

## A METHOD OF STUDYING RUMOR TRANSMISSION

by

Kurt Back, Leon Festinger, Bernard  
Hymovitch, Harold Kelley, Stanley  
Schachter and John Thibaut

Interest in the rumor process has mainly centered upon the content of rumors (2,5), distortions in rumors (1) and how widely circulated they are (2,3). Fantastically false rumors easily attract attention and are frequently taken as dramatic illustrations of the more general process. There has been little attempt to study the details of the transmission of rumors or information except with respect to distortions which occur.

There are a number of questions concerning the exact details of such social transmission processes which are important to answer for an adequate understanding of the process. These questions can be summarized as: "What are the determinants of who communicates what to whom?" In order to be able to answer specific parts of this general question a methodology must be on hand which can:

- (1) Obtain accurate reporting of the rumor or information at various points in its transmission.
- (2) Obtain accurate reporting of all, or an adequate sample of, the communications which take place.

The technical methodological problems which one faces here seem to be quite difficult. In the laboratory the investigator can approach a solution by close observation of his group which through his manipulation has a limited life span and a narrow space of free movement. The experimenter may even restrict communication to written messages in order to preserve the content and he may intercept these messages to record time and direction of transmission. In studying real life situations, however, such controls are not available. We shall discuss two methods which have been used to date to study the details of the communication process in real life situations.

### Post Rumor Interviews

This method consists of interviewing all or a sample of the members of the social structure at some point in time after a given rumor has been circulating. The interview may include questions about whether or not the person has heard specific things, from whom did he hear

them, to whom has he told them, and when and in what settings have these transmissions taken place. If the total organization can be interviewed the method has the obvious advantage of obtaining data from every member. Thus, on the surface, the method appears clearly adequate to study the problems involved.

Two experiences in the use of this method for studying the transmission of information indicate that there are serious difficulties in its use. Most of these difficulties center about the inability of people to report from whom they heard things and to whom they told them. Certainly after considerable time has elapsed, and even after only a short time interval, only very vague and unreliable information about transmission is obtained in this manner.

Festinger, Cartwright, et. al. (3) attempted to study the details of the transmission of a rumor which had arisen spontaneously in a housing project. The rumor was hostile to a program of community activities then underway in the project. Its content was quite dramatic and it had considerable impact on the community, causing a temporary cessation of all community activities. A sample of the residents of the project were interviewed about six months after the rumor. They were asked questions to find out whether or not they had heard the rumor and from whom, whether or not they had told the rumor and to whom.

The rumor had been dramatic enough in its content and in its impact on the community for the residents to have had clear memories for it. There was no difficulty in determining whether they had or had not heard the rumor. Those who had heard it were quite definite about it and were able to recall quite small details of its content. There was much more vagueness about whether or not they had told the rumor. Many didn't know and responses such as "I may have or may not have - I can't remember" were quite common. No data at all could be obtained about from whom they had heard it or to whom they had told it. Here there was complete vagueness. People simply did not know these details of the transmission.

Festinger, Schachter and Back (4) attempted to study rumor transmission making the best possible use of an interview method. Instead of using a spontaneous rumor whose origins might be difficult to trace they planted, in quite realistic fashion, two clearly distinguishable items of information in a community. The items of information were relevant to activities in which the community was engaging. All residents of the community were interviewed from 24 to 48 hours after the items had been planted.

Even after such a short interval there was considerable vagueness in the responses to the interviews concerning from whom they heard the information and to whom they told it. Some could not remember from whom they had heard it; some reported not having told it although others reported having heard it from them. It was possible, however, to make a reconstruction of unknown accuracy of the transmission

process in spite of the fact that there were relatively few transmissions where the data gathered from the communicator and the recipient checked completely. With anything less than a 100% coverage of the members of the community the data would have been of very little value.

It almost seems as though people perceive and remember only the "thing," that is, the content of information, and tend not to perceive the medium through which it comes, that is, who tells it to them. More explorations seem indicated of possible improvements in using interviews to record transmission of information but it seems clear that this method is not the final answer to our problem.

### Participant Observation

This method consists essentially of having the communication process observed by cooperating members within the social structure which we wish to study. We shall, below, describe a use of participant observers which we employed to study the direction of communication in a hierarchical organization. Our primary interest was in whether particular kinds of information would tend to be relayed in upward or downward directions within the authority structure of the group.

The first step was to get the permission of the director of the organization to employ this technique and to obtain from him information about the authority structure, work structure and physical arrangement of the organization. The organization had five levels in its hierarchy and employed about 55 members. On the basis of the director's information we selected a small number of members at different levels in the organization to act as our cooperating observers. These cooperators were also interviewed in order to obtain their perceptions of the various structural aspects of the organization and also to obtain knowledge about sociometric groupings within it. This additional information (which was considerably more detailed with respect to certain parts of the organization than that which we had obtained from the director) indicated the necessity for adding other persons to our list of cooperating observers. Eventually, we had a group of seven participant observers selected out of the total organization. The bases for selecting these cooperators were as follows:

1. There should be a cooperator from each of the major authority levels of the organization.
2. The cooperators should be strategically placed within the sociometric structure of the organization; that is, each of the major social cliques within the group should be represented.
3. The cooperators should be spread around in terms of their work location.
4. People should be selected who would be motivated to do a good job and who would be able to maintain secrecy about their observer functions for the course of the study.

The plan of the study was to plant a series of rumors at various levels in the organization and to have the cooperators record the transmissions of these planted items as thoroughly as possible. Before each rumor was planted each cooperator was told when it was to be planted and the exact content of the rumor involved. Because of our interest in studying the direction of the transmission, and so as not to bias the cooperators, they were not told with whom the rumor was to be planted.

Since each rumor was only a very small part of the total volume of communication within the organization, the cooperators would be behaving naturally in their member roles for the greater part of their working day. When the rumor was told to them or when they overheard it, they were instructed (if it were at all natural or possible without arousing suspicion) to ask questions of the person telling the rumor in order to ascertain as much as they could about more remote links in its transmission. They were also instructed to record accurately the content of the rumor as they heard it and other information they had learned as soon as possible after hearing it. These records containing the time of hearing the rumor, the specific content, from whom it was heard and to whom it was told were transmitted to the investigators within several hours so that we were able to keep very close track of the progress of the rumors. The cooperators were instructed never to pass the current rumor on. The first time they heard the rumor they were to act as if it were new to them. Then, in order to avoid possible detection, the second time they heard it they were to indicate that they had heard something about it but wanted to know more.

The procedure seemed to be quite feasible and no cooperator reported any difficulty or any unnatural behavior being forced on their part. Having to watch for only one rumor at a time placed no undue burden upon them and permitted them to carry on their normal behavior. During a four month period nine separate rumors were planted in the organization - some of which spread considerably and others not at all. At the end of the four month study we conducted a group interview with the total membership of the organization in an attempt to ascertain, for each of the rumors, all of the persons who had heard it. By checking these data against the more detailed data obtained from our cooperators we could estimate the extent of coverage of the communication process which we had obtained using seven cooperators. The data from the cooperators accounted for 78% of the persons who reported having heard any of the rumors. In other words, using 13% of the organization as cooperators we were able to obtain data on 78% of the communications that occurred.

Some of our findings from this study will give an indication of the value of this method of data collection. Of the nine rumors which were planted two were relevant mainly to a particular subgroup within the organization. The other seven rumors which were relevant to the entire

organization produced 17 acts of communication which our cooperators recorded.<sup>1</sup> Eleven of these communications were directed upward in the hierarchy, four were directed to some one on the same level as the communicator and only two communications were directed downward.

The other two rumors were relevant mainly to a six-member morale committee which existed in the organization. One of our cooperators was a member of this committee. The rumor, that some questionnaire data the morale committee had gathered were lost, was planted within the committee. In about fifteen minutes it had spread to the entire committee. In four days, however, there was only one communication about it to anyone outside the committee.

Four days after this rumor had been inserted, the rumor that the data had been found was planted in the committee. Within one hour this information had been communicated to all but one of the members of the committee. This last member, the representative of the lowest status level in the organization, did not find out about it until she specifically asked one of the other committee members about developments concerning the data. This time there were no communications at all to anyone outside of the committee.

One of the rumors which did not spread at all clearly evoked very strong restraints against communication. The rumor concerned the impending aggravation of a condition which was already a source of much discontent. Both persons with whom it was planted, when asked about it later, said they did not want to be identified as knowing anything about this matter and so had not told anyone about it. Why in this case such restraints were aroused while in other instances, which we know about anecdotally, such "fear provoking" rumors spread considerably is an extremely interesting problem.

These results of this frankly exploratory study are certainly suggestive enough to indicate that additional work along such lines will be fruitful.

#### Difficulties of the Method of Participant Observation

There are two weaknesses which are now apparent in the use of participant observers to record communication processes. It will take considerable further work to estimate accurately the seriousness of these weaknesses and to design methods of overcoming them.

- (1) Bias in the sampling of communications recorded: The data gathered by means of cooperators can clearly never be actually all of the communications which occur concerning a particular item. We must consequently regard the method as a technique of sampling

---

<sup>1</sup> Two of the rumors produced no acts of communication at all. Some reasons for the low amount of communication obtained will be given below.

from the total number of communications which occur and we must be concerned with the problem of the randomness of the sample which we obtain. In the study described above we failed to record slightly more than 20% of the communications which took place. We have no indication of selective factors which may or may not have operated in making this 20% different from the 80% which we did record.

(2) Artificial limiting of the communication process: In the study which we described we do not know to what extent the rule against our cooperators themselves transmitting the rumor restricted the spread below what it would normally have been or perhaps even altered the direction in which items might have been communicated. In essence the method involved closing up a number of links in the usual communication network. The criteria which we used in selecting cooperators (the adequacy of which was probably responsible for the large degree of coverage which we obtained) obviously meant the removal from the communication chains of fairly important persons: persons who were at the center of sociometric cliques or who were in strategic positions in the work structure. These persons might under normal circumstances have been the main transmitters of such information and rumor. Methodological research which would give us knowledge of the effects of such removal of links in the communication chains is necessary.

(3) The practical problems of doing such research cannot be ignored. Many organizations will have considerable hesitation about allowing rumors to be planted and about allowing their members to act as data collectors. Even an organization which will permit such a study to be made will undoubtedly impose severe limitations on the content and nature of the rumors to be planted. The feelings of the cooperators about indulging in such "secret activities" and the possible effects of later revealing their role must also be seriously considered.

These problems can be solved, and were in the pilot study which we conducted, but their solution is a necessary prerequisite to conducting the research.

#### REFERENCES

1. Allport, G. and Postman, L. The Psychology of Rumor, Henry Holt, New York, 1947.
2. Caplow, T. Rumors in War. Social Forces, 1947, 25, 298-302.
3. Festinger, L., Cartwright, D. et. al. A Study of a Rumor: Its Origin and Spread, Human Relations, 1948, 1, 464-486.
4. Festinger, L., Schachter, S. and Back, K. Social Pressures in Informal Groups: A Study of a Housing Project, Harpers, New York, 1950.
5. Knapp, R. H., A Psychology of Rumor, Public Opinion Quarterly, 1944, 8, 22-37.

4867

**THEORY AND EXPERIMENT  
IN  
SOCIAL COMMUNICATION**

**BY  
LEON FESTINGER  
KURT BACK  
STANLEY SCHACHTER  
HAROLD H. KELLEY  
JOHN THIBAUT**

**RESEARCH CENTER FOR DYNAMICS  
INSTITUTE FOR SOCIAL RESEARCH  
UNIVERSITY OF MICHIGAN**

**REPORT OF STUDIES UNDER OFFICE OF NAVAL RESEARCH CONTRACT  
OCTOBER, 1950**

# TABLE OF CONTENTS

	Page
Part I. Theoretical Integration . . . . .	1
Informal Social Communication by Leon Festinger. . . . .	3
Part II. Experiments on Pressures Toward Uniformity . . . . .	19
The Exertion of Influence Through Social Communication by Kurt Back. . . . .	21
Interpersonal Communication in Small Groups by Leon Festinger and John Thibaut . . . . .	37
Deviation, Rejection and Communication by Stanley Schachter . . . . .	51
Part III. Experiments in Hierarchical Structures. . . . .	83
An Experimental Study of the Cohesiveness of Underprivileged Groups by John Thibaut . . . . .	85
Communication in Experimentally Created Hierarchies by Harold H. Kelley . . . . .	98
A Method of Studying Rumor Transmission by Kurt Back, Leon Festinger, Bernard Hymovitch, Harold H. Kelley, Stanley Schachter, and John W. Thibaut. . . . .	118