PATTERNS OF AGGRESSIVE BEHAVIOR IN EXPERIMENTALLY CREATED "SOCIAL CLIMATES"

Child Welfare Research Station, State University of Iowa

KURT LEWIN, RONALD LIPPITT, AND RALPH K. WHITE

A. PROBLEMS AND METHODS

The present report is a preliminary summary on one phase of a series of experimental studies of group life which has as its aim a scientific approach to such questions as the following: What underlies such differing patterns of group behavior as rebellion against authority, persecution of a scapegoat, apathetic submissiveness to authoritarian domination, or attack upon an outgroup? How many differences in subgroup structure, group stratification, and potency of ego-centered and group-centered goals be utilized as criteria for predicting the social resultants of different group atmospheres? Is not democratic group life more pleasant, but authoritarianism more efficient? These are the sorts of questions to which "opinionated" answers are many and varied today, and to which scientific answers, are, on that account, all the more necessary. An experimental approach to the phenomena of group life obviously raises many difficulties of creation and scientific control, but the fruitfulness of the method seems to compensate for the added experimental problems.

In the first experiment Lippitt organized two clubs of 10-year-old children, who engaged in the activity of theatrical mask-making for a period of three months. The same adult leader, changing his philosophy of leadership, led one club in an authoritarian manner and the other club in accordance with democratic techniques, while detailed observations were made by four observers. This study, reported in detail elsewhere (6), suggested more hypotheses than answers and led to a second and more extensive series of experiments by White and Lippitt. Four new clubs of 10-year-old boys were organized, on a voluntary basis as before, the variety of club activities was extended, while four different adult leaders participated. To the variables of authoritarian and democratic procedure was added a third, *"laissez-faire"* or group life without adult participation. Also the behavior of each club was studied in different "social cli-

271

mates." Every six weeks each group had a new leader with a different technique of leadership, each club having three leaders during the course of the five months of the experimental series. The data on aggressive behavior summarized in this paper are drawn from both series of experiments.

Some of the techniques used for the equating of groups have been described previously (4), but will be summarized here with the improvements in method of the second experiment. Before the clubs were organized the schoolroom group as a whole was studied. Using the sociometric technique developed by Moreno (8) the interpersonal relations of the children, in terms of rejections, friendships, and leadership, were ascertained. Teacher ratings on relevant items of social behavior (e.g., teasing, showing off, obedience, physical energy) were secured, and observations were made on the playground and in the schoolroom by the investigators. The school records supplied information on intellectual status, physical status, and socio-economic background. From the larger number of eager volunteers in each room it was then possible to select from each schoolroom two five-member clubs, which were carefully equated on patterns of interpersonal relationships, intellectual, physical, and socio-economic status, in addition to personality characteristics. The attempt was not to equate the boys within a particular club, but to ensure the same pattern in each group as a whole.

In spite of the methods described above to control by selection some of the more elusive social variables, it was essential to use a number of experimental controls which would help to make the results more clear-cut. First of all, to check on the "individuality" of the club as a whole, each group was studied in different social atmospheres so that it could be compared with itself. A second question raised by the first experiment was that concerning the personality of the leader as a factor in the creating of social atmospheres. The second experiment, with four leaders, makes possible a comparison of the authoritarianism and democracy of four different leaders, and the *"laissez-faire"* method of two different leaders. In two cases it is also possbile to compare the same atmosphere, created by two different leaders with the same club.

One other type of control seemed very important, the nature of the club activity, and the physical setting. Using the same club-rooms (two clubs met at the same time in adjacent but distinctly

separate areas of the same large room) seemed to answer the latter problem, but the question of activity was more complex. The following technique was developed: a list of activities which were of interest to all the children was assembled (e.g., mask-making,

TABLE 1

Authoritarian	Democratic	*Laissez-faire*
1. All determination of policy by the leader.	1. All policies a matter of group discussion and decision, encouraged and assisted by the leader.	1. Complete freedom for group or individual decision, without any leader participation.
2. Techniques and activity steps dictated by the authority, one at a time, so that future steps were always uncertain to a large degree.	2. Activity perspective gained during first discussion period. General steps to group goal sketched, and where technical advice was needed the leader suggested two or three alternative procedures from which choice could be made.	2. Various materials supplied by the leader, who made it clear that he would supply information when asked. He took no other part in work discussions.
3. The leader usually dictated the particular work task and work companions of each member.	3. The members were free to work with whomever they chose, and the division of tasks was left up to the group.	3. Complete nonparticipation by leader.
4. The dominator was "personal" in his praise and criticism of the work of each member, but remained aloof from active group participation except when demonstrating. He was friendly or impersonal rather than openly hostile.	4. The leader was "objective" or "fact-minded" in his praise and criticism, and tried to be a regular group member in spirit without doing too much of the work.	4. Very infrequent comments on member activities unless questioned, and no attempt to participate or interfere with the course of events.

mural painting, soap carving, model airplane construction, etc.). Meeting first, in chronological time, the democratic groups used these possibilities as the basis for discussion and voted upon their club activity. The authoritarian leaders were then ready, as their clubs met, to launch the same activity without choice by the members. The *"laissez-faire"* groups were acquainted with the variety of materials which were available, but they were not otherwise influenced in their choice of activity; in their case, consequently, the activity factor could not be completely controlled.

The contrasting methods of the leaders in creating the three types of group atmosphere may be briefly summarized as in Table 1.

It should be clear that due to the voluntary nature of the group participation, and the coöperation of the parents and school systems, no radically autocratic methods (e.g., use of threats, instilling fear, etc.) were used. Fairly congenial extra-club relationships were maintained with each member by the leader.

The kinds of data collected during the course of the experiments may be classed roughly as: (*a*) pre-club data, described above in relation to the problem of equating the groups; (*b*) observations of behavior in the experimental situation; and (*c*) extra-club information.

Observations of club behavior consisted of:

(*a*). A quantitative running account of the social interactions of the five children and the leader, in terms of symbols for directive, compliant, and objective (fact-minded) approaches and responses, including a category of purposeful refusal to respond to a social approach.

(*b*). A minute by minute group structure analysis giving a record of: activity subgroupings, the activity goal of each subgroup was initiated by the leader or spontaneously formed by the children, and ratings on degree of unity of each subgrouping.

(*c*). An interpretive running account of significant member actions, and changes in dynamics of the group as a whole.

(*d*). Continuous stenographic records of all conversation.

(*e*). An interpretive running account of inter-club relationships.

(*f*). An "impressionistic" write-up by the leader as to what he saw and felt from within the group atmosphere during each meeting.

(*g*). Comments by guest observers.

(*h*). Movie records of several segments of club life.

All of these observations (except *f*, *g*, and *h*) were synchronized at minute intervals so that side by side they furnish a rather complete cross sectional picture of the ongoing life of the group. The major purpose of this experiment in methodology of observation was to record as fully and with as much insight as possible the total behavior of the group, a distinct break away from the usual procedure of recording only certain pre-determined symptoms of behavior. The second aim was to ascertain whether data collected by this method could be fruitfully analyzed from both a sociological and psychological point of view (5).

Extra-club information is of the following types:

(*a*). Interviews with each child by a friendly "non-club" person during each transition period (from one kind of group atmosphere and leader to another) and at the end of the experiment, concerning such items as comparison of present club leader with previous ones, with the teacher, and with parents; opinions on club activities; how the club could be run better; who were the best and poorest club members; what an ideal club leader would be like, etc.

(*b*). Interviews with the parents by the investigators, concentrating on kinds of discipline used in the home, status of the child in the family group (relations with siblings, etc.), personality ratings on the same scale used by the teachers, discussion of child's attitude toward the club, school, and other group activities.

(*c*). Talks with the teachers concerning the transfer to the schoolroom, of behavior patterns acquired in the club.

(*d*). Administration of a Rorschach test to each club member.

(*e*). Conversations with the children during two summer hikes arranged after the experiment was over.

These data were gathered with a view to correlating the individual pattern of behavior in the club situation with the types of group membership which existed outside the experiment, and with the more or less stable individual personality structure. The individual differences in "social plasticity" seem to be rather striking.

Two other points of experimental technique seem of interest. The first concerns the introduction of observers into the club situation. In Lippitt's first experiment it was found that four observers grouped around a table in a physically separated part of the club room attracted virtually no attention if it was explained at the first

meeting that "those are some people interested in learning how a mask-making club goes; they have plenty to do so they won't bother us and we won't bother them." In the second experiment the arrangement was even more advantageous and seemed to make for equally unselfconscious behavior on the part of the clubs. In this set-up the lighting arrangement was such that the observers were grouped behind a low burlap wall in a darkly shaded area, and seemed "not to exist at all" as far as the children and leaders were concerned.

The second point of interest is the development of a number of "group test" situations, which aided greatly in getting at the actual social dynamics of a given group atmosphere. One test used systematically was for the leader to leave the room on business during the course of the club meeting, so that the "social pressure" factor could be analyzed more realistically. Another practice was for the leader to arrive a few minutes late so that the observers could record the individual and "atmospheric" differences in spontaneous work initiation and work perspective. A third fruitful technique was that of having a stranger (a graduate student who played the rôle of a janitor or electrician) enter the club situation and criticize the group's work efforts. A rather dramatic picture of the results of this type of situation may be seen in Figures 5 and 6. Further variations of such experimental manipulations are being utilized in a research now in progress.

B. RESULTS

The analysis of the results from the second experiment is now proceeding in various directions, following two main trends: (*a*) interpretation of sociological or "group-centered" data; (*b*) interpretation of psychological or "individual-centered" data. The sociological approach includes such analyses as differences in volume of social interaction related to social atmosphere, nature of club activity, outgroup relationship, differences in pattern of interaction related to outgroup and ingroup orientation, atmosphere differences in leadergroup relationship, effect upon group structure pattern of social atmosphere and types of activity, group differences in language behavior, etc. The psychological approach includes such analyses as relation of home background to pattern of club behavior, range of variation of member behavior in different types of social atmos-

phere, patterns of individual reaction to atmosphere transitions in relation to case history data, correlation between position in group stratification and pattern of social action, etc. In this paper will be presented only certain data from the partially completed general analysis which are relevant to the dynamics of individual and group aggression.

We might first recall one or two of the most striking results of the first experiment (6). As the club meetings progressed the authoritarian club members developed a pattern of aggressive dom- ination toward one another, and their relation to the leader was one of submission or of persistent demands for attention. The interactions in the democratic club were more spontaneous, more fact-minded, and friendly. Relations to the leader were free and on an "equality basis." Comparing the two groups on the one item of overt hostility the authoritarian group was surprisingly more aggressive, the ratio being 40 to 1. Comparing a constellation of "ego-involved" types of language behavior (e.g., hostile, resistant, demands for attention, hostile criticism, expression of competition) with a group of objective or "nonemotive" behaviors, it was found that in the authoritarian group 73 per cent of the analyzed language
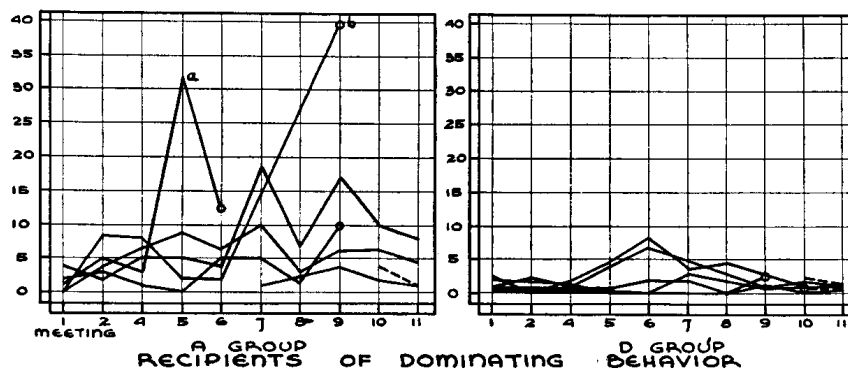

FIGURE 1

The Emergence of Scapegoats in an Autocratic Atmosphere
(Lippitt, 1937)

The curves (which indicate the amount of aggression directed against each individual) show a much lower general level of dominating behavior in the democratic (D) than in the autocratic (A) group. Twice during the meetings of the authoritarian club the aggression of four members was focused upon the fifth (a and b). In both cases the scapegoat dropped out of the group immediately or soon afterwards.

behavior was of the "ego-involved" type as compared to 31 per cent in the democratic club. Into the objective category went 69 per cent of the behavior of the democratic group as compared to 37 per cent of the language activities of the authoritarian group.

A second type of data related to the dynamics of aggression as it existed in the first experiment may be seen in Figure 1. Twice during the course of the meetings of the authoritarian club the situation shifted from one of mutual aggression between all members to one of concentrated aggression toward one member by the other four. In both cases the lowered status of a scapegoat position was so acutely unpleasant that the member left the group, rationalizing his break from the club by such remarks as, "The doctor says my eyes are so bad I'll have to play outdoors in the sunshine instead of coming to club meetings." Interestingly enough the two members who were singled out for persecution had been rated by the teachers as the two leaders in the group, one of them scoring second in popularity by the sociometric technique, as well as being physically the strongest. After the emergence of both scapegoats, there was a rather brief rise in friendly coöperative behavior between the other members of the group.

In the second experiment (see previous discussion, p. 4) there were five democratic, five autocratic, and two *"laissez-faire"* atmospheres. The fact that the leaders were successful in modifying their behavior to correspond to these three philosophies of leadership is clear on the basis of several quantitative indices. For instance, the ratio of "directive" to "compliant" behavior on the part of the autocratic leaders was 63 to 1; on the part of the democratic leaders it was 1.1 to 1. The total amount of leader participation was less than half as great in *"laissez-faire"* as in either autocracy or democracy.

The data on aggression averages in these three atmospheres are summarized in Figures 2, 3, and 4. All of them indicate average amounts of aggression per 50-minute, five-member club meeting. They represent behavior records, as recorded by the interaction observer, and include all social actions, both verbal and physical, which he designated as "hostile" or "joking hostile." Figure 2 shows especially the bimodal character of the aggression averages in autocracy; four of the five autocracies had an extremely low level of aggression, and the fifth had an extremely high one. For com-
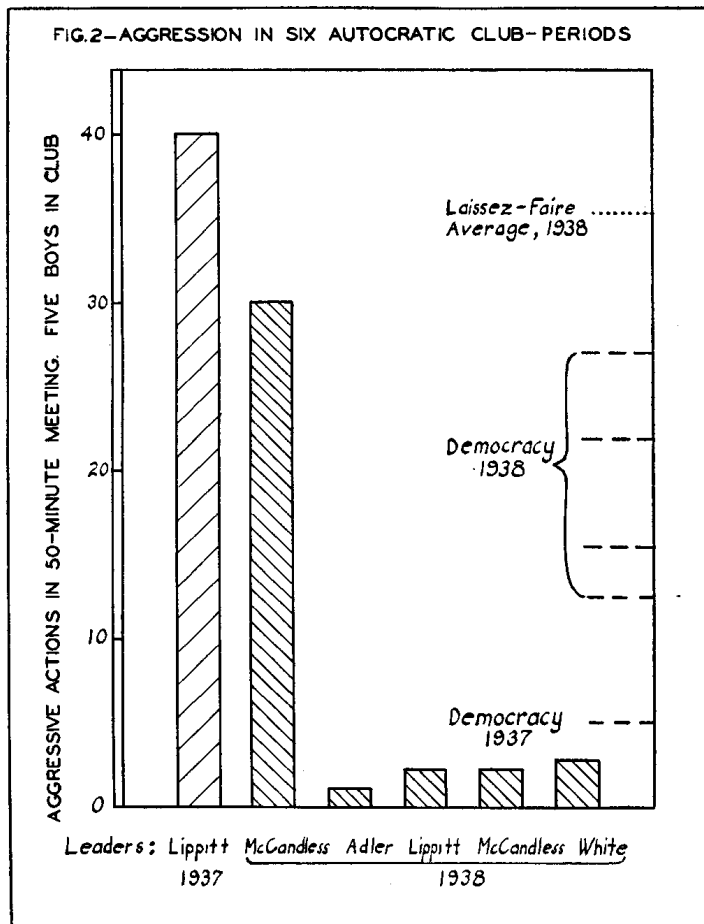
FIGURE 2

AGGRESSION IN AUTOCRACY

The amount of aggression is either very great or very small compared with aggression in democracy.

parison, a sixth bar has been added to represent aggression in Lippitt's 1937 experiment, computed on the same basis. It is obviously comparable with the single case of exceptionally aggressive behavior in the 1938 experiment. For comparison, also, four lines have been added which indicate the aggression level in the two *laissez-faire* groups, in the four 1938 democracies, and in Lippitt's 1937 democra-
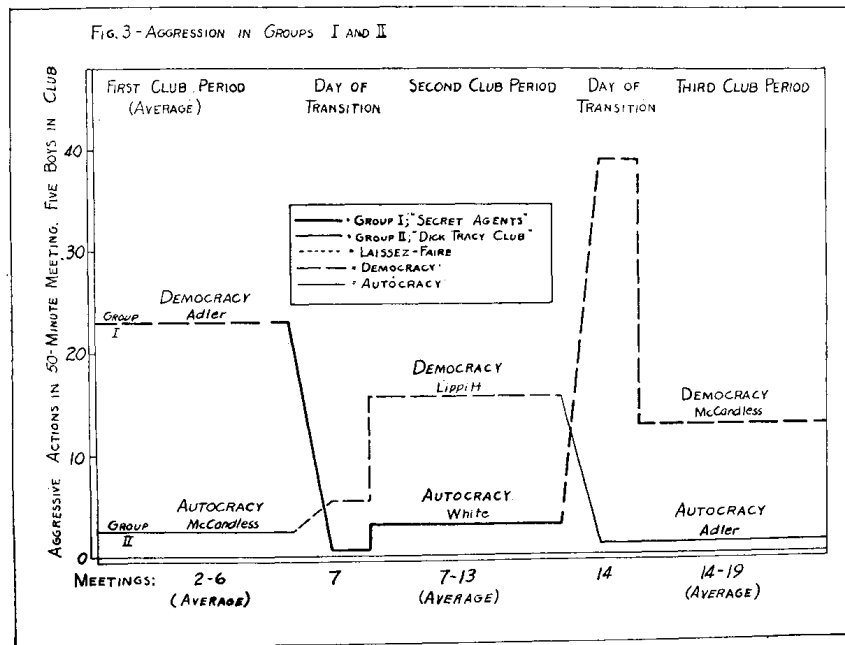
FIGURE 3

THE SAME GROUP IN DIFFERENT ATMOSPHERES

In each group, aggression was at a medium level in democracy and at a
very low level in autocracy. Note that the leaders in the third period
were the same as in the first, but reversed. Note also the sharp rise of
aggression in one group on the day of transition to democracy. Group I
shows "release of tension" on the first day of freedom (14) after
apathetic autocracy. The name of the leader is indicated below that
of the atmosphere.

cy. It can be seen that two of the six autocracies are above the
entire range of democracies, and are in this respect comparable
with the two *laissez-faire* groups. The other four autocracies are
at the opposite extreme, below the entire range of the democracies.

Figures 3 and 4 show especially the character of the experimental
controls. Together, they show how each of four groups was carried
through three different periods with three different adult leaders.
The relative importance of the deliberately created social atmos-
phere, as compared with either the personality make-up of the
group or the personality of the adult leader, can be estimated from
the character of these curves. It is clear that the same group usually

changes markedly, and sometimes to an extreme degree, when it is changed to a new atmosphere under a different leader. In such transitions the factor of group personnel is held relatively constant, while the factors of leader personality and social atmosphere are varied. In addition, the factor of leader personality was systematically varied, as can be seen if the four curves are compared with each other. Each of the four leaders played the rôle of a democratic leader at least once; also each played the rôle of an autocrat at least once; two of them (Adler and White) played in addition the rôle of bystander in a *"laissez-faire"* group. One leader (Lippitt) was democratic with two different groups; and one (McCandless) was autocratic with two different groups. Through this systematic variation of both club personnel and leader's personality, the effects of the deliberately created social atmosphere (autocracy, democracy, *laissez-faire*) stand out more clearly and more reliably than would otherwise be possible.

In Figure 3, for instance, the two curves both tell the same story: a moderate amount of aggression in democracy and an abnormally small amount in autocracy, regardless of the personality of the leader (note that the rôles of Lippitt and McCandless were reversed, with each playing once the rôle of autocrat and once the rôle of democratic leader), and regardless of the personnel of the group itself (note that the curves cross once when the atmospheres are reversed, and cross back again when the atmospheres return to what they were at the beginning). In Figure 4, the two *laissez-faire* atmospheres give very high levels of aggression although different groups and different leaders are involved. The most extreme change of behavior recorded in any group occurred when Group IV was changed from autocracy (in which it had shown the apathetic reaction) to *laissez-faire*. One of the autocratic groups (Figure 4) reacted apathetically, the other very aggressively. The aggressiveness of Group III may be due to the personalities of the boys, or to the fact that they had just previously "run wild" in *laissez-faire*.

The average number of aggressve actions per meeting in the different atmospheres was as follows:

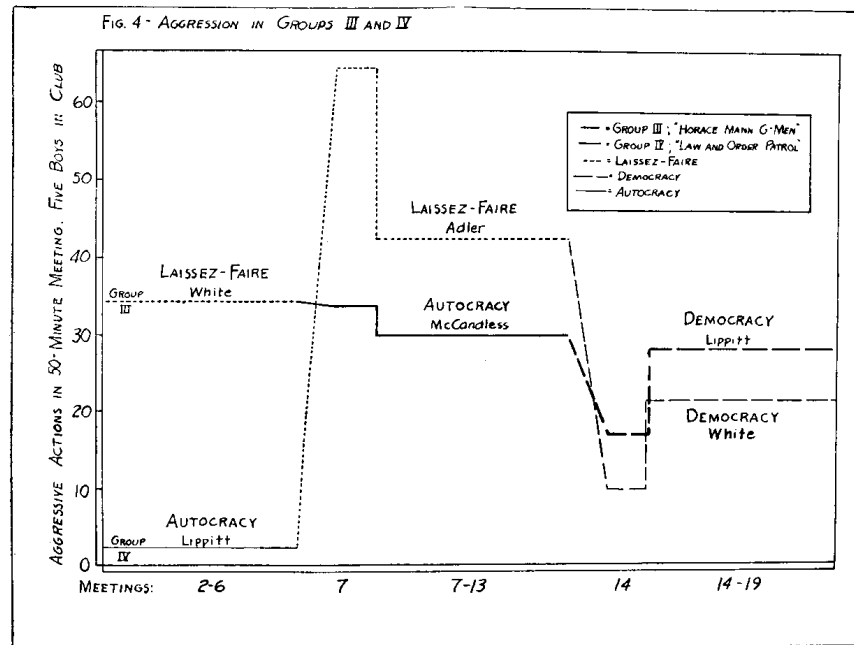|	
Laissez-faire	38
Autocracy (aggressive reaction)	30
Democracy	20
Autocracy (apathetic reaction)	2

FIGURE 4

THE SAME GROUP IN DIFFERENT ATMOSPHERES

Group IV shows changes to the levels typical for each atmosphere. It
shows also the "release of tension" on the first day of freedom (7) after
apathetic autocracy. Group III seemed resistant to change; it was
relatively aggressive even in democracy.

Critical ratios for these comparisons have not yet been computed.
The data are comparable, however, with Lippitt's 1937 data, in which
the critical ratios for the more important indices ranged between
4.5 and 7.5.

In the interpretation of these data it is natural to ask: Why are
the results for autocracy paradoxical? Why is the reaction to
autocracy sometimes very aggressive, with much rebellion or perse-
cution of scapegoats, and sometimes very nonaggressive? Are the
underlying dynamics in these two cases as different as the surface
behavior? The high level of aggression in some autocracies has
often been interpreted mainly in terms of tension, which presumably
results from frustration of individual goals. Is it, then, an indi-
cation of non-frustration when the aggression level in some other
autocracies is found to be extremely low?

Four lines of evidence in our experiments indicate that this is not the case, and that the low level of aggression in the apathetic autocracies is not due to lack of frustration.

First of all, there are the sudden outbursts of aggression which occurred on the days of transition from a repressed autocratic atmosphere to the much freer atmosphere of democracy or *laissez-faire.* Two of these are well illustrated in Figure 4. The boys behaved just as if they had previously been in a state of bottled-up tension, which could not show itself overtly as long as the repressive influence of the autocrat was felt, but which burst out unmistakably when that pressure was removed.

A second and very similar type of evidence can be obtained from the records on the days when the leader left the room for 10 or 15 minutes. In the three other atmospheres (*laissez-faire,* aggressive autocracy, and democracy) the aggression level did not rise when the leader left the room. In the apathetic autocracies, however, the level of aggression rises very rapidly to 10 times its former level. These data should not be overstressed, because aggression even then does not rise to a level significantly above that of the other atmospheres. It is so extremely low in the apathetic atmosphere that even multiplication by 10 does not produce what could be called a high level of aggression. (The effect of the leader's absence is shown more significantly in a deterioration of work than in an outburst of aggression.) Nevertheless, the rapid disappearance of apathy when the leader goes out shows clearly that it was due to the repressive influence of the leader rather than to any particular absence of frustration. In this connection it should be added that the autocratic leader never forbade aggression. His "repressive influence" was not a prohibition created by explicit command but a sort of generalized inhibition or restraining force.

In the third place, there are the judgments of observers who found themselves using such terms as "dull," "lifeless," "submissive," "repressed," and "apathetic" in describing the nonaggressive reaction to autocracy. There was little smiling, joking, freedom of movement, freedom of initiating new projects, etc.; talk was largely confined to the immediate activity in progress, and bodily tension was often manifested. Moving pictures tell the same story. The impression created was not one of acute discontent, by any means, and the activities themselves were apparently enjoyable enough so

that the net result for most of the boys was more pleasant than unpleasant. Nevertheless, they could not be described as genuinely contented.

The fourth and perhaps the most convincing indication of the existence of frustration in these atmospheres is the testimony of the boys themselves. They were individually interviewed, just before each day of transition to a new atmosphere, and again at the end of the whole experiment. The interviewing was done by an adult who had not served as a leader in the boy's own group. On the whole good rapport was achieved, and the boys talked rather freely, comparing the three leaders under whom their club had been conducted. (For them it was a question of comparing leaders they liked or did not like, as they were unaware of the deliberate change in the behavior of the same leader from one atmosphere to another or of the nature of the experiment.) With surprising unanimity the boys agreed in a relative dislike for their autocratic leader regardless of his individual personality. Nineteen of the 20 boys liked their leader in democracy better than their leader in autocracy. The twentieth boy, as it happened, was the son of an army officer (the only one in the group), and consciously put a high value upon strict discipline. As he expressed it, the autocratic leader *"was the strictest, and I like that a lot."* The other two leaders *"let us go ahead and fight, and that isn't good."* For the other 19, strictness was not necessarily a virtue, their description of the autocrat being that he was *"too strict."* Typical comments about the autocrat were: *"he didn't let us do what we wanted to do"; "he wouldn't let us go behind the burlap"; "he was all right mostly—sort of dictator-like"; "we just had to do things; he wanted us to get it done in a hurry"; "he made us make masks, and the boys didn't like that"; "the other two guys suggested and we could do it or not, but not with him"; "we didn't have any fun with him—we didn't have any fights."* Typical comments about the democratic leader were: *"he was a good sport, worked along with us and thinks of things just like we do"; "he never did try to be the boss, but we always had plenty to do"; "just the right combination—nothing I didn't like about him"; "we all liked him; he let us tear down the burlap and everything."* These comments were almost uniformly dependent upon the rôle played by the leader, and were exactly reversed when he played a different rôle.

Five minutes later, after a number of comments criticizing the art work of the club, the janitor left. The members dropped their work completely, climbed the rafters and made considerable noise. On the thirty-sixth minute we find,

> *R* comes down from the rafter and begins to complain about the janitor, *L* joins him and they all complain bitterly and loudly.

Within three minutes the group began to destroy a large wooden sign upon which they had painted the club name. Such comments as this appear in the running account,

> *F* is wielding two hammers at once. . . . *R* is busy pulling out all the nails. . . . They are excited. . . . F knocks the first hole through it. . . . *R* tries to caution F for a minute, and then gets busy himself . . . their unexpressed aggression toward the janitor is taking a violent outlet . . . they are all very serious and vicious about the destruction of the sign . . . they seem to be getting a great deal of "pure animal pleasure" of the pillage.

The meeting ended with three or four minutes of pleasant conversation.

C. Interpretive Comments

From the many theoretical problems involved we should like to discuss but one, namely, the problem of aggression and apathy. Even here we wish to show the complexity of the problem and its possible attack from a field theoretical point of view rather than to set forth a definite theory.

It is not easy to say what aggression is, that is, if one is not satisfied with mere verbal definition. One important aspect obviously is that one group or an individual within a group turns against another group (or individual). In case these groups are subgroups of one original group, it can be called aggression *within a group,* otherwise aggression *against an outgroup.*

Both kinds of aggression occurred in our experiments. All of these aggressions were spontaneous in character. In other words, it was not a situation where a group of people are ordered by a politically dominating power (like the state) to indulge in a certain type of directed activity called war. On the whole the aggression was the outcome of the momentary emotional situation, although

As between the leaders in autocracy and *"laissez-faire,"* the preference was for the *"laissez-faire"* leader in seven cases out of ten. The three boys who preferred the autocrat made such comments about the *"laissez-faire"* leader as: *"he was too easy-going"; "he had too few things for us to do"; "he let us figure things out too much";* in contrast the autocrat *"told us what to do, and we had something to do all the time."* For the other seven, even disorder was preferable to rigidity: *"we could do what we pleased with him"; "he wasn't strict at all."*

Another form of aggression was outgroup hostility, as manifested especially in two "wars" between clubs meeting in the same large room at the same time. Both wars seemed to be mainly in a spirit of play. They were much more like snowball fights than serious conflicts. (This is one more reason why in this case one should be
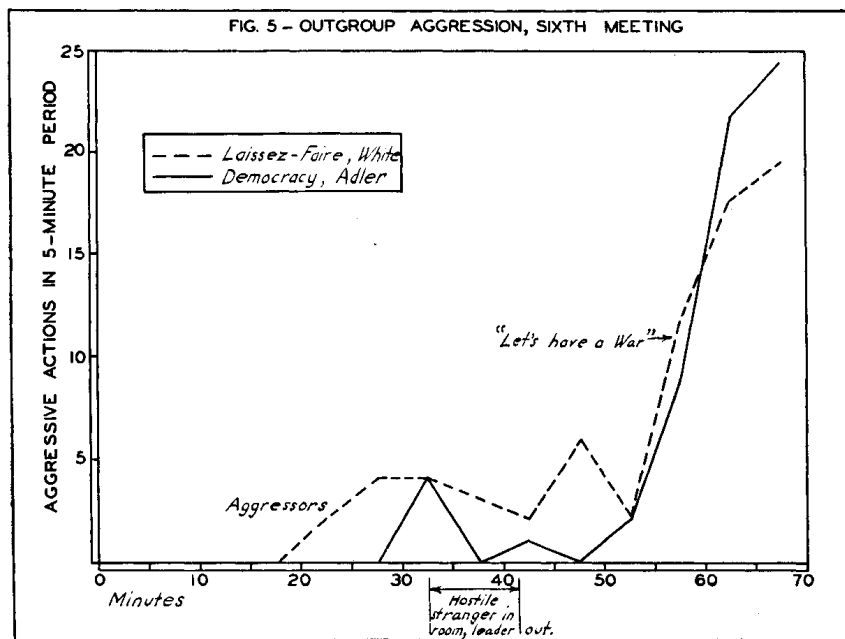

FIG. 5 – OUTGROUP AGGRESSION, SIXTH MEETING

FIGURE 5
CONFLICT BETWEEN GROUPS AFTER INTRUSION OF HOSTILE STRANGER
After the stranger left, strong hostility developed between the two groups. Before the major conflict, minor hostilities had already occurred, with one or two members of the *laissez-faire* group playing the rôle of aggressors.
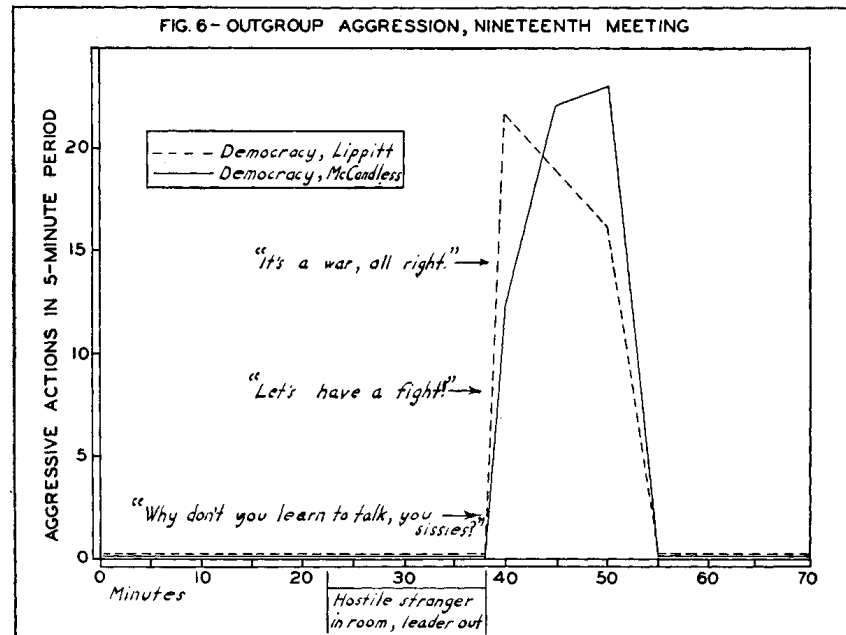
FIGURE 6

CONFLICT BETWEEN GROUPS AFTER INTRUSION OF HOSTILE STRANGER

The intrusion of a hostile stranger was followed by intergroup conflict (as in Figure 5). In this case the hostilities began suddenly, rising within four minutes almost to their maximum level.

cautious in comparing adult political phenomena directly with our data on small groups of children.) Our two small "wars" are interesting in their own right, however, especially since the same general constellation of factors seemed to be operating in both cases.

The curves of rising hostility, computed for five-minute intervals, are shown in Figures 5 and 6. From these curves it can be seen that the first "war" started gradually, with a long period of minor bickering and name calling, followed by a much steeper gradient of increasing hostility. The overt hostilities consisted of throwing water, small pieces of clay (which nearly always missed their mark), and sometimes water color paint, flicked from the end of a long paint brush. No one was hurt. The second conflict (Figure 6) began much more suddenly. Name calling began in the first minute after the "hostile stranger" left the room, and almost immediately

the boys seemed to remember their previous conflict and to wish a repetition of it. Beginning with verbal aggression such as, *"Why don't you learn to talk, you sissies?"* they passed within three minutes to throwing small pieces of soap (small pieces of soap statuettes, which they had carved, were lying about), and within five minutes nearly all the boys on both sides were wholeheartedly participating. This difference in steepness of the hostility gradient was perhaps due in part to a higher level of tension or to weaker restraining forces on the later occasion, but it seemed to be due also to a cognitive difference. On the later occasion the pattern of inter-group conflict had been established; it was, by that time, a part of the boys' "cognitive structure"—a clearly defined region which they could enter or not as they chose; and since they had found the first "war" to be very pleasantly exciting, they readily and quickly entered the same region again when the general psychological situation was conducive to conflict. In this connection it may be noted that the second conflict was labelled verbally almost immediately, while the first one was not labelled until it was already well under way. On the first occasion the shout, *"Let's have a war!"* went up long after the minor hostilities had begun; on the second accasion, one boy shouted, *"Let's have a fight,"* only two minutes after the name calling began, and another one legalized it two minutes later with the words, *"It's a war all right."*

Certain similarities between the two days of conflict suggest some very tentative hypotheses as to the psychological factors conducive to this sort of conflict. In the first place, both occurred on days when, with the adult leader absent, a hostile stranger had been in the room and had criticized the work which the boys were doing. This had been deliberately planned as a "test situation"; a graduate student, playing the rôle of a janitor or an electrician, was the hostile stranger. It may be doubtful whether or not the term "substitute hate object" is an appropriate one here; but there was no question in the observers' minds that in both cases the intrusion of the stranger tended to disorganize the regular play activities of the clubs and to build up a tense, restless psychological condition which was conducive to intergroup conflict. In the second place, both conflicts started when no respected adult was present. In the first one the main aggressors were unquestionably the *laissez-faire* group (see Figure 5). Their leader was physically present at the

time, but he was psychologically unimportant. The second conflict began when the leaders on both sides were out of the room, and by the time the leaders returned, it had gathered great momentum. In the third place, both conflicts occurred at a time when there was no absorbing group activity as an alternative. The first one began at a time when the members of the *laissez-faire* group seemed unusually bored and dissatisfied with their own lack of solid accomplishment. The second one began after the boys had become somewhat bored with their soap carving, and after this individualistic activity had been further disrupted by the criticisms of the stranger.

The free direct expression of aggression by the "wars" following frustration in the *laissez-faire* and democratic situations offers a contrast to several other patterns of expression which were observed in some of the authoritarian situations. These types of behavior might be briefly labelled: (*a*) a "strike"; (*b*) rebellious acts; (*c*) reciprocal aggression among all members; (*d*) scapegoat attack; (*e*) release behavior after a decrease in leader pressure; (*f*) aggression against impersonal "substitute hate objects."

Both the "strike" and symptoms of rebellious action occurred in the aggressive type of autocracy. About the middle of the series of six meetings the club members went to their teacher with a letter of resignation signed by four of them. They asked their teacher to give this to the leader when he came to get them after school. The teacher refused to act as a go-between, suggesting that the boys go to the leader directly, but when he appeared after school, courage seemed to wane and they all went to the meeting as usual. Overt rebellious acts were of the following nature: breaking a rule by carving on the posts in the clubroom (while casting sidelong glances at the leader), deliberately walking behind the burlap walls of the clubroom without permission (mentioned to an interviewer), leaving the club meeting early, and pretending not to hear when spoken to by the leader. The third and fourth kinds of behavior were also typical of aggressive authoritarianism and have been mentioned in describing the first experiment during which two scapegoats emerged. As has been mentioned, changes in amount of aggression while the leader was out, and days of transition to a freer atmosphere were especially good indicators of the existence of unexpressed tension in the apathetic autocracies.

Two very interesting examples of what we have tentatively called "release behavior through an impersonal substitute hate object" are worthy of description. During the eleventh meeting of the first experiment the authoritarian group was given a chance to indicate by secret ballot whether they would like the club to stop or continue for several more meetings. We may go to an observer's record for further comments:

> Peculiar actions follow the leader's announcement that because of the vote there will be no more meetings after today. The leader asks RO and J to put the paper on the floor as usual. They put it down and then run and jump on it time and again in a wild manner. The group masks are divided among the members and J immediately begins to throw his around violently, pretending to jump on it. He throws it down again and again, laughing. R wants to know if it won't break, then starts to throw his down too. Later J and RO chase each other around the room wildly with streamers of towelling. . . .

Rather clearly the work products of this authoritarian atmosphere seemed to be the objects of aggressive attack rather than prideful ownership.

During a last meeting of the second experiment a rather similar burst of behavior occurred in one of the democratic groups. The group was highly involved in an activity of making an oil painting on glass. While the leader was out for a short time (by arrangement) a student in the janitor rôle came in to sweep. From the running accountist's record of the 20-second minute we find,

> He is making dirt fly and sweeping it toward the group. They all begin to cough but don't move from their work.

Several minutes later we find the comment,

> Janitor has almost swept them away, but still no hostile response. The project seems to have a very high valence.

Five minutes later the janitor had gotten them out of their chairs in order to sweep, then

> the janitor accidentally knocks a piece of their glass on the floor. They all yell and R makes as if to throw something at him. F says that if the leader were here he would beat up the janitor.

Five minutes later, after a number of comments criticizing the art work of the club, the janitor left. The members dropped their work completely, climbed the rafters and made considerable noise. On the thirty-sixth minute we find,

> R comes down from the rafter and begins to complain about the janitor, L joins him and they all complain bitterly and loudly.

Within three minutes the group began to destroy a large wooden sign upon which they had painted the club name. Such comments as this appear in the running account,

> F is wielding two hammers at once. . . . R is busy pulling out all the nails. . . . They are excited. . . . F knocks the first hole through it. . . . R tries to caution F for a minute, and then gets busy himself . . . their unexpressed aggression toward the janitor is taking a violent outlet . . . they are all very serious and vicious about the destruction of the sign . . . they seem to be getting a great deal of "pure animal pleasure" of the pillage.

The meeting ended with three or four minutes of pleasant conversation.

C. INTERPRETIVE COMMENTS

From the many theoretical problems involved we should like to discuss but one, namely, the problem of aggression and apathy. Even here we wish to show the complexity of the problem and its possible attack from a field theoretical point of view rather than to set forth a definite theory.

It is not easy to say what aggression is, that is, if one is not satisfied with mere verbal definition. One important aspect obviously is that one group or an individual within a group turns against another group (or individual). In case these groups are subgroups of one original group, it can be called aggression *within a group,* otherwise aggression *against an outgroup.*

Both kinds of aggression occurred in our experiments. All of these aggressions were spontaneous in character. In other words, it was not a situation where a group of people are ordered by a politically dominating power (like the state) to indulge in a certain type of directed activity called war. On the whole the aggression was the outcome of the momentary emotional situation, although

in two cases the aggressions had definitely the character of a fight
of one group against another group and showed a certain amount
of coöperative organization within each group.

It is necessary to mention four points which seem to play a
dominant rôle in the spontaneous aggressions: tension, the space of
free movement, rigidity of group structure, and the style of living
(culture).

1. *Tension*

An instance where tension was created by *annoying* experiences
occurred when the group work was criticized by a stranger (janitor).
There were two cases where fighting broke out immediately
afterwards.

In the autocratic atmosphere the behavior of the leader probably
annoyed the children considerably (to judge from the interviews
reported above).

In addition, there were six times as many directing approaches
to an individual by the leader in autocracy than in democracy
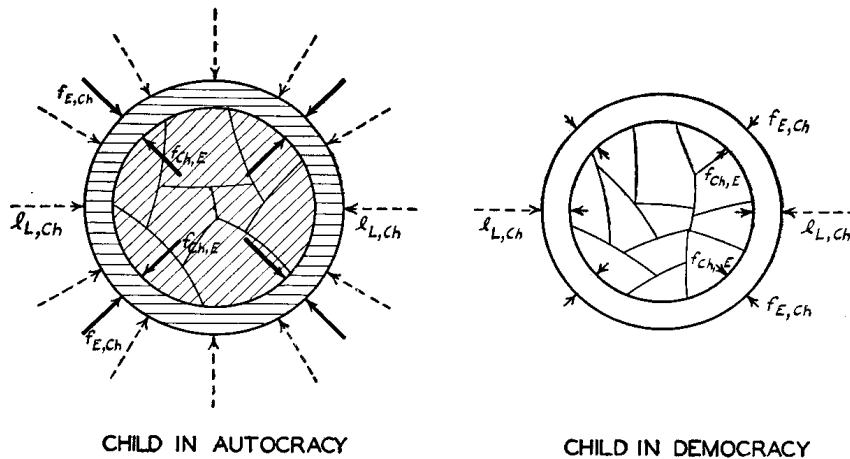(Figure 7). It is probably fair to assume that the bombardment

CHILD IN AUTOCRACY   CHILD IN DEMOCRACY

FIGURE 7

LEADER PRESSURE AND CHILD TENSION

In the authoritarian situation the leader makes six times as many directing
approaches $(l_{L,Ch})$ to the child member as in the democratic situation. This
creates social pressure (equivalent to forces $f_{E,Ch}$ of the environment on
the child) and therefore a higher state of tension in the child in the
autocratic group; this tension demands some sort of outlet toward the
environment (equivalent to forces $f_{Ch,E}$).
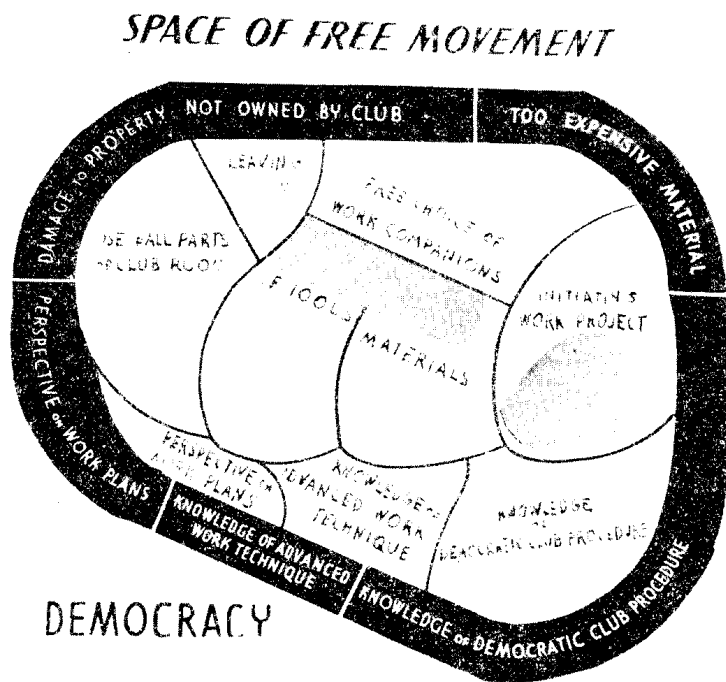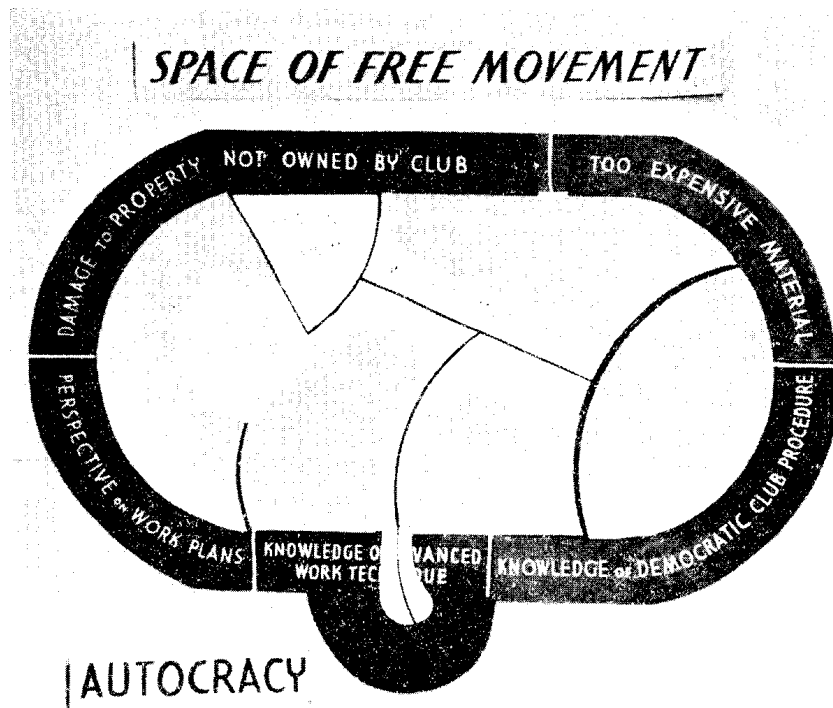
FIGURES 8 AND 9
SPACE OF FREE MOVEMENT IN AUTOCRACY AND DEMOCRACY
In the autocratic situation the space of free movement (white) was origi-
nally bounded only by the limitation in ability and knowledge (black) of the
members, but was soon limited much further by the social influence of
the leader (gray). In democracy the space was increased with the help
of the leader.

with such frequent ascendant approaches is equivalent to higher *pressure* and that this pressure created a higher tension.

2. Narrow Space of Free Movement as a Source of Tension

On the whole, even more important than this single annoying experience was the general atmosphere of the situation. Experiments in individual psychology (1) seemed to indicate that lack of space of free movement is equivalent to higher pressure; both conditions seem to create tension. This seemed particularly true if an originally larger space was narrowed down (one is reminded here of the physical tension created by decreasing volume, although one should not overstress the analogy).

Our experiments seemed to indicate that a similar relation between the narrow space of free movement and high tension holds also in regard to groups. The space of free movement in autocracy was smaller in relation to the activities permitted and the social status which could be reached (Figures 8 and 9). In *laissez-faire,* contrary to expectations, the space of free movement was not larger but smaller than in democracy, partly because of the lack of time perspective and partly because of the interference of the work of one individual with the activities of his fellows.

3. Aggression as the Effect of Tension

The annoying occurrences, the pressure applied by the leader, and the lack of space of free movement, are three basic facts which brought up a higher tension. Our experiments indicate that this higher tension might suffice to create aggression. This seems to be of theoretical importance; obviously some aggressive acts can be viewed mainly as a kind of "purposive" action (for instance, to destroy a danger), and one might ask whether or not this component is an essential part in the causation of any aggression. In our experiments, the two wars between the two outgroups can hardly be classified in this way. They seemed to be rather clear cases where aggression was "emotional expression" of an underlying tension.

4. Rigidity of Group Structure

However, to understand aggression one will have to realize that tension is only one of the factors which determine whether or not an aggressive action will take place. The building up of tension

294   JOURNAL OF SOCIAL PSYCHOLOGY

can be said to be equivalent to the creation of a certain type of need which might express itself in aggressive action. Tension sets up the driving force (2) for the aggression (in the two situations with which we are dealing). However, whether these driving forces actually lead to aggression or to some other behavior, for instance that of leaving the group, depends on additional characteristics of the situation as a whole. One of these seems to be the rigidity of the social position of the person within the group.

Aggression within a group can be viewed as a process by which one part of the group sets itself in opposition to another part of the group, in this way breaking the unity of the group. Of course, this separation is only of a certain degree.

In other words, if M indicates a member or subgroup and Gr the whole group, an aggression involves a force acting on the subgroup in the direction away from the main group $(f_{M,-Gr})$ or other part of the subgroup. From this it should follow theoretically
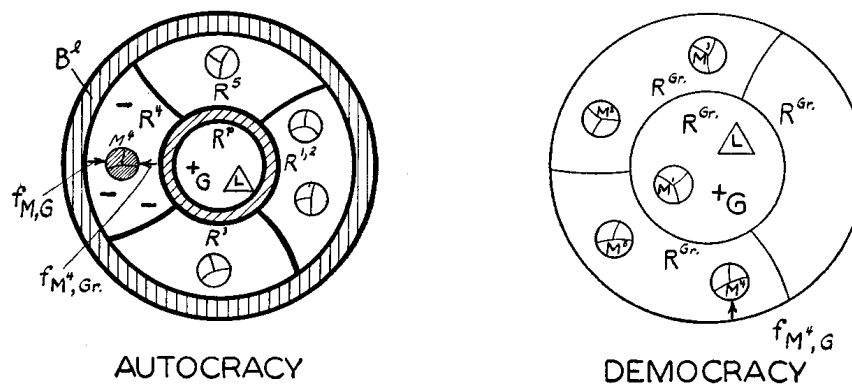

AUTOCRACY   DEMOCRACY

FIGURE 10

RIGIDITY OF GROUP STRUCTURE AS A TENSION FACTOR

In autocracy where each member or subgroup $(M^1, M^2 \ldots M^5)$ has a circumscribed region of activity $(R^1, R^2 \ldots R^5)$, and especially where the central regions of group life (policy formation R^p) are inaccessible to most members, rigid barriers (B) to own goals (G) continually frustrate members' efforts. The member's own position in the group structure (R^4) therefore acquires a negative valence, usually creating a force away from group membership $(f_{M^4,-Gr})$. But in rigid group structures a restraining barrier (B^l) keeps members or subgroups from leaving until a very high state of tension develops.

In democracy where all group regions (R^{Gr}) are accessible to all members $(M^1, M^2 \ldots M^5)$, their own goals (G) are more easily attained and no such frustrating situation develops.

that if a subgroup can easily locomote in the direction away from the group it will do so in case this force shows any significant strength. In other words, a strong tension and an actual aggression will be built up only in case there exist forces which hinder the subgroup from leaving the group (Figure 10).

Cultural anthropology gives examples which might be interpreted from this angle. The Arapesh (7), for instance, are living in a society where everyone is a member of a great variety of different groups and seems to shift easily from one group to another; it is a society without rigidly fixed social position. The fact that they show extremely little aggression might well be linked with this lack of rigid social structure.

Another example might be seen in the fact that adolescents who have been kept within the family probably show more aggression; in other words, the more rigid the family structure the more difficult it is for them to move from childhood to adulthood.

An additional example is the well-known fact that narrow family ties which serve to make it difficult for husband and wife to leave each other may make aggression between them particularly violent.

In our experiment, autocracy provided a much more rigid social group than democracy. It was particularly difficult for the members of an autocracy to change their social status (3). On the other hand, in both groups the member did not like to leave the group as a whole because of the interest in the work project and the feeling of responsibility to the adult leader.

On the whole, then, the rigidity of the group will function as a restraining force (2) against locomotion away from the group, or from the position within the group. Sufficient strength of this restraining force seems to be one of the conditions for the building up of a tension which is sufficiently high to lead to aggression.

It can be seen easily that the barriers limiting the space of free movement may have a similar function. We mentioned above, that a narrow space of free movement seems to be equivalent to pressure, and, in this way, creates tension. At the same time, the barriers prevent locomotion, thus providing the restraining forces necessary for building up higher tension.

It was already mentioned that these restraining forces are particularly strong in our autocratic group (Figure 10).

5. *Style of Living (Culture)*

Whether or not a given amount of tension and given restraining forces will cause a person to become aggressive depends finally upon the particular patterns of action which are customarily used in the culture in which he lives. The different styles of living can be viewed as different ways a given problem is usually solved. A person living in a culture where a show of dominance is "the thing to do" under certain conditions will hardly think of any other way in which the solution of this problem may be approached. Such social patterns are comparable to "habits." Indeed, individual habits as well as cultural patterns have dynamically the character of restraining forces against leaving the paths determined by these patterns. In addition, they determine the cognitive structure which a given situation is likely to have for a given individual.

For the problem of aggression, this cultural pattern, determined by the group in which an individual lives and by his past history, is of great importance. It determines under what conditions aggression will be, for the individual concerned, the "distinguished path"
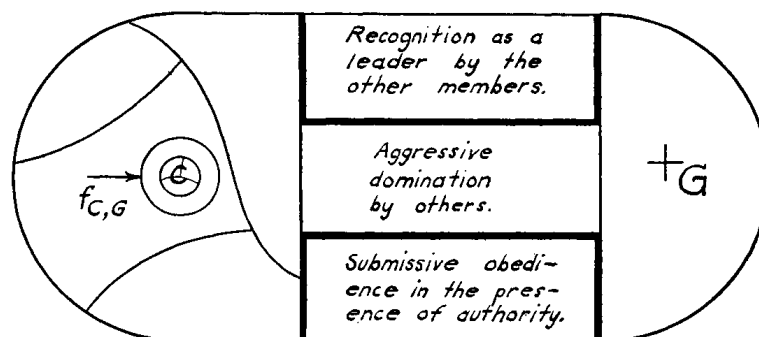

FIGURE 11

DIFFERENT STYLES OF LIVING AS REPRESENTED BY DIFFERENT DISTINGUISHED
PATHS (AGGRESSIVE AUTOCRACY)

The goal (G) of maximum social status and space of free movement can be reached by one or more of several procedures depending on actual possibilities and the prevailing mode of behavior in that group. In our "experimentally created cultures," the distinguished path to G was for a child (C) in aggressive autocracy that of aggressive domination of other members. In a similar situation the distinguished path for a member of democratic groups seemed to be that of gaining voluntary recognition of the other members as a leader through work and social efforts. In the situation of apathetic authoritarianism the path seemed to be that of submissive obedience to authority, which might win praise from the leader.

to the goal (2). It determines, furthermore, how easily a situation will show for him a cognitive structure where aggression appears to be one possible path for his action (Figure 11).

The factors named are sufficient to warn against any "one-factor" theory of aggression. Here, as in regard to any other behavior, it is the specific constellation of the field as a whole that determines whether or not aggression will occur. In every case one has to consider both the driving and the restraining forces and the cognitive structure of the field. Such a field theoretical approach seems to be rather arduous. On the other hand, only in this way will one be able to understand for instance the paradox of behavior that autocracy may lead either to aggression or to apathy. It was stated that aggression is partly to be viewed as an emotional outbreak due to tension and that this tension, in turn, is due to pressure and restraining forces (lack of space of free movement). We have apathy when the pressure and the restraining forces from without are kept stronger than the forces ($f_{Ch,E}$ in Figure 7) within the person which lead to the emotional expression, and are due to the tension. Whether or not the forces from without or those from within are stronger depends upon the absolute amount of pressure and also on the "willingness" of the person to "accept" the pressure.

The field theoretical approach also provides indications for the circumstances under which one might generalize the results of such experimental group studies. One must be careful of making too hasty generalization, perhaps especially in the field of political science. The varieties of democracies, autocracies, or *"laissez-faire"* atmospheres are, of course, very numerous. Besides, there are always individual differences of character and background to consider. On the other hand, it would be wrong to minimize the possibility of generalization. The answer in social psychology and sociology has to be the same as in an experiment in any science. The essence of an experiment is to create a situation which shows a certain pattern. What happens depends by and large upon this pattern and is largely although not completely independent of the absolute size of the field. This is one of the reasons why experiments are possible and worthwhile.

The generalization from an experimental situation should, therefore, go always to those life situations which show the same or sufficiently similar general patterns. This statement includes both the rights and the limitations of generalization.

D. SUMMARY

1. In a first experiment, Lippitt compared one group of five 10-year-old children, under autocratic leadership, with a comparable group under democratic leadership. In a second experiment, Lippitt and White studied four comparable clubs of 10-year-old boys, each of which passed successively through three club periods in such a way that there were altogether five democratic periods, five autocratic periods, and two *"laissez-faire"* periods.

2. In the second experiment, the factor of personality differences in the boys was controlled by having each group pass through autocracy and then democracy, or vice versa. The factor of leader's personality was controlled by having each of four leaders play the rôle of autocrat and the rôle of democratic leader at least once.

3. Records on each club meeting include stenographic records of conversation, quantitative symbolic records of group structure, quantitative symbolic records of all social interactions, and a continuous interpretive running account. Parents and teachers were interviewed; each boy was given the Rorschach ink blots, a Moreno-type questionnaire, and was interviewed three times. Analysis of causal relationships between these various types of data is still far from complete. As a preliminary report we are giving here a part of the data bearing upon one specific problem, that of aggression.

4. In the first experiment, hostility was 30 times as frequent in the autocratic as in the democratic group. Aggression (including both "hostility" and "joking hostility") was 8 times as frequent. Much of this aggression was directed toward two successive scapegoats within the group; none of it was directed toward the autocrat.

5. In the second experiment, one of the five autocracies showed the same aggressive reaction as was found in the first experiment. In the other four autocracies, the boys showed an extremely non-aggressive, "apathetic" pattern of behavior.

6. Four types of evidence indicate that this lack of aggression was probably not caused by lack of frustration, but by the repressive influence of the autocrat: (*a*) outbursts of aggression on the days of transition to a freer atmosphere; (*b*) a sharp rise of aggression when the autocrat left the room; (*c*) other indications of generalized apathy, such as an absence of smiling and joking; and (*d*) the fact that 19 out of 20 boys liked their democratic leader better than their

autocratic leader, and 7 out of 10 also liked their *"laissez-faire"* leader better.

7. There were two wars," more or less playful, and without bodily damage, between clubs meeting in the same room at the same time. The first of these began gradually, the second suddenly. Three factors, present in both cases, seemed conducive to group conflict: (*a*) irritation and tension produced by a hostile stranger, (*b*) absence of a respected adult, and (*c*) lack of any absorbing alternative activity.

8. There were two striking instances of aggression against impersonal objects.

9. A general interpretation of the above data on aggression can be made in terms of four underlying factors: tension, restricted space of free movement, rigidity of group structure, and style of living (culture).

REFERENCES

1. LEWIN, K. A Dynamic Theory of Personality: Selected papers. Trans. by Donald K. Adams and Karl E. Zener. New York: McGraw-Hill, 1935. Pp. ix+286.

2. ————. The conceptual representation and the measurement of psychological forces. *Duke Univ. Contrib. Psychol. The.,* 1938, **1**, No. 4. Pp. 247.

3. ————. Experiments in social space. *Harvard Educ. Rev.,* 1939, **9**, No. 1.

4. LEWIN, K., & LIPPITT, R. An experimental approach to the study of autocracy and democracy: A preliminary note. *Sociometry,* 1938, **1**, 292-300.

5. ————. Field theory and experiment in social psychology. (Accepted for publication in the May issue of the American Journal of Sociology.)

6. LIPPITT, R. An experimental study of authoritarian and democratic group atmospheres. *Univ. Iowa Stud., Stud. Child Wel.,* 1939, **16**, No. 3. [In press.]

7. MEAD, MARGARET [ED.]. Coöperation and Competition among Primitive Peoples. New York: Macmillan, 1937. Pp. viii+325.

8. MORENO, J. L. Who Shall Survive? A new approach to the problem of human interrelations. (Nervous and Mental Disease Monograph Series No. 58.) Washington, D. C.: Nervous & Mental Disease Publishing Co., 1934. Pp. xvi+437.

Child Welfare Research Station
State University of Iowa
Iowa City, Iowa