SECTION OF PSYCHOLOGY

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DOCTOR GORDON W. ALLPORT and DOCTOR LEO J. POSTMAN,* Department of Psychology, Harvard University, Cambridge: *The Basic Psychology of Rumor.* (This lecture was illustrated by lantern slides.)

Although the disadvantages of war far outweigh its advantages, yet we may reckon among its meagre benefits the powerful incentives and exceptional opportunities that war gives to scientists to advance their knowledge in fields which normally they neglect to explore or are wont to explore in a desultory fashion. Social psychology is one of the sciences whose work has been greatly stimulated during the recent conflict. Under the stress of wartime needs, it has made significant progress in several areas of investigation. Among them, we name propaganda analysis, morale studies, public opinion measurement, food habits, group therapy, situational tests for selecting personnel, minority group problems, the nature of prejudice, of re-education, and of rumor.[1] It is the last area of progress that we shall here explore.

RUMORS IN WARTIME

During the year 1942, rumor became a national problem of considerable urgency. Its first dangerous manifestation was felt soon after the initial shock of Pearl Harbor. This traumatic event dislocated our normal channels of communication by bringing into existence an unfamiliar and unwelcome, if at the same time a relatively mild censorship of news, and it simultaneously dislocated the lives of millions of citizens whose futures abruptly became hostages to fortune.

This combination of circumstances created the most fertile of all possible soils for the propagation of rumor. We now know that *rumors concerning a given subject-matter will circulate within a group in pro-*

* This paper was presented by Dr. Allport.

[1] For a review of civilian wartime investigations in these fields, see **G. W. Allport & H. R. Veltfort** Social Psychology and the Civilian War Effort, J. Soc. Psychol. (S.P.S.S.I. Bulletin). **18:** 165–233, 1943; **G. R. Schmeidler & G. W. Allport** Social Psychology and the Civilian War Effort, May 1943–May 1944. J. Soc. Psychol. (S.P.S.S.I. Bulletin) **20:** 145–180. 1944.

portion to the importance and the ambiguity of this subject-matter in the lives of individual members of the group.

The affair of Pearl Harbor was fraught with both importance and ambiguity to nearly every citizen. The affair was important because of the potential danger it represented to all of us, and because its aftermath of mobilization affected every life. It was ambiguous because no one seemed quite certain of the extent of, reasons for, or consequences of the attack. Since the two conditions of rumor—importance and ambiguity—were at a maximum, we had an unprecedented flood of what became known as "Pearl Harbor rumors." It was said that our fleet was "wiped out," that Washington didn't dare to tell the extent of the damage, that Hawaii was in the hands of the Japanese. So widespread and so demoralizing were these tales that, on February 22, 1942, President Roosevelt broadcast a speech devoted entirely to denying the harmful rumors and to reiterating the official report on the losses.

Did the solemn assurance of the Commander-in-Chief restore the confidence of the people and eliminate the tales of suspicion and fear? It so happens that a bit of objective evidence on this question became available to us almost by accident. On the twenty-first of February, the day before the President's speech, we had asked approximately two-hundred college students whether they thought our losses at Pearl Harbor were "greater," "much greater," or "no greater" than the official Knox report had stated. Among these students, 68 per cent had believed the demoralizing rumors in preference to the official report, and insisted that the losses were "greater" or "much greater" than Washington admitted. Then came the President's speech. The next day, an equivalent group of college students were asked the same question. Among those who had not heard or read the speech the proportion of rumor-believers was still about two-thirds. But among those who were acquainted with the President's speech, the number of rumor-believers fell by 24 per cent. It is important to note that, in spite of the utmost efforts of the highest authority to allay anxiety, approximately 44 per cent of the college population studied were too profoundly affected by the event and by the resulting rumors to accept the reassurance.

The year 1942 was characterised by floods of similar fear-inspired tales. Shipping losses were fantastically exaggerated. Knapp records one instance where a collier was sunk through accident near the Cape Cod Canal. So great was the anxiety of the New England public that

this incident became a fantastic tale of an American ship being torpedoed with the loss of thousands of nurses who were aboard her.[2]

Such wild stories, as we have said, are due to the grave importance of the subject for the average citizen and to the ambiguity to him of the objective situation. This ambiguity may result from the failure of communications, or from a total lack of authentic news, a condition that often prevailed in war-torn countries or among isolated bands of troops who had few reliable sources of news. Again, the ambiguity may be due to the receipt of conflicting news stories, no one more credible than another; or it may be due (as in the case of the Pearl Harbor rumors) to the distrust of many people in the candor of the Administration and in the operation of wartime censorship. As the war progressed, a higher degree of confidence in our news services was rapidly achieved, and rumors concurrently subsided.

In addition to the fear-rumors of 1942, which persisted until the tide of victory commenced to turn, there was a still more numerous crop of hostility-rumors whose theme dealt always with the shortcomings, disloyalty, or inefficiency of some special group of co-belligerents. The Army, the Navy, the Administration, our allies, or American minority groups were the most frequent scapegoats in these rumors. We were told that the Army wasted whole sides of beef, that the Russians greased their guns with lend-lease butter, that Negroes were saving ice-picks for a revolt, and that Jews were evading the draft.

These hostility rumors were the most numerous of all. An analysis of 1000 rumors collected from all parts of the country in 1942,[3] revealed that they could be classified fairly readily as:

Hostility (wedge-driving) rumors	=	66 per cent
Fear (bogey) rumors	=	25 per cent
Wish (pipe-dream) rumors	=	2 per cent
Unclassifiable rumors	=	7 per cent
TOTAL		100 per cent

To be sure, the proportion of fear and wish rumors soon altered. As victory approached, especially on the eve of VE and VJ day, the whirlwind of rumors was almost wholly concerned with the cessation of hostilities, reflecting a goal-gradient phenomenon whereby rumor under special conditions hastens the completion of a desired event. But,

[2] **R. H. Knapp** A Psychology of Rumor. Pub. Op. Quart. 8: 22–37. 1944.
[3] **R. H. Knapp** op. cit.: 25.

throughout the war and continuing to the present, it is probably true that the majority of all rumors are of a more or less slanderous nature, expressing hostility against this group or that.

The principal reason why rumor circulates can be briefly stated. It circulates because it *serves the twin function of explaining and relieving emotional tensions felt by individuals.*[4]

The Pearl Harbor rumors, for example, helped to *explain* to the teller why he felt such distressing anxiety. Would his jitters not be justified if it were true that our protecting fleet was "wiped out" at Pearl Harbor? Something serious must have happened to account for his anxiety. Families deprived of sons, husbands or fathers, vaguely cast around for someone to blame for their privation. Well, the Jews, who were said to be evading the draft, were "obviously" not doing their share and thus the heavy burden falling on "good citizens" was explained. True, this draft-evasion charge did not last very long, owing, no doubt, to the inescapable evidence of heavy enlistments among Jews and of their heroic conduct in the war. But when shortages were felt, the traditional Jewish scapegoat was again trotted out as a convenient explanation of the privations suffered. Their operation of the black market "explained" our annoying experiences in the futile pursuit of an evening lamb-chop.

To blame others verbally is not only a mode of explanation for one's emotional distress, but is at the same time a mode of *relief.* Everyone knows the reduction of tension that comes after administering a tongue-lashing. It matters little whether the victim of the tongue-lashing is guilty or not. Dressing down *anyone* to his face or behind his back has the strange property of temporarily reducing hatred felt against this person or, what is more remarkable, of reducing hatred felt against any person or thing. If you wish to deflate a taut inner-tube you can unscrew the valve or you can make a puncture. Unscrewing the valve corresponds to directing our hostility toward the Nazis or Japanese, who were the cause of our suffering. Making a puncture corresponds to displacing the hostility upon innocent victims

[4] This brief formula leaves out of account only the relatively few rumors which seem to serve the purpose of "phatic communication,"—a form of idle conversation to facilitate social intercourse. When a lull occurs in a conversation, an individual may "fill in" with the latest bit of gossip that comes to mind, without being motivated by the deeper tensions that underlie the great bulk of rumor-mongering.

In this paper we cannot enter into a fuller discussion of the reasons why people believe some rumors and not others. This question is carefully studied by **F. H. Allport & M. Lepkin** Wartime Rumors of Waste and Special Privilege: Why Some People Believe Them, J. Abnorm. & Soc. Psychol. **40:** 3–36. 1945.

or scapegoats. In either case, the air will escape and relaxation follow. To blame Jews, Negroes, the Administration, brass hats, the OPA, or the politicians, is to bring a certain relief from accumulated feelings of hostility whatever their true cause. Relief, odd as it may seem, comes also from "bogey" rumors. To tell my neighbor that the Cape Cod Canal is choked with corpses is an easy manner of projecting into the outer world my own choking anxieties concerning my son or my friends in combat service. Having shared my anxiety with my friend by telling him exaggerated tales of losses or of atrocities, I no longer feel so much alone and helpless. Through my rumor-spreading, others, too, are put "on the alert." I therefore feel reassured.

That rumors were harmful to national morale was quickly recognized both by federal authorities and by civilian leaders of opinion. The efforts of the FBI to trace subversive rumors constitute a story yet to be told; the preventive campaign conducted by OWI and other federal agencies marks another chapter in the story; the establishment of "Rumor Clinics" in at least 40 newspapers in the United States and Canada is yet another. Lectures, pamphlets, movies, posters, and "rumor-wardens" all formed part of the campaign. This activity was at its peak during 1942–43. As victory became assured, the emotional insistency of anxiety and hate subsided, news services became more widely believed, rumor lessened, and the immediate crisis passed.

Though it was the darker days of the war that focused our attention upon rumor as a grave social problem, still the mischief of rumor and gossip is something we always have with us. At the present time, there is reason to suppose that we may be headed for another critical period of rumor-mongering, since we anticipate sharp clashes between minority groups of Americans and majority groups during the coming years of social readjustment. Records of the bitter race conflicts in Los Angeles, Beaumont, Harlem, Philadelphia, and Detroit have taught us what a close association exists between rumors and riot. The tie is so intimate that one of the best barometers we have of social strain lies in the analysis of rumors circulating in a tense community.[5]

Experimental Approach

Leaving now the broader social setting of the problem, we ask

[5] For an account of the relation of rumors to riots see **A. McC. Lee & N. D. Humphrey** Race Riot. Dryden Press. New York. 1943; and **J. E. Weckler & T. E. Hall** The Police and Minority Groups. Internat. City Managers Association. Chicago. 1944.

ourselves what processes in the human mind account for the spectacular distortions and exaggerations that enter into the rumor-process, and lead to so much damage to the public intelligence and public conscience.

Since it is very difficult to trace in detail the course of a rumor in everyday life, we have endeavored by an experimental technique to study as many of the basic phenomena as possible under relatively well controlled laboratory conditions.

Our method is simple. A slide is thrown upon a screen. Ordinarily, a semi-dramatic picture is used containing a large number of related details. Six or seven subjects, who have not seen the picture, wait in an adjacent room. One of them enters and takes a position where he cannot see the screen. Someone in the audience (or the experimenter) describes the picture, giving about twenty details in the account. A second subject enters the room and stands beside the first

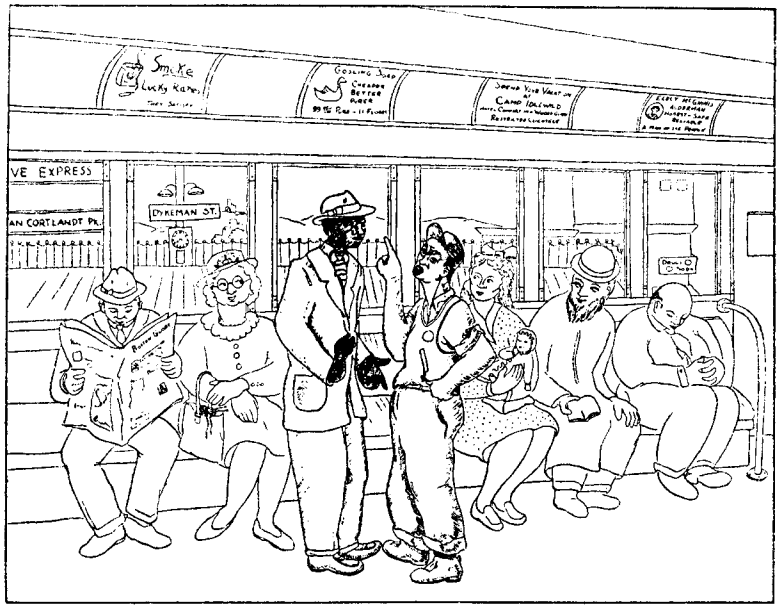

FIGURE 1. A sample of pictorial material employed in the experiments.—When the experiment was conducted at the New York Academy of Sciences, the terminal (sixth) report ran as follows:

> "A subway scene on the IRT, between Van Cortlandt Park and Dyckman Street. Four people are standing, two are seated. There is a colored man and a white man. One of them has a razor." (In the ante-terminal report, it was said that the Negro held the razor.)

subject who proceeds to tell him all he can about the picture. (All subjects are under instruction to report as "accurately as possible what you have heard.") The first subject then takes his seat, and a third enters to hear the story from the second subject. Each succeeding subject hears and repeats the story in the same way. Thus, the audience is able to watch the deterioration of the rumor by comparing the successive versions with the stimulus-picture which remains on the screen throughout the experiment.

This procedure has been used with over forty groups of subjects, including college undergraduates, Army trainees in ASTP, members of community forums, patients in an Army hospital, members of a Teachers' Round Table, and police officials in a training course. In addition to these adult subjects, children in a private school were used, in grades from the fourth through the ninth. In some experiments, Negro subjects took part along with whites, a fact which, as we shall see, had important consequences when the test-pictures depicted scenes with a "racial angle."

All of these experiments took place before an audience (20–300 spectators). By using volunteer subjects, one eliminates the danger of stage fright. There was, however, a social influence in all the audience situations. The magnitude of this influence was studied in a control group of experiments where no one was present in the room excepting the subject and the experimenter.

At the outset, it is necessary to admit that in five respects this experimental situation fails to reproduce accurately the conditions of rumor-spreading in everyday life. (1) The effect of an audience is considerable, tending to create caution and to shorten the report. Without an audience subjects gave on the average twice as many details as with an audience. (2) The effect of the instructions is to maximize accuracy and induce caution. In ordinary rumor-spreading, there is no critical experimenter on hand to see whether the tale is rightly repeated. (3) There is no opportunity for subjects to ask questions of his informer. In ordinary rumor-spreading, the listener can chat with his informer and, if he wishes, cross-examine him. (4) The lapse of time between hearing and telling in the experimental situation is very slight. In ordinary rumor spreading, it is much greater. (5) Most important of all, the conditions of motivation are quite different. In the experiment, the subject is striving for *accuracy*.

His own fears, hates, wishes are not likely to be aroused under the experimental conditions. In short, he is not the spontaneous rumor-agent that he is in ordinary life. His stake in spreading the experimental rumor is neither personal nor deeply motivated.

It should be noted that all of these conditions, excepting the third, may be expected to enhance the accuracy of the report in the experimental situation, and to yield far less distortion and projection than in real-life rumor-spreading.

In spite of the fact that our experiment does not completely reproduce the normal conditions for rumor, still we believe that all essential changes and distortions are represented in our results. "Indoor" rumors may not be as lively, as emotionally-toned, or as extreme as "outdoor" rumors, and yet the same basic phenomena are demonstrable in both.

What happens in both real-life and laboratory rumors is a complex course of distortion in which three inter-related tendencies are clearly distinguishable.

LEVELING

As rumor travels, it tends to grow shorter, more concise, more easily grasped and told. In successive versions, fewer words are used and fewer details are mentioned.

The number of details *retained* declines most sharply at the beginning of the series of reproductions. The number continues to decline, more slowly, throughout the experiment. FIGURE 2 shows the percentage of the details initially given which are retained in each successive reproduction.

The number of items enumerated in the description from the screen constitutes the 100 per cent level, and all subsequent percentages are calculated from that base. The curve, based on 11 experiments, shows that about 70 per cent of the details are eliminated in the course of five or six mouth-to-mouth transmissions, even when virtually no time lapse intervenes.

The curve is like the famous Ebbinghaus curve for decline in individual retention, though in his experiments the interval between initial learning and successive reproductions was not as short as under the conditions of our experiment. Comparing the present curve with Ebbinghaus's, we conclude that *social memory accomplishes as much*

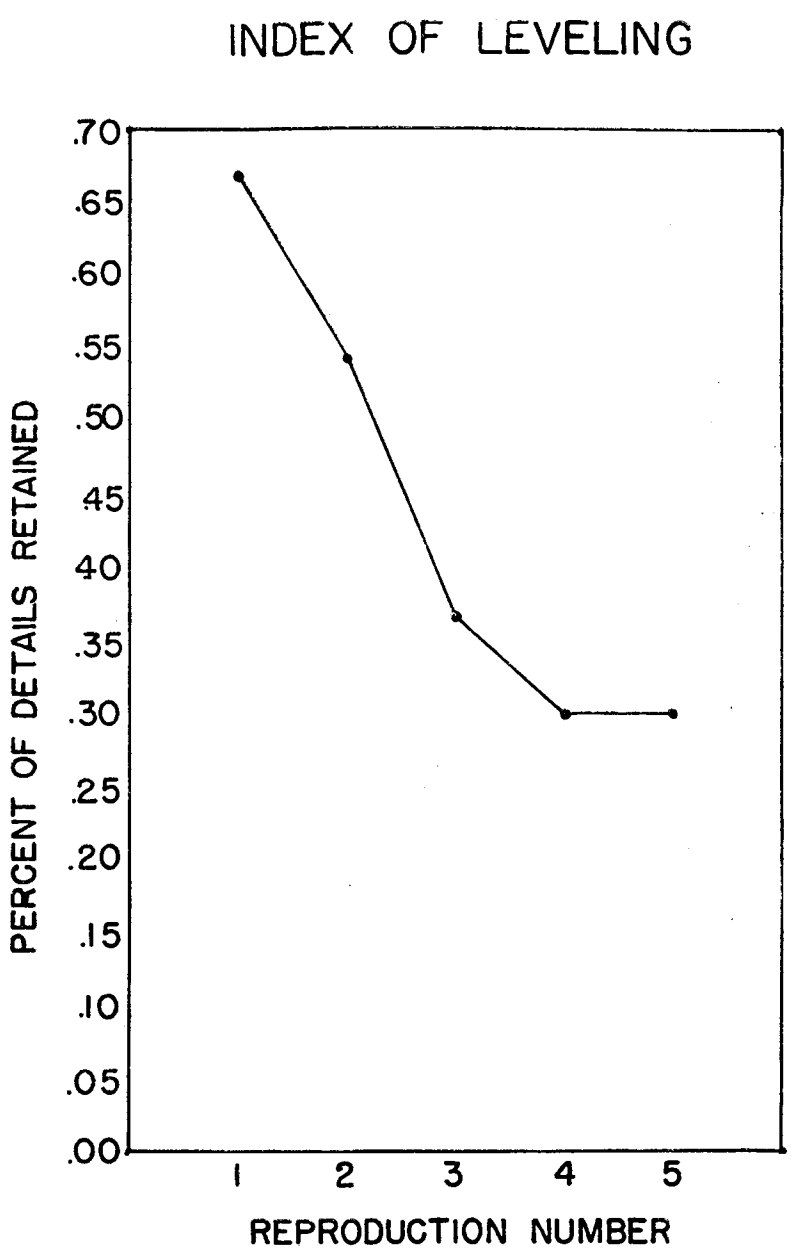

FIGURE 2. Percentage of details originally given which are retained in each successive reproduction.

leveling within a few minutes as individual memory accomplishes in weeks of time.

Leveling (in our experiments) never proceeds to the point of total obliteration. The stabilization of the last part of the curve is a finding of some consequence. It indicates (1) that a short concise statement is likely to be faithfully reproduced; (2) that when the report has become short and concise, the subject has very little detail to select from and the possibilities of further distortion grow fewer; (3) that the assignment becomes so easy that a virtually rote memory serves to hold the material in mind. In all cases, the terminal and the anteterminal reports are more similar than any two preceding reports.

The reliance on rote is probably more conspicuous in our experiments than in ordinary rumor-spreading, where accuracy is not the aim, where time interval interferes with rote retention, and where strong interests prevent literal memory. There are, however, conditions where rote memory plays a part in ordinary rumor-spreading. If the individual is motivated by no stronger desire than to make conversation, he may find himself idly repeating what he has recently heard in the form in which he heard it. If a rumor has become so crisp and brief, so sloganized, that it requires no effort to retain it in the literal form in which it was heard, rote memory seems to be involved. For example:

The Jews are evading the draft
The CIO is communist controlled
Wallace believes in a pint of milk for every Hottentot

The importance of rote has been recognized by the writers of advertisements. They endeavor to make their slogans brief, concise, rhythmic and easy to remember:

Lucky Strikes mean finer tobacco
Smoke Chesterfields—they satisfy
Duz does everything

Similarly, many legends and superstitions have been abbreviated to such an aphoristic point that it is almost impossible to forget them:

Stuff a cold and starve a fever
An apple a day keeps the doctor away
A red sky at night, the sailor's delight
Spare the rod and spoil the child
Early to bed and early to rise makes a man healthy and wealthy and wise

We conclude that whenever verbal material is transmitted among a group of people whether as rumor, legend, or history, change will be in the direction of greater brevity and conciseness. Leveling is not a random phenomenon—we note in the following protocol how a group of soldier subjects tends to retain a military orientation throughout their series of reports.

Protocol A

Description from the screen: The scene is laid in France during wartime. Several men in uniform are obvious. Two of them are firing, one is on his back wounded, with a bandage around his knee. There is a Negro soldier standing, ready to throw a hand-grenade. Behind them there is a destroyed building with one doorway. There is a sign at the crossroads, reading "Cherbourg 21½ km., Paris 50 km." There is also a sign reading "Pain et Vin." There are shells at the sides of the wrecked building. Behind the building there is a church with a big roof hole. The church has a steeple, with the clock showing ten minutes to two. There are two aeroplanes behind the church, as there are explosions to be seen. There is an ambulance at the extreme right, with men coming out with shells. Sign, "Bread and Wine."

First Reproduction: The scene is laid in France. There are two soldiers in a trench, close behind them, is another, wounded. Nearby there is a wrecked house. A Negro soldier is throwing a grenade. There are signs reading "50 miles to Cherbourg and 21 miles to Paris." There is a church with a steeple, showing ten minutes to two. The designation of shells bursting indicates that there is a battle going on. There is an ambulance somewhere in the picture. There is a sign "Bread and Wine."

Second Reproduction: The scene is in France. There is a trench with two men, one firing. A soldier is on his back, wounded. There is a signpost—"Paris 50 miles and Cherbourg 21 miles." There is an ambulance in the picture. There is a house or a barn behind a Negro soldier throwing a grenade. Behind the house is a church. On the steeple the time reads ten minutes to two. Behind the church there are some aeroplanes.

Third Reproduction: The scene is in France. There are two soldiers in a trench and a wounded soldier. There is an ambulance in the picture, and a house in the background, also a church with a steeple; the time is . . . I don't remember. There is a signpost "Cherbourg 21 miles, Paris 50 miles." There is a Negro soldier in the picture.

Fourth Reproduction: The scene takes place in France, 21 miles from Cherbourg, 50 miles from Paris. This information is given by a signpost. There are two soldiers in the picture and also a Negro soldier. In the distance there is a church, and also a house. There is an ambulance nearby.

Fifth Reproduction: The scene is in France, 21 miles from Cherbourg, 50 miles from Paris, as we can read on a signpost. There is a Negro soldier in the picture. There is a church nearby and also an ambulance.

Sixth Reproduction: The scene is in France, 21 miles from Cherbourg, and 50 miles from Paris, as a signpost indicates. There is a Negro soldier in the scene. An ambulance and a church are nearby.

Seventh Reproduction: The scene is in France, 21 miles from Cherbourg, 50 miles from Paris. There is a Negro soldier in the scene, and also an ambulance.

Eighth Reproduction: The scene is in France, 50 miles from Cherbourg and at a distance from Paris, and in this scene is an ambulance and also a Negro soldier.

This protocol shows the continual shortening of the rumor, but,

at the same time, the tendency of military subjects to preserve their orientation in space. The scene is always correctly laid in France, somewhere between Cherbourg and Paris. To be sure, kilometers are transposed into the more familiar measure of "miles," and the figure "50" gets attached to Cherbourg rather than Paris. Like every other rumor the report as received from hearsay is worthless, yet there is a selective type of retention that follows the occupational interest of the subject. Non-military subjects are much less likely to retain measures of distance or of time.

Sharpening

We may define sharpening as the selective perception, retention, and reporting of a limited number of details from a larger context. In the military protocol just cited, geographical features are sharpened. Sharpening is inevitably the reciprocal of leveling. The one cannot exist without the other, for what little remains to a rumor after leveling has taken place is by contrast unavoidably featured.

Although sharpening occurs in every protocol, the same items are not always emphasized. Sometimes, a trifling detail such as subway advertising card becomes the focus of attention and report. Around it the whole rumor becomes structured. But, in most experiments, this same detail drops out promptly, and is never heard of after the first reproduction.

One way in which sharpening seems to be determined is through the retention of odd, or attention-getting words which, having appeared early in the series, catch the attention of each successive listener and are often passed on in preference to other details intrinsically more important to the story. An instance of this effect is seen in a series of protocols where the statement, "there is a boy stealing and a man remonstrating with him" is transmitted throughout the entire series. The unusual word "remonstrate" somehow caught the attention of each successive listener and was passed on without change.

Sharpening may also take a *numerical* turn, as in the experiments where emphasized items become reduplicated in the telling. For example, in reports of a picture containing the figure of a Negro, whose size and unusual appearance invite emphasis, we find that the number of Negroes reported in the picture jumps from one to "four" or "several."

There is also *temporal* sharpening manifested in the tendency to

describe events as occurring in the immediate present. What happens *here* and *now* is of greatest interest and importance to the perceiver. In most instances, to be sure, the story is started in the present tense, but even when the initial description is couched in the past tense, immediate reversal occurs and the scene is contemporized by the listener. Obviously, this effect cannot occur in rumors which deal specifically with some alleged past (or future) event. One cannot contemporize the rumor that "the Queen Mary sailed this morning (or will sail tomorrow) with 10,000 troops aboard." Yet it not infrequently happens that stories gain in sharpening by tying them to present conditions. For example, a statement that Mr. X bought a chicken in the black market last week and paid $1.50 a pound for it may be (and usually is) rendered, "I hear they *are* charging $1.50 a pound on the black market for chicken." People are more interested in today than in last week, and the temptation, therefore, is to adapt (assimilate) the time of occurrence, when possible, to this interest.

Sharpening often takes place when there is a clear implication of *movement.* The flying of airplanes and the bursting of bombs are frequently stressed in the telling. Similarly, the falling flower pot in one picture is often retained and accented. Indeed, the "falling motif" may be extended to other objects such as the cigar which a man in the picture is smoking. In one rumor, it is said to be falling (like the flower pot), though in reality it is quite securely held between his teeth.

Sometimes sharpening is achieved by ascribing movement to objects which are really stationary. Thus, a subway train, clearly at a standstill at a subway station, is frequently described as moving.

Relative size is also a primary determinant of attention. Objects that are prominent because of their size tend to be retained and sharpened. The first reporter calls attention to their prominence and each successive listener receives an impression of their largeness. He then proceeds to sharpen this impression in his memory. The large Negro may, in the telling, become "four Negroes," or may become "a gigantic statue of a Negro."

There are verbal as well as physical determinants of attention. Thus, there is a pronounced tendency for *labels* to persist, especially if they serve to set the stage for the story. One picture is usually introduced by some version of the statement, "This is a battle scene," and this label persists throughout the series of reproductions. Another

story usually opens with the statement, "This is a picture of a race riot."

To explain this type of sharpening, we may invoke the desire of the subject to achieve some spatial and temporal schema for the story to come. Such orientation is essential in ordinary life and appears to constitute a strong need even when imaginal material is dealt with.

An additional factor making for preferential retention of spatial and temporal labels is the *primacy* effect. An item that comes first in a series is likely to be better remembered than subsequent items. Usually, the "label" indicating place and time comes at the beginning of a report and thus benefits by the primacy effect.

Sharpening also occurs in relation to familiar symbols. In one series of reports, a church and a cross are among the most frequently reported items, although they are relatively minor details in the original picture. These well known symbols "pack" meaning and are familiar to all. The subject feels secure in reporting them because they have an accustomed concreteness that the other details in the picture lack. Retention of familiar symbols advances the process of conventionalization that is so prominent an aspect of rumor-embedding. In two of our pictures are a night stick, symbol of police authority, and a razor, stereotyped symbol of Negro violence. These symbols are always retained and sharpened.

Explanations added by the reporter to the description transmitted to him comprise a final form of sharpening. They represent a tendency to put "closure" upon a story which is felt to be otherwise incomplete. They illustrate the "effort after meaning" which customarily haunts the subject who finds himself in an unstructured situation. Such need for sharpening by explanation becomes especially strong when the story has been badly distorted and the report contains implausible and incompatible items. As an example, one subject who received a badly confused description of the subway scene FIGURE 1 inferred that there must have been "an accident." This explanation seemed plausible enough to successive listeners and so was not only accepted by them but sharpened in the telling.

In everyday rumors, sharpening through the introduction of specious explanations, is very apparent. Indeed, as we have said, one of the principal functions of a rumor is to explain personal tensions. To accept tales of army waste or special privilege among OPA officials

could "explain" food shortages and discomfort. Such stories, therefore, find wide credence.

Here, perhaps, is the place to take issue with the popular notion that rumors tend to expand like snowballs, become over-elaborate, and verbose. Actually, the course of rumor is toward brevity, whether in the laboratory or in everyday life. Such exaggeration as exists is nearly always a sharpening of some feature resident in the original stimulus-situation. The distortion caused by sharpening is, of course, enormous in extent; but we do not find that we need the category of "elaboration" to account for the changes we observe.

Assimilation

It is apparent that both leveling and sharpening are selective processes. But what is it that leads to the obliteration of some details and the pointing-up of others; and what accounts for all transpositions, importations, and other falsifications that mark the course of rumor? The answer is to be found in the process of *assimilation,* which has to do with the powerful attractive force exerted upon rumor by habits, interests, and sentiments existing in the listener's mind.

Assimilation to Principal Theme. It generally happens that items become sharpened or leveled to fit the leading motif of the story, and they become consistent with this motif in such a way as to make the resulting story more coherent, plausible, and well rounded. Thus, in Protocol A, the war theme is preserved and emphasized in all reports. In some experiments using the same picture, a chaplain is introduced, or people (in the plural) are reported as being killed; the ambulance becomes a Red Cross station; demolished buildings are multiplied in the telling; the extent of devastation is exaggerated. All these reports, false though they are, fit the principal theme—a battle incident. If the reported details were actually present in the picture, they would make a "better" *Gestalt.* Objects wholly extraneous to the theme are never introduced—no apple pies, no ballet dancers, no baseball players.

Besides importations, we find other falsifications in the interest of supporting the principal theme. The original picture shows that the Red Cross truck is loaded with explosives, but it is ordinarily reported as carrying medical supplies which is, of course, the way it "ought" to be.

The Negro in this same picture is nearly always described as a

soldier, although his clothes might indicate that he is a civilian partisan. It is a "better" configuration to have a soldier in action on the battlefield than to have a civilian among regular soldiers.

GOOD CONTINUATION. Other falsifications result from the attempt to complete incompleted pictures or to fill in gaps which exist in the stimulus field. The effort is again to make the resulting whole coherent, and meaningful. Thus, the sign, "Loew's Pa . . .," over a moving picture theater is invariably read and reproduced as "Loew's Palace" and Gene *Antry* becomes Gene *Autry*. "Lucky Rakes" are reported as "Lucky Strikes."

All these, and many instances like them, are examples of what has been called, in *Gestalt* terms, "closures." Falsifications of perception and memory they are, but they occur in the interests of bringing about a more coherent, consistent mental configuration. Every detail is assimilated to the principal theme, and "good continuation" is sought, in order to round out meaning where it is lacking or incomplete.

ASSIMILATION BY CONDENSATION. It sometimes seems as though memory tries to burden itself as little as possible. For instance, instead of remembering two items, it is more economical to fuse them into one. Instead of a series of subway cards, each of which has its own identity, reports sometimes refer only to "a billboard," or perhaps to a "lot of advertising" (FIGURE 1). In another picture, it is more convenient to refer to "all kinds of fruit," rather than to enumerate all the different items on the vendor's cart. Again, the occupants of the car come to be described by some such summary phrase as" several people sitting and standing in the car." Their individuality is lost.

ASSIMILATION TO EXPECTATION. Just as details are changed or imported to bear out the simplified theme that the listener has in mind, so too many items take a form that supports the agent's habits of thought. Things are perceived and remembered the way they *usually* are. Thus, a drugstore in one stimulus-picture, is situated in the middle of a block; but, in the telling, it moves up to the corner of the two streets and becomes the familiar "corner drugstore." A Red Cross ambulance is said to carry medical supplies rather than explosives, because it "ought" to be carrying medical supplies. The kilometers on the signposts are changed into miles, since Americans are accustomed to having distances indicated in miles.

The most spectacular of all our assimilative distortions is the find-

ing that, in more than half of our experiments, a razor moves (in the telling) from a white man's hand to a Negro's hand (FIGURE 1). This result is a clear instance of assimilation to stereotyped expectancy. Black men are "supposed" to carry razors, white men not.

ASSIMILATION TO LINGUISTIC HABITS. Expectancy is often merely a matter of fitting perceived and remembered material to pre-existing verbal clichés. An odd example is found in the case of a clock tower on a chapel. In the telling, the chapel becomes a "chaplain" and the clock, having no place to go, lands on a fictitious mantelpiece.

> *Sixth Reproduction:* This is a picture of a battlefield. There is a chapel with a clock which says ten minutes to two. A sign down below gives the direction to Paris and Paris is 50 miles, and Cherbourg 21 miles away. People are being killed on the battlefield.
>
> *Seventh Reproduction:* This is a picture of a battlefield. There is a chaplain, and a clock on the mantelpiece says ten minutes to two. There is a sign, so many miles to Cherbourg.

The powerful effect that words have in arousing images in the listener and fixing for him the categories in which he must think of the event is, of course, a major step in the conventionalization of rumor. A "zoot-suit sharpie" arouses a much more compelling image (capable of assimilating all details to itself) than more objective words, such as "a colored man with pegged trousers, wide brimmed hat, etc." (FIGURE 1). Rumors are commonly told in terms of verbal stereotypes. Over and over again, they include prejudicial judgment, such as "draft dodger," "Japanese spy," "brass-hat," "dumb Swede," "long-haired professor," and the like.

MORE HIGHLY MOTIVATED ASSIMILATION

Although the conditions of our experiment do not give full play to emotional tendencies underlying gossip, rumor, and scandal, such tendencies are so insistent that they express themselves even under laboratory conditions.

ASSIMILATION TO INTEREST. It sometimes happens that a picture containing women's dresses, as a trifling detail in the original scene, becomes, in the telling, a story exclusively about dresses. This sharpening occurs when the rumor is told by groups of women, but never when told by men.

A picture involving police was employed with a group of police officers as subjects. In the resulting protocol, which follows, the entire reproduction centers around the police officer (with whom the subjects undoubtedly felt keen sympathy or "identification"). Furthermore, the nightstick, a symbol of his power, is greatly sharpened and becomes the main object of the controversy. The tale as a whole is protective of, and partial to the policeman.

Protocol B

Description from the screen: This is an excerpt from a motion picture that appeared in a national magazine. The scene is Detroit during the colored-white riot. There is a crowd around a police officer with a riot stick in his right hand and a Negro sitting on the ground, holding to his leg. On the right a boy is running away. On the left, facing the officer is a man who looks hostile but is afraid to go nearer because of the riot stick. The crowd comprises approximately 100 people.

First Reproduction: The picture on the screen is an excerpt from a motion picture taken at the time of the Detroit riot. In the picture, a police officer with a stick in his right hand is standing over a man on the ground. On the right, is a small boy; on the left, is a man who wants to interfere but is afraid of the policeman's stick.

Second Reproduction: This is an excerpt from a movie taken at the time of the Detroit riot. There is an officer with a stick in his hand and a man on the ground. There is a small boy and a man who wants to interfere but is afraid.

Third Reproduction: Picture was taken during the Detroit riot. There is a man in the picture, also a police officer. The man has a stick in his hand and wants to interfere, but does not for some reason. There is also a child.

Fourth Reproduction: This is a picture of the Detroit riot showing a policeman and a civilian. The policeman has a billy in his hand and the man wants to take it away from him.

Fifth Reproduction: A picture of the Detroit riot. There is a police officer with a club. Somebody wants to take it away from him.

Protocols based on the same picture, taken from a group of subjects who were not policemen, show how, in a different group, the focus of interest and direction of sympathy may be quite different. Only the police tell rumors that favor the police.

ASSIMILATION TO PREJUDICE. Hard as it is in an experimental situation to obtain distortions that arise from hatred, yet we have in our material a certain opportunity to trace the hostile complex of racial attitudes.

We have spoken of the picture which contained a white man holding a razor while arguing with a Negro. In over half of the experiments with this picture, the final report indicated that the Negro (instead of the white man) held the razor in his hand, and several times

he was reported as "brandishing it wildly" or as "threatening" the white man with it (FIGURE 1).

Whether this ominous distortion reflects hatred and fear of Negroes we cannot definitely say. In some cases, these deeper emotions may be the assimilative factor at work. And yet the distortion may occur even in subjects who have no anti-Negro bias. It is an unthinking cultural stereotype that the Negro is hot-tempered and addicted to the use of razors as weapons. The rumor, though mischievous, may reflect chiefly an assimilation of the story to verbal-clichés and conventional expectation. Distortion in this case may not mean assimilation to hostility. Much so-called prejudice is, of course, a mere matter of conforming to current folkways by accepting prevalent beliefs about an out-group.

Whether or not this razor-shift reflects deep hatred and fear on the part of white subjects, it is certain that the reports of our Negro subjects betray a motivated type of distortion. Because it was to their interest as members of the race to de-emphasize the racial caricature, Negro subjects almost invariably avoided mention of color. One of them hearing a rumor containing the phrase, "a Negro zoot-suiter," reported "There is a man wearing a zoot suit, *possibly* a Negro."

For one picture, a Negro reporter said that the colored man in the center of the picture "is being maltreated." Though this interpretation may be correct, it is likewise possible that he is a rioter about to be arrested by the police officer. White and Negro subjects are very likely to perceive, remember, and interpret this particular situation in quite opposite ways.

Thus, even under laboratory conditions, we find assimilation in terms of deep-lying emotional predispositions. Our rumors, like those of everyday life, tend to fit into, and support, the occupational interests, class or racial memberships, or personal prejudices of the reporter.

CHILDREN

Our findings showed a striking lack of interest among children in the racial identity of characters in the picture. A "Negro" was often reported simply as a "man." In the case of pictures disclosing racial identity, 85 per cent of our adult protocols mentioned this identity, while only 43 per cent of protocols taken from children did so.

Though we do not have extensive data from different age levels, it

appears certain that the younger the child, the less he is likely to report ethnic character. One is reminded of the case of Tommy, aged six, who asked his mother if he might bring his schoolmate Sam home to lunch next day. Knowing that Tommy was in a "mixed" school, his mother asked if Sam was a Negro. Tommy replied, "I didn't notice, but I'll look and tell you tomorrow."

Our experiment offers an opportunity to study the growing importance of ethnic identity in word of mouth stories told by children of successive ages.

Conclusion: The Embedding Process

Leveling, sharpening, and assimilation, are not independent mechanisms. They function simultaneously, and reflect a singular subjectifying process that results in the autism and falsification which are so characteristic of rumor. If we were to attempt to summarize what happens in a few words we might say:

Whenever a stimulus field is of potential importance to an individual, but at the same time unclear, or susceptible of divergent interpretations, a subjective structuring process is started. Although the process is complex (involving, as it does, leveling, sharpening, and assimilation), its essential nature can be characterized as an effort to reduce the stimulus to a simple and meaningful structure that has adaptive significance for the individual in terms of his own interests and experience. The process begins at the moment the ambiguous situation is perceived, but the effects are greatest if memory intervenes. The longer the time that elapses after the stimulus is perceived the greater the threefold change is likely to be. Also, the more people involved in a serial report, the greater the change is likely to be, until the rumor has reached an aphoristic brevity, and is repeated by rote.

Now, this three-pronged process turns out to be characteristic not only of rumor but of the individual memory function as well. It has been uncovered and described in the experiments on individual retention conducted by Wulf, Gibson, Allport,[6] and, in Bartlett's memory experiments carried out both on individuals and on groups.[7]

Up to now, however, there has been no agreement on precisely the terminology to use, nor upon the adequacy of the three functions we

[6] Conveniently summarized in **K. Koffka** Principles of Gestalt Psychology. Harcourt Brace & Co. New York. 1935.
[7] **F. C. Bartlett** Remembering. Cambridge University Press. 1932.

here describe. We believe that our conceptualization of the three-fold course of change and decay is sufficient to account, not only for our own experimental findings and for the experiments of others in this area, but also for the distortions that everyday rumors undergo.

For lack of a better designation, we speak of the three-fold change as the *embedding* process. What seems to occur in all our experiments and in all related studies is that each subject finds the outer stimulus-world far too hard to grasp and retain in its objective character. For his own personal uses, it must be recast to fit not only his span of comprehension and his span of retention, but, likewise, his own personal needs and interests. What was outer becomes inner; what was objective becomes subjective. In telling a rumor, the kernel of objective information that he received has become so embedded into his own dynamic mental life that the product is chiefly one of projection. Into the rumor, he projects the deficiencies of his retentive processes, as well as his own effort to engender meaning upon an ambiguous field, and the product reveals much of his own emotional needs, including his anxieties, hates, and wishes. When several rumor-agents have been involved in this embedding process, the net result of the serial reproduction reflects the lowest common denominator of cultural interest, of memory span, and of group sentiment and prejudice.

One may ask whether a rumor must always be false. We answer that, in virtually every case, the embedding process is so extensive that no credibility whatever should be ascribed to the product. If a report does turn out to be trustworthy, we usually find that secure standards of evidence have somehow been present to which successive agents could refer for purposes of validation. Perhaps the morning newspaper or the radio have held the rumor under control, but when such secure standards of verification are available, it is questionable whether we should speak of rumor at all.

There are, of course, border-line cases where we may not be able to say whether a given tidbit should or should not be called a rumor. But if we define rumor (and we herewith propose that we should), as *a proposition for belief of topical reference, without secure standards of evidence being present*—then it follows from the facts we have presented that rumor will suffer such serious distortion through the embedding process, that *it is never under any circumstances a valid guide for belief or conduct.*