

Theoretische beschouwingen

The functions and dysfunctions of „fashion” in science:
a case for the study of social change.

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About a dozen years ago, in a paper dealing with “fashion” in women’s clothes, a colleague and I made the following statement:

“In social science usage, ‘fashion’ is still an overgeneralized term. One writer lists the following ‘fields of fashion’: values in the pictorial arts, architecture, philosophies, religion, ethical behavior, dress, and the physical, biological, and social sciences. ‘Fashion’ has also been used in reference to language usages, literature, food, dance music, recreation, indeed, the whole range of social and cultural elements. The core of meaning in the term for all these different things is ‘changeful’, but it is unlikely that the structures of behavior in these different social areas and the consequent dynamics of their change are all identical. ‘Fashion’, like ‘crime’, has too many referents; it covers significantly different kinds of social behavior”¹).

Unfortunately, today there is still lacking a satisfactory social science analysis of what those who work in the physical, biological, and behavioral sciences often call “fashion”²).

Besides this fault of overgeneralization by social scientists, there are other shortcomings in the typical references to “fashion” that are made by the working scientists themselves, who do not claim, of course, to be giving a systematic analysis. The first of these shortcomings is to use “fashion” in a quite common-sense way, as a mere label which begs the analysis that is required. An example of this can be found in the response of a scientist to some questions asked him in a study of the flow of scientific information among scientists³). In connection with a question about the ways in which some scientific work published earlier is revived by someone and then communicated widely, the scientist-respondent refers to:

“... some work done and published in 1942 (which) just came back three

¹) Bernard Barber and Lyle S. Lobel, “Fashion in Women’s Clothes and the American Social System”, *Social Forces*, 31 (1952), p. 124.

²) But see a useful beginning of such analysis in Warren O. Hagstrom, *The Scientific Community*, New York, Basic Books, 1965 pp. 177-184.

³) Herbert Menzel, *et al.*, *The Flow of Information Among Scientists*, Unpublished Report, Bureau of Applied Social Research, Columbia University, May, 1958.

years ago in a symposium on lipids. It had been published in 1942 in a German biochemical journal. Then, just three years ago, someone in California, working on lipid separation, used this material. ...Now it has been used greatly... (Why had this material not been used in the intervening years?) I don't know. Guess it's just science following fashion".

As Menzel properly comments, "That 'science follows fashion' gives a name to the problem, but does not account for it" ⁴).

A second shortcoming which reveals both the commonsense approach and the negative view of "fashion", is the tendency to exaggeration of the extent to which "fashion" in science occurs. One clue to this exaggeration is the failure to give any evidence for the alleged rampancy of "fashion". The following example is taken from a signed editorial in *SCIENCE* by Professor Ernst Mayr of Harvard, the distinguished biologist: "There has long been a bandwagon tendency in American science", he says, "but today it seems particularly rampant. This seems true of the physical sciences and particularly of the biological sciences" ⁵).

A third shortcoming of the use of the term by working scientists is that any reference they may make to psychological, social, or cultural factors tends to be in terms of imprecise, non-technical, unsystematic notions such as "human nature", or "the climate of the times", or being "in tune with the times". An example is provided by the following statement criticizing the United States Government's program of support for scientific research:

"Still another negative feature is a psychological one. Scientists, like other human beings, are affected by fads. They tend to go with the crowd. The research worker who does not go with the crowd encounters a rather bleak climate. He is likely to be regarded by administrators and laymen as an odd fellow who is not in tune with the times. Under this pressure, undue emphasis develops on glamorous areas" ⁶).

Finally, there is a shortcoming in the usage of "fashion" by working scientists which is nowadays, and for obvious reasons, more likely to occur in the behavioral than the natural sciences. This shortcoming is the tendency to use the term "fashion" with its negative implications, as an ideological stick with which to beat some field of research in which there has been a recent increase and which the user does not like, or likes less than some other field. Thus, a few years ago, when the increase in small-group research in sociology and social psychology was near the peak of the large increase it had had in the preceding ten years, one social scientist, who preferred what he considered to be the "big" problems of economic and political behavior, tried to explain, and perhaps thus "explain away", the "fashion" for small-group research as due to the political fears American social scientists had for dealing with these "big" problems. The micro-sociology of small-group research was thus ideologically criticized as being a poor substitute for the necessary macro-sociology that this critic preferred. No evidence was offered that in fact American social scientists were not dealing in considerable measure with macro-sociological

⁴) *Ibid.*, p. 42.

⁵) *SCIENCE*, 141 (1963,) p. 765.

⁶) Unsigned editorial, *SCIENCE*, 139 (1963), p. 377. In science, of course, "glamor" is no virtue.

problems, and no attention was paid to some of the other social and cultural sources of small-group research besides the ideological one imputed to it. As we shall suggest later on, these other sources have probably played a large part in the increase of small-group research during the last fifteen years.

So much for the inadequacy of present references by both social scientists and working scientists in all fields to "fashion" in science. Now we can perhaps make our way toward a more satisfactory social science explanation by clarifying the following several matters: 1. What is the essential character or element of "fashion" in science? 2. What are some of the persisting social and cultural sources of this element of "fashion"? 3. Given these sources of "fashion" in science, and given some other norms and conditions for successful science, what are some of the functions and dysfunctions of "fashion" in science? And, 4. Finally, what is the patterned response of scientists to "fashion" and can this pattern be explained in terms of the functions and dysfunctions of "fashion" in their field?

1. *The essential element of "fashion" in science.* Just as is the case with the usage of "fashion" in its most general sense, so the essential element in its usage with regard to science is "changefulness". The working scientist who refers to some particular "fashion" in science or to the widespread occurrence of "fashion" throughout science is always at least pointing to some change that has occurred, and often being somewhat critical of that change as well. Since science is full of changes, there is always something to cry "fashion" about⁷⁾. Unfortunately, however, such cries are usually not specific about some important dimensions of change, such as the type and the rate of change. The term "fashion" in itself does not specify whether the change is from one type of basic scientific speciality to another basic type, as from physics to biology, or between two fairly closely related scientific specialties, or types, as from one branche of nuclear physics to another, or from one technique in one branch of nuclear physics to another technique in the same branch. Science as a whole is large, its specialties are more and less closely related, and discussion of changes or "fashions" should attempt to specify differences in the degree of relatedness of older and newer types or fields of work. Nor does the term "fashion" in itself say anything precise about the rate of change, which may differ considerably, whether between closely related specialties or basically different ones. Rates of change could be specified in terms of such indicators as shifts of scientific personnel, increase or decrease in the number of publications, the opening up or closing down of professorships and other research positions in a specialty, and perhaps even in the character of theoretical or methodological alterations. Discussions of "fashion" or change should also allow for the fact that what one observer sees as a certain rate of change may be seen quite differently, that is, as faster or slower, by other scientists, whose positions on the social and cultural structure of science differ from his. For example, scientists who are high in the social structure of prestige in their field may see some change in quite

⁷⁾ On the exponential growth rates of science, see D. J. de Solla Price, *Little Science, Big Science*, New York, Columbia University Press, 1963. On the inevitability of revolutions in science, see T. S. Kuhn, *The Structure of Scientific Revolutions*, University of Chicago Press, 1962.

a different way from those who are lower in that structure, especially if the change involves an alteration in their relative prestige positions. Or, scientists brought up with the older theoretical and methodological ideas may see change as proceeding much faster than newcomers to the field. Discussions of "fashion" in science should attempt to specify rates of change both as they appear to the objective observer and as they appear to participants differently located in the structure and culture of science. Change, then, is a constant element in science, but it is not a simple or homogeneous phenomenon.

2. *Persisting social and cultural sources of "fashion" or change in science.* Because change is a constant in science, and because it has a variety of persisting social and cultural sources, a more satisfactory social science analysis of "fashion" in science requires an examination of these sources. Among its several advantages, such an examination will open up the possibility of constructing better indicators of those various types and rates of change in science which vague cries of "fashion" cannot discriminate. Before discussing these several sources of change and providing some illustration for each of them, several points about these sources considered collectively should be noted. First, the sources mentioned here are important, but they constitute neither an exhaustive nor a systematic list. Second, the sources are not discussed in any necessary order of relative importance. Third, we must remember especially that any one of these sources, but usually more than one in some combination, will be the determinant of change in science. Finally, under different conditions, both the relative importance of each source and the particular combination of sources that brings about change, will be different.

a. *New ideas or concepts* — New concepts are obviously one important source of change in science. Indeed, Kuhn says it is of the essence of a scientific revolution that there be a change from one set of concepts, one model, one paradigm, as he calls it, to another⁸⁾). The history of science is full of "fashions" started by new ideas. To mention two chosen nearly at random, from a paper by Holton, it was some new ideas about molecular beams developed by Professor I.I. Rabi, after studying with Otto Stern in Hamburg that led "soon after, both in independent laboratories as well as in those of Rabi and his associates", to a great deal of new work both in this field and in "neighboring parts of the same field"⁹⁾). Holton continues, "The excitement of this field as a whole and its fruitfulness are attested by the large rate of inflow of new persons, including many outstanding experimental and theoretical physicists"¹⁰⁾). In short, what some might call a new "fashion" occurred. Another, earlier example mentioned by Holton was the "fashion" created by the new concepts about magnetic fields around wires that carry direct current, discovered around 1820 by Oersted, Biot, Savart, and Ampere¹¹⁾). In recent social science, of course, we have

⁸⁾ *Op. cit.*

⁹⁾ Gerald Holton, "Scientific research and scholarship: notes toward the design of proper scales", *DAEDALUS*, 91 (1962), p. 385.

¹⁰⁾ *Ibid.*

¹¹⁾ *Ibid.*, p. 390.

the example of the "fashion" or change referred to above, in small group research, that was brought about in considerable measure because of some new concepts about the structure and functions of these groups formulated by R. F. Bales¹²).

b. New methods — As well as new ideas, new methods for research are important in bringing about change in science. Indeed, in two of the cases just mentioned, that of Rabi's work on molecular beams and Bales' work on small groups, it was the concurrence of new methods and new ideas for studying these phenomena that made them so attractive and "fashionable". Of course, new methods or tools for research may occur somewhat independently of basic new scientific concepts, as in the cases of the telescope or the electron microscope. That is to say, relatively-more-empirical technology sometimes develops in ways that bring about important change in theoretical science.

c. New access — New or improved accessibility to the necessary data is another source of change or "fashion" in science. Easier access to both live and dead human bodies in the nineteenth century, for example, was of great benefit to the human biological sciences¹³). In this case, easier access resulted from a change in public norms and attitudes. In other cases, easier access results from the development of new instruments of research. Thus, there is currently a great change or "fashion" in "the space sciences" because rocket and space technology bring hitherto inaccessible areas of the universe within the reach of scientists. As we shall have occasion to note again, later, the current "fashion" in medical sociology is owing partly to the new access to hospitals and patients given by medical doctors to sociologists.

d. New recruits — An essential component of any change or "fashion" in science is, of course, new recruits to the new ideas, new methods, or newly accessible data. There are two types of new recruits. One consists of the novices in the relevant scientific specialties, especially those who are more or less anxiously looking for subjects for doctoral dissertations and who find rich and rewarding opportunities in the new line of work. Another important type consists of the older man in the field, often those who are competent but not particularly creative men, but also sometimes even the most creative men, who recognize an outstandingly good new idea or method. Holton, it will be remembered, said that "many outstanding experimental and theoretical physicists" were attracted by the new ideas and methods discovered by Rabi for the study of molecular beams¹⁴). For the study of different changes or "fashions" in science, it would be interesting to know the different proportions, of these two types of new recruits for each change.

e. New funds — An increase in available funds for research is often one of a combination of sources of change or "fashion" in science. Here again, a nearly random choice of two recent examples from among the very large number that could be given will perhaps suffice. In his treatise on the diffusion of innovations, Rogers points out

¹²) See his *Interaction Process Analysis*, Cambridge, Mass., Addison-Wesley Press, 1952; see also, P. Hare, E. F. Borgatta, and R. F. Bales, eds., *Small Groups*, New York, A. A. Knopf, 1955, which includes an extensive bibliography describing the new "fashion" as well as its antecedents.

¹³) R. H. Shryock. *The Development of Modern Medicine*, New York, 1947.

¹⁴) *Op. cit.*

that since the mid-1950's there has been a proliferation of researches using sociometric methods on how agricultural innovations diffuse among farmers. The practical importance of the knowledge gained thereby and the increase in private and public funds for research have been the causes of this proliferation. "Most of these studies", says Rogers, "have been financed by state agricultural experiment stations or the USDA (but also in very recent years by agricultural companies). Federal and state agencies spend sizable sums for research on agricultural technology. Their administrators have been convinced of the value of sociological inquiry to trace the diffusion of these research results to farm people" ¹⁵). A similar case is found in the recent "fashionable" development of oceanography. "In behalf of science and education legislation," says John Walsh, "the cold war argument was often employed. A clear example of where it worked is in oceanographic research. Ten years ago the annual federal budget for oceanography was \$10 million. By 1961 it had risen to \$62 million, and in President Kennedy's first budget the following year it soared to \$103 million. Another spurt took it to \$123 million in fiscal 1963" ¹⁶).

f. New professorships and other positions — The availability of new university chairs and other scientific research positions is another source of change or "fashion" in science. An example of this has been described in excellent historical detail for 19th century German science (with special emphasis on physiology) by Ben-David and Zloczower ¹⁷). In the early decades of the nineteenth century, work in physiology at the German universities was "sporadic and haphazard." By 1828, physiology as an experimental discipline was represented in only six German universities by seven lecturers, no professors. Gradually, competence in physiology came to be a prerequisite for attaining the established chairs in anatomy. Some chairs of anatomy were filled by physiologists, but where older men survived, new chairs for physiology were established independently. Finally, anatomy and physiology were entirely separated. As a result, during the fifties and sixties many new chairs in physiology were established and filled by younger men with special training and research ability in that specialty. "Between 1855 and 1874 twenty-six scientists were given their first appointment to chairs of physiology... Ten of these were appointed between 1855-59 alone. But therewith the discipline reached the limit of its expansion in the German university system". The number of chairs for physiology alone which was 19 in 1873, was only 20 in 1880, in 1890, and in 1900. "Between 1875 and 1894, only nine scholars received appointments to chairs in physiology, stepping into chairs vacated by their incumbents". Aspiration to a professorship in physiology during the late seventies and eighties was "all but hopeless" because the cohort of first incumbents lived long and held their tenure for 30 and 40 years or more. "Du Bois Reymond monopolized the chair in Berlin from 1858-96; Brücke reigned in Vienna for four decades, 1849-90; Echarde held the chair in Giessen from 1855-91." The earlier "fashion" for physiology went out. Or, as Ben-David and Zloczower put it,

¹⁵) E. M. Rogers, *Diffusion of Innovations*, New York, The Free Press of Glencoe, 1962, pp. 36-37.

¹⁶) Editorial matter in *SCIENCE*, 142 (1963), p. 1153.

¹⁷) Joseph Ben-David and Awraham Zloczower, "Universities and academic systems in modern societies", *European Journal of Sociology*, III (1962), pp. 54-56.

"The result was that research in physiology lost momentum. A count of discoveries relevant to physiology in Germany shows that 321 such discoveries were made during the twenty years period of rapid expansion between 1855-74 compared with 232 during the subsequent (and 168 during the preceding) twenty years". Since there now were better ways of attaining a professorship than through physiology, new "fashions" arose for other fields. Hygiene professorships increased from one in 1873 to 19 in 1900. "Psychiatry grew from one chair to 16 and ophthalmology from 6 to 21 during the same period, while pathology, which had only 7 chairs in 1864 had reached 18 by 1880. The enthusiasm for physiology cooled considerably." Thus are "fashions" created in part by the availability of new professorships and other positions. The same process has occurred in many of the fields of the natural and social sciences in American Universities during the last fifty to seventy-five years.

g. "Social problems" — One last source of change or "fashion" in science, a source that may exert its influence directly, but more often works indirectly, or in combination with other sources, for example, with the provision of new funds for research, consists of the "social problems" of the time. "Social problems" are those types of behavior which many people in the society have come to define as both undesirable and remediable. Mental illness, juvenile delinquency, cancer, even our inability to get to the moon, especially to get there before the Russians do, have come to be defined as "social problems" in which the help of science is required. Felt "social problems," like these and others, produce support for various scientific specialties, support which is gladly taken up by some scientists but defined as merely the maker of "fashion" by others.

3. *Functions and dysfunctions of "fashion" in science.* Given these several sources of change or "fashion" in science, if we consider some of the consequences they have, consider them especially in the light of certain important goals and norms of science, we can provide an answer to our third question, What are the functions and dysfunctions of "fashion" in science? Now because many times the terms of "fashion" carries strongly negative implications, we shall discuss dysfunctions first. We should also note before we begin an important point to which we shall return later, namely, that the same change or "fashion" may have mixed consequences, functional for some goals and norms of science, dysfunctional for others.

a. *Dysfunctions* — The primary goal of science is discovery of new ways of understanding the physical, biological, and social worlds. Essential to the support of this goal are the norms of science which place a high value on the originality and autonomy of the individual scientist. Therefore, "fashion" is dysfunctional for science insofar as it involves a failure to maintain the norms of originality and autonomy, or at least not to achieve them in the fullest measure. Another dysfunction of "fashion" in science is that it sometimes results in what those who cry "fashion" think is an improper distribution of talents, efforts, and funds among the various scientific specialties. It may be the more imaginative men, as Mayr says¹⁸⁾, who go into new fields, "glamorous" fields, as those critical of a "fashion" call them, where the most funds are, leaving the more orthodox men behind without sufficient talent

¹⁸⁾ *Op. cit.*

to exploit all the opportunities for discovery that remain in the older field. Incidentally, notice the apparent contradiction between this assertion that it is the more imaginative men who follow "fashion" and the previous point that it is the less original men. We shall resolve this apparent contradiction in a moment.

These are two possible *direct* dysfunctional consequences of "fashion" in science. A *derived* dysfunctional consequence may be that some of the young men who go into a field that is "fashionable" when they are young are narrowly trained for that special field and may become obsolete as scientists when that field is worked out and new "fashions" emerge.

b. Functions — However, "fashion" in science has its functions, too. First, even if those who follow others into a "fashionable" field are less than completely original and autonomous, they may be showing more originality and autonomy in recognizing a good new idea and pursuing it than in staying with some older, unprofitable line of thought. We see why the contradiction we mentioned is only "apparent." It is utopian to expect all scientists to be continuously and highly original. Second, the shifting of men, funds, and professorships into a newly "fashionable" field has the function, often, of getting a great deal of useful and necessary work done in that new field. Third, and finally, the excitement generated by a new and "fashionable" idea contributes to the morale of scientists, especially those who like to feel they are in the vanguard of the group that is struggling for victory over the unknown. Science is not without its own deadening routines, its own needs for coming a little nearer, once in a while at least, to its primary goal of discovery.

c. The problem of a functional calculus — Our earlier statement, that the same change or "fashion" may have mixed consequences, both dysfunctional and functional, is now perhaps a little clearer. Following a "fashion" may not express the highest originality, but it may express a lesser and functionally necessary originality still. Or it may involve the dysfunctional movement away from fields that retain some fertility, but the functional source of the movement is the appearance of even more fertile opportunities. If we had some functional calculus by which we could always make some swift, certain, and precise weighing up of functional and dysfunctional consequences, if we could always establish the fact of a net advantage or disadvantage for science, we would have more understanding and control over the changes for "fashions" which must inevitably occur in every area of science. But since we do not yet have such a functional calculus, scientists must often have mixed feelings towards particular changes or "fashions" in their own fields or in those that affect their own fields.

4. *Ambivalence as the patterned response of scientists to "fashion" in science*¹⁹). Now at long last, we can see why ambivalence is the usual and socially patterned response of those who speak of "fashion" in science. Those who see only good in some change in science are not likely to speak of "fashion" at all. They are more likely to refer to the changing field as a "hot" field, and the "hotter" the field the better it is. But those who see some dysfunctional consequences, who dislike some of what they see a change bring about, are likely to use the term "fashion" because of its negative implications for science. Still, even these scientists usually cannot ignore the fact that changes or "fashions" in science usually have some positive or functional consequences as well. Note the following examples of ambivalence expressed by two distinguished scientists:

(1) "It is both inevitable and good that the dazzling achievements of molecular genetics have attracted wide attention. It is probably also inevitable, but not so good, that a bandwagon effect (that is, "fashion" had led some people — not only immature students but some scientists who should have known better — to proclaim that molecular genetics is all that there is or should be to genetics. Genetics and biology must, however, deal not with one but with several levels of biological integration"²⁰).

(2) "A massive follow-up of new discoveries is normally highly productive, and no damage would be done if it were not for the fact that abandoned fields are rarely exhausted. When talent is diverted from them, science suffers an irreparable loss... (We are) justified in fostering exploitation of breakthroughs, but it seems unwise... to pour most... funds into the glamor fields ... the new should supplement the classical and not totally displace it"²¹).

It is my impression that the older, more established scientists are more likely than the younger ones to speak of "fashion", but for this impression I have no systematic evidence. In any case, the ambivalence of scientists toward "fashion" in science, is a socially-structured ambivalence, structured by the fact that changes in science usually have both recognizably functional and dysfunctional consequences for the goals and norms of science.

Conclusion — Perhaps we can now say that we have a better general understanding of "fashion" in science. And it seems to me that the essence of what this better understanding tells us is that we should give up the usage of the sociologically vague and morally invidious term "fashion" for the field of science and always speak instead

¹⁹) On the concept of sociological ambivalence in general, see R. K. Merton and E. G. Barber, *"Sociological Ambivalence," in Sociological Theory, Values, and Sociocultural Change: Essays in Honor of Pitirim A. Sorokin*, New York, The Free Press of Glencoe, 1963. See also, R. K. Merton, "The ambivalence of scientists," *Bulletin of the Johns Hopkins Hospital*, 112 (1963), 77-97. Among the nine different patterns of ambivalence Merton discriminates, there is the following, p. 78: "2. The scientist should not allow himself to be victimized by intellectual fads, those modish ideas that rise for a time and are doomed to disappear. BUT he must remain flexible, receptive to the promising new idea and avoid becoming ossified under the guise of responsibly maintaining intellectual traditions."

²⁰) T. Dobzhansky, "Evolutionary and population genetics", *SCIENCE*, 142 (1962), p. 1131.

²¹) Ernst Mayr, *op. cit.* For other expressions of ambivalence about "fashion", see the letter by E. D. Hanson about Mayr's editorial in *SCIENCE*, 141 (1963), p. 623, and, Honor B. Fell, "Fashion in cell biology: the motives that prompt us to follow fashions in research are various and not always estimable", *SCIENCE*, 132 (1960), 1623-1627.

of what is really at issue here, namely, the types, the rates, the sources, the variously functional and dysfunctional consequences of change, and the patterned responses of scientists to that change.

Some Notes on the "Fashionableness" of Medical Sociology, 1945 — present.

Now let us look at recent changes in the development of medical sociology, changes that might be defined by some as a "fashion", and see how our general analysis applies. I hope that these will be considered only "notes" on the subject, since I have not undertaken the new research that would be necessary for a more satisfactory discussion. I have used what data I could find, and where they are lacking, I venture my own unsupported impressions. Still, I think something useful will emerge if we look at the recent "fashionableness" of medical sociology in terms of rates and types of change, sources of change, and some functions and dysfunctions of change.

1. *The rate of change.* We can take as our baseline for calculating the rate of change in medical sociology a paper published in 1951 in the *American Sociological Review*, the official journal of the American Sociological Association, by Professor Oswald Hall of McGill University, who was a pioneer among pioneers in this field²²). As its title indicates, this was intended as a defining and justificatory survey of the field of medical sociology. But its contents contain no mention of the numbers of research or teachers in the field, nor is the term "medical sociology" ever used. Hall, who had himself worked on a dissertation, *The Informal Organization of Medical Practice*, during the late 1930's which was accepted at the University of Chicago in 1944, mentions only four research works in medical sociology, two of them his own papers taken from his dissertation. Now Hall certainly knew of more works in the field of medical sociology than these; indeed he refers to them in his dissertation. But it is striking that his public view of the field, and the view of others who were in any way acquainted with it, I think, was a view that saw only a very little developed field of sociological specialization.

From 1951 on, however, medical sociology grows fast and probably at an accelerating rate. The first of two important surveys of the field by Anderson and Seacat, in 1957, demonstrates this speed and acceleration with some numerical data²³). Anderson and Seacat start by looking back a little farther than Hall had:

"The application of behavioral science research concepts and techniques in the social and economic aspects of the health field is not new in this country or in Europe, but the momentum with which sociologists, social psychologists, and social anthropologists are being brought into this growing research area is a new phenomenon, and has taken place mainly since 1945."

They then report that the 1956 edition of *An Inventory of Social and Economic Research in Health*, published by their organization, the Health Information Foundation, "lists almost 500 research projects as completed or in progress during that year." Obviously these are not all in the field of medical sociology, however broadly

²²) "Sociological research in the field of medicine: progress and prospects," *American Sociological Review*, 16 (1951), 639-644.

²³) O. W. Anderson and Milvov Seacat, *The Behavioral Scientists and Research in the Health Field: A Questionnaire Survey*. Health Information Foundation, Research Series, 1, 1957.

defined, and obviously, also a thorough census was bound to find projects that a more informal survey like Hall's would miss. But still, the increase in rate of work is very large. Finally Anderson and Seacat report on personnel: "Through research inventories and personal contacts and knowledge", they say, "216 behavioral scientists were identified as being engaged in the health field full-time or part-time". It was from these people that Anderson and Seacat collected some questionnaire data we shall discuss later.

By coincidence, another survey of the field was published at about the same time by Robert Straus, who did not know of the Anderson and Seacat survey and who was the agent of what he describes as "a small group of medical sociologists and physicians who met informally in Washington in September, 1956, during the meetings of the American Sociological Society", as it was then called²⁴). Note, first, that this may be the first publication actually to use the term "medical sociology". Note also that Straus reports the beginning of organization for the field, in an "informal Committee on Medical Sociology". Finally, note that the compilation of a directory of medical sociologists, carried out by Straus on the Committee's commission, contains 110 "individuals whose basic professional identification is sociology" out of the 162 individuals in the total list drawn up by the Committee. In his conclusion, Straus remarks on the rapid rate of change in the field: "From the foregoing summary", he says, "it is apparent that there is a large and varied activity in this field. The field is, however, developing and changing very rapidly, so rapidly that any attempt to describe it runs the risk of early obsolescence."

By 1960, "according to the 'List of Medical Sociologists' compiled annually by the Committee on Medical Sociology, 309 individuals currently defined themselves as engaged to some extent in activities which include medical sociology"²⁵). Of these 309, 224 were sociologists. In 1960, also, the informal Committee on Medical Sociology was transformed into the formally-organized Section on Medical Sociology of the American Sociological Association. In 1962, in a second important survey, Anderson and Seacat sent questionnaires to the 738 members of this Section, as of May, 1961, about 550 of whom were primarily identified with sociology rather than with social psychology or anthropology or other behavioral sciences²⁶).

In this survey, Anderson and Seacat also reported, as an indicator of rapid growth in the field, that of all the courses in medical sociology being given in 1962, only 5% were in existence by 1950. Almost half were first offered between then and 1960; and another third had been introduced since 1960. Almost all of these courses were described as being permanently scheduled in the curriculum of some teaching institution. About this time, also, the volume of research and the number of workers in the field were sufficient to justify the foundation of a new quarterly, *The Journal of*

²⁴) Robert Straus, "The nature and status of medical sociology," *American Sociological Review*, 22 (1957), 200-204.

²⁵) Samuel W. Bloom, Albert F. Wessen, Robert Straus, George C. Reader, M. D., and Jerome K. Myers, "The sociologist as medical educator: a discussion," *American Sociological Review*, 25 (1960), 95-101.

²⁶) O. W. Anderson and M. S. Seacat, *An Analysis of Personnel in Medical Sociology*, Health Information Foundation, Research Series 21, 1962.

Health and Human Behavior. And, finally, the latest survey of medical sociology calls it perhaps the "fastest growing" subfield of sociology as a whole²⁷).

2. *The type of change.* On the problem of the type of change this increased rate of work in medical sociology represented for those who came into the field, there is, unfortunately, little direct evidence. As we shall see in discussing new recruits to the field in detail later, however, all the surveys agree that younger, newer men, those who received their degrees since 1945, are the great majority of specialists in this field. We can infer that many of these men have been in medical sociology from the beginnings of their own research and teaching career. Just how many though, we do not know, since many of the younger men started in some other field and then shifted over, probably fairly easily, to medical sociology. For example, in their 1957 survey, Anderson and Seacat report that 28% of their respondents said that "a research career in the health field" had not been their goal during their research training. As for the older men, for some it may have involved a basic shift of type of sociological interest; for others a minor shift, say from the field of professions in general into the sub-field of the medical profession; and for some few others, of course, who had started out in the field, no shift at all in the type of work.

3. *The sources of change.* Now let us look at the several sources of change for medical sociology, remembering, of course, that they have worked not separately, but in combination.

a. and b. New ideas and new methods — New sociological ideas and methods have not been particularly important as sources of the recent great change in medical sociology if by "new" one means ideas and methods developed especially for the peculiar sociological problems of the field. The ideas and methods that have been useful have been "new" only in the novelty of their systematic and often replicated application to medical sociology's problems. Such ideas as "role", in the general sense; "professions"; "social stratification" and "social classes"; "detached concern"; and many others; and such methods as "participant observation", "survey research", and "panel techniques" were all ideas and methods developed in other areas and further applied to medical sociology when other changes occurred that provided opportunities for that application in this field. Anderson and Seacat, in their 1957 survey, for example, report that 62% of their respondents checked, as one among several different incentives to go into medical sociology, "the opportunity to apply, test and develop behavioral science knowledge, theory, methodology and hypotheses"²⁸).

c. New access — A change in the attitude of medical personnel, especially in the attitude of certain key physicians and administrators, toward behavioral science research seems to have been one of the factors chiefly responsible for the great growth of medical sociology. This change of attitude, often manifested in actual research

²⁷) See H. E. Freeman, S. Levine, and Leo G. Reeder, "Present Status of Medical Sociology," in an anthology edited by these three men, *Handbook of Medical Sociology*, New York, Prentice-Hall, 1963.

²⁸) *Op. cit.*

collaboration with social scientists, has resulted in the new access to hospitals, to patients, to their families, to medical students, and to the doctors themselves without which medical-sociological research would have been impossible. What brought about this change, how far it extends in the medical world and how deeply, however, are matters on which we have no systematic evidence. One impression I have is that those physicians who saw the patient as "a whole person", not just an organic case, and those who were most science- and research-oriented, were most likely to look to the behavioral sciences for expert aid.

d. New recruits — As we have already seen, new recruits to the field of medical sociology have definitely been among the agents of the changes it has undergone. Most of these recruits have been younger men, but some older men have also switched over, though how many of these there are we do not know. In their 1957 survey, Anderson and Seacat reported that 58% of their respondents had received their Ph. D.'s in the previous six years. We are also told that 53% of the researchers had been in the health field two years or less, but we are not told in what measure this group overlapped with the group of recent Ph. D.'s²⁹). By 1962, in their second survey Anderson and Seacat reported that the proportion taking their Ph. D. in 1950 or later had risen to 75%. In this new field, at this time, almost half of the respondents were still young men, in the 30's. "The newness of the field and the youth of the participants in it", however, as Freeman, Levine and Reeder remark, "is balanced by the active engagement in socio-medical problems of many of the leading and relatively more elder statesmen in sociology. For example, Merton's studies of medical education, Parsons' analysis of the role of the patient, and Hughes' observations on the medical professions..."³⁰) represent the work of distinguished older sociologists. But all three of these men had been interested either in the professions in general or the medical profession specifically (for Parsons both) before the recent enormous rate of increase of medical sociology. Their interest in the field represented less basic a type of change than it may have for some other older men.

e. New funds — Clearly, new funds were important in the changes occurring in medical sociology. We know, for example, from the first Anderson and Seacat survey, that 15% of the respondents were willing explicitly to say that "the availability of research funds" had been an important incentive for their entrance into the field. Also, we know that new grants to the medical schools and to the universities by various foundations, perhaps especially the Russell Sage and the Commonwealth Foundations, were indispensable to the growth of medical sociology³¹). Indispensable also were new funds from the Federal Government. Within the Federal Government, as Williams has suggested, "the National Institute of Mental Health plays the major role"³²). State, county, and city governments have also played some part in supplying new funds³³). However, as Williams further remarks, we have no "hard data" either on the overall amounts and increases of funds for medical sociology,

²⁹) *Op. cit.*

³⁰) *Op. cit.*

³¹) See Straus, *op. cit.*

³²) Richard H. Williams, "The strategy of Socio-Medical Sociology," in Freeman, et al., eds., *Handbook of Medical Sociology*, Englewood Cliffs, N.J., Prentice-Hall, 1963, pp. 441ff.

³³) *Ibid.*

nor for the varying proportions of those funds coming from these several different sources, the foundations and the various levels of government.

f. New professorships and other positions — Many of the new funds have been used to establish new professorships and new research positions for medical sociology, and these have served to attract new men to the field. Some 24% of the respondents in the 1957 Anderson and Seacat survey checked "professional opportunities" such as new positions among their reasons for entering medical sociology. In the Straus survey, of the 110 respondents whose basic professional identification was with sociology and for whom data were collected, 34 had their primary research or teaching position with an academic department of sociology, and all the rest were with medical schools, research organizations, or foundations, most of these being new positions. In the medical world, medical sociologists "are regular members of departmental units in public health practice, preventive medicine, epidemiology, biostatistics, and psychiatry", Freeman and his colleagues tell us, and nearly all of these are attractive new positions³⁴).

g. Social problems — Lastly, "social problems" in relation to the medical world have been among the sources of growth for medical sociology. Among the researchers themselves, according to the Anderson and Seacat 1957 survey, some 39% said "the opportunity to deal with problems of vital importance to human welfare" was among their incentives. Health in general, and mental health more particularly in recent years, have come to be defined as important social problems in a society like ours. This new or more sharpened definition has been important in the expansion of all medical resources and facilities and also in that of medical sociology as a part of those resources and facilities.

4. *Functions and dysfunctions of the "fashion" for medical sociology.* Without further research it is difficult to say anything very precise about the functions and dysfunctions of the recent changes in medical sociology. Again, on impressionistic grounds, it would seem that a good deal of the research and teaching in this field has been both of practical, applied usefulness to various types of personnel in the medical world and of more fundamental scientific usefulness for the accumulation of empirical generalizations and the sharpening of theoretical and methodological tools in sociology itself. But these are matters that require closer scrutiny and study than they have yet been given. On the side of dysfunctions, it is difficult to see anything of consequence, though there may be some sociologists and some laymen who think it would have been better to turn the efforts that have gone into medical sociology, or some of them, into more important theoretical or practical problems, as they define "importance".

In conclusion, I will hardly need to note again that these have merely been "notes" on the "fashionableness" of medical sociology during the last twenty years. It is not hard to be convinced that further research is necessary if we are to understand both this particular "fashion" or change and "fashion" or change in general. I hope that such research will be forthcoming before long, and also research on many other instances of "fashion" or change in the social and natural sciences.

³⁴) *Op. cit.*