on to study more and to be "more active in raising the efficiency of labor." These examples demonstrate that it is practical empiricism, rather than theoretical formulations, that pervades such research. Its findings are on the same low level of abstraction as much of the market-research in other societies. They must be incorporated into more abstract theories of the middle range if the gap between the general orientation of Marxist thought and empirical generalizations is to be filled.⁵¹

50. G. Osipov and M. Yovchuk, "Some principles of theory, problems and methods of research in sociology in the USSR: a Soviet view," reprinted in Alex Simirenko, ed., *Soviet Sociology: Historical Antecedents and Current Appraisals* (Chicago: Quadrangle Books, 1966), 299.

51. This passage is based upon R. K. Merton and Henry W. Riecken, "Notes on Sociology in the USSR," *Current Problems in Social-Behavioral Research* (Washington, D.C.: National Institute of Social and Behavioral Science, 1962), 7-14. For a summary of one such concrete sociological investigation, see A. G. Zdravomyslov and V. A. Yadov, "Soviet workers' attitude toward work: an empirical study," in Simirenko, *op. cit.*, 347-66.

SUMMARY AND RETROSPECT

The foregoing overview of polarized *pros* and *cons* of the theories of the middle range is enough to assure us of one conclusion: each of us is perpetually vulnerable to pharisaism. We thank whatever powers may be that we are not like other sociologists who merely talk rather than observe, or merely observe rather than think, or merely think rather than put their thoughts to the test of systematic empirical investigation.

Given these polarized interpretations of sociological theory of the middle range, it may be helpful to reiterate the attributes of this theory:

1. Middle-range theories consist of limited sets of assumptions from which specific hypotheses are logically derived and confirmed by empirical investigation.

2. These theories do not remain separate but are consolidated into wider networks of theory, as illustrated by theories of level of aspiration, reference-group, and opportunity-structure.

3. These theories are sufficiently abstract to deal with differing spheres of social behavior and social structure, so that they transcend sheer description or empirical generalization. The theory of social conflict, for example, has been applied to ethnic and racial conflict, class conflict, and international conflict.

4. This type of theory cuts across the distinction between micro-sociological problems, as evidenced in small group research, and macro-sociological problems, as evidenced in comparative studies of social mobility and formal organization, and the interdependence of social institutions.

5. Total sociological systems of theory—such as Marx's historical materialism, Parson's theory of social systems and Sorokin's integral sociology—represent general theoretical orientations rather than the rigorous and tightknit systems envisaged in the search for a "unified theory" in physics.

6. As a result, many theories of the middle range are consonant with a variety of systems of sociological thought.

7. Theories of the middle range are typically in direct line of continuity with the work of classical theoretical formulations. We are all residuary legatees of Durkheim and Weber, whose works furnish ideas to be followed up, exemplify tactics of theorizing, provide models for the exercise of taste in the selection of problems, and instruct us in raising theoretical questions that develop out of theirs.

8. The middle-range orientation involves the specification of ignorance. Rather than pretend to knowledge where it is in fact absent, it expressly recognizes what must still be learned in order to lay the foundation for still more knowledge. It does not assume itself to be equal to the

task of providing theoretical solutions to all the urgent practical problems of the day but addresses itself to those problems that might now be clarified in the light of available knowledge.

PARADIGMS: THE CODIFICATION OF SOCIOLOGICAL THEORY

As noted earlier, a major concern of this book is the codification of substantive theory and of procedures of qualitative analysis in sociology. As construed here, codification is the orderly and compact arrangement of fruitful procedures of inquiry and the substantive findings that result from this use. This process entails identification and organization of what has been implicit in work of the past rather than the invention of new strategies of research.

The following chapter, dealing with functional analysis, sets forth a paradigm as a basis for codifying previous work in this field.⁵² I believe that such paradigms have great propaedeutic value. For one thing, they bring out into the open the array of assumptions, concepts, and basic propositions employed in a sociological analysis. They thus reduce the inadvertent tendency to hide the hard core of analysis behind a veil of random, though possibly illuminating, comments and thoughts. Despite the appearance of propositional inventories, sociology still has few formulae—that is, highly abbreviated symbolic expressions of relationships between sociological variables. Consequently, sociological interpretations tend to be discursive. The logic of procedure, the key concepts, and the relationships between them often become lost in an avalanche of words. When this happens, the critical reader must laboriously glean for himself the implicit assumptions of the author. The paradigm reduces this tendency for the theorist to employ tacit concepts and assumptions.

Contributing to the tendency for sociological exposition to become lengthy rather than lucid is the tradition—inherited slightly from philosophy, substantially from history, and greatly from literature—of writing sociological accounts vividly and intensely to convey all the rich fullness of the human scene. The sociologist who does not disavow this handsome but alien heritage becomes intent on searching for the exceptional constellation of words that will best express the *particularity* of the sociologi-

52. I have elsewhere set forth other paradigms on deviant social behavior in Chapter VI in the present book; on the sociology of knowledge in Chapter XIV also in this book; on racial intermarriage in "Intermarriage and the social structure," *Psychiatry*, 1941, 4, 361-74; on racial prejudice and discrimination in "Discrimination and the American creed," in *Discrimination and National Welfare*, R. M. MacIver, ed. (New York: Harper & Brothers, 1948). It should be noted that the use of the term *paradigm* by T. S. Kuhn in his recent work on the history and philosophy of science is much more extended, referring to the basic set of assumptions adopted by a scientific discipline in a particular historical phase; see *The Structure of Scientific Revolutions*, *op. cit.*

cal case in hand, rather than on seeking out the objective, generalizable concepts and relationships it exemplifies—the core of a science, as distinct from the arts. Too often, this misplaced use of genuine artistic skills is encouraged by the plaudits of a lay public, gratefully assuring the sociologist that he writes like a novelist and not like an overly-domesticated and academically-henpecked Ph.D. Not infrequently, he pays for this popular applause, for the closer he approaches eloquence, the farther he retreats from methodical sense. It must be acknowledged, however, as St. Augustine suggested in mild rebuttal long ago, that “. . . a thing is not necessarily true because badly uttered, nor false because spoken magnificently.”

Nonetheless, ostensibly scientific reports often become obscured by irrelevancies. In extreme cases, the hard skeleton of fact, inference and theoretical conclusion becomes overlaid with the soft flesh of stylistic ornamentation. Yet other scientific disciplines—physics and chemistry as much as biology, geology and statistics—have escaped this misplaced concern with the literary graces. Anchored to the purposes of science, these disciplines prefer brevity, precision and objectivity to exquisitely rhythmic patterns of language, richness of connotation, and sensitive verbal imagery. But even if one disagrees that sociology must hew to the line laid down by chemistry, physics or biology, one need not argue that it must emulate history, discursive philosophy, or literature. Each to his last, and the last of the sociologist is that of lucidly presenting claims to logically interconnected and empirically confirmed propositions about the structure of society and its changes, the behavior of man within that structure and the consequences of that behavior. Paradigms for sociological analysis are intended to help the sociologist work at his trade.

Since sound sociological interpretation inevitably implies some theoretical paradigm, it seems the better part of wisdom to bring it out into the open. If true art consists in concealing all signs of art, true science consists in revealing its scaffolding as well as its finished structure.

Without pretending that this tells the whole story, I suggest that paradigms for qualitative analysis in sociology have at least five closely related functions.⁵³

First, paradigms have a notational function. They provide a compact arrangement of the central concepts and their interrelations that are utilized for description and analysis. Setting out concepts in sufficiently small compass to allow their *simultaneous* inspection is an important aid in the self-correction of one's successive interpretations—a goal hard to achieve when the concepts are scattered throughout discursive exposition. (As the work of Cajori indicates, this appears to be one of the important

53. For a critical appraisal of this discussion, see Don Martindale, “Sociological theory and the ideal type,” in Llewellyn Gross, ed., *Symposium on Sociological Theory* (Evanston: Row, Peterson, 1959), 57-91, at 77-80.

functions of mathematical symbols: they provide for the simultaneous inspection of all terms entering into the analysis.)

Second, paradigms lessen the likelihood of inadvertently introducing hidden assumptions and concepts, for each new assumption and each new concept must be either logically derived from previous components of the paradigm or explicitly introduced into it. The paradigm thus provides a guide for avoiding *ad hoc* (i.e. logically irresponsible) hypotheses.

Third, paradigms advance the cumulation of theoretical interpretation. In effect, the paradigm is the foundation upon which the house of interpretations is built. If a new story cannot be built directly upon this foundation, then it must be treated as a new wing of the total structure, and the foundation of concepts and assumptions must be extended to support this wing. Moreover, each new story that *can* be built upon the original foundation strengthens our confidence in its substantial quality just as every new extension, precisely because it requires an additional foundation, leads us to suspect the soundness of the original substructure. A paradigm worthy of great confidence will in due course support an interpretative structure of skyscraper dimensions, with each successive story testifying to the well-laid quality of the original foundation, while a defective paradigm will support only a rambling one-story structure, in which each new set of uniformities requires a new foundation to be laid, since the original cannot bear the weight of additional stories.

Fourth, paradigms, by their very arrangement, suggest the systematic cross-tabulation of significant concepts and can thus sensitize the analyst to empirical and theoretical problems which he might otherwise overlook.⁵⁴ Paradigms promote analysis rather than the description of concrete details. They direct our attention, for example, to the components of social behavior, to possible strains and tensions among these components, and thereby to sources of departures from the behavior which is normatively prescribed.

Fifth, paradigms make for the codification of qualitative analysis in a way that approximates the logical if not the empirical rigor of quantitative analysis. The procedures for computing statistical measures and their mathematical bases are codified as a matter of course; their assumptions and procedures are open to critical scrutiny by all. By contrast, the sociological analysis of qualitative data often resides in a private world of penetrating but unfathomable insights and ineffable understandings. Indeed, discursive expositions not based upon paradigms often include perceptive interpretations. As the cant phrase has it, they are rich in

54. Although they express doubts about the uses of systematic theory, Joseph Berman and Arthur Vidich have admirably exhibited this heuristic function of paradigms in their instructive paper, “Social theory in field research,” *American Journal of Sociology*, May 1960, 65, 577-84.

“illuminating insights.” But it is not always clear just which operations on which analytic concepts were involved in these insights. In some quarters, even the suggestion that these intensely private experiences must be reshaped into publicly certifiable procedures if they are to be incorporated into the science of society is taken as a sign of blind impiety. Yet the concepts and procedures of even the most perceptive of sociologists must be reproducible and the results of their insights testable by others. Science, and this includes sociological science, is public, not private. It is not that we ordinary sociologists wish to cut all talents to our own small stature; it is only that the contributions of the great and small alike must be codified if they are to advance the development of sociology.

All virtues can easily become vices merely by being carried to excess, and this applies to the sociological paradigm. It is a temptation to mental indolence. Equipped with his paradigm, the sociologist may shut his eyes to strategic data not expressly called for by the paradigm. Thus it can be turned from a sociological field-glass into a sociological blinder. Misuse results from absolutizing the paradigm rather than using it as a tentative point of departure. But if they are recognized as provisional and changing, destined to be modified in the immediate future as they have been in the recent past, these paradigms are preferable to sets of tacit assumptions.