PURPOSE IN SOCIOLOGY RESEARCH

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INTRODUCTION   Lynd's "Knowledge for What" (1939) raises an issue more often sidestepped than confronted today. The two objectives of this paper are: 1) to generate a taxonomy of purposes of sociological research in thesis proposals and in journal articles; and 2) to compare purposes between the two. This has implications for graduate training in sociology, and for the way in which sociological knowledge is generated, accumulated, and disseminated. How do professionals orient their research, in comparison to the way preprofessionals orient theirs? Finally, is knowledge in sociology really noncumulative, as suggested by Freese (1972)?

MODEL   Based on Kuhn's (1962) paradigm, our perspective on scientific knowledge is more social than technical. The academic community may be treated as a communication system (Segersted 1976). Research is an intellectual dialogue incorporating three elements: a communicator, a medium, and an audience. In graduate training programs, the professors and the students communicate, and each operates both as communicator, and as audience. A professor communicates with students and with other professors via textbooks and journal articles. Students communicate with professors via thesis proposals. Students communicate with students via direct discussion. Here we are interested in two media of communication: 1) the professional journal article, and 2) the preprofessional thesis proposal. We assume that the professional journal article is higher on the scale of technical proficiency.

EXPECTATIONS   What purposes might one expect in these research communiques? One might expect the familiar goals, such as to understand, to predict, and to control. But the first is too general, and the last is too specific. One might look for Berger's categories (1963), such as debunking, unrespectability, relativism, and cosmopolitanism. These are themes rather than purposes.

One might expect theory-building. Ideally, a researcher deduces a specific scientific problem from an as yet imcompletely tested sociological theory and then attempts to test that theory. Thus -- and this is crucial -- science may be cumulative. If the deduction is tested under slightly different circumstances of place, population, and time, and is again supported, the replication increases scope and confidence in the validity of the inference. Replication is essential to cumulation.

The prototypic format of such a study would be the effect of x on y at place z at time t. An elegant variation of this is a crucial test, in which two deductions from competing theories are evaluated in a study which permits only one of the two alternative conclusions, one of which supports one theory, and the other supports the second. Confirmation of one disconfirms the other. This eliminates an alternative explanation, builds science, replicates findings, and accumulates knowledge (Popper 1964). A discrepant finding may lead to a breakthrough concept which forces reorganization of thought. Extensive reorganization exceeds the scope of most research communiques.

This "science as communication" view of the scientific community admits various research purposes. They may criticize without suggesting a better idea, suggest improved instrumentation, apply a sociological principle to a sponsor's problem, note disparate findings, or merely make comments. We will start with the question: "What is "purpose", as used here.

Purpose is not a technique of data collection, though the re-

search methods literature abounds with them. Nor does purpose refer to statistics by which data are analyzed. Purpose must also be distinguished from personal motive, which is not usually explicit. Nor is purpose the same as function. The function of research is considered a purpose only if the author intends its use by policy makers. Strategy encompasses a program of research objectives where a particular job of research achieves some intermediate goal serving an ultimate purpose. A researcher may want to document the sorry state of women in this society, but to do so, may need to detail one sexist problem at at time. Finally, purpose is not the same as an account. According to symbolic interactionist thinking, an account is a retrospecitve, socially presentable story invoking motives (Scott & Lyman 1968). It explains a particualr act when that was called into question.

METHOD   In this search we chose terminal over instrumental purposes, though an author might strive for both. An author might devise a scale instrument to measure a concept, then correlate that scale with mearsures of other concepts, to test an hypothesis. The search for purposes was not tied to topic. Purpose had to be abstracted to avoid entanglement with specific theories. The author's statement was accepted with no determination of success or failure.

Five content analysts scanned purposive samples of 50 articles from the American Sociological. Review", henceforth called "ASR", and 50 University of Michigan proposals for doctoral theses in sociology, to record specific statements indicating a purpose or goal of the research. Purposes were culled especially from abstracts, introductions, and conclusions. If no purpose was stated, every word was checked to cull implied purposes, goals, or objectives. Where

at least three of the five coders agreed, a research purpose was accepted.

The distinction was made between primary and secondary purposes, and between expressed and implied purposes. The primary purposes were those identified at least three times in the coder's record, and secondary purposes where those found only once or twice. The explicit purposes were supportable by direct quotations from the text, and the implicit purposes were inferred. Purposes could be 1) primary-explicit, 2) primary-implicit, 3) secondary-explicit, or 4) secondary-implicit.

Fifty American Sociological Review articles for a three-year period, of Volumes 36, 37, and 38 were sampled equally. The doctoral thesis proposals comprised the entire set written at the University of Michigan Department of Sociology in the three academic years from September 1971 through August 1974. The set included 47 proposals and 3 abstracts.

Many sociolstgists would consider ASR articles as a criterion for some of the best research in the field. The ASR does not publish thought pieces, literature reviews, or polemic articles. According to the "Author's Guide to Selected Journals" (Rhodes 1974) the ASR excludes general review articles, biographical pieces, and articles on social issues, but does publish qualitative and policy-oriented essays. The University of Michigan Sociology Department has one of the highest-ranked graduate programs in the United States. Therefore, thesis proposals from their doctoral candidates should also meet relatively high standards.

COMPARISON AND STEREOTYPES

Any sociological study may be reduced to comparison. If one says "more", one ought to specify "more than what." It can involve comparing variables for relative importance, theories for relative goodness of fit, positions on an issue for relative reasonableness,

techniques for relative utility, experimental conditions for determining causality, and groups or aggregates for noting differences. This can distinguish a stereotype from a sociotype. For example, the statement: "Italians are musical" may translate as 1) more Italians are musical than nonmusical; 2) Italians are more musical now than formerly in an historical trend study; 3) Italians are more musical than is generally recognized; 4) Italians are more musical than a particular observer has predicted; or 5) Italians are more musical than people of another ethnic origin. The kernel of truth in such a stereotype would be that Italians are more musical than some comparison group. This converts a stereotype to a sociotype.

GOALS OF SOCIOLOGICAL RESEARCH

More of the research purposes in the proposals than in the journal articles strove for empirical goals, based on observation and modeling, often in the form of path analysis. Empirical studies in many formats intended to collect data and observe relationships. The first is a simple accounting job, like explaining a dependent variable in reference to independent variables: y is a function of $x(1)$ ... $x(n)$. The second is a study of impact. Given an independent variable, what are its consequences: x leads to $y(1)$ ... $y(n)$. The third is a simple bivariate relationship with a specific pair of variables: y is a function of x, or $y = f(x)$. The fourth type of format is a chain, where x leads to y, and y' leads to z. In the first phase, the author treats x as an independent variable, and y as a dependent variable; in the second phase he treats y (now called y', or "y-prime") as independent and z as dependent. A fifth type is the investigation of interaction -- how does the xy relationship depend on z? The third variable, z, is introduced to establish an xy rela-

tionship, to eliminate an xy relationship, or to define the scope of an xy relationship. If, for example, z is historic time, how has the xy relationship changed? The sixth type simply compares one independent variable $x(1)$ to another indepdendent variable, $x(2)$, for relative impact on dependent variable y, to support one of two competing theories in an empirical test. Models, chronicles, and descriptions may involve many comparisons in synchronic schemes such as path analysis, processual analysis, life history, qualitative observation and ethnography.

INTERRELATING RESEARCH GOALS

Empiricism involves the observation of any relation, here most often given in path analytic models. Innovation is coneptual creativity, constrained by the technology of the method. The researcher weaves back and forth between empirical reality and sociological imagination using induction and deduction. One conceives an idea and matches it against empirical referents, or observes a pattern from which a principle is derived.

If a theory gains support by eliminating less cogent alternatives, the research contributes something to accumulated knowledge. If data do not support or only ambiguously support the theory, that theory is cycled through the discussion stage, as shown in Figure 1, and the theory benefits by criticism from the scientific community. It may then reissue as a revised theory. If the theory is not compelling, it may fall into disuse. In the evaluation, the protagonists of the theory seek to support it, and the antagonists seek to undermine it, often concealing their bias with a cloak of neutrality. The discussion may enter the forum of debate where scientific reasoning should be at its best, and where marginal pre-professionals may be drawn in. Information may be accumulated

FIGURE 1 HYPOTHETICAL MODEL FOR SCIENTIFIC COMMUNICATION
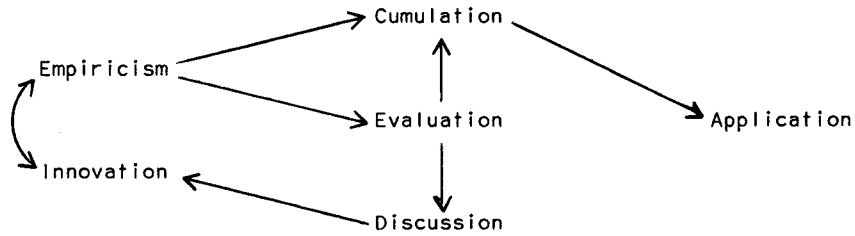
either by organizing existing knowledge, or by combining diverse perspectives into an integrated whole. If knowledge is conceived, debated, tested, and confirmed, it increases what we know about the social world. These are practical goals. But a theory may be applied by extention to new times, new places, or new populations, thus validating its underlying parameters.

This model makes some assumptions which must be made explicit: that individual theories are ultimately tested in collegial debate; that evaluation can take a logical form in the colloquium and in the empirical form of the research enterprize; that the ultimate purposes of the scientific enterprise are cumulation and application of knowledge. The task is to build and confirm theories or to disconfirm and revise them. Impersonal scientific purposes parallel scholarly personal motives. Clearly there is an element of evaluation in a critical discussion; an element of data collection in technical innovation; an element of theory construction in empirical modeling; and an element of determining parameters of a theory in cumulation. The social element pervades all of these goals. We dispute with colleagues. We combine the insights of colleagues whose pronouncements we find disagreeable, and ultimately we gather data from people as subjects without which our discussion would only be an academic exercise.

INCIDENCE BY GOAL TYPE

A significantly higher proportion of the purposes in journal articles were classified as primary, with a ratio of .59/.49 compared to thesis proposals. But more of the purposes in the thesis proposals were explicit, by a ratio of .58/.46 for the 147 purposes identified in the 50 articles and the 217 purposes identified in the 50 thesis proposals. Though most of the purposes in journal articles are classed as primary, most are implicit rather than explicit.

The average journal article had roughly 3 purposes, while the average proposal had more than 4. The typical proposal had more purposes in every category. The average article had roughly one primary and explicit purpose, and the average proposal had almost two, as shown in Table 1. Clearly there is a difference in explicitness of goals between articles and proposals. The proposals may be more explicit because the statement of objectives is required in research proposals, and their greater length gave more opportunity to specify purpose.

The comparisons which are detailed in Tables 1 and 2 may be summarized in six statements.
1 For both articles and proposals, the declining order of frequency of goal types is: empiricism, evaluation, discussion, innovation, application, and cumulation.
2 Most of the proposals and most of the articles stressed empiricism evaluation, and discussion.
3 Proposals were more likely to stress the combination of empiric-

TABLE 1   AVERAGE OF GOALS IN 100 SCIENTIFIC COMMUNICATIONS

Goal Type	Thesis Proposals	Journal Articles	Ratio
(N)	(50)	(50)	
Primary	2.1	1.7	1.2
Secondary	2.2	1.2	1.8
Explicit	2.5	1.3	1.9
Implicit	1.8	1.6	1.2
Primary-Explicit	1.7	1.0	1.7

TABLE 2   GOAL DISTRIBUTION BY COMMUNICATION TYPE & METHOD (Percent)

Method	Primary Goals		Explicit Goals	
	Thesis Proposals	Journal Articles	Thesis Proposals	Journal Articles
Empiricism				
Observation	53	28	40	28
Modeling	11	6	8	2
Evaluation				
Comparison	12	17	10	19
Criticism	2	9	2	9
Discussion				
Inclusion	6	2	14	6
Argument	1	8	2	4
Innovation				
Concept	4	10	6	7
Technique	4	8	6	7
Application				
Extension	4	5	4	11
Practice	0	1	2	4
Cumulation				
Consolidation	0	5	2	3
Combination	3	4	4	0

ism, discussion, and cumulation.
4 Articles were more likely to stress the combination of evaluation, application, and innovation.
5 Proposals were more likely to stress the subgoal combination of inclusion, modeling & combination.
6 Articles were more likely to stress the subgoal combination of criticism, argument, consolidation, and extension.
DISCUSSION   The findings lend only moderate support to the model of sociology as a colloquium, since discussion ranked third of the six goals. More important, if we correctly assume the ultimate goals of sociology to be cumulation and application of knowledge, this ranking of goals is not encouraging. The same results hold for the subgoals, where consolidation, combination, and pracitce ranked last.

Such results may indicate a lag in the development of sociology. One critic compared communicating in the social and physical sciences, faulting the former for being less organized, less cohesive, less efficient, less predictable, more diffuse, more haphazard, and more time-consuming (Garvey et al 1970). The proposals tended

to be more cumulative, but their student authors may have been expressing the high-minded idealism of novices. Moreover, the cumulative feature was more empirical than theoretical.

A majority of both communications pursued empirical goals, more of observation, less of modeling. The salience of empirical observation is to be expected, since all of the source materials stressed research, either planned or completed. Qualitative sociologists are sometimes frustrated at what appears to be a preoccupaton with quantitative data to the exclusion- of the alternative modes of research.

Why were proposals more empirical than articles? The proposals were more likely to attempt both analytic models, and more likely to consider case studies than were the articles. Local differences might account for some of the discrepancy. University of Michigan students were more likely to model than the ASR sociologists due to the stress on statistics and methodology at Michigan. However, that Department reflects the dominant standard of the field.

The salience of comparison, innovation, and criticism suggests some sociological eccentricity. From these data, the impression emerged that sociologists are more interested in expressing their own creativity, criticizing colleagues, and gathering data ad hoc than in science for its own sake. The element of academic gamesmanship entered many articles and some proposals. They seemed to say: "My sample is larger than yours," and "My method is more rigorous than yours," and "My study preempts yours." Values in science sometimes conflict -- one to build a theory, another to make a new contribution -- and sociologists may be reinforced by journal editors. Gatekeepers of the journals stress originality as a criterion for acceptance. Original one-shot research may be preferred over longitudinal research which may

yield more certain knowledge, but accommodate less to the exigencies of sociology.

What of the differences between communications? We expected articles to be more sophisticated than proposals, according to the assumption of a difference in the proficiency of the authors. Articles were more likely to stress application and extension, and the articles attempted more evaluative goals than the proposals, as regards criticism. This could be explained by the aggressive approach of the professionals, and the diffident avoidance of the students. Graduate students are understandably reluctant to joust with established sociologists. And perhaps students have not yet acquired the base of experience for effective criticism of the vigor and penetration to be found in the journals.

Such an approach to evaluation has pros and cons. It strikes a balance between the reverential attitude of preprofessinals and the brassy alternative of announcing that the emperor has no clothes. If criticism is persuasive, the detractor gains ascendancy in sociology while the butt of the criticism may suffer some loss. Is the negative finding conclusive? Not necessarily. The tainted theory or the doubtful finding continues to surface in sociology classes, perhaps with less conviction. It may not pass into eclipse until the proponent and the disciples pass away.

Both are rooted in career motives of proponent and detractor. Each has a stake in an obsolescent idea, valued by one, and disvalued by the other. The criticism that makes a name for one at the expense of the other may obstruct the goal of knowledge accumulation. Might not cooperative reward structures and collective goals result in more efficient knowledge accumulation? The answer must await direct evidence of the superiority of collective and cooperative work over solitary work.

to the fact that the ultimate radical reality is not the self. The inherently social element of man's nature is the thesis. The non-social element is its antithesis. Their integration or alienation is the synthesis. Just as being one with another is conditioned by the very fact that we are not one, so is an individual's possibility for individuality conditioned precisely by the fact that he is also everyman.

CONCLUSION   Simmel's fear was not unfounded. However, our despair and hope exist not just side by side, but because of each other. If, in our despair, we are able to realize that its state is only possible because of our capacity for hope, then the death of the parts begins to give way to the life of the whole. Our capacity to destroy is coexistent with our ability to create. Perhaps it is one óf our greatest challenges, never to confuse the two. Simmel's fear becomes powerful and full of terror because it neglects the reality of hope. Ironically, this neglect is the basis for the recognition of hope.

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Cumulation of knowledge was slightly more salient in proposals than in articles but this depended on the form of cumulation. The articles were more concerned with consolidation, while the proposals stressed combination. The student authors were more likely to combine theories by juxtaposition than be integration. Where students consolidated, they were more

likely to incorporate than to accommodate to the second theory. The differences do not support the assumption of greater professional proficiency of article authors.

The image of the graduate student emerges as rather diffuse in specifying goals, somewhat naive as regards academic gamesmanship in the social science community, and rather timid at mounting a debate. As a corrective the student should not be confined to the technical aspects, but should experience the social dynamics of the scientific community. This may call for reaching the right compromise between the entrepreneurial and the task force models of social research. Shall we work as individuals or shall we work in teams?

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