

The Science of Communication and the Function of Libraries

THE FUTURE HISTORIAN of the intellectual life of our times will undoubtedly choose as a dominant theme the trend toward integrating the social sciences with one another and with policy. The developing science of communication is a case in point.

That there is a new scientific discipline in the making is by this time clearly demonstrable. There are institutes and committees at Chicago, Columbia, Denver, Harvard, Ohio State, Princeton, Stanford, and Yale; and the list is not complete. The Rockefeller Foundation has supported research programs in this field, chiefly at the initiative of the Humanities Division (David H. Stevens, John Marshall). Since the war the tempo has increased and closer working relations have been cemented between science and policy, notably in connection with radio. With the advent of broadcasting, it is possible for any belligerent to listen to the voice of the enemy and to interpret the meaning of what is said for every branch of policy, whether strategy, diplomacy, economics, or communication. Since the beginning of World War II every major power has set up monitoring services to record enemy broadcasts and to examine their total significance.

Converging Intellectual Development

Even a cursory glance at the tributaries that feed the new interest in communication discloses that something new is taking place under the academic sun. We are accus-

tomed to think that the social and humanistic sciences are becoming more specialized and more remote from the mother matrix of philosophy. For a century new branches of learning have struck out for themselves. In recent years, however, evidences of parallel and converging development are visible in every special discipline.

The evolution of political science and public law is representative of the new trend. During the age of separatism scholarly reputations were made by studying institutions and doctrines. The literature described the growth of parliament or the history of political speculation since the Greeks. In recent years interest has shifted from the "forms" to the "facts," from the "structure" to "what makes it tick." And this has led to research on one part of the process of communication, namely, public opinion. A precursor of this tendency is the volume by A. V. Dicey, the distinguished specialist on English public law, called *Lectures on the Relation Between Law and Public Opinion in England During the Nineteenth Century*. James Bryce, Graham Wallas, A. Lawrence Lowell, and Charles E. Merriam continued this line of growth.

In the science of economics somewhat similar trends can be discerned. Among English, American, and Austrian economists the dominant tendency was to perfect the theoretical structure of the subject and to sacrifice "concrete detail" for a limited number of postulates. This emphasis was

by no means unanimous, and the reaction against it produced such subtle studies of economic life as the brilliant essays of Thorstein Veblen. Concerned with other elements in behavior than the rational calculation of gain, Veblen gave full recognition to the role of fashion and other nonrational determiners of conduct.

The part played by "informal means of social control," expressed in the process of communication, was fully stressed by sociologists. American scholars such as Sumner, Ross, Cooley, and Park have had much to say about "fashion," "public opinion," "crowd states," "gossip," and other factors of this kind.

Specialists on language have always tended to go beyond the study of grammar to inquire into the role of language in the whole of life. In recent decades one linguist and ethnologist, Edward Sapir, has given masterly treatment to selected aspects of communication and has inspired a number of emulators. Closely akin to linguistics in breadth is comparative literature. Among contemporary scholars, I. A. Richards has been very successful in analyzing the whole process of discourse.

Since it is impossible for any school of psychology to overlook the communicative process, the subject has been enriched by practically every group of specialists. Freud generalized some of his own findings from the clinic to society, and the leaders of behavioristic and Gestalt schools have addressed themselves to this topic. The emerging synthesis has gained from the mother matrix, philosophy. Building on the work of George H. Mead, Charles S. Peirce, and others, Charles W. Morris has provided a provisional theory of communication in *Foundation of the Theory of Signs*.

Side by side with converging developments within the central sciences of society has gone the professional expansion of edu-

cation, public speaking, drama, creative writing, advertising, public relations, journalism, and librarianship.

The Structure of the Science

The give-and-take of many specialists has evolved a common point of view toward the nature of the communication process. The key question about the process is: Who says what, to whom, with what effect? The study of "who" is control analysis; the study of "says what" is content analysis; the study of "effect" is effect analysis.

A few examples will quickly show what is meant. Leo C. Rosten described the social background and the personal characteristics of newspapermen and of movie-makers in *The Washington Correspondents* and *Hollywood*. All such studies of owners, regulators, and contributors of each channel of communication are part of control analysis. The problem is to find out what they intend to communicate, how they intend to do it, and what factors influence intention.

German Radio Propaganda by Ernst Kris, Hans Speier, and associates, is an instance of content analysis. The book is a detailed quantitative and interpretative study of German home broadcasts after 1939. Other media and other situations have been examined by other scholars for the purpose of giving an objective picture of "what is said."

In the field of effect analysis may be mentioned a joint product of Paul Lazarsfeld, Douglas Waples, Bernard R. Berelson, and associates. During the presidential campaign of 1940 a single county was intensively described for the purpose of explaining the final vote in terms of the influence of campaign propaganda and of previous political behavior (predisposition).

For many scientific purposes it is con-

venient to enlarge the threefold division of the field of communication. Media analysis may be devoted to the physical network of communication. Content analysis may be subdivided into the study of "purport" and "style." A separate division may be made of "intention" in order to focus upon conceptions of strategy and tactics.

Bibliography of Communication

One way to obtain a quick view of the science of communication is to look at the problem of classifying titles in the field. The present writer was chairman of a committee appointed several years ago by the Social Science Research Council to inquire into the state of research on "public opinion and pressure groups." The committee decided to pool resources and edit an annotated bibliography as a guide to the literature. The framework devised at the time has since been used to classify titles and to cover the expanding conception of research on communication.¹

Part I includes titles that purport to be about general theories of propaganda, methods closely related to propaganda, or, finally, general theories of the symbolic process. Examples are: Sergei Chakhotin, *The Rape of the Masses*; *The Psychology of Totalitarian Political Propaganda*; Farago and Gittler, eds., *German Psychological Warfare: A Survey and Bibliography*; John William Albigh, *Public Opinion*.

Part II brings together the titles that emphasize the maker of the communication, whether government, voluntary association, or private individual. Example: James L. McCamy, *Government Publicity; Its Practice in Federal Administration*.

The third part includes every title that puts the stress on the goal of the communication, like Merle Eugene Curti's *American Peace Crusade, 1815-1860*. Part IV is the place for titles that describe the symbols used in making communications. Books and articles that describe the key symbols, slogans, and doctrines of a group or of a whole society or historical period, go in IV. One such title is Wilhelm Bauer's *History of Public Opinion* (in German), the only survey of the entire history of opinion.

Part V describes the channels; Part VI, the measurement of effects; and Part VII, the function and control of communication. Hence Part V embraces a book like Louis Round Wilson's *Geography of Reading*; Part VI, Cantril, Gaudet, and Hertzog's *Invasion from Mars: A Study in the Psychology of Panic; With the Complete Script of the Famous Orson Welles Broadcast*; Part VII includes *Free Speech in the United States* by Zechariah Chafee.

A title list assigns books somewhat differently than does a scientific scheme. Hence, the bibliography does not classify books in terms that are exactly comparable with the subdivisions of the science of communication mentioned above. However, certain rough equivalencies do exist. Control analysis is directly touched in Parts II and VII of the bibliography and in the sections of Part V that refer to owners, regulators, and contributors. Content analysis is especially involved from II through V. Effect analysis is highly concentrated in VI. If media analysis is thought of separately, many appropriate titles are found in V. If intention analysis is also given special prominence, pertinent literature is in Part I.

Perhaps the foregoing sketch has been enough to provide an idea of the present scope of the growing science of communication. If so, we are in a position to consider the connection between the science and the task of modern librarianship.

¹Lasswell, Harold D., Casey, R. D., and Smith, B. L. *Propaganda and Promotional Activities; An Annotated Bibliography*. Minneapolis, University of Minnesota Press, 1935. 450p. A new volume forthcoming from the Princeton University Press in 1945 is "Propaganda, Public Opinion and Communication; An Annotated Bibliography" by B. L. Smith, Harold D. Lasswell, and R. D. Casey.

The Role of the Librarian

Since I am a political scientist, I make the following remarks with all due reserve. I take it for granted that modern librarians are not satisfied to be the guardians of the community wastebasket, but that they play a dynamic role in deciding what to conserve and what to neglect. Moreover, I take it for granted that one of the major functions of the library in civilized society is to prepare the sources for future historical and scientific understanding of the ever-expanding present. This implies that in a profound sense the progress of social intelligence depends upon the energy and vision of librarians, for intelligence in society depends upon insight and insight must be nourished upon research into the social inheritance and into the processes of social growth. And research is conditioned and limited by the sources; the anticipation of useful sources is the peculiar challenge of librarianship.

The scientific study of communication provides at least one intellectual tool of great potential usefulness to the librarian who faces the burden of choosing among contemporary sources. This tool is a concept, the concept of the focus of attention. Why this concept is important appears when we reflect on the nature of human response and remember that what people do is an outcome of two sets of determinative factors, one environmental, the other predispositional. When people buy, vote, or fight, they are responding to changes in their environment on the basis of the predispositions with which they entered it. Through any given day, month, season, year, decade, or generation, the environment of social groups is changing; and the acts of response by members of the group become part of the predisposition for the next contact with the environment. The observing and recording of social history is the process of describing for any period of time the interrelations of response and environment.

When we examine the social process from this point of view, we are made aware of another point: the part of the environment that most directly affects response is what comes to the attention of the potential responder. If we want to explain individual or group response, it is necessary to give special emphasis to facts about the focus of attention. To some extent this is a matter of describing group exposure to media of communication and calls for the record of broadcasts, magazines, newspapers, lectures, sermons, speeches, demonstrations, posters, theatrical performances, film shows. But it goes beyond media to the world of immediate experience, to the persons and objects of home, neighborhood, and workplace. If we are to create a scientifically useful record of the changing experience of representative groups in America or in any society during a selected period, we must somehow keep a significant record of what comes to the attention of the group.

What Librarian Should Do

The problem can be tackled in a systematic way by the librarian. The first question is to decide what communities are to be covered by the library in question, and with what degree of intensity. To some degree every repository in the world tries to provide some sources of information about the world as a whole. But in practice this quickly fades into highlighting certain nations, continents, regions, cities, localities, and certain economic, political, social, racial, religious, linguistic, sex, age, skill, and other groups. That such coverage is incomplete, and will always be incomplete, is obvious. The problem gets interesting when one faces up to the question of how to make the incomplete as rational as possible. This calls for the application of selective principles, of which the first has already been stated: *select communities* (global, continental, regional, local) for "very intensive," "less in-

tensive," and only "extensive" coverage.

After these choices have been made the next problem is to choose the *social values* whose distribution is to be sampled in the chosen communities. Representative social values are power, income, respect. (A value is an object of desire; the social structure is the grouping of people according to their share in the production and distribution of values during selected periods.) Specialists on social structure are usually sociologists, and the librarian can use them, together with economists who study population shifts, as consultants.

When the value list has been chosen, the next question is what *population characteristics* to choose in studying the degree of participation in the values. In the American nation, for instance, it is common knowledge that people with black skins do not have the same relative share of power, income, or respect as people with white skins. Hence, this is a significant criterion to use. Sharing also varies according to age, sex, skill (occupation, profession), linguistic accomplishment, religious attitude; and there are other differentiating indexes as well. Facts about the social structure are not only available from government reports and university research but from the commercial research of many private firms, and the library can wisely enlarge its staff of consultants to tap these vats of material.

Organizations in the Community

The next question concerns the *network of organizations* found in the communities whose social structure is known. It is possible to choose from among the many organized bodies those bearing a characteristic relationship to social structure. Some associations, such as certain women's clubs, may be affiliated with upper income and respect groups; others, like some foreign language benevolent orders, may be heavily

concentrated among low respect groups. Still others, like some political associations, draw members and officers from nearly all strata of society. (Insight into community structure in our civilization can be gained from such authors as W. Lloyd Warner and P. S. Lunt describing Yankee City, a series published by the Yale University Press.)

When the foregoing decisions have been provisionally made, it is possible to proceed rationally to the choice of sources that reveal the focus of attention on *mass media*. The library itself circulates to individuals occupying a determinate position in the local structure of society, and proper library records are exceedingly valuable (and improvable) sources of knowledge about the changing focus of attention.² Publishers in the larger cities know to what extent their newspapers circulate in high, middle, or low income areas. Information is also available about the popularity of radio stations and programs in different income groups.³ In a less satisfactory state is information about audiences at downtown and neighborhood motion picture houses. Inferences can be made regarding poster and sign audiences from traffic surveys or from occasional researches.

It is perhaps needless to call attention to the fact that it is necessary to keep in mind the distinction between channels originating locally and those originating outside the selected area. From various public and private sources estimates can be made of the circulation of outside newspapers, magazines, and radio broadcasts.

When the mass media have been chosen it is useful to return to the consideration of the public and private organizations and to decide which sources about each are to

² See, notably, Douglas Waples' *People and Print: Social Aspects of Reading in the Depression*. (University of Chicago Studies in Library Science) Chicago, University of Chicago Press, 1938. 228p.

³ For general orientation, see Paul Lazarsfeld's *Radio and the Printed Page*. New York City, Duell, Sloan & Pearce, 1940. 354p.

be covered. This is a matter of gauging the nature and frequency of organized activities that come to the attention of members and nonmembers. Meetings of many types can be recorded, including the agenda and minutes of business sessions of the membership at large and of officials. (In many cases the material must be held in confidence by the repository for an agreed upon period of years.)

Since committee meetings involve intense interaction between response and attention, they are of great social importance. It is possible to describe different groups in the committee (conference, legislature, or assembly) in terms of what it does and of what comes to its attention that others do.

Direct Experience

The next step is to bring the attention focused on mass media and on organized participations into proper perspective in relation to *direct experience*. What are the typical patterns of attention that characterize various groups? Common sense and research unite in affirming that there are great differences in the daily, seasonal, and long-term attention patterns of many elements of any population. Some housewives limit themselves to the household and pay little attention to mass media or organized meetings. To some extent these differences vary according to income level, but they are related to many other factors, such as agrarian or urban environment and level of education.

Very little systematic information is at hand about the activity calendar, including the focus of attention of representative groups. Several methods have been applied to the problem of acquiring such data, however. Volunteers have kept diaries or participant observers have noted the behavior of persons with whom they are associated.⁴ Under these circumstances it may be feasible for librarians themselves to

take the leadership in the gathering of data. I do not intend by this suggestion to imply that this is their responsibility solely; indeed, the responsibility is quite as much that of the historian, political scientist, sociologist, social psychologist, or other specialized and well-equipped person. My only point is that among the many opportunities for leadership in the expanding of social intelligence, the librarian can at least consider this one. By his initiative he may create a team of competent persons in his community and embark upon a continuing program of basic importance. In Great Britain the mass observation movement has succeeded in enlisting a great deal of voluntary aid from citizens throughout the length and breadth of the country. In America social scientific development has tended to be the province of highly trained professionals who have made little effort to interest the community as a whole in the enterprise. And both science and the community have lost something. Our studies have a high technical polish in many cases, but they do not contribute as fully as they might to social insight into the processes and problems of our society. Under the impetus of the war, psychologists and social scientists have taken the initiative in "rumor clinics" or in some other form of continuous observation and report on trends in communication. The librarian who reaches out for contact with interested persons may discover a powerful ally in his local university, college, normal school, or high school. Also, the level of commercial research has been rising in recent years, and many able persons are now engaged in it.

Librarian's Consultants

If the librarian organizes a team of consultants, he may be able to launch many

⁴For instance, see Pitirim A. Sorokin and Clarence Q. Berger's *Time-Budgets of Human Behavior*. (Harvard Sociological Studies, v. 2.) Cambridge, Harvard University Press, 1939. 204p.

routines that contribute material of great usefulness to his resources. Consider, for instance, the possibilities of a regular photographic reconnaissance of selected points in the locality or region. At periodic intervals the major traffic centers can be photographed in order to bring out the posters and signs, thus adding to our documentation of public attention. Local camera clubs are often eager for guidance and would gladly participate in a community history project. Members of such clubs and of local history societies can be prevailed upon to keep diaries or to make reliable participant-observer notes.

By proper planning the librarian and his associates can introduce the serial principle into types of records where it has not previously applied. The simplest way to introduce it is to look at the same place at regular intervals. This is the advantage of photographing the announcements visible at traffic centers at regular seasons of the year. Ordinarily records of this kind are left, if at all, in haphazard fashion, and their historical and scientific usefulness is much reduced.

If the program here projected is carried out, it is obvious that libraries must be willing to handle far more diversified types of material than has been conventional in the past. A library of recordings, for instance, is necessary if radio broadcasts are to be properly covered. Scripts are of less value than what actually goes out over the microphone (although libraries can wisely arrange with local stations to turn over scripts, from which selections can be made; such scripts are usually destroyed after a protection period running from six months to two years). Arrangements can be made to obtain recordings of locally originating programs of various types at all seasons of the year. A valuable source is the "log" of a radio station, since all programs are a matter of record. At regular intervals

the log should be photographed. Besides recordings, the library needs to make provisions for films. By cooperating with local newspapers it is often possible to cover significant local events with proper sound and motion picture equipment.

Another type of material of great potential value is research data, especially original data sheets and other work papers used in local community studies. Local polls may be conducted after the pattern made well known by George Gallup and Elmo Roper (*Fortune*). Social psychologists also use intensive interviews and other means of data gathering.⁵

Librarians and library consultants will do well to give special thought to the task of sampling the highly specialized media of mass communication. Newspapers are recipients of thousands of words of material per day over the press association news ticker, by mail, by phone, by interview. Only a fraction of the "input" is eventually used. It is important to have the raw material available for selection at each step of the editing process. Hence, the "editor's wastebasket" ought to be emptied at stated periods as part of the social history of communication.

Conclusion

In what has been said up to this point, no mention has been made of how the science of communication bears upon the communication problem of the library itself. I have deliberately sacrificed this part of the subject in order to focus upon the long-term contribution that wise librarianship can make to social intelligence. Emphasis has been put upon the scientific importance of describing the changing structure of community attention, but I cannot refrain from

⁵ An excellent statement of the tools available for research on communication is in Douglas Waples, Bernard R. Berelson, and Franklyn R. Bradshaw's *What Reading Does to People*. (University of Chicago Studies in Library Science) Chicago, University of Chicago Press, 1940. 222p.

saying that the focus of attention is of more than scientific importance. By examining what comes to the notice of people we are enabled to gain insight into their inner lives. One way to know the mountaineer, the plainsman, or the shore dweller; to permeate into the lives of city people, villagers, and countrymen; to get behind the masks of residents of Moscow, Chungking, or Chi-

cago—in short, one way to understand the thoughts and feelings of man—is to become acquainted with what he has seen, heard, touched, and read.⁶

⁶ These and many other points are developed in *Print, Radio, and Film in a Democracy: Ten Papers on the Administration of Mass Communications in the Public Interest, Read before the Sixth Annual Institute of the Graduate Library School, the University of Chicago, August 4-9, 1941.* Waples, Douglas, ed. Chicago, University of Chicago Press, 1942. 197p.

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Comment by GLEN BURCH

Communication and the Community

Dr. Lasswell's suggestion that librarians take the initiative in promoting and carrying on a piece of social research at the community level—and specifically in the realm of the science of communication—is an extremely provocative one. It is refreshing indeed to find a scientist who thinks well enough of the profession of librarianship to believe that its members are capable of taking leadership in performing a piece of research in his own field. Public librarians (and I think it is clear that Dr. Lasswell's remarks are addressed primarily to them) are not popularly supposed to have any great capacities for research.

Dr. Lasswell apparently is not only willing to have librarians take the leadership in this research project; he envisages them carrying it out in cooperation with a group of amateur social scientists! This is going to be pretty strong stuff for many of his fellow scientists, but I believe Dr. Lasswell is on firm ground. For it is perfectly true that "in America social scientific development has tended to be the province of highly trained professionals who have made little effort to interest the community as a whole in the enterprise," and it is probably high time that something was done about it. As a practical way in which to begin to get community participation in social research, Dr. Lasswell's proposal may be open to question. But in placing emphasis on the greater lay experience in and responsibility for this kind of activity, he is beyond doubt pointing up one of the profound needs of our time. As a matter of fact, of course, the need for greater community participa-

tion in this kind of research is beginning to be met in some towns and cities through the medium of the social survey. Hundreds, possibly thousands, of communities have conducted social surveys of one kind or another in the process of making plans for that post-war world. Some have been pretty badly done. But some have been remarkably good. And in all instances quite a number of lay people have become acquainted with at least one tool of the social scientist. And in the process they have come into communication with one another and with the community at large. They may have made no "long-term contribution . . . to social intelligence," but they have taken a step in that direction.

Librarians, along with representatives of other local agencies, have taken part in most of these surveys. I am afraid, however, that rarely have they assumed leadership. And this brings me back to Dr. Lasswell's proposal. How can he expect librarians to take the initiative in setting up a highly complicated and indefinitely prolonged research project in the social history of communication, when they have on the whole not been able, for one reason or another, to take leadership in research projects at a much more elementary level and in which there is already widespread interest? Has he misjudged the librarians after all?

The Function of the Library

I do not think that it is so much a question of misjudging librarians as of misjudging the central function of the institution to which they are attached. It is true that one of the