AN EXPERIMENTAL STUDY OF THE

RELATION BETWEEN THE PRODUCTIVITY

AND STRUCTURE OF SMALL GROUPS

by

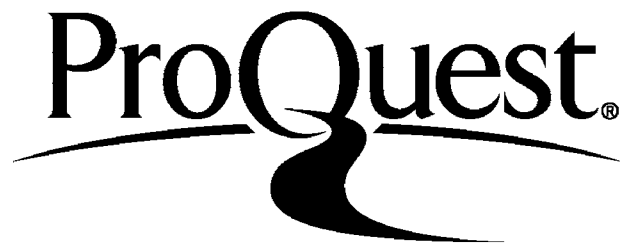Sheila Marion Fitz Gibbon

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ABSTRACT

This piece of research aimed at describing the individual roles and role structures that existed in a sample of thirty groups of women students engaged in solving a verbal puzzle. It was hoped that some association would be found between role structure and productivity. It was expected that the leader would contribute most in the most important categories of behaviour, and that she would be more intelligent than her followers.

Some of the individual roles that were found were, of course, familiar, for example, the leader, the expert and the quiet member. Others were not so familiar, although they were quite common. For example, there were the member who agrees as often as she suggests and the member whose contributions noticeably decrease as one goes from suggestions and agreements to the categories "going forward with the puzzle" and "asking the group's opinion".

Three types of role structure were found, groups with one leader, with two leaders, and with three or more leaders. This division was based on subjects' choice of leader but some statistical differences were found to exist as well.

Disagreement was expressed with Bales' idea that multiple-led groups are marred by discontent and antagonism. It was shown that groups with multiple leadership did not differ significantly from the other kinds of group, either in productivity, amount of expressed criticism or satisfaction with personal relationships.

It was not possible to link role structure with productivity for no statistical differences were found to exist for productivity among the three kinds of group. It is possible that the samples of multiple-led and double-led groups were too small.

Single leaders, while not being significantly more intelligent than their followers, contributed significantly more comments in eleven categories than the remainder of their groups. The two leaders in the double-led groups contributed significantly more in ten categories.

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Chapter I

Leadership: a historical perspective

Social conditions appear to have determined much psychological thinking about leadership, and theories seem to have changed with conditions. While the reasons for rejecting one line of research and embracing another have at first glance appeared purely scientific, there have often been at the same time, changes in the structure of society that have been too great, too contemporaneous and too similar, for the different psychological outlook to have come about purely by chance.

Sometimes, however, the phenomenon under investigation has simply died out, as with Le Bon's crowds. For a comparable phenomenon one would now have to go to the negro rioters in Los Angeles or San Francisco, or the hunger marchers in Delhi. Le Bon, however, was not to forsee this and his study of crowds was based on the theory that unless the authorities learnt to handle and understand them in time, they would bring the nation to a state of anarchy. With the spread of education and a calmer acceptance of enfranchisement the crowds somehow disappeared, in Europe, at any rate, and psychological attention swung to the "great man".

The great leader was thought to be liberally gifted with traits of determination, intelligence, initiative, decisiveness and so on, and was not at all as fiery and irresponsible a person as Le Bon had depicted him. He was, indeed, a pillar of society. At this time attempts were

made to contrast him with his followers, who did not share these traits, or "automatons" as Terman called them.   This approach too must surely be based on prevailing social conditions (Harding, 1953), with privilege, inherited wealth, status and special education granted to only a few, very fortunate, individuals.   Disillusion with this theory occurred after the Second World War, which had abolished a great many social barriers.   Soon very little of the trait approach was left in the literature.   Also taking place after the Second World War there was government action towards taxing unearned income, better educational opportunities were introduced, and there was created the welfare state in which the rich were legally obliged to subsidise their poorer neighbours in times of sickness or stress.   Greater social mobility became possible.

At this time psychologists believed that the situation determined the leader (Gibb, 1947).   He might, indeed, be anyone in the group and everyone could be a leader to some extent.   The barrier between leaders and followers was broken.   But this approach, too, was found to have its drawbacks, and attention is now returning, with the swing of the pendulum, to the trait approach, and the possibility that some leaders, at any rate, may have exceptional abilities.   At the same time it is sometimes bemoaned that society has become more stratified, that housing estates contain only the working class and that secondary modern schools are likewise (Observer, 4th September, 1966).

From the muddle and contradictions of these approaches it is not possible at all to discern the emergence of a unified theory, only a few slight advances. It may even be presumptuous to expect one, for while psychologists have had their glasses fixed on a supposedly simple, phenomenon, leadership, enough has been said, perhaps, to indicate that that phenomenon has shifted and altered and shared in the changes of society. The type of leader who emerges in small groups today may not be the same as the type of person who emerged in the past. He may now-adays, for example, be of working-class origin. Thus it may therefore never be possible to learn the truth about leadership, only a succession of truths, each relevant principally to the period in which the experiment took place, and eligible for re-testing in future times.

The situation is rather similar to an imaginary one in which the interests and values of a microscopic culture studied by the biologist were to influence his preoccupations and researches. The exasperation he might be expected to feel may surely be shared by the psychologist, faced with scientific contradictions, incomplete proofs and a constantly-changing phenomenon, that whether he likes it or not, or knows it or not, attempts to channel his interests in a direction of its own choice.

Early accounts of leadership are rather incomplete. Trotter (1916) leaves it out altogether. Freud's account, too, (1921) raises more problems than it solves. While believing that the individual is bound by two kinds of libidinal tie, on the one hand to the leader, and on the

other to the members of the group, he would prefer to leave "for sub-sequent enquiry" "how these two ties are related to each other, whether they are of the same kind and same value, and how they are to be described psychologically". It would have been interesting to have his answer to these questions; he was alone for many years in posing the problem of leaderless groups, in which ties of the second kind only exist. On the whole he is inclined to think that an idea or an abstraction may take the place of the leader - "then the question would also arise whether a leader is really indispensable to the essence of a group - and other questions besides".

Nowadays one may doubt the necessity of there being a leading idea, and leave it out altogether as Saul Scheidlinger (1952) does when he says that positive identifications in groups may be with an admired person (or group); with a rival (or group of rivals) whose place is coveted; with an individual (or group of people) possessing similar needs. He goes on to distinguish, somewhat sharply, between autocratic and democratic leadership, but does not describe the dynamics of groups with a leadership corps, and, indeed, there does not seem to be any formulation specifically for the type of "group-led" group found sometimes in the present study.

A decade or two before Freud, Le Bon wrote his study of crowds (1896). Le Bon's leaders are, however, rather a special case for they are leaders of mobs. They do not seem particularly praiseworthy or

even well-balanced.

> "They are not gifted with keen foresight, nor could they be,
> as this quality generally conduces to doubt and inactivity.
> They are specially recruited from the ranks of those incredibly
> nervous, excitable, half-deranged persons who are bordering
> on madness."

They lead by reason of the faith they inspire and the prestige they possess. This prestige may be of two kinds. It may be either acquired, deriving from wealth, success or the possession of a title, or personal, which is "a magnetic fascination" that the leader exercises on those around him. Joan of Arc, Mahomet, the Buddha, and Jesus Christ were all possessors of the latter kind of prestige. The former kind drew attention in the trait analyses of leadership, and Stogdill (1962) has recently suggested that it is still a useful topic of enquiry. Charismatic leadership, however, along with the other paraphenalia such as contagion, suggestibility and persuasion, upon which Le Bon relied for explanation, has largely gone out of fashion.

Le Bon's description of leaders is not quite equal to his description of crowds, which has been considered classic (Freud, 1921). He is not able to explain how it is that prestige has such a striking effect. More seriously, and in common with other investigators, he created an unnecessarily wide gulf between leaders and led, making the leader so far above the crowd, so aloof from the laws that govern other men, that he became an enigma. The leader inspires and compels his followers. He, in his turn, is fascinated and compelled by a powerful

idea. Le Bon himself was unsatisfied with this explanation, and found exceptions to it, for whom there was no ruling idea. He believed that these exceptions "defy psychological analysis." It was perhaps natural that in subsequent studies of leadership, the trait analyses, a great variety of attempts were made to explain and describe these singular individuals. The conceptual gulf between leaders and led existed all through the first half of the twentieth century. It was only after the Second World War, with the realisation that most people are leaders at some time or another, that leaders seemed perhaps not quite so unique or marvellous after all. The psychological problem had, indeed, been largely manufactured, by comparing Napoleon, for instance, with ordinary people.

The search for leadership traits occupied forty years. Differences were found between leaders and non-leaders among nursery school children (Parten, 1933), school children (Caldwell and Wellman, 1920; Detroit Teachers' College, 1929), high-school boys (Bellingrath, 1930), boy scouts (Partridge, 1934), students (Hunter and Jordan, 1939), campus leaders (Thurstone, 1944) and many others.[1]

At this point in time there seems little purpose in retracing the same ground. Instead, an early piece of research by Terman (1904) will be taken as typical. His conclusions are as follows:

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(1) These studies have been summarised by Jenkins (1947) and Shears (1952).

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"The leaders in the tests, according to the testimony of their teachers, are, on the average, larger, better-dressed, of more prominent parentage, brighter, more noted for daring, more fluent of speech, better looking, greater readers, less emotional, and less selfish than the automatons."

Both in the obtaining of the opinions of teachers, and in the type of differentiating characteristic chosen, this is a typical piece of research. Less typical was the independent criterion adopted for choosing the leaders. Groups of children were given what purported a memory test about objects they had seen pasted on cardboard. Some questions, however, were catch questions, and asked about objects that were not there. The leaders were those whose answers were imitated most often by the other children. "Suggestibility" was measured by the number of times each subject fell into the trap. The leaders were, surprisingly, found to be more suggestible than the others. Terman remarks: "This may indicate that there is some truth in the assertion, often made, that to be a leader it is often more important to lead the way than to be right." This conclusion finds an echo in the present research when the leader is compared with the expert (p.75). Another suggestive finding was that some children, although just as quick at replying, were not followed as readily as some of the others, who thereby became leaders. This could have led the way to research into the leader as a member of his group, but unfortunately its significance was missed, and most studies of leadership that followed, were studies of personality.

There have been several attempts to find suitable tests for detecting leadership ability. The Allport-Vernon Study of Values has been

suggested (Coffin, 1944; Thurstone, 1944), Sheldon's technique (Coffin, 1944), the Gottschaldt Figures (Thurstone, 1944) and two-hand tapping test (Thurstone, 1944), the Bernreuter Personality Inventory (Richardson and Hanawalt, 1944) and the Rorschach ink blots (Gibb, 1949). Most of these tests are now obsolete. Currently the Gordon Survey of Interpersonal Values, and the Fleishman Leadership Opinion Questionnaire (Fleishman and Peters, 1962) are in existence.

Possibly the most famous test was the leaderless group technique (Vernon and Parry, 1949), constructed for the selection of army officers during the Second World War. It was designed to supplement psychological and psychiatric assessments, which had been found not quite sufficient by themselves. The leaderless group situation was intended to reveal, on the one hand, the individual's evaluations of the group's objectives relative to his own, and his attitudes towards the group and towards co-operation, and on the other hand, the group's reaction to him, and his status within it. The reason for the lack of a suitable paper-and-pencil test at that time is apparent from the subsequent history of paper-and-pencil tests of leadership. Most of them have not survived.

The trait approach did not survive the Second World War. After 1945 leadership was seen in quite a different light. Indeed it became utterly taboo to speak of leadership traits at all. Much quoted in support of the new position (Gouldner, 1950; Gibb, 1958; Cartwright and Zander, 1960), was a critical study by Charles Bird. He examined twenty trait studies conducted prior to 1940 and found that altogether

seventy-nine traits had been discovered. They were, of course, too many to be possessed by any single leader. Only five per cent of the traits were common to four or more investigations. There was therefore no agreement about the most important traits.

Gouldner (1950), too, compiled a list of criticisms, which were as follows:

1. There is nothing to tell which traits are the most important, although some weighting seems probable.

2. Traits in a single list are not mutually exclusive. One finds together, for example, "tact", "common sense" and "judgement".

3. There is no distinction between traits enabling the leader to rise to his position, and those enabling him to maintain it. (This criticism is repeated by Cartwright and Zander, 1960).

4. Leadership traits are said to reside in the leader prior to his taking the leadership position in a sort of non-behavioural sense, and there is nothing to state how these traits become manifest.

5. The same trait may function differently in personalities that are differently organised.

Typical of the new approach is Gouldner's statement: "That the leader is involved in a network of relationships with other individuals, who, together with him, comprise a group, is a consideration the implications of which elude these trait-analysts."

The trait approach, therefore, was deemed quite useless, and few of the results of forty years research were considered valuable. Thus Jenkins[1] wrote: "The only common factor among leaders seems to be technical competence in a particular field." Brown[1] could only find intelligence and a rather nebulous "psycho-sexual appeal".

Coffin's more moderate approach (1944) went quite unheeded. He listed 135 traits that by inspection seemed to group themselves into several clusters, and appeared to be related to three components of leadership. For example, the leader's function of planning includes intelligence, imagination etc.; organising ability needs physical energy, self-reliance, initiative etc.; the ability to persuade requires social responsiveness, easy social relations, imperturbability etc. No-one took any notice of this attempt to sort out the semantic difficulties, which seemed in part to be the stumbling block.

Stogdill's contribution (1948), however, was more than semantic. After examining a host of studies he reached the conclusion that these traits are most certainly associated with leadership: capacity, achievement, responsibility, participation and status. Under these headings are, of course, included traits with similar names. For example, "capacity" includes "intelligence", "alertness", "verbal facility", "originality" and "judgement". The emphasis in the list on intellectual ability is worth noting. The evidence for adaptability

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(1) cf. Gouldner (1950).

and extraversion as characteristics of leaders was found to be weak,
and for dominance, contradictory. The question of mood control and
optimism, Stogdill suggested, deserved thorough investigation, and
indeed it still does, for it has been found that even groups of mentally
sick people are not without leaders (Bion, 1961). It would be interest-
ing to have data on the mental balance of leaders of normal groups.
All the traits Stogdill mentioned are included in three or more studies.
There seems no doubt after reading his article that the trait approach
had not been utterly mistaken, although the concept of "trait" itself
was rather unsatisfactory. Indeed it came under review by Anastasi
(1948) in the same year. Stogdill's article, classic as it has since
been called (Gibb, 1958) was without influence on theoretical writing
and research in the years immediately following, and even Stogdill him-
self adopted the new position.

The new theory, of course, underlined the "situation". No longer
was leadership considered just a matter of personality, but of person-
ality in interaction with the situation in which the group found itself
as well as with the personalities of the other group members. This
point of view was expressed by most writers on leadership immediately
after 1945, among whom may be mentioned Jenkins (1947), Gibb (1947),
Stogdill (1948), Bradford (1948), Hemphill (1949), Carter (1949), Bell
and French (1950) and Cartwright and Zander (1960).

Foremost among the proponents of the new orientation was Gibb.
Somewhat influenced by Lewin, he believed that since the individual's

characteristics and actions change under the varying influence of the

social field, it is misleading to talk about traits, statically con-

ceived.   It is necessary to think of leadership as apt to change with

circumstances.   This quotation may suffice to state his position:

> "Observation of group behaviour ... strongly supports the con-
> tention that leadership is not an attribute of personality or of
> character.   It is a social role, the successful adoption
> of which depends upon a complex of abilities or traits.   But
> even more the adoption of a leadership role is dependent upon
> a specific situation."

Leadership was now expected to change with changing circumstances

and it became possible to attribute some kind of leadership behaviour to

every member of the group.   Cattell's (1951) statement runs: "Every

man in a group is to some extent a leader, in so far as every man has

some effect upon the syntality of the group."

This position is certainly an improvement on the view that pre-

ceded it, but perhaps goes rather too far in making ..nonsense of the idea

of there being a single leader at all.   In the present research it was

possible to show that one individual could be identified as leader in

most groups with the minimum of doubt.   For others it was necessary to

invoke Gouldner's idea (1950) and Cartwright and Zander's (1960) of a

leadership "corps".   Only six groups out of thirty seemed to corres-

pond with Cattell's point of view with most members sharing the leader's

position.

Experimental work on the "Situational" position took two forms.

The composition of the groups was varied and so were the tasks.   It

was expected that different leaders would emerge. The results were
not completely successful. Indeed, at the conclusion of Bell and
French's report (1950) the authors declare: "If similar results con-
tinue to accumulate for other types of situation the recent trend
towards emphasis on situational factors in leadership may require some
re-evaluation".

The results, however, were typical for this kind of experiment
(cf. Borgatta, Bales and Couch, 1954). The authors varied the person-
nel of each group, thus ensuring that each subject met once and only
once with every other subject. The task was to discuss a problem of
psychological adjustment. At the end of each session members were
asked to nominate a discussion leader for a hypothetical second session,
and to rank each subject in order of preference for this. The average
status score for each subject for the first five sessions was correlated
with his score for the sixth. The correlations ranged from -.03 to
.98, with an average correlation of .75.

An unpublished doctoral thesis by Gibb (quoted by Shears, 1952) was
no more successful. He concluded that, in artificial groups where
little of the leader's personality is involved, "it seems possible for
the same individual to occupy the leader role, through changing situ-
ations, through modifying his behaviour".

Only slightly more success was obtained by Carter and Nixon (1949),
in whose experiment pairs of boys were required to do three types of

task, intellectual, clerical and mechanical, and were rated on leader-
ship behaviour by concealed observers.   Correlations between the intel-
lectual and clerical tasks were high, the same boys tending to hold the
leadership position in each situation.   The average correlation between
these two activities and the mechanical assembly task, however, was only
.35, different leaders tending to emerge.   Carter and Nixon conclude,
"there are certain families of situation that go together."

Hemphill's work (1949), although called "Situational Factors in
Leadership" is a more indirect attempt to establish the "situational"
position.   It does not rely on different leaders' arising in different
situations, but instead seeks to link particular aspects of the leader's
behaviour with particular types of group, which might be either large
or small, homogeneous or dissimilar, of flexible or inflexible organ-
isation etc.   The leaders of these groups might be appointed or emer-
gent, and some may, of course, have been suitable for leading other kinds
of group in other situations, through, as Gibb found, "modifying their
behaviour."

Hemphill's research does not prove that the identity of the leader
is different in different situations, although it enabled various
interesting hypotheses to be formulated.   The following may be given
as an example:

> "If a leader fails to control emotional reactions his leadership
> adequacy will tend to be judged low: first, in groups with
> established methods of proceeding with activities ... second,
> in groups where membership is relatively unpleasant. ....."

One is left to assume that lack of self-control is not so important in happier, less-formal groups.

Hemphill's other hypothesestend to be of the same type, and concern quick decision-making, confidence in decisions, loss of prestige, authority, the leader's welfare versus his obligation to the group, preference for the company of superiors and inconsistent behaviour. These factors are all hypothesised to be more important in some groups than in others, and for some leaders rather than others.

Perhaps it was inevitable that the trait approach should reappear but recently a certain exasperation with it has been expressed by Clifford and Cohn (1964). They believe that more conclusive results could have been obtained if the range of "leader roles" examined had been wider.

The elections for various leadership positions were studied in a children's summer camp. Each child was required to fill in a questionnaire that asked such questions as "who has the best ideas?" "Who is best at giving orders?" "Who is best at knowing how others feel?" It was discovered that different patterns of perceived attribute were typical of different kinds of leader. There was only one duplication of pattern. Thus it appears that leaders in different positions require different patterns of characteristic. This is evidence for the situational theory of the same kind as Hemphill's. Both experiments rely on "perceived attribute" rather than on the more satisfactory "measured

attribute". It was an unexpected by-product that Clifford and Cohn's experiment also included evidence for the existence of traits that may transfer from one situation to another. Thus it was found that some attributes were required for more than one role. "Best ideas" was related to four out of the seven roles; "best at giving orders" was related to three; "best at getting others to do good things" was also related to three.

It is ironic that some of the best evidence for the situational position should come from an experiment reported in 1928 by Cowley, two decades before the theory was stated so firmly. He examined four groups of leaders and followers; criminal leaders and criminal followers; officers and privates; non-commissioned officers and privates; student leaders and student followers. Twenty-eight tests were administered to each subject purporting to measure the following: aggressiveness, self-confidence, intelligence, emotional stability, finality of judgement, tact, suggestibility and speed of decision. He concluded that:

> "The leaders in these four different situations do not possess even a single trait in common ... Leadership is a function of a definite situation ... we must talk about leadership traits in particular situations."

It is unfortunate that in 1931 he should go back on this clearly-stated position. This time omitting officers and privates, but otherwise using similar groups of subjects and twelve tests, he demonstrated that the following four traits were held in common by all three groups of leaders: self confidence, motor impulsion, finality of judgement, and

speed of decision.   A factor analysis revealed a common factor running

through these traits.   However, certain other traits appeared not to be

held in common.   These included the more important ones of intelligence,

aggressiveness, suggestibility, tact, resistance to opposition and motor

inhibition.   They may perhaps have distinguished the different leaders

if Cowley had then been looking for this result.

A somewhat more descriptive approach was employed by Deutschberger

(1947) in his analysis of anti-social leadership.   Unfortunately there

was no control group of law-abiding subjects with which to make com-

parison, but one would expect to find differences between criminals and

law-keepers, and so, indeed, it appears.

Criminal groups are generally strongly dominated by a single leader,

who initiates and directs the group's activities.   He keeps his posi-

tion by deriding one member to another, stimulating fights and spurring

his followers to greater activity through ridicule and disparagement.

For his followers he "plays the role of the superego that has made an

alliance with the instinctual tendencies, thus enabling them to indulge

in massive displays of aggression without being overwhelmed by guilt."

Although this account is somewhat "unscientific" by strict experi-

mental standards, it seems worth including if only because the type of

leadership described does not accord with a more normal experience of

leaders.   If Deutschberger had been more "situationally" inclined he

might have added "leaders of criminal gangs in criminal situations tend

to be like this."

While the situational approach does not altogether appear to have succeeded, nevertheless it has not altogether failed either. One does not expect criminal leaders to be like law-abiding citizens (Deutschberger, 1947), army officers like students (Cowley, 1928), or swimming captains to be similar to banqueting organisers (Clifford and Cohn, 1964). They were not. Nevertheless when the task requires similar abilities to be displayed in a homogeneous population as with Bell and French's experiment (1950) or Nixon and Carter's (1949) the same leaders tend to emerge again and again. In order to prove that different leaders emerge in different situations it has not been enough to give a similar task to groups of people drawn from the same population, and also, perhaps, previously acquainted. One may agree with Clifford and Cohn that the range of situations studied, and, one may add, the variety of population, has not been quite wide enough.

Recently the trait approach has tended to reappear. Some experiments like that of Nelson (1964) are apt to produce despair in the reader, since they add only more traits to a list already overlong. In this case, self-confidence, alertness, job-motivation and aggression were found.

As Cartwright and Zander (1960) remark, "traits are still poorly conceived and unreliably measured." Gouldner's objection, that they are not clearly related to behaviour, may also be sustained. It is platitudinous to state that before more progress can be made in the

trait analyses of leadership, the concept will have to undergo funda-
mental re-definition.

However, one important piece of research that avoids traits, while
attempting to prove the existence of "great men", must certainly be
described (Borgatta, Couch and Bales, 1954). One hundred and twenty-
six Air Force personnel were brought together for 166 sessions in
three-man groups. They rated each other on leadership, their intel-
ligence was tested, individual assertiveness was measured, and a
sociometric test revealed social acceptability. The rating and
measures were multiplied together for each man. The top eleven men on
this product index were arbitrarily designated "great men", and
observed for three more sessions. At the end of this time seven of
them still retained top rank on the product index, although the member-
ship in each of the groups had been changed. As the authors claim,
"this is a remarkably stable performance."

The similarity to the conclusions of Bell and French (1950) may be
remarked, but the authors went on to prove that their subjects really
were "great men". They were not only always the leaders, but also they
improved the social "milieu" in which they were engaged. In the ses-
sions in which they participated less tension was expressed, positive
feelings more frequently shown, and this index, the number of suggestions
multiplied by the number of agreements, was higher. The index was
presumed to be related, on the one hand to productivity and on the other,

to the satisfactoriness of the experimental experience. It seems not
to have been validated by independent measures.

This experiment does, indeed, seem to have discovered some remark-
able young men. However, they remain rather the result of an intel-
ligent experiment than individuals of great ability, whose achievements
and abilities outside the laboratory are outstanding too. A longitudinal
study would have been welcome since the title "great" seems to imply
more than the evidence will sustain.

It does not anywhere seem to have been suggested that leadership
ability, like height and weight, might follow a normal curve. At one
extreme one would have the "great men" of, let us suppose, the Borgatta
study, all-rounders, intelligent, fluent, adaptable, of higher socio-
economic status and so on, and at the other the isolated and with-
drawn, who might constitute an interesting study in themselves. Most
people as one suspects, would lie "somewhere in the middle". The old
distinction between leaders and followers is, in many cases, obsolete.
As Cartwright and Zander (1960) remark "while certain minimal abilities
are required of all leaders, these are also widely distributed among
non-leaders as well". The main problem seems to be the people in the
middle, who lead now in one situation and now in another. One may,
at any rate, suppose that they do for there is no experimental evidence
to guide in any direction. Whether one agrees with the point of view
here presented or not, it is now not possible to believe, with the trait

analysts, that the population is divided into a few "great leaders" and a great many "automatons", or with the situationists, that leadership always changes with every change in the situation. A more moderate theoretical standpoint must now be found.

A point often insisted upon by the situationists is that leadership depends on task ability. This may mean either a high general intelligence or some more specific ability like mechanical aptitude. The possession of high general intelligence relative to other members of the group and a not unpleasing personality, may sometimes account for the transfer of leadership from one task situation to another. The mechanical assembly task of Carter and Nixon's required a special ability, and transfer did not take place.

A later paper by Gibb (1958) in which the importance of the situation seems now to have been dropped, emphasizes another aspect of the situationist position, namely that leadership is interactional. This point of view was given expression as early as 1935 by Smith, when he said that every recognition of superiority was really interactional. It received fuller expression by Gibb in 1947:

> "The choice of a specific individual for the leadership role will
> be more dependent on the nature of the group and on its purpose,
> than upon the personality of the individual; but it will be
> most dependent upon the personality and the group at any
> particular moment."

Jennings (1943), too, has adopted this to explain leadership and isolation in her study of girls in a remand home. She found that the

leaders were superior in their interactional behaviour and were skilful

in improving their social environment.   They were quick to establish

rapport, encouraged other members to take positions of responsibility;

they were fair, demanded considerate behaviour towards the less able

members and so on.

As Gibb said (1958):

"The emergence of group structure is strictly structure-in-
interaction.   By it, each member is assigned a position
within the system, and this position, or status, is an expres-
sion of his interactional relations with all the other
members."

Gibb also speaks of "colleagues" not "followers", but the above quota-

tion has certain important implications.   It means that the emphasis

must now be placed, as indeed it often is, on behaviour, not on the

perception of rather vaguely conceived traits.   It also means that there

may be a very real check on the influence of the exceptional individual,

when in contact only with people of low ability.   As Cartwright and

Zander have succintly expressed it (1960):   "It has been reported ...

that leaders tend to be bigger (but not too much bigger) and brighter

(but not too much brighter) than the rest of the members."   This

standpoint has been expressed by Stogdill also (1948).   The inter-

actional point of view appears to be one of the more enduring changes

of those taking place after 1945.

There remain to be discussed various types of leadership, demo-

cratic and authoritarian, supervisory and participatory and headship

and leadership.   There have also been general descriptions of the roles
of the leader, such as that by Krech and Crutchfield (1948).   Their
list is somewhat theoretical and unsupported by experimental evidence.
It is most applicable to institutional leadership, although at the end
are included such strictly psychological functions as "surrogate for
individual responsibility" and "father figure".   These kinds of func-
tion could perhaps have received more attention.

Redl (1942) has given a more analytically-oriented kind of des-
cription.   He prefers to discuss the "central person", rather than the
leader.   Gibb (1958) finds this work of pioneering importance.   It
certainly stands alone.   The effects on the group of certain roles -
patriarchal sovereign, leader, tyrant, love object, object of aggres-
sion, organiser, seducer, hero, bad influence and good example - are
described in terms of the dynamics of ego, super-ego and id.   The
analysis for the leader is perhaps a little idealistic.   He is said to
appeal to the love emotions of the children he teaches, in the case
Redl describes, as well as to their narcissistic tendencies, and that
rather than being their conscience, he is their ego-ideal.   This des-
cription has more value when put against the accounts for other "cen-
tral persons", but obviously leaves much to be desired.   It is possibly
true, as Gibb (1958) suggests, that there is a rich field for the
investigator who wishes to study the way followers feel about their
leaders.

Studies of kinds of leadership have scarcely ever been independent of moral values. The classic experiment on democratic, laissez-faire and authoritarian leadership by Lippitt, Lewin and White, originally reported in 1939, still goes on being quoted and reprinted. There seems no value in describing it yet again. It may suffice to say that the major findings were these: there were a large number of "leader-dependent" actions in both aggressive and apathetic reactions to autocracy; there were large amounts of aggressive behaviour and critical discontent in the aggressive reactions to autocracy; friendly, confiding conversations and group-minded suggestions were frequent in democracy; in general there was work-minded conversation in democracy and play-minded conversation in laissez-faire; more work was done in autocracy but it did not have the originality of that of democracy, and work-motivation was not as strong.

Democraptic attitudes and a certain group-mindedness were characteristic of a stereotype of leadership found by Frye (1965). These traits were rated high for leaders and low for non-leaders: intelligence, ability, consideration for others, willingness to support the group, emotional maturity, willingness to listen to problems, power, concern for the harmony of the group, creativity, consistency. These attributes were negatively related to the stereotype: suspiciousness, self-centredness and hypocrisy.

It has been observed by Sprott (1964) that in an autocratic community, such as Nazi Germany, the results of the Lippitt, Lewin and

White experiment would have been quite different. It is probably true also of Frye's stereotype.

The literature on leadership and headship does not leave one in quite so happy a frame of mind. It is often bedevilled by a running-together in the meanings of headship and domination, while headship and leadership are assumed to be different phenomena. Very possibly this running-together reflects a pre-war state of affairs in managerial practice, and should not be so applicable now. The definition of domination by Pigors (1935), quoted by Gibb in 1950, seems exceedingly dated.

> "Domination is a process of social control in which accepted
> superiors assume a position of command and demand obedience
> from those who acknowledge themselves as inferiors in the social
> scale.and in which by the forcible assumption of authority and
> the accumulation of prestige, a person (through a hierarchy of
> functionaries) regulates the activities of others for purposes
> of his own choosing."

It may be suggested that this definition could now be dropped.

Cowley (1928) is another of those who in the past distinguished between headship and leadership, and Anderson has differentiated between dominative and integrative behaviour in children. This, too, is often quoted in writings on leadership (Sprott, 1952; Gibb, 1950).

The difficulties of including headship under the general heading of leadership are intensified when Gibb states (1947):

> "This concept of domination and headship is important because
> it is so different from that of leadership, and because so
> much so-called leadership in industry, education and in other
> social spheres is not leadership at all but is simply domin-
> ation."

Why leadership in industry etc. cannot simply be called institutional leadership, which has validity in its own right, and its own special characteristics and problems, is not clear. Phrases like the following of Gibb's serve principally to create misunderstanding. "... the head, who strives to maintain this social distance as an aid to the coercion of the group through fear." Certainly this is domination. Equally certainly it is not headship or institutional leadership. Janda (1960) has criticised Gibb's formulation on the ground that he proliferates distinguishing criteria. He believes, together with the present writer, that "the leadership/headship dichotomy is not as sharp as is frequently claimed".

There may be some agreement with Gibb on these points: headship is permanent, while the laboratory kind of leadership to which Gibb refers, is transitory; the head may be externally appointed, not naturally emergent; the status of the head may be far above that of the rest of his group, although the gap may not be as wide as Gibb believes. At this point agreement with Gibb's criteria breaks down. It is not possible to believe that only institutional groups have their goals chosen for them, or that, because there is no shared feeling or joint action in institutional groups, it is improper to think of them as being groups at all.

It is a pity that Gibb's definitions of leadership seem to be based on emergent leadership in laboratory groups, of a temporary, problem-

solving nature, not on more permanent and important kinds. There does seem little foresight in creating a psychology relevant only to the laboratory, when, in order to have practical application, there should be some relation to the wider institutions of society.

A few experiments have brought into the laboratory the problems of institutional leadership. For example, an experiment by Carter et al. (1950) may be cited, which compares the behaviour of two types of leader, appointed and emergent, and their followers, in two types of task situation, reasoning and mechanical assembly. It does not appear that the appointed leaders were dominating. Indeed, they felt "that as leaders they should not interfere with the group's activity, that the other members of the group were as capable of doing the tasks as they were, and that their main job was merely "to keep things moving". The emergent leaders, on the other hand, were more forceful and indulged in a significant amount of behaviour in category 21, "calls for attention", and Category 27, "supports or gives information regarding his (own) proposal". There was also a significant amount for "defends self (or his proposal) from attack", for "expression of opinion" and for "argues with others".

These results were contrary to expectations. Where it was anticipated that the appointed leaders would act in an authoritarian manner, in fact they felt their positions secure and were able to become "more involved with the goals of the group as a whole". Another experiment

by Kahn and Katz (in Cartwright and Zander 1960) indicates also that
it is not necessarily true that "there is an inherent tendency for the
leadership function to move from organisation to tyranny ..." (Gibb
1958). This study compared high-producing and low-producing foremen.
The high-producing, relative to the low-producing foremen, performed
their supportive functions in two ways, by recommending workers for
promotion and doing more on-the-job training, and by taking a greater
interest in their groups, in the personalities of the members and their
off-the-job problems. Their supervision was less close, and they spent
more time in planning and less in doing the kind of work their groups
were engaged in. This was true of clerical supervisors, rail-road
supervisors and supervisors in a tractor factory. That these men are
so clearly non-dominating, although headmen, should perhaps be reason
enough for throwing overboard Gibb's distinctions between leadership
and headship.

However, it must, in all fairness, be admitted that the whole
problem has not quite been stated. Sometimes a correlation between
high productivity and low morale is found. This presents interesting
problems since it suggests that there is something more to high pro-
ductivity than good relations between management and staff. Kahn and
Katz deal with these problems in a purely theoretical fashion, and sug-
gest that the supervisor may increase productivity by his superior
planning ability, or that the company may apply sanctions which, while

raising productivity, adversely affect morale. It would be interesting to have something more experimental on this topic.

Laboratory work on supervisory and participatory leadership has yielded results that the industrial psychologist would tend to expect. (Preston and Heintz 1949).Individual rankings of student presidential nominees were made, then group rankings and finally another set of individual rankings. The final rankings of participatory leaders and followers correlated highly with their group rankings. Those of supervisory leaders and followers did not. The leader's participation was therefore more potent in influencing the opinions of group members than mere supervision. This experiment was repeated by Hare (1953) and the results in general were confirmed.

Techniques of group involvement were given importance by Lewin (1943) whose wartime experiment in changing food preferences by means of discussion and decision-making by the group alone, is often quoted. Of more relevance to the present account is Bavelas's attempt to raise production in a sewing plant (quoted by French, 1950). The experimental group under Bavelas's leadership was allowed to decide for itself whether to set a goal, and which goal to set. Their production rose by eighteen per cent. Coch, Lester and French (1948) were also successful in their attempt to change job methods by the same means of democratic participation. Their experimental group achieved a lesser drop in production than the control group, and took less time to recover

their original level.

This type of leadership is strictly neither participatory nor supervisory, the leader being content to introduce topics for discussion and to give guidance. That it may not be an easy type of leadership to practise is admitted by French (1950), who obtained results similar to Bavelas's only after a year's experience in the same factory. It has, perhaps, some similarities with the psychiatric interview.

Another problem that seems often typical of institutional leadership is the dislike the leader may attract. This fact now seems well-documented even in groups with emergent leadership. Many workers, however, have been content to distinguish merely between leaders and friends.

Thus a study by the Detroit Teacher's College (1929)[1] found that ability characterised leaders, while social characteristics, such as good sportsmanship, were typical of friends. Jennings, too (1943), has distinguished by means of sociograms between the socio-group consisting of leaders and followers, and the more personal psyche-group, composed of friends. She believes that they do not overlap, although Gibb (1950) does not confirm this for temporary laboratory groups.

Hollander and Webb (1955) found that friendship ties did not influence the choice of a leader among Naval Aviation Cadets when the

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(1) cf. Jenkins (1947).

relevant question was, "whom would you prefer as leader if you had to go to a special military unit with an undisclosed mission?" Possibly no other result was to be expected.

Nelson (1964) divided his group four-ways into liked leaders and liked followers, less-liked leaders and less-liked followers, liked leaders and less-liked followers and less-liked leaders and liked followers. He found that the liked subjects were more satisfied with the job assignment, which was running an Antarctic station, were more emotionally controlled, and were more accepting of authority than less-liked subjects, both leaders and followers.

Of more relevance to the problem of institutional leadership is the finding by Feidler (in Cartwright and Zander, 1960) that "psychologically-distant leaders of task groups are more effective than leaders who tend toward warmer, psychologically-closer relations with their subordinates". This was the opposite of the conclusion he expected to reach. It was true of baseball teams, surveying teams, bomber crews and melters in a steel mill.

However, that leaders may be the focus of actual dislike was hardly an experimental finding until the important study by Bales and Slater (1950), to which more space will be given in the next chapter. They found that there were often two kinds of leader in a group, the Best-idea man, and the Best-liked man. It was rare for these roles to be combined in a single person. The authors believe that heavy task

demands may build up tensions, frustrations and other kinds of negative feeling. The task leader may attract some of these feelings to himself, and over a period of time he may drop from being liked to being least-liked. To release tension and restore equilibrium become the task of the social-emotional leader, who is a relatively recent and interesting arrival on the experimental scene.

This chapter has been principally concerned with theory and experiment in leadership. However it would be incomplete without reference to the views of various psychotherapists. Many of them believe that the search for good leaders would not have been so desperate or time-consuming were there not in this culture, a tendency towards over-development of dependency needs, and an unwillingness to take one's own part to the full.

Representative of this school of thought which includes Antony and Ffoulkes (1957) and Bion (1961), is George Bach (1954). He refers to the often-described phenomenon in therapy groups, when the therapist refuses to be the leader. As a rule the group hasten to find a leader among their own number. They cannot do without one. This leader may often be a paranoiac, or even as Bion states, the group's most sick member. The change from dependence on leaders to a relationship with peers is a crucial part of the therapeutic process for the mentally sick as, perhaps, for society as a whole.

Summary

Leadership has been studied for about seventy years. In the beginning attempts were made to find the traits that were typical of leaders. Later this approach was discredited and it was thought that the situation, not personality, determined the leader's identity.

The trait approach with its multitude of essential traits, seems now almost too naive to yield useful results. A preliminary grouping of subjects according to background, and of tasks according to similarity, are refinements one wishes the older workers had adopted. The most frequent method to be employed, the rating of subjects by a superior who was not a member of the group, seems rather unsophisticated too. Indeed the outcome, to which Bird drew attention, the discovery of a great many traits of which only a small proportion were common to a few studies, was only to be expected from an approach that ignored the differences between tasks and between different types of leader. A few investigators have pointed out that the concept of trait itself has not been sufficiently clearly defined.

Despite the well-known limitations in the technique and theory of the trait analysts, the germ of the idea, that there exist great leaders, survived. It has received attention recently, now that the situational approach has not proved valid in all cases. Borgatta, Couch and Bales, while avoiding the pitfall of looking for traits, have demonstrated by methods of behavioural analysis and sociometric choice, that exceptional leaders can be found.

Stogdill's somewhat earlier article had been able to show that the trait approach had not been entirely mistaken, and that when a great many studies are examined, a few traits seem to be typical of many leaders. These were capacity, achievement, responsibility and status. It was a pity that Stogdill's article appeared at the wrong point in time, when the situational position was widely accepted, for it might have had a greater influence.

Certain aspects of the trait approach have, of course, not survived. One of these is the assumption that there exists a great gulf between leaders and led. Terman in 1904 referred to leaders and automatons; Gibb in 1958 speaks of leaders and colleagues. It was perhaps strong disagreement with the old idea that led the situationists to claim "every man can be a leader". The change in psychological theory at this point seems to mirror the wider changes in society, the post-war attempts to achieve social equality, and to build a welfare state.

Proof that "every man may be a leader" has, however, not always been easy to find, and, indeed, some experiments like those of Gibb, and Bell and French seem to lead to the opposite conclusion. Others have been partially successful, such as those by Cowley, Carter and Clifford and Cohn, who presented their subjects with tasks needing widely differing abilities, or chose the subjects themselves from different social groups.

It appears that, when subjects are drawn from the same population, and given similar tasks, leaders are able to adapt their behaviour to each situation, and to maintain their position through subsequent meetings (Gibb).

The social nature of leadership is expressed by the situationists in their theory that leadership depends on interpersonal interaction. For Gibb this has become the most important feature in the situationist position. He seems to have dropped the notion that the situation is the greatest factor in determining leadership, although other workers have not.

The trait and situationist approaches have both received partial confirmation. It may now, perhaps, be possible to formulate a hypothesis, which will reconcile these two approaches. It may be phrased as follows: where subjects from the same population are given similar tasks, the leaders who emerge may be able to maintain their positions through several meetings. However, where widely different tasks are given, leadership may change, and where groups of subjects differ from each other, the characteristics of the leaders of each group may differ also. However, a great deal still needs to be learnt about both kinds of approach, trait and situationist, before it is possible to predict, for example, who will be leader in any given situation, or what kind of behaviour is most typical of leaders. More work is needed on institutional leadership, so that it may not be thought of simply as

domination, a definition which does not seem to fit every instance.

Work on democratic/autocratic and participatory/supervisory leader-
ship is valuable, and in line with the preferred values of society.
However, we may at the same time agree with the psychotherapists who
believe that the emphasis in this culture on leaders, is perhaps symp-
tomatic of considerable dependency needs, and that a peer-orientation
would be preferable.

Chapter II

Role theory and experiments in role-playing

One of the earliest definitions of role was given by Linton,

which, because of its importance and influence, will be given in

full.

> "A role represents the dynamic aspect of a status. The
> individual is socially assigned to a status, and occupies
> it in relation to other statuses. When he puts the
> rights and duties which constitute the status into effect,
> he is performing a role. Role and status are quite
> inseparable, and the distinction between them is only of
> academic interest. There are no roles without statuses,
> or statuses without roles. Every individual has a
> series of roles deriving from various patterns in which
> he participates, and at the same time, a role, general,
> which represents the sum total of these roles, and deter-
> mines what he does for his society, and what he can
> expect from it."
> (Quoted in Neiman and Hughes, 1951).

It will be seen at once that this quotation is consistent with a

sociological approach, rather than a psychological one, in its

emphasis on the individual's status in society. This is perhaps one

of the principal faults that a psychologist may find with it.

Newcomb, (1950) gives a definition of role that is even further

removed from psychology: "role is strictly a sociological concept;

it purposely ignores individual psychological facts."

However, recent writers on this topic have not been altogether

content to keep the term "role" within these narrow limits. It

has been broadened to include data from psychodrama, and also from

small group work, with which this thesis is more clearly connected.

This latter, of course, most certainly includes "individual

psychological facts," and indeed work in this field may in the future

present a considerable challenge to role theorists, in its difficulties

of defining and describing the variety of roles that may be found. The

least that can be hoped for from work of this sort, is that it will pin

role theory to the ground of observable experimental fact, and bring it

out of the clouds of theoretical definition, where it has stayed for

rather a long time. (Bates, 1956; Neiman and Hughes, 1951; Turner,

1955; Levinson, 1959.)

Levinson is perhaps the severest critic of role theory as it has

been traditionally described, and indeed, prepares the way more than

any other writer for the experimental social psychologist. He agrees

that traditional role definitions are determined too closely by social

structure, and that while "role" and "status" are so closely linked, an

oversimplification is bound to result. In support of this point he

discusses the status of a hospital staff nurse, which is fairly easy to

define since it lies between that of ward sister, and that of student

nurse. However, in the minds of consultants, house surgeons, other

nurses and patients, there may exist considerable confusion about her

role.

There does seem to be a case for loosening the term "role" from

its connection with status, and giving it an independence of its own.

Levinson's statement, while directly contrary to Newcomb's - "role

definition may be seen from one perspective as an aspect of personality" -

is one that the social psychologist wants. Another statement from him

that the individual's "ways of dealing with the stressful aspects of

organisational life are influenced by the impulses, anxieties and

modes of defence that these stresses activate in him," opens the door

to the psychological facts with which such an investigator is concerned.

The present writer, while agreeing that status differences exist among

the group members in her own work would prefer to assume, rather than

discuss them, and to concentrate entirely on differences in role -

playing, which present enough difficulty in themselves.

In the context of this thesis it is not necessary to discuss role-

taking, for example, since this term generally refers to the

imaginative construction of another's role, especially in psychodrama.

It is not important either to go into the experimental work on empathy

or comparisons between psychopaths or schizophrenics and normal

subjects in the role-taking capacity.   Possibly the second part of the

definition by Turner (1955-56) is most applicable to the present work.

> "By role we mean a collection of patterns of behaviour which
> are thought to constitute a meaningful unit and deemed appropriate
> to a person .... occupying an informally defined position
> in interpersonal relations (e.g. leader or compromiser)."

This is certainly consonant with the general way in which the term

"role" is employed by workers with small groups.   One may compare a

chapter - summary by Klein (1963).

> "In all task-related groups the following useful functions have
> to be performed: giving information, asking for contributions
> from other members, making proposals and maintaining morale.
> The roles corresponding to these functions are respectively:
> the expert, the facilitator, the coordinator and the morale
> builder."

Simple as this approach seems, in the giving of names to various
soles, the terms "facilitator" and so on still seem somewhat unsatisfac-
tory. Klein names the members' roles according to their most
characteristic contribution. By this she probably means their most
frequent contribution, which may not necessarily be their most significant.
All their other kinds of behaviour, which may be both valuable and
considerable, seem to be ignored. It seems to the present writer that
role-playing is very much a matter of subjects' total behaviour - every
member may be a morale-builder, coordinator, facilitator and expert at
different times. Although at the beginning of the present research such
names as critic, diplomat and pacesetter were employed, they were found
to be of limited value even to the subjects themselves. A more
sophisticated type of approach was found to be necessary, based, as has
been said, more completely on the subjects' total behaviour and on the
ratios between different types of behaviour. This was a matter of
numerical analysis to which the giving of names seemed both premature and
misleading. Indeed, for the most part, it was not at all possible to
distinguish members' roles from each other in the clear and decisive way
that Klein seems to have employed.

Psychological experimental work on role analysis has hardly yet got
under way. Even with the valuable method of Bales's interaction process
analysis it is still a difficult subject. In general work is of two
kinds. It may be either an analysis of the most important roles in the
group, with a disregard for the lesser (Bales, 1956; Slater, 1962) -

this work does not deal with role structure - or else some general characteristic such as homogeneity or non-homogeneity, compatibility or incompatibility of the group members may be investigated. While not unimportant in itself, this latter type of work represents only a preliminary skirmishing with the more difficult subject of roleplaying, for the investigator who wishes for some firm ground on which to base his own experiments.

Hoffman's experiment (1959) attempted to prove that non-homogeneous groups were superior to homogeneous groups on two types of problem. It was hoped that the differences between the members in the non-homogeneous groups would provide greater interpersonal stimulation and a more creative approach. It was proved for only one of the problems that were set, the one for which there was an objective solution. Whether this result could lead directly to the hypothesis that there may exist some optimum degree of difference is not quite clear.

Schutz (1955) experimented with compatible and incompatible groups. This is a somewhat different dimension from homogeneity - non-homogeneity. Dissension was expected in the incompatible groups, and a lower level of productivity, since there was deliberately included in them a member who was resistant to intimate personal relationships. In general the hypothesis was confirmed although the sample was rather small.

The "assembly effect," demonstrated in an experiment by Rosenberg and Berkowitz (1955), is perhaps of more general interest. The authors define "assembly effect" as that which results "from variations in

individual conduct attributable to the differences in compositions between groups. Such differential contribution by an individual to different groups will produce variance between these groups which could not be accounted for by isolated individual effects." This construct does indeed point to the fact that different groups of people have different effects upon one - a matter of individual experience rather than scientific fact until now - but unfortunately it remains a general hypothesis needing much elaboration in the field of interpersonal inter- action., and some clear-cut hypotheses should be derived in the future.

However, the similarity of this idea of Cattell's concept of syntality (in Hare, Borgatta and Bales, 1962) may be noted. Syntality is group personality, and is not the same as the sum or average of population variables, such as the mean score of group members of some personality characteristic, or in an intelligence test. Neither is it the same as "structure," which Cattell passes over as "form of leadership, roles, interaction etc.". "Structure", with which this thesis is more nearly concerned, does not receive much consideration from Cattell, but syntality remains a stimulating concept.

Fourteen dimensions of syntality were derived by factor analysis from ninety-four variables. Some of them are the following: vigorous unquestioning purposefulness versus self-conscious unadaptedness, schizothymic rigidity versus conformity to circumstances; group elation versus group phlegm.

Only one attempt to relate the individual characteristics of group members to syntality seems to have been made (Haythorn, in Hare, Borgatta

and Bales 1962), and this was possibly before Cattell published his paper

describing the fourteen dimensions he had discovered.   The conclusions

were somewhat ordinary.   Scores on the Cattell Personality Factor

Questionnaire were correlated with subjects' and observers' ratings on

eleven aspects of group behaviour.   It was found that subjects with a

tendency toward schizophrenia or neuroticism tended to depress group morale,

friendliness or cohesiveness.   Personality traits involving maturity,

adaptability and acceptance of others tended to aid group functioning.

Another finding was that highly-chosen subjects on some psychometric criteria

were commonly found in groups rated more highly than others on morale,

cohesiveness, cooperativeness and motivation.   Haythorn suggests that they

have a facilitating effect on the groups in which they function.   All this

is much as one would expect.

It seems a pity that no independent tests for the dimensions of syntality

other than the original ones employed by Cattell have been tried out.   The

concept still seems largely undeveloped, and the hypotheses that might have

been formulated from it have not been forthcoming.   This is disappointing,

for its validity is not in doubt.

Like Cattell, most other writers have passed over roleplaying and avoided

the topic of role structure.   Bales's detailed studies of the best-liked

and Best-idea men, to be described in detail later, are still studies of the

roles of the leaders, a subject with which psychology has been over-concerned.

Other group members have been greatly neglected.   One does not know anything

about them which is the result of experimental analysis.

Only one piece of work of a descriptive nature exists, executed by

Bradford et al. in 1948. They take a popular definition of leadership,

that every man may be a leader in some respect, and describe the other

roles as though this is so. Leadership, they emphasize, is "multilaterally -

shared responsibility." Certain common functions emerged from this

approach. The group task roles, such as information - giver or opinion -

giver, have now become more familiar through the interaction process

analysis of Bales. Group building and maintenance roles are distinguished

from them and need more explanation. The encourager indicates warmth and

solidarity in his attitude toward the other group members, offers commend-

ation and praise, indicates understanding and acceptance of other points

of view, ideas and suggestions; the harmonizer mediates between members;

the compromiser operates in a conflict in which his own idea is involved;

the gatekeeper and expediter attempts to keep open communication channels.

The standard setter or ego-ideal, the group recorder and the passive

follower do not need explanation. In addition to these there may be

individual roles, somewhat frowned upon because they serve the needs of

the individual rather than those of the group. The aggressor and recogni-

tion seeker are examples. The leader may play any of these roles, and

so, indeed, may any other group member. The distinction between task

roles and maintenance roles is one that Bales later took over, and put on

a more experimental basis.

Bradford's work aims at a complete description of the functions

performed in his groups. There has been nothing since to confirm or

extend the findings of this rather therapeutic piece of work, therapeutic

in the sense that deliberate role playing was adopted in order to increase

understanding of group functioning and productivity. The present

research aims at a more scientific approach, while preserving many of

the same objectů. It compares roles, one with another; it does not

make a description of the functions that may be performed by anybody.

Of particular interest, perhaps, are the groups in which a single leader

did not emerge. This is a somewhat recent but general finding (Bales,

1962; Gibb, 1958) in small group. work, and one not yet thoroughly

explored.

Bales and Slater (in Hare, Borgatta and Bales, 1962) discovered

three types of group: those in which a single leader performed all the

functions; those in which moderate specialisation occurred, and those

in which extreme specialisation occurred. Division of these groups

according to the extent of their agreement about top-ranking members

was made. However, the assumption that those who do not agree must be

of an inferior variety, is one that the present writer does not like.

It will be discussed more fully in the next chapter and an alternative

set of hypotheses put forward.

Much of Bales's work, however, is concerned with the elucidation

of two different and complementary kinds of role, the Best-idea man and

the best-liked man. This division existed in the minds of the subjects

themselves, in their ratings of other group members, and was brought out

in a more objective manner, in the interaction profiles of these two men.

The Best-idea man specialised in problem-solving attempts and sometimes showed disagreement. The Best-liked man specialised in positive reactions, tended to ask more questions, and to show more tension. The reactions they received tended to be the opposite of those they gave. The idea-man received more agreement, questions and negative reactions: the Best-liked man received more problem-solving attempts, solidarity and tension release. These two roles are markedly complementary in function.

The two subjects tended to interact with each other more, and to like each other more, than they liked or spoke to other subjects, or than other subjects liked or spoke to them. Specialisation increased over four sessions; the percentage of groups in which the same man help top rank both for being liked and having the best ideas decreased from 56.5 to 8.5.

Bales suggests that a coalition between these two men, a tacit agreement not to be rivals, may do much to ensure the stability of the group. It is then very difficult for lower-status members to stage a revolt, or enhance their own positions. Some groups, however, never achieve a stable pattern of leadership. There is constant turnover in the top ranks, and things quickly go '"from bad to worse," with a last meeting that breaks records for disagreement, antagonism, tension, perhaps tension release....' It is these groups, Bales thinks, that

do not initially agree on whom their leaders are. It may be, however, that this is only one of the ways in which groups with several leaders react, and since this seems to be the limit of what Bales has to say about role structure, there remain to be posed many different questions.

This, of course, is not to deny the value of Bales's work which is of great originality both in method and discoveries. One may wish at times for some case studies of actual groups to supplement the statistical findings, but, at the present moment, there is nothing, at all, of equal stature.

Chapter III

The hypotheses and methods of the research

Little of a scientific nature is known about role playing in small groups. This was tha main theme of Chapter II. It is therefore necessary in one's thinking about roles to start right from the beginning. Hypothesis 1 accordingly states:

1. Members of small groups have roles, which may be described

   in a relatively scientific way.

In the type of group studied in this enquiry it was expected to find roles such as the leader, deputy leader, expert, pacesetter, critic, diplomat and, of course, the quiet member. It was hoped to obtain substantiation of these descriptions from behavioural analysis, plus additional information.

It was felt that it was not enough to study role playing by itself but more valuable to put it in relation to some criterion. Productivity was chosen as a useful means of distinguishing between efficient and less-efficient role structures. Hypothesis 2 therefore runs:

2. Certain role structures are to be found with higher

   productivity and others with lower productivity.

It was expected that in the high-productivity groups a single leader would be found, with a greater degree of differentiation among the supporting members and fewer passengers. Among the low-productivity

groups one might look for poor leadership and much diffidence.   In
the present state of knowledge about role playing it was not possible to
make more specific hypotheses.

So much has been written about leadership and yet the subject
does not seem to have been exhausted.   In particular there is still room
for analysis of the leader's behaviour in relation to the behaviour of
the other group members.   Hypothesis 3 states:

   3. Emergent leaders in small groups make significantly

      more contributions in certain categories of remark

      than their followers.

In this study it was possible to try to confirm these categories
that significantly distinguished leaders from followers in Carter's
work (1950):

   22. Asks for information or facts.

   24. Asks for expression of feeling or opinion.

   26. Proposes course of action for others.

   29. Initiates action towards problem solving that is

      continued or followed.

   31. Agrees or approves.

   33. Gets insight.

In common with other studies it was expected that a leader would
emerge in every group, and that her leadership would be based on her

having greater ability. The puzzle the groups were to solve required

a high degree of intellectual insight. However, Hypothesis 4 is not,

of course, intended to express the last word on the abilities of leaders.

    4. Leaders are significantly more intelligent than

        their followers.

These, then are the hypotheses that guided the research from

the beginning.

The subjects were 150 women students, undergraduate and post-

graduate. They were brought together in thirty groups of five women

who did not previously know each other. A typewritten puzzle was

given and instructions along these lines:

> "This is a passage that, as you see, does not
> make sense. Some of the words have been taken out and
> substituted by words that are clues to the ones that
> are missing. I should like you to find the missing
> words together, as a group, co-operatively. You have
> thirty minutes. Do not worry about the recording.
> At some stage I should like you to dictate what you
> have decided into the microphone, so that I really
> know what you mean. Is it clear? All right, go ahead!"

The puzzle which they were to solve was about fashion in

Elizabeth I's time. There had been an exhibition of Elizabethan fashion

in London to coincide with the accession of Elizabeth II, and it was

felt that any passage about fashion would arouse interest. There were

eighty clues of varying difficulty. During the scoring it was

reluctantly decided to admit alternative solutions. The puzzle is

given in Appendix I.

At the end of the discussion time the subjects were asked to come back within a week for an interview. All of them agreed, and each was interviewed separately for half an hour.

She was asked first how she felt about coming to the experiment, meeting people she did not know, being recorded, and how she reacted when it was all over. Questions 5 to 10 invited criticism of the group's version of the puzzle, and asked the subject to rate on a 12-point scale, from +6 to -6, her satisfaction with the version as a whole, with the pace, the method, with personal relationships in the group, and lastly the satisfaction that she, personally, got out of the situation.

Question 11 asked "Did you think there was a leader? If so, whom and why?" Question 12 asked for a description of the parts the other members took, and question 13 went into the subject's own role. Questions 14 to 16 were concerned with the teamwork in the group and the factors that made for integration or disintegration. Question 17 asked "If you had to choose a leader for another similar discussion, whom would you choose?" and was included to bring out hidden dissatisfaction with the existing leadership. Finally, the subject's feelings, activities and preferences about committee work, discussions, team games and crossword puzzles were covered, and she was also asked how hard she had tried while doing the passage. The interview is given in full in Appendix II.

The questions about roles enabled the experimenter to describe the role structure of each group. This could be compared with productivity. However, it seemed likely that some factor of intelligence would operate in producing a high score quite apart from the role structure. Accordingly, the intelligence of subjects was tested with the NIIP 33, or where this test was already familiar, the NIIP 35. At this point the co-operation of some subjects broke down despite encouragement, and ten scores are missing.

Failing a correlation between intelligence and productivity, it was designed to investigate the familiarity of subjects with crossword puzzles. It was not, of course, impossible that high intelligence, ability to do the puzzle and a particular type of role structure should be found together.

Some subsidiary questions were tested using the subjects' ratings. It was asked whether the high-productivity groups were more satisfied with their solutions than the low-productivity groups, and whether they were more satisfied with personal relationships. It was also possible to test whether productivity scores correlated positively with subjects' ratings for method, or with pace. It was asked whether leaders differed from their followers in any of the satisfaction scores.

Some information about role-playing was furnished by the interviews. Just as important was the information that came from a classification of

remarks. This was a somewhat simpler affair than most classifications at present in use, and was made on the basis of the recordings, not the live discussion. Thus it was not possible to note such behaviour as "shows a personal feeling of aggressiveness" unless this was verbally expressed, or "listens but does not enter in". These are included in Carter's classification. Some loss in psychological analysis therefore took place, but perhaps this was offset by a greater gain in objectivity. The record is permanent and the classification may be re-checked. Indeed, the information was not entirely lost. Aggressive feelings were sometimes expressed in criticisms (although the interview was more successful in bringing this out), and listening behaviour became noted simply as lack of comment for a determinable number of minutes (although, admittedly, this may indicate not-very-active attention).

Thirty-four categories were used of which the main ones were suggestions, agreements, criticisms, asking the group's opinion, making the first comment after a pause, going forward and dictating. The full scheme is given in Appendix III. All pauses of over five seconds were noted, and also who spoke to whom. However, most comments were general and it was not felt necessary to give this kind of observation the importance claimed for it by Klein (1961).

A rider is usually added to classifications of this kind (Carter 1950). They rely greatly on numerical analysis - the leader makes

most suggestions, the critic most criticisms and so on - while one apt

comment at a crucial juncture may change the whole course of the

discussion. This can only be recorded in a case study, not in the

statistical analysis. A separate study was made of each group in the

present experiment.

The classification of remarks was simple because the groups stuck

strictly to their task. They did not want to make social, joking or

other irrelevant comments, and pace was important. The task required

simply the making of suggestions acceptable to the rest of the group,

and going forward. Correct suggestions were almost always accepted.

A different task such as Bell and French (1950) give, discussing

problems of psychological adjustment, might have produced a more elaborate

scheme. It might, indeed, have produced a scheme nearer to a "real

life" situation, such as committee work. That the present task did not

may perhaps be considered somewhat of a drawback. The situation, like

all laboratory situations, was artificial, but the task was artificial

too. However, it was not known at the outset whether a correct rating

of productivity by the subjects would be obtained, and it was necessary

for productivity to be assessed accurately in order to test Hypothesis 2.

A free, committee-like discussion-task could not therefore be set.

Moreover, certain relationships were found to hold between certain types

of comment, when the results were analysed, and it seems possible that

these would have been obscured if the scheme had been more elaborate.

A preliminary analysis of the leadership suggested that different kinds of role structure occurred. Eighteen groups were found to have one leader, six had two leaders and six had three or more leaders.

Many psychotherapists, some of whom are mentioned in Chapter I, hold that a peer orientation is a more valuable adjustment than dependence on a leader. It was hoped that there would be a reflection of this in the functioning of groups in this study. If there were, groups with multiple- and double-leadership might perhaps have higher productivity than groups with one leader, and also, perhaps, higher satisfaction ratings and fewer instances of expressed criticism and disagreement.

These ideas are in contradistinction to the work of Bales (1956) and Slater (1955). Their coefficient of concordance was obtained from a matrix of rankings on guidance, best ideas and leadership. From these rankings, values were obtained ranging from perfect agreement among the members at 1.0, to no agreement at all, at 0.0. An index was calculated based on the average for best ideas and guidance. Where this was over 0.5 the group was called a high-consensus group; where it was less than 0.5, it was called a low-consensus group.

This method seems to the present writer to obscure some of the problems. Ranking is, at any rate, somewhat artificial, and one may

not rank in order two people equally. Where there are two equal leaders, the consensus is not likely to be more than 0.5. It seems most probable that the low- and high-consensus groups in Bales' and Slater's study correspond with single-, double- and multiple-led groups in the present one, for they, too, found similar types of role structure: those in which a single leader performed all the functions (one leader), those low-consensus groups in which moderate specialisation is found (two leaders), and those that have extreme specialisation (three or more leaders).

This methodological difference would not be so serious, if it were not for the rather questionable theoretical analysis Bales offers. He suggests that low-consensus groups are composed of members who start with a low degree of similarity in their basic values. They differently evaluate the nature and importance of the task, and so lack a common base for arriving at a consensus of who has the best ideas. Members may perceive themselves as liked, whereas in fact they are not. Others may believe they like everybody, whereas unconsciously they feel fear and hostility. Because the specialised behaviour serves the individual who performs it more than it does the others, inter-specialist support does not occur systematically.

This analysis is based on a somewhat roundabout argument from the F-scale with all that it implies in terms of authoritarianism and

inflexibility. Bales offers no straightforward test to compare all

the members of high-consensus, and all the members of low-consensus

groups. The significant results of such a test would have been con-

vincing. Instead the argument runs as follows.

Subjects were asked to rate for liking the other members of their

group on a scale from 0 to 7. 0 meant "I feel perfectly neutral toward

him". There seems to have been no means of registering dislike. Some

subjects tended to give all the other members an equal rating. They

tended also to rate highly, thus saying, in effect, "I like everybody".

Only 62 out of the 100 subjects in the experiment were given the F-scale.

Of these 62 the non-differentiating raters had significantly higher

F-scores than the differentiating raters. The result was significant

at .001. Top men on the more specialised characteristics, Talking,

Ideas and Liking had significantly higher F-scores than top men on the

more generalised characteristics, Leadership, Guidance and Receiving.

This was significant at .05. Best-liked men were the most frequent

non-differentiating members, and Idea-men the least frequent. The

difference between them was significant at .05. The conclusion drawn

from these results seems to be this.

Low groups are more sharply specialised than high groups. The

Best-liked role is the most specialised of all roles, and Best-liked

members tend to score highly on the F-scale. It may therefore be

supposed that members of low groups also score highly on the F-scale

because the members specialise, and they therefore include in them

rigid, unadaptable personalities, none of whom is flexible enough to

play all the roles required of a leader. But this argument is contra-

dicted by Bales' own statistical findings, which are these. Top men

of high groups for Guidance, Receiving, Talking, Liking and Ideas were

compared on their F-scale results with top men for these categories in

low groups. This compared one or two men in the high-consensus groups

with perhaps as many as five in the low. Only the results for Talking

and Ideas were significant. As it was pointed out above, there was

no comparison of all the men in high groups with all the men in low

groups. It is therefore mistaken to reason that all low group members

are remarkable for rigidity and insecurity, while all high group members

are better-adjusted, when the results of the test to not bear this

out.

Evidence from the present study suggests that the groups with

multiple leadership are not inferior to groups with single leadership,

especially in their personal relationships and productivity. In this

way issue may be joined with Bales and Slater and support given to

analytical opinion, that group-led groups are psychologically more

healthy.

Chapter IV

The Results of the Experiment

I HYPOTHESIS 1.

1. Graphic and statistical analyses of role playing.

Hypothesis 1 stated: "Members of small groups have roles,

which may be described in a relatively scientific way". A graph

was drawn for each group showing the use each subject made of the

principal categories of remark. These categories were: suggestions,

agreements, "going forward", asking the group's opinion, questions

and replies. The graphs for all groups were wedge-shaped, with a

wide gap between subjects for suggestions, and a considerable

narrowing for questions and replies. (See Figs. 1, 2 and 3)

Subjects therefore played different roles for suggestions and

agreements, but similar roles for questions and replies.

It was thought useful to calculate analyses of variance

two-way classification, using proportions. The number of

a) suggestions b) agreements, that each subject made, was

expressed as a proportion of her total number of comments. It

was intended to show whether the leader, or any other rank, gave

proportionally more attention to making suggestions or agreeing

than the remaining subjects. Fourth and fifth ranks often had

higher proportions than leaders, but none of the differences was

significant. Different-ranking subjects, therefore, did not
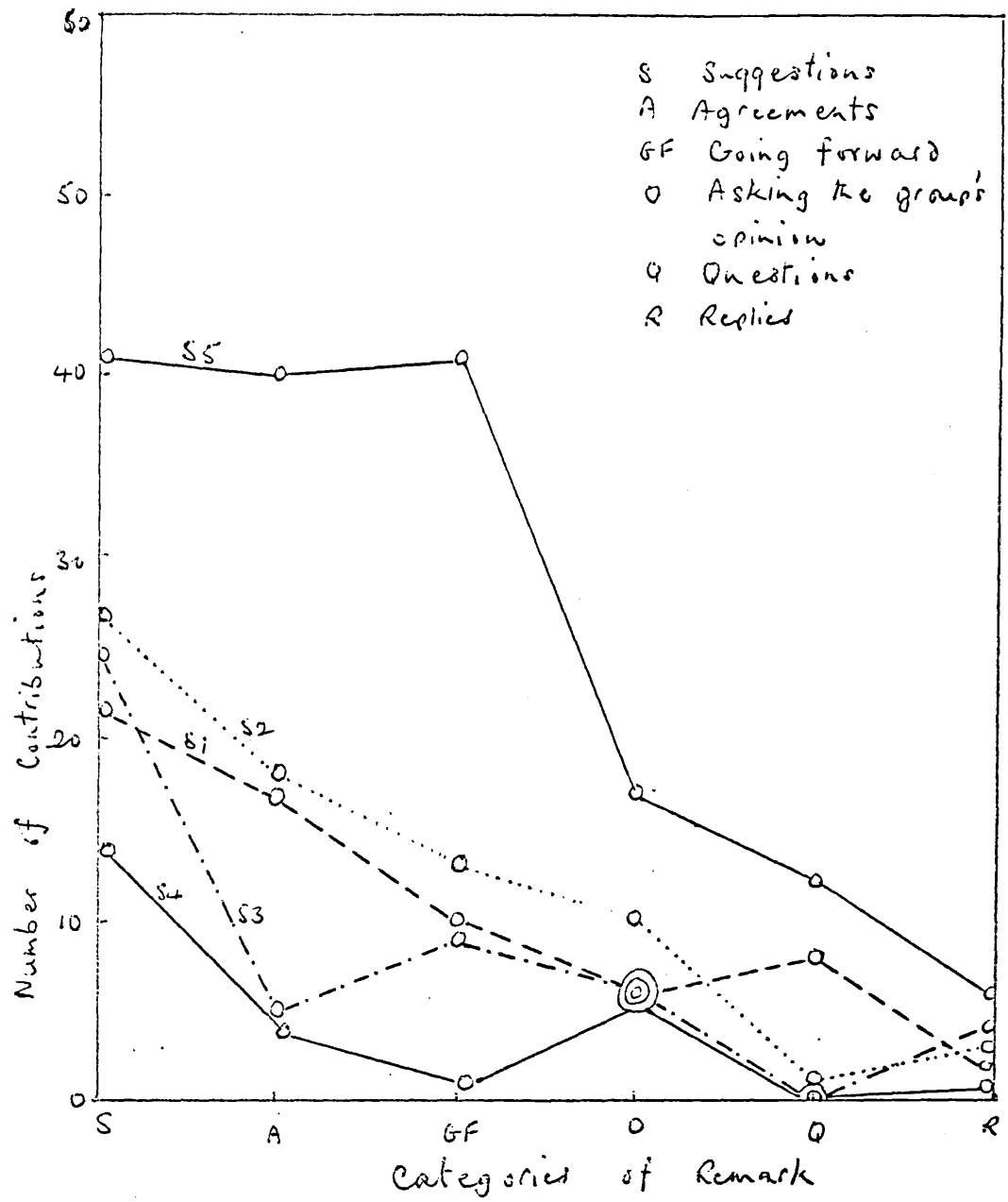
Fig. 1   Graph showing role playing in
Group III in which S5 was the
leader. Productivity score: 61

S   Suggestions

A   Agreements

GF Going forward

O   Asking the group's
    opinion

Q   Questions

R   Replies.

Number of Contributions

S   A   GF   O   Q   R

Categories of Remark
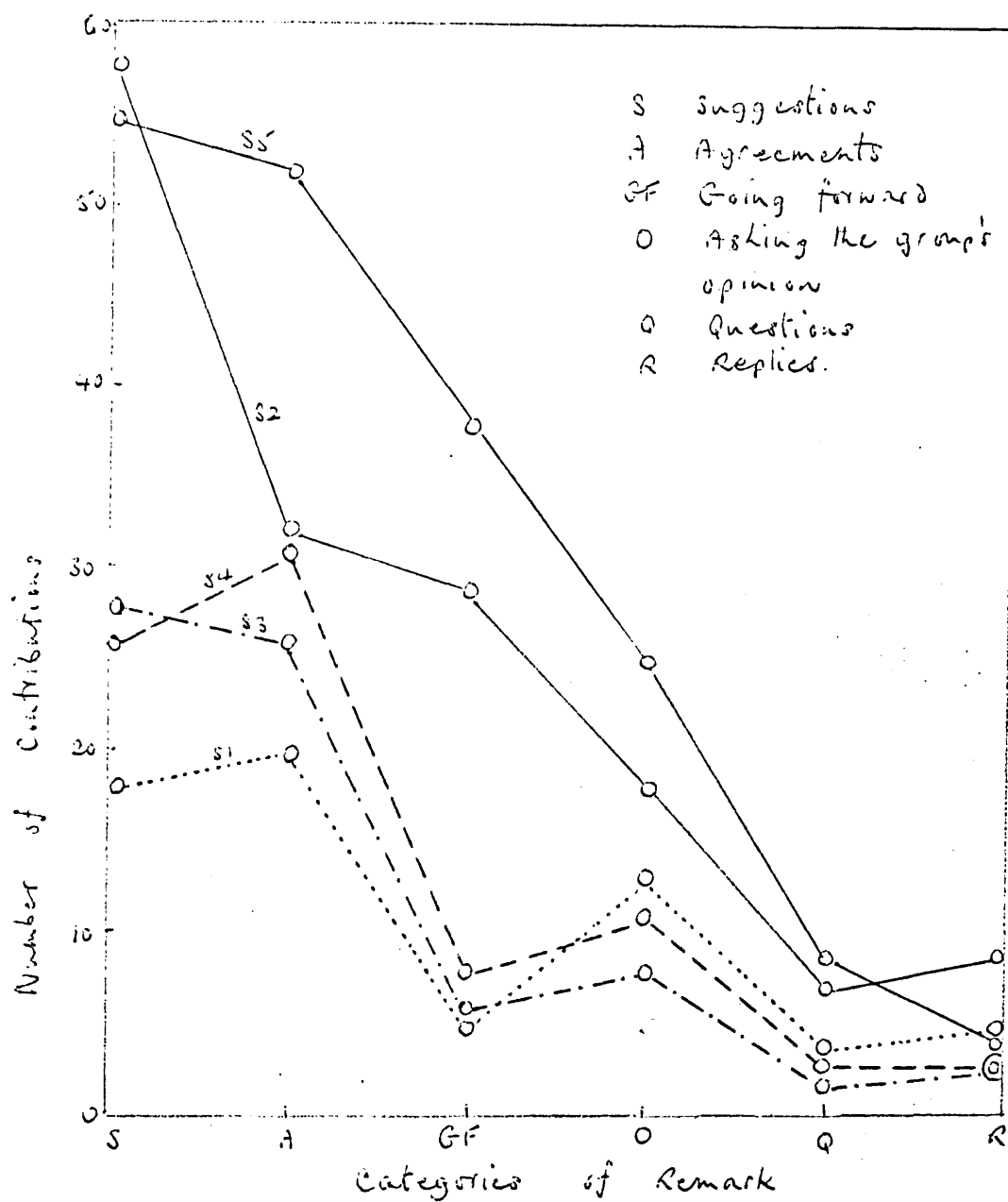
Fig. 2   Graph showing role playing in
         Group XII in which there were two
         leaders, S5 and S2.   Productivity score: 61

S   Suggestions
A   Agreements
GF   Going forward
O   Asking the group's
     opinion.
Q   Questions
R   Replies.
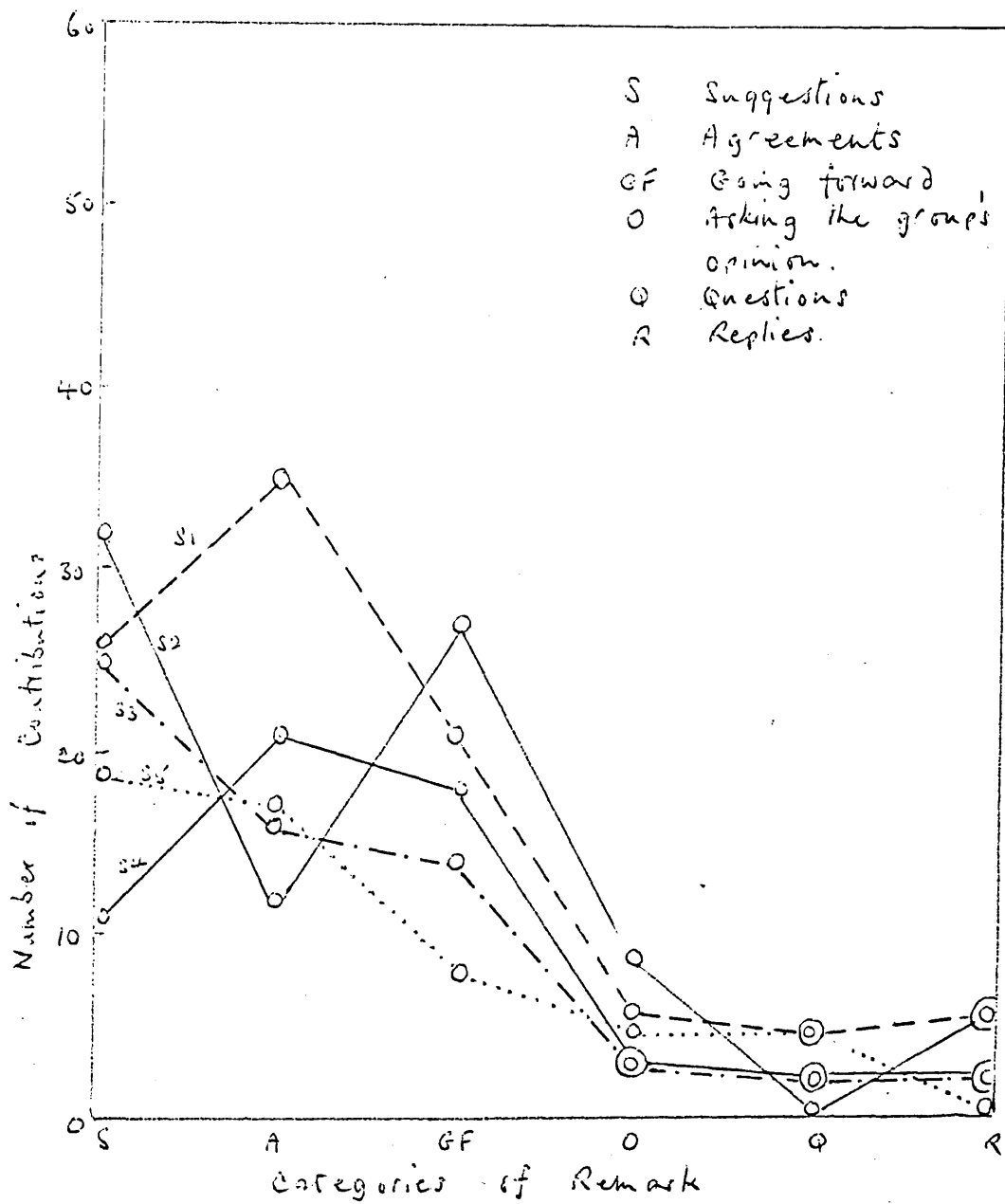
Fig. 3   Graph showing role playing in
          Group V which was multiple-led.
          Productivity score: $60\frac{1}{2}$

differ among themselves with respect to the proportion of either suggestions or agreements, which they expressed. The results of this part of the analysis, the difference between ranks, is given in Table 1.

Type of group	Suggestions	Agreements
Single-led	2.88	0.14
Double-led	0.96	0.35
Multiple-led	1.9	1.1

Table 1. Analysis of variance, two-way classification, using proportions. The variance between ranks is given. No result was significant.

The other part of the analysis, the difference between groups, was significant for suggestions, in single-led and multiple-led groups, but not in double-led. This meant that single-led and multiple-led groups differed among themselves with respect to suggestions. The results of this second part of the analysis, the difference between groups is given in Table 2.

Type of group	Suggestions	Agreements
Single-led	2.3 sig. at 0.05	1.45 not sig.
Double-led	1.03 not sig.	2.23 not sig.
Multiple-led	3.82 sig. at 0.05	2.03 not sig.

Table 2. Analysis of variance, two-way classification, using proportions. The variance between groups is given.

2. Suggesting and agreeing roles.

Subjects often exhibited a marked preference for either a suggesting or an agreeing role. In the sample as a whole, there were eighty roles in which suggestions were higher than agreements, forty-two in which agreements were higher, and twenty-eight in which contributions were roughly equal.

Most groups had roles of both sorts, while two groups with low productivity had only roles of the agreeing kind, the rather rare suggestions eliciting a disproportionate amount of agreement.

3. Other methods of analysing roles.

A system of ratios was adopted for describing roleplaying. Suggestions were always taken as 1.0, and other types of comment were expressed in relation to this figure, namely agreements (A), "going forward" (GF), asking the group's opinion (O), and correct suggestions (CS). An agreeing role would therefore be, for example: suggestions: agreements = 11:21 = 1:1.9. The information derived from these ratios was taken together with another type of analysis. Each role was classified from A to F according to the total number of contributions.

No. of comments	300-250	249-200	199-150	149-100	99-50	49-0
Type of role	A	B	C	D	E	F

Table 3. Classification of roles according to the subject's total number of comments.

It was necessary to use this method of classification and the ratios together with the information from the interviews, from the discussions and from the raw scores. Ratios alone were not a sufficiently comprehensive way of solving the problems of roleplaying, to stand alone, although they were useful in simplifying the data.

When roles were divided according to subjects' total number of contributions it was possible to perceive some relationships. Groups with multiple leadership often had this kind of distribution: S1:F role; S2:C; S3:D; S4:D; S5:D (Group VIII). Groups with a single leader often had an A or B role which was the leader's. Thus Group XIII's distribution was S1:D; S2:F; S3:E; S4:A (leader); S5:E. The top roles in multiple-led groups were therefore not of the magnitude of the single leader's.

4. The use of ratios in interpreting group functioning.

Typical ratios for a leader were the following:

Group I	S:A	S:GF	S:O	S:CS
S2	29:35	29:25	29:13	29:19
	1:1.2	1:.8	1:.4	1:.6,

and for a non-leader:

Group VII	S:A	S:GF	S:O	S:CS
S1	18:13	18:6	18:6	18:12
	1:.7	1:.3	1:.3	1:.6

It will be seen that the ratios for S:GF and S:O are rather lower than for S:A.

If these ratios are taken as roughly typical it becomes

necessary to enquire further into group functioning when the ratios:

Group X   S:A   S:GF   S:O   S:CS

S1   54:18 54:1   54:0 54:40

1:.3 1:.01 54:0   1:.7,

are found, especially when they belong to a leader.   Dissatisfaction

with this leader's method of leading her group, without GF remarks,

and without asking for their opinion was expressed by the group by

an average satisfaction score for method of -.75.

Another example may be taken.   The scores and ratios of

Group VII's leader were:

S4   S:A   S:GF   S:O   S:CS

72:44 72:56   72:18 72:30

In the interviews Group VII grumbled a good deal about their leader.

No-one wanted her as a future leader, and S1 said of her "she spoke the

loudest".   Some of this dissatisfaction may be traced to the volume

of the leader's suggestions which was the highest among 150 subjects.

She asked the group's opinion about only 18 of them, while going

forward 56 times.   This method obviously suited the leader herself,

since she was able to make thirty correct suggestions.   The rest of

the group, however, felt somewhat excluded from the discussion, which

had become rather a "one-man show".   S4's raw scores and ratios may

be compared with those of the highly successful leader of Group III.

S5   S:A   S:GF   S:O   S:CS

41:40 41:41 41:17 41:21

1:.9 1:1   1:.4 1:.5

This subject gave the functions of agreeing, suggesting and

going-forward equal prominence.

5.   Individual roles.

The ratios were particularly useful in bringing out the

important relationship between suggestions and correct suggestions

in the role of the expert. The ratio was usually about 1:.8.

For leaders it was usually 1:.5 or less, thus making it clear that

talking and leading were more important than being always correct.

S3 in Group III is a good example of an expert.

III   S:A   S:GF   S:O   S:CS

S3   25:5 25:9 25:6 25:22

1:.2 1:.3 1:.2 1:.8

Something should be said about the function of "going forward"

comments. They are comments in which the speaker reads out the

next part of the passage. She may either slip in a suggestion when

she comes to a clue or wait for someone else. These "going forward"

comments often became connecting links in the discussion, and it is

possible that they helped the leader to integrate the group. They

filled up awkward pauses, and kept the group together as it considered

a particular clue., The leader who made use of this category was

often described by her colleagues as "integrating","organising" or

"showing initiative". Of course, suggestions about method and remarks after a pause were also ways in which leaders could organise and show initiative.

Subjects did not find a great deal of use for the term "critic", unless the speaker was applying it to herself. By this she often meant a critical frame of mind, rather than the uttering of specific criticisms. Indeed leaders made significantly more criticisms than other subjects, and the term "critic" should, perhaps be properly applied to them. Subjects often criticised their own suggestions, or, rather, took them back, and the same modest frame of mind was often shown in the interviews when they said, "I did not have a particular role. I was just like everyone else". Some leaders, too, were rather self-effacing, and failed to perceive themselves as leaders, although their groups were quite sure that they were. This happened in eight out of eighteen groups.

It is perhaps worthwhile to mention the quiet member, since, in this experiment, she did not have the agreeing role that is often assigned to her. Indeed, it was quite usual to find that she made as many suggestions as agreements. She was usually a person with a low intelligence relative to the other subjects, and her inability to solve the problem was sometimes accompanied by shyness, nervousness or fear of the experimental conditions. It was rather more rare to find these feelings in other subjects. Sympathy for her was often

expressed by the other subjects, and there were few criticisms of her for being a passenger. Criticisms, when they were expressed in the interviews, were more frequently directed upwards to the leader.

The most frequent roles were those of a) leaders, b) quiet members, c) subjects specialising in suggestions and agreements, when the ratio of S:A did not exceed 1:1.5, and d) average members, whose ratios were like those given earlier for a typical non-leader.

Percentages of the total sample were as follows:

	per cent
Leaders	20
Average members	17
Members specialising in A and S	17
Quiet members	16
Members specialising in S	8
Members specialising in A	6
Members specialising equally in A, S and GF	4
Remaining members comprising subjects, specialising in S and GF, and A and O, experts and atypical roles	12

The above list is based entirely on the ratios for each member, and is meant to be only a rough guide. It is possible that the proportions would differ with another task.

II HYPOTHESIS 2.

1. Division of the sample into groups with different role structures.

Hypothesis 2 stated: Certain role structures are to be found

with higher productivity, and others with lower productivity.

It was necessary, first of all, to find the role structures that existed in the sample, and to distinguish them. The preliminary division into different types of structure was based on the subjects' choice of a leader. In eighteen groups all five members agreed on the leader's identity, or four members, with the leader herself dissenting and declaring there was no leader. In six groups there was some disagreement. A typical pattern was the following: two members named S_1 as leader, two named S_5 and one member said there were two leaders, S_1 and S_5, or perhaps that no-one led. These groups were considered to have two leaders. In six more groups there was no consensus about the leadership at all. These were called multiple-led groups and for purposes of statistical analysis were lumped together, although the case studies indicated that there may have been included two types, those in which several subjects led, always very actively (Groups VIII, V, XIV and XVII), and those in which no leader emerged (Groups VI and XX) and the subjects were passive and often very baffled by the problem. Naturally these two ways of behaving had different effects on productivity, but it was difficult to validate the difference between them against any other criterion. Even if it had been possible the samples would have been too small.

Certain differences between the three main types of structure,

single-led, double-led and multiple-led were found to obtain. A
simple count of intersecting roles revealed that in single-led groups
44 per cent, in the double-led groups 66 per cent, and in the multiple-led
groups 83 per cent of the roles intersected. (See Fig. 3 in which all
the lines cross one another, or in other words, intersect.) In general,
in the single-led groups, the intersections were between subjects next
to each other in rank. In the multiple-led, however, intersections
cut through the group.

An attempt was made to validate the differences among types by
means of analysis of variance. It was hoped that they might differ
in the total number of suggestions, agreements, "going forward", asking
the group's opinion, questions, replies and criticisms. None of the
calculations was significant, the variation between types being as great
as the variation within types. The values of F were as follows:

Suggestions 0.057

Agreements 0.18

Asking for the group's opinion 0.62

Going forward 0.408

Criticisms 0.34

Questions 1.26

Replies 0.16

In explanation it may be said that the analysis of variance was
perhaps masking an important characteristic. In taking the totals

for each group, no account was taken of the way these totals were

constituted. Thus, in a group with one leader, a total of twenty-five

suggestions might consist of: 18 + 3 + 2 + 2. In a multiple-led

group it was likely to be 5 + 5 + 5 + 5 + 5. It is this distribution

of comments that leads to the distinction between single-led and

multiple-led groups, although the analysis of variance used only the

grand total.

Another set of analyses of variance was calculated using the

difference between the scores of individuals. It was hoped that the

above difficulty might be circumvented. The scores of the

fifth-ranking subjects were taken from those of the first in rank in

every group. The differences between each type of group, single-,

double- and multiple-led were calculated for the six most important

categories of remark using this measure, the first rank minus the fifth.

The results are shown in Table 4.

It may be seen that the types of group differed in agreements

and questions, the value of F for agreements being significant at

0.01 and for questions at 0.05.

Since the means of the multiple-led groups were consistently lower

than those of single- and double-led groups, it was thought that the

multiple-led groups could be compared with the remaining groups, taken

all together. These analyses of variance showed that multiple-led

groups were more homogeneous than single- and double-led groups in

agreements, "going forward" and suggestions. The value of F for

agreements was 7.64, significant at 0.01, for "going forward" was 4.4, significant at 0.05, and for questions was 6.8, significant at 0.05. The results are set out in Table 5. These analyses go part of the way

Type of remark	Values of F
Suggestions	1.9 not sig.
Agreements	4.45 sig.at 0.01
Going forward	1.3 not sig.
Asking for opinion	1.85 not sig.
Questions	3.49 sig.at 0.05
Replies	0.89 not sig.

Table 4. Comparison by means of analysis of variance, of different types of group, using the first rank minus the fifth.

in differentiating statistically between the different types of group. The reader is referred to Appendix IV for case studies if a single-, and double- and a multiple-led group.

Type of remark	Values of F
Suggestions	3.8 not sig.
Agreements	7.64 sig.at 0.01
Going forward	4.4 sig.at 0.05
Asking for opinion	3.8 not sig.
Questions	6.8 sig.at 0.05
Replies	1.4 not sig.

Table 5. Comparison of the multiple-led and the remaining groups, taken together, for different categories of remark, using analysis of variance.

2. Productivity and role structure

Productivity, which could be assessed objectively as number of

suggestions correct, was correlated with the average intelligence of

each group.   This calculation was significant, r being .6,

significant at .001 (two-tailed test).

There was no clearcut relationship between scatter, measured

by the mean deviation of each group's intelligence score, and

productivity.   The important factor for groups who obtained a low

score seemed to be the membership of two or more people with low

intelligence, of 135 or less.   On the other hand, groups with all

five subjects having a good intelligence, 155 or above, or four

subjects with good intelligence, generally obtained a good productivity

score.

It may thus appear that all that was necessary for a group to

do the puzzle, was a sufficient number of intelligent people, and it

may be said that type of role structure may have been without effect.

This conclusion is supported by an analysis of variance for

productivity between types of role structure, in which F did not reach

significance at 0.82.

It is therefore necessary in the present context to uphold the

conclusion that intelligence, not role structure, determined

productivity.   However, there may be something more to be said than

simply this.   The distribution of role structures and scores, set out

in Appendix V, shows that the top-scoring groups were mostly of the

double- or multiple-led types, while the low-scoring groups were single-led. It is perhaps possible that the sample, of which there were only six double- and six multiple-led groups, was too small for the hypothesis to be confirmed.

III HYPOTHESIS 3

Hypothesis 3 stated: Emergent leaders in small groups, make significantly more contributions in certain categories of remark than their followers. Eleven scores were tested by t, to find the significance of the single means, (leader's score minus the average for the rest of the group, or in groups with two leaders, the average of the leaders' scores minus the average for the rest of the group.) The results are given in Table 6.

It may be seen that where there was a single leader, she was significantly more active in every way than her colleagues. Where there were two leaders the scores in the principal categories were significantly higher than those of the rest of the group, although not as high as those of the single leader. The categories that distinguish the leader from the rest of the group in Carter's study were found to be significant in the present study also.

Category	One leader		Two leaders	
	Value of t	Level of Significance	Value of t	Level of Significance
1. Suggestions	8.05	0.0005	3.63	0.01
2. Agreements	7.06	0.0005	6.49	0.001
3. Criticisms	3.6	0.001	3.48	0.01
4. Going forward	7.72	0.0005	3.03	0.025
5. Asking for opinion	5.19	0.0005	4.11	0.005
6. Questions	4.17	0.001	5.6	0.005
7. Replies	3.65	0.001	2.01	not sig.
8. Remarks after a pause	11.9	0.0005	6.44	0.001
9. Summaries	2.36	0.025	2.04	0.05
10. Drawing the group's attention to a problem and urging it on.	2.82	0.01	2.08	0.05
11. Suggestions about method	3.91	0.001	3.41	0.01

Table 6. The values of t: the difference between leaders'
scores and followers' in various categories
of remark (one-tailed test).

IV HYPOTHESIS 4.

Hypothesis 4 stated that leaders are significantly more intelligent than their followers. This was tested by t and the result, 0.89, was not significant. The hypothesis was therefore not confirmed. However it was thought desirable to enquire into leaders' familiarity with crossword puzzles. Three of the eleven leaders who were not the most intelligent in their groups, were acquainted with the easier kind of crossword puzzle, such as those in the "Star", while three had tried the harder kind, such as those in the "Guardian". Five leaders did not do crossword puzzles at all. None of these leaders was reading English. Six of the less-intelligent leaders did not make the most correct suggestions in the discussion. It seems plausible, therefore, that in some cases leaders did not lead because they had greater ability than their colleagues, but for some other reason.

V. THE RELATIONS BETWEEN PRODUCTIVITY AND VARIOUS MEASURES OF SATISFACTION.

The relations between productivity and various measures of satisfaction were also investigated. Productivity scores correlated with the average satisfaction of each group with its achievement 0.518 (sig. at 0.01), with their satisfaction with pace 0.446 (sig. at 0.02), with their satisfaction ratings for method 0.23 (not sig.) and with their satisfaction ratings for personal relationships 0.13 (not sig.). Two-tailed tests were used. It may be seen that the subjects were able to rate their productivity fairly accurately. Success or failure seemed

to relate to pace rather than method. Satisfaction or dissatisfaction with personal relationships did not affect productivity greatly. The validity of the correlation between productivity and satisfaction with achievement allows a certain value to be placed on the other correlations also.

VI   LEADERS' SATISFACTION SCORES COMPARED WITH FOLLOWERS'

It was thought worthwhile to enquire whether leaders differed significantly from followers in satisfaction scores. The method of testing the significance of a single mean by t was used. None of the tests yielded significant results. The results are set out in Table 7.

Type of satisfaction	Groups with one leader	Groups with two leaders
Achievement	0.834	0.04
Pace	1.03	0.409
Method	0.38	2.45
Personal relation-ships	1.13	0.53
Experience as a whole	1.73	0.127

Table 7.   The results of t-tests showing whether the leaders differed in satisfaction ratings from their followers. None of the results was significant.

It may be seen that the leaders did not differ from the other members of their groups in the satisfaction they obtained from the group's achievement and other aspects of its functioning.

VII   RESULTS RELEVANT TO BALES'S IDEA THAT LOW-CONSENSUS GROUPS ARE INFERIOR TO HIGH-CONSENSUS GROUPS.

Bales's results, which the present writer does not feel are altogether valid, suggested a further set of questions. They concerned the productivity, amount of expressed criticism and levels of satisfaction of the three types of role structure. Of particular interest were the satisfaction ratings for personal relationships. It was intended to show that the multiple-led groups were not inferior to the single-led kind, a theory in contradistinction to that of Bales.

Productivity and amount of expressed criticism have already been discussed in other contexts. Comparing the three types of role structure by analysis of variance, the value of F for productivity was 0.82, and for criticisms, 0.34. Neither of these values was significant. Neither was there any difference between the satisfaction scores for the different types, excepting the value for method, which was 3.76 significant at 0.05. Subjects were most satisfied with their method of tackling the problem under double leadership, and least satisfied with it under multiple leadership. There was no significant difference for interpersonal relationships. The value

of F for this group of calculations is given in Table 8.

Type of satisfaction	Value of F
Achievement	1.14 not sig.
Pace	0.207 not sig.
Method	3.76 sig. at 0.05
Personal relation- ships	0.16 not sig.
The experimental experience as a whole.	0.62 not sig.

Table 8.   The results of analyses of variance
comparing three types of group for
various kinds of satisfaction.

Multiple-led groups, therefore, function with the same ease as
single-led groups, except for some uneasiness about method.   It is
certainly not valid to consider them an inferior type as Bales had
suggested.

VIII FACTORS WHICH MAKE FOR HIGH OR LOW PRODUCTIVITY

It has already been found that the most important factor in
producing a high score was the possession of a good average intelligence.
The correlation between average satisfaction with personal relationships
and productivity showed that it was rarely interpersonal friction that
was responsible for low productivity. There were, however, certain
factors in the low-producing groups that, together with a low
intelligence, prevented a good productivity score. Poor leadership
was one of these. Group II, for example, had an intelligent leader
who could not do the puzzle. She was responsible for initiating a
very muddled method of attacking the problem, which was followed by
most of the group. Sometimes clues were discussed at length when the
correct solution had already been found, lengthy "structure" comments
were made by the leader, and the group stuck too long on words that it
could not get. There was no lack of contribution in this group,
especially from the leader, but the contributions did not contain enough
correct solutions.

Group XVIII, on the other hand, tended to hang back, thus thrusting
leadership on one of the less-intelligent members, who was not able to
contribute as much as some of the other dominant leaders in other groups.
This group, too, was unworkmanlike in its approach, and there were very
many long pauses. Their average satisfaction with pace was -1.1, with

achievement -.06, and with method was -0.2. The most intelligent

member in the group confessed that the other members made her "not want

to try". This was another factor that decreased productivity in some

groups, the member who did not want to join in, although she would have

been able to make a worthwhile contribution.

Sometimes, indeed, the whole group seemed not to want to join in.

Group XX was such a group. In this group there were three F roles.

The subject who had most contributions said that she gave up asking the

group for their opinion, since no-one responded. Three members said

in the interview that the group did not "get going". This was a

leaderless group in which it seemed that no leader arose, rather than

that several members led. They, too, followed a faulty method, skipping

from clue to clue so that individual members lost the place.

A low average intelligence score itself, seems to produce problems

of method. There is no question of getting each clue in an orderly

fashion, for suggestions do not come easily, and the group has to decide

whether to stick on a clue or leave it. If they decide to stick they

may be wasting time, and if they go on they must surely experience

dissatisfaction at leaving so much work undone. When the group is

going wrong individual members may become discouraged, like S.1 in

Group XX, or cut themselves off like S.2 in Group XVIII. In many of

these low-producing groups, most members tried hard to do the problem,

but adequate leadership could possibly have harnessed their motivation

to more productive ends.

In groups that had met several times one would perhaps expect to find a greater degree of correlation between productivity and interpersonal relationships than existed in this study. In some of the high-producing groups we find productivity surviving despite interpersonal friction. In Group VIII the highest-contributing member irritated almost every other person in the group. This group is described in more detail in Chapter V. In Group XVII also there were fairly strong cross-currents of liking and disliking although satisfaction with personal relationships was high, being 3.8.

Group XVII and Group XII both had members who tried to race ahead. Their groups owed much to these subjects, although it meant that the other members could not keep up. Perhaps the other members would not have been able to do as well if they had been given the chance, although the pacesetting led to complaints in the interviews. Speed of attack and a business-like method were typical of these two groups. Group III were fortunate in having an efficient leader and an "expert" of high intelligence who had as many correct suggestions as the leader herself. The individual roles of pacesetter, expert and leader in these high producing groups contributed a great deal to productivity.

CHAPTER V

A discussion of the results and conclusions.

I DISCUSSION OF RESULTS

This piece of research began originally as an investigation into the relationship between role structure and productivity. In the course of planning, however, it was discovered that very little of a scientific nature was known about individual roles, and it was thought a good preliminary step to try to shed some light on this topic as well.

First, however, it is important to discuss the peculiar nature of the task, and the type of behaviour it elicited. Bales would have called such a task "truncated", both because there was a time limit, and because solutions could easily be perceived as right or wrong immediately, leaving little room for discussion or opinion. All the groups were eager to get as much done as they could in the time allowed, so that amusing or other comments, irrelevant to finishing the task, were probably seriously reduced.

However, there were some similarities to Bales's findings, for positive reactions (agreements) were always more numerous than negative reactions (criticisms and disagreements), and questions were always more frequent than replies. Percentages exactly corresponding with Bales's were not found. Initial acts (suggestions and "going forward" remarks) constituted only 34 per cent of the total, not 57 per cent as Bales found,

and questions agreements and criticisms were not 43 per cent, but only

25 per cent of the total number of remarks. The remaining 59 per cent of

comments in the present research so far unaccounted for, were distributed

among such categories as suggestions about method, summarising and

dictating the completed puzzle. That these percentages differ from

those of Bales is almost certainly due to the different nature of the task.

The first part of the research was concerned with individual role

playing. Two new methods of analysing the data were tried out. This

is the section where interpretations are the most tentative.

Certain "new" roles were explored, including the average member,

whose ratios for S:GF and S:O were lower than the ratio for S:A, and

the member specialising roughly equally in agreements and suggestions.

Quiet members were also quite common, but members having a great many

suggestions, or a great many agreements in relation to other types of

comment, were rather rare. This is to say that moderate specialisation

occurred, rather than extreme specialisation.

The ratios were useful in making clear the distinction between

usual and unusual roles; they were useful, too, in compiling the case

studies (see Appendix IV). However, this method of grouping the

data is still rather new: other tasks may produce other ratios.

The graphs were of most use in bringing out the distinction between

single- and multiple-led groups. The near rank order of subjects in the

single-led groups contrasted strongly with the intersection in the

multiple-led.

The most important role was still that of the leader in single-led groups. It is perhaps Carter who has done the most valuable research describing the behaviour of leaders and other group members. It was not possible to confirm all Carter's categories that differentiated leaders from led: not all were applicable to the present task. Those that did apply were amply confirmed. These were:

22. Asks for information or facts, (asks questions).

24. Asks for expression of feeling or opinion.

26. Proposes course of action for others, (suggestions about method).

29. Initiated action towards problem solving which is continued or followed, (going forward).

31. Agrees or approves.

33. Gets insight, (suggestion).

These categories in Carter's research were found to differentiate leaders from non-leaders over all tasks and both types of leadership situation, appointed and emergent.

However, differences between the emergent leaders in the present study, and the emergent leaders in Carter's experiment were found to obtain. The behaviour of Carter's leaders fell a great deal into these categories: "supports or gives information regarding his (own) proposal", "defends self or his proposal from attack", "expresses opinion" and "argues with others". These categories suggest that Carter's emergent leaders

were securing and maintaining the leadership position by forceful rather than tactful methods. They were trying to get acquiescence rather than co-operation from other subjects.

The leaders in the present research were all emergent. They were the most active members of their groups, even expressing most agreement, when it might have been thought that with their many suggestions they would mainly elicit agreement from others. Perhaps this shows how deeply the leader becomes involved in interaction with other members, a point often emphasized by situationists. However, in contrast to Carter's leaders, those in the present research did not give the impression of being "pushing", argumentative or forceful. Some of them took upon themselves the chore of dictating the passage, rather as Carter's appointed leaders took upon themselves the task of writing down their group's decisions. Carter's emergent leaders did not do this.

The different culture patterns of Britain and America may explain the difference between the two sets of emergent leaders - "American brashness" is a common British stereotype. Another point, however, is that Carter's subjects were all men, while those in the present experiment were women. Whatever the explanation, it is true that an overconfident or argumentative manner in the present experiment was rather a drawback, and quickly elicited feelings of dislike from other group members.

That the leader's total level of activity differentiates him from
other group members, has been a common finding in small group work.
It was found in Carter's experiment and also in a study by Bass (quoted
by Kirscht,Lodahl and Haire, 1959). In the latter experiment a
correlation of 0.93 was found between ratings on leadership and amount
of participation time. Kirscht, Lodahl and Haire have also worked on
this problem, taking as their measures the amount of participation time
and scores in several of Bales's categories. These were:

D.   Gives suggestion.

E.   Asks for suggestion, opinion or fact.

F.   Sums up, integrates.

It was found that amount of participation and DEF scores were
significantly related to leadership choice, but where participation times
were roughly equal, such, perhaps, as in the multiple-led group, behaviour
in the DEF categories was more important.

The results of the present research are very clear. The leader in
single-led groups contributed more than her followers in eleven categories,
not only in suggestions, questions, asking for opinions and summaries, as
with Kirscht et al., but also in agreements, criticisms, "going forward",
replies, remarks after a pause, drawing the group's attention to a problem
and suggestions about method. The two leaders in a double-led group also
contributed more than other group members in all these categories except
replies.

The clarity of these results is probably due to the prior division of the sample into groups having different role structures. Groups with multiple leadership were omitted from the analysis.

Leaders, therefore, were significantly more active in every way than non-leaders, but there was no special type of comment typical of leaders alone. That is to say, there was no category of remark which was called "leading". The leader behaved like other group members, only more so, and her level of activity, much higher in all important categories than that of the other members, caused them to single her out as having a leadership role.

At the beginning of the research it was expected that the leader would be the most intelligent person in her group. This expectation was in accordance with situationist theory. It was not borne out, and hypothesis 4 was therefore not confirmed. In only eight groups out of eighteen was the leader the most intelligent. The kind of leadership offered by eight of the less-intelligent leaders was not different from that of the more intelligent ones. That is to say that these less-intelligent leaders still led in all or most categories of behaviour. The other two less-intelligent leaders did not contribute most in all the categories of behaviour. It is not immediately easy to see why they were chosen as leaders at all. However, the interviews make clear their group's attitudes.

Group I said their leader steered them and broke uncomfortable pauses. Group XXI said that their leader was older than the other members and had an authoritative manner. Both groups mentioned their leaders' initiative in making remarks after a pause and in getting on with the task, but there is not enough evidence to show whether the singling out of this aspect of leaders' behaviour was more than a chance occurrence.

Bales and Slater found that their groups could be divided into three kinds: high consensus groups having only one leader; high consensus groups in which moderate specialisation among the members occurred, (this was the most common kind of group in Bales and Slater's study); and low consensus groups in which extreme specialisation occurred.

A similar division was made in the present research on the basis of subjects' choice of leader. Attempts were made to differentiate the groups statistically also. It was found that all three types of group differed significantly from each other in agreements and questions. Multiple-led groups differed significantly from the other types of group taken together, in agreements, "going forward", and questions. In these respects multiple-led groups were significantly more homogeneous.

There was no evidence to support Bales's idea that multiple-led groups are an inferior order, and that they are composed of inflexible personalities whose behaviour serves egocentric needs, not the group's requirements. Neither is it possible to agree that multiple-led groups

are characterised by "disagreements, antagonism and tension". As Chapter III attempted to show, the F-scale results on which Bales's conclusion is based are not satisfactory evidence, for the scale was not given to all the subjects in each kind of group, and even in those cases where it was administered, the results were significant for only two types of activity, talking and ideas.

Even from a commonsense standpoint Bales's conclusions seem unacceptable, for while it is possible to conceive that single-led groups may be either autocratically or democratically led, it is impossible to conceive that groups with several leaders of equal status, are autocratic. Nor are they oligarchic, since that would imply a more united group of leaders than appears in reality to exist.

It should be admitted that one of the multiple-led groups resembled the type of low-consensus group described by Bales, in that there was much antagonism and friction. This was Group VIII, the highest-scoring group in the sample. The disagreement that had been present only in the general atmosphere became explicit when the group had time to go over the puzzle again. Their discussion during this time brought no valuable conclusions. All the members of the group could name factors that had been disintegrating, some mentioning a spirit of competition, the result of which was that people did not wish to give up their own ideas, others pointing out that people tended to speak all at once. The average satisfaction with method was - 0.5; satisfaction with personal

relationships was also rather low for this sample, being 2.6. It is
certainly possible that if this group had met again, there would have
been even greater disintegration. The other five multiple-led groups
interacted more harmoniously.

The six multiple-led groups taken together, did not criticise or
disagree more frequently than the other two types of group. Their average
satisfaction ratings were not lower except for method, and neither was
their level of productivity. There is therefore no evidence to support
Bales's conclusion that in multiple-led groups there is much disharmony
which hinders their functioning and leads to disintegration.

Single-led groups, especially those in which the leader is far
above the crowd, seem to resemble those that the trait analysts were
trying to describe, that is, those in which a single leader dominates his
group by reason of his greater initiative, decisiveness or ability.
The present study is not about the leader's personality, but about his
verbal behaviour. It is therefore not possible to present evidence
either for or against the leader's having superior personality traits,
only about her being more voluble and more active, about her initiative
in breaking pauses, and her desire to get on with the problem in "going
forward" remarks, about her care for method, and her many suggestions
and agreements.

Multiple-led groups on the other hand, seem to correspond to those
the situationists described, in which every man might be a leader. It
seems, therefore, that both these schools of thought have their special

applications and do not stand in contradiction to each other as the situationists supposed.

However, the situation in which several leaders co-operate with each other at the same time has not been very fully described. With a few notable exceptions (Cartwright and Zander, 1960; Harding, 1953) most situationists described the position in which leadership is consecutive, one leader taking over from another with a change in the task. It is in this light that experimenters such as Bell and French (1950) carried out their research. It is still common to find research workers expecting their subjects to select a single leader (Kirscht et al., 1959; Slater, 1962).

Multiple leadership refers to the situation in which several leaders co-operate in performing the same functions, or different functions. None of them has pre-eminence. Thus, in Group XX in the present research, which was multiple-led, S1 has 22 suggestions, 27 agreements, 4 "going forward" remarks and 17 remarks asking for the group's opinion. She is closely followed by S5 who has 20 suggestions, 25 agreements, 4 "going forward" remarks and 16 comments requesting the group's opinion. In this group the leaders co-operated in performing the same function. In Group VIII the leaders co-operated in performing different functions. Thus S2 and S4 tied for top place in the number of suggestions, S3 had most "going forward" remarks, and S4 made most comments requesting the group's opinion.

It is quite clear from the present research that in certain cases
leadership may be dispensed with without a loss in productivity or in
good personal relationships. However, it is not possible to go further
and predict in which cases single leadership will arise, and in which
multiple leadership. There is clearly a great deal to be discovered
about multiple leadership, as about the other kinds of leadership.
It is not known, for example, whether single-led groups become multiple-
led, when they have settled down, or whether multiple-led groups change
into single-led groups. These problems, and many others, must be left
for future research to resolve.

Not a great deal has been said about productivity. If it were to
have been proved satisfactorily that the multiple-led groups were more
productive than the other kinds, conclusions could perhaps have been
drawn about there being no necessity for leaders in industry or other
departments of institutional life. However, these conclusions cannot
be drawn from so small a sample, in which there is only a non-significant
trend.

In modern methods of handling small groups in group therapy (Bion,
1961) and in industry (French,1950) the role of the leader is considerably
reduced. He must not make decisions himself, nor dominate his group;
he is not the most active member; in group therapy he need not even
speak; it is for the group itself to decide its attitudes and conduct.
These methods have had considerable success; patients get better, and

industrial groups adjust easily to different circumstances without much drop in production.

Multiple-led groups have some similarities with these types of group, for they are not dominated by a single leader either, and decisions are made by the group as a whole. It is therefore not surprising to find that they function at least as well as the single-led kind. That they function more adequately must await confirmation from a larger sample.

II CONCLUSIONS

Hypothesis 1 stated that members of small groups have roles which may be described in a relatively scientific way.

Two new methods of studying roles were tried out. They were graphs and the ratios of suggestions to subjects' other types of comment. These methods brought out the most usual way in which subjects behaved in this particular task situation: they made more suggestions and agreements than "going forward" remarks, asking the group's opinion, questions, replies or any other sort of comment.

Leaders and quiet subjects are well-known members of small groups. For this task, two other kinds of role were fairly common. They were members whose agreements were as frequent as their suggestions, and members whose suggestions were the most numerous, and whose other ratios were lower than for S:A. It is possible that the ratios may be different for groups working on different tasks.

Hypothesis 2 stated that certain role structures are to be found with higher productivity, and others with lower productivity.

First it was necessary to divide the sample into different role structures. This was done, first of all, according to subjects' choice of leader. In some groups subjects named one leader (single-led groups), in others they named two leaders (double-led groups) and in others there was no consensus (multiple-led groups). An attempt was made to validate this division by statistical methods. The three types of group differed significantly from each other in questions and agreements, but not in suggestions, going forward, asking the group's opinion and replies. When the multiple-led were compared with the other groups taken together, they differed significantly from them in questions, agreements and "going forward". Multiple-led groups were therefore more homogeneous than the other kinds of group in these respects. There was not such a wide gap between leaders and led.

The three types of group did not differ significantly in productivity. Hypothesis 2 was therefore not confirmed. Multiple- and double-led groups generally had higher productivity scores than single-led groups, but the sample may have been too small for the hypothesis to receive confirmation.

Hypothesis 3 stated that emergent leaders in small groups have significantly more contributions in certain categories of remark than their followers.

This hypothesis was fully confirmed, leaders in single-led groups

having significantly more contributions in eleven categories of remark.
In double-led groups, the average of both leaders' contributions was
significantly more frequent in ten categories of remark.   All the
categories that distinguished leaders from followers in Carter's work,
which were relevant to the present research, were amply confirmed.
It was not possible to determine which categories of remark were the
most important in differentiating leaders.   A high general level of
activity seemed to be the basis on which groups made their choice.

Hypothesis 4 stated that leaders were significantly more
intelligent than their followers.   This was not confirmed.   Ten out
of eighteen leaders were not the most intelligent members in their
groups.   The less-intelligent leaders were not good at crosswords, and
were not reading English.   They did not seem to have skills specially
relevant to the task.   Nevertheless they behaved similarly to the
intelligent leaders in their general high level of activity.

Bales's idea that multiple-led, or low-consensus, groups function
badly in comparison with single-led or high consensus groups, did not
receive confirmation.   The multiple-led groups did not differ from the
single-led groups in productivity, in their levels of satisfaction with
various aspects of group functioning, or in amount of expressed criticism
and disagreement.

A P P E N D I X I

The Puzzle

The solutions are given in brackets.

The fashions threadbare (worn) at Elizabeth's yard (court) owed much to those sultana (current) at the time in France and Spain their two main sources of breathing-in (inspiration). In women's clothes the French and Spanish farthingstorms (farthingales) generated (produced) two distinct outlines. Mary Tudor had ledin (introduced) the Spanish farthingstorm in 1553 and by Elizabeth's hail (reign) the typical streaming (flowing) bell-shaped skirt had partially restored (replaced) the square-cut academic dress (gown) and rather padded, not-gaseous (solid) appearance which had been idiosyncrasy (characteristic) of the appearing sooner (preceding) two-door (Tudor) time. The skirt was dispersed (spread) over a supporting fabric (framework) of hoops and ropes (cords) so as to be entirely unhampered (free) from furrows (folds), and was often deserted (left open) from the valueless (waist) downwards. After the preface (introduction) of starch in 1564 the elevated (high) neck was embellished (decorated) with an inflexible (stiff) ruff.

The French flowing-in (influence) pierced (penetrated) in the '70s causing a fattening (increase) in the size of the farthingale to a number of lower extremities (feet) in diameter. It was worn seized (caught) to the waist with an established order (series) of tapes, and was slightly thrust, as a lance,(tilted) in front. The neck was bellow, as an ox, (low) in contrast to that which the Spanish prevailing modes (fashions)

had commanded (decreed), and was concluded (finished) with a more

comprehensive (wider) and thicker ruff. A larger recapitulation

(repetition) of this ruff formed a sort of basque which was wasted

gradually (worn) over the skirt and attained (reached) the brink (edge)

of the hoop. The skirt was always segregated (divided) and the unlikely -

(differently -) coloured underskirt could be seen when the wearer aroused

tenderness (moved). With this change in the mould (shape) of the

farthingale the stomacher suited (became) prolonged (lengthened) to a

point eight or heath (more) inches below the waist in front, grew (was

increased) in stubbornness (stiffness) and from the refuse (waist) down

was often worn at a slender (slight) fish hook (angle) to the body, with

the small money present (tip) reclining (resting) on the edge of the

farthingstorm.

The French flowing-in was also perceptible in the styles of hair-

dressing and head furniture (head gear) treated with partiality (favoured)

during Elizabeth's reign. By chance (perhaps) the most friendily regarded

(popular) of the caps was the heart-formed (heart-shaped) which aroused

(gave rise to) its own strange (peculiar) hairstyle. In regularity (order)

to occupy (fill) the capacities (spaces) made by the bending (curving)

sides of the cap, the head filaments (hair), which was often extinct

(dyed) was given up, as a seige, (raised) at each side with cushions

(pads) of false hair or telegram (wire) frames and were (was) corrugated

(waved), crisped (curled) and coiled. Later in the company of a

centurion (century) the hair was constructed (built up) still higher, and

garnished (adorned) with a small level (flat) cap, or an exuberance

(profusion) of precious stones.

APPENDIX II

The Interview

1. I wonder if you would tell me how you felt about coming to the experiment?

2. How did you feel about meeting people you did not know?

3. How did you feel about the recording?

4. How did you feel when it was all over?

5. Would you look at your version of the passage again and tell me which words you are dissatisfied with?

6. I want you to put on a 12-point scale from +6 to -6, +6, +5, +4 and so on, right down to -6, your satisfaction with the version as a whole.

7. How satisfied were you with the pace? Please mark your satisfaction on the scale again. Would you explain?

8. How satisfied were you with the method you used? On the scale again. Would you explain?

9. How satisfactory did you think personal relationships were? Please put it on the scale. Would you explain?

10. How much satisfaction did you personally get out of the experimental situation? Please put it on the scale again, and explain.

11. Did you think there was a leader? If so, who? Why was she a leader?

12. What were the other roles?

13. What was your own role? Do you usually play the same role?

14. Do you think the group worked as a team?

15. Who contributed most to integrating the group?

16. Was there anything disintegrating?

17. If you had to choose a leader for another similar discussion, whom would you choose?

18. Have you ever sat on a committee? What sort of satisfaction did you obtain from this?

19. Do you like team games? Is it the skill or the teamwork?

20. Do you ever do crosswords? Which ones do you do? Are you good at them, average or poor?

21. When you were doing the passage, did you try hard, not particularly hard, or did not try?

22. Did anyone in the group make you want to try harder?

23. When you have read a thing, do you usually rush to discuss it, or do you prefer just to think about it?

A P P E N D I X   III

Classification of Remarks

Symbol	Type of Remark
S	Suggestion.
S-	"This word is one of the wrong ones"
St	Talking about a clue without making a specific suggestion.
C	Criticism
C+	A criticism containing an alternative suggestion.
Dis	Disagreement: a milder form of criticism.
A	Agreement.
Sup	Support for someone else's suggestion.
O	Asking for the group's opinion.
GF	Going forward: reading the next part of the passage.
RP	Remark after a pause.
Rep	Repeating the passage over again in order to come to a decision about a clue.
SM	Suggestion about method.
I	Summarising what has been done.
D	Dictating the passage.
A++	Calling the group's attention to a problem.
W	Urging the group on.
E	Explanation of one's own suggestion.
(E)	Arguing in support of one's own suggestion.
B	Remark about one's own feelings.
!	Exclamation.
V	"Yes," said in reply to someone else's agreement with one's own suggestion.
QI	Question about a part of the puzzle that has already been done.
QS	Question about a suggestion.
QM	Miscellaneous question.
SR	Repetition of one's own remark.
N	Amusing or irrelevant comment.
RI	Reply to a question about a part of the passage that has already been done.
RS	Reply to a question about a suggestion.
RM	Miscellaneous reply.
UR	Unfinished remark.
UN	Unrecorded remark.
P	Prompting the person who is dictating.
PC	Correcting the person who is dictating.
RA	Insisting on one's own suggestion by repeating it.
M	Miscellaneous comments.
Co	Criticism or withdrawal of one's own suggestion.

APPENDIX IV

I CASE STUDY OF GROUP III WHICH HAD ONE LEADER

Productivity score: 61

Average intelligence (4 members only): 161.5

Average satisfaction with achievement: 1.7

Average satisfaction with pace: 1.0

Average satisfaction with method: 2.7

Average satisfaction with personal relationships: 2.0

Leader: S.5

Ratios

	S:A	S:GF	S:O	S:CS
S.1	22:17	22:10	22:6	22:9
D role	1:0.7	1:0.4	1: 0.2	1:0.4
S.2	27:18	27:13	27:10	27:11
D role	1: 0.6	1:0.4	1:0.3	1:0.4
S.3	25:5	25:9	25:6	25:22
E role	1:0.2	1: 0.3	1:0.2	1:0.8
S.4	14:4	14:1	14:6	14:6
F role	1:0.29	1:0.07	1:0.4	1:0.4
S.5	41:40	41:41	41:17	41:21
A role	1:0.9	1:1	1:0.4	1:0.5

S.5's record seems typical of a leader's with more remarks in every category and twenty-one correct suggestions. She was not by any means the most intelligent person in her group, but this did not seem to matter; the more intelligent people were not willing to take the lead. In describing S.5's role, S.1 said that she was "thrust into the leadership position" since she was willing to do the dictation. It seems partly

that S.1 had thrust her, by asking who, in particular was willing to dictate. S.5 consented. S.3 said S.5 was "made" to dictate in recognition of her leadership. These phrases seem particularly relevant to S.5's type of leadership. The group were unanimous in choosing S.5 as their leader, and as their future leader, if such a discussion were to take place again. Ss 4, 3 and 2 all remark that S.5 contributed most toward integration. S.2 said S.5 provided the connecting links, and that she was the sort of person who inspires confidence. S.3 said she set the pace and broke awkward pauses. S.4 said she took the initiative and spoke first. S.5, herself, said there was no leader; the dictating was "not leading, but the gathering together of decisions".

One might contrast S.5's role with S.3's. S.2 said S.3 "did not say anything except when necessary". This was strictly true. Out of only seventy comments, twenty-five were suggestions. Twenty-two of these were correct suggestions. S.3 is a good example of an expert, the ratio of S:CS being almost 1:1. The other subjects speak of S.3's love of exactitude, and of her criticisms. This was principally a matter of tone of voice, and does not come out in the classification of remarks. S.3 thought she, herself, was a critic, saying that she sometimes made suggestions in opposition to other people's suggestions, and referring to her position in the German department, where, she said, destructive criticism was a "bad habit that makes you unpopular." However, she was not unpopular with the other group members, for, as S.2 said, "she was the

sort of person you want in a discussion, although you cannot make up a

discussion of people just like her", for her contribution was too slight.

While S.3 was the most intelligent person in the group, S.1 was the

second most intelligent. Considering this, hers was a slighter role

than one would expect. Perhaps this was because she felt that "there

was no need to do anything as everything was being done". S.2 said she

was rather quiet, but S.5 said "she came into the discussion much more

once she got the idea".

S.2 had the third largest number of remarks and did not play a

decisive part at crucial junctures like Ss 1, 3 and 5. She said she

felt that she was not as quick as she might have been, although she was

quite happy playing her own role. S.5 said she led in the beginning,

although this does not seem to be strictly true. Ss 1, 3 and 4 did not

mention her at all, and one must concede that she did not strike the

other members of her group in any particular fashion. She seems to be

a typical "average member".

S.4 was the least intelligent person in the group, and was further

hampered by being conscious of the recording, which made her feel that

she must say something at all costs. However, she made only thirty-

eight comments. This fact could lead one to underestimate her role,

which was of some psychological value. She made the first suggestions

in the beginning, when everyone else was stuck, and at the end of the

discussion she came in with three correct suggestions when the group was

hopelessly at a loss. This fact was mentioned by S.5; the other members either leave her out altogether, or remark that she was quiet.

This was a very highly productive group, probably owing to the high level of intelligence of the members. It was interesting that the intelligent members did not want to lead, but pushed into the lead a less intelligent subject who became equal to the task, and was able to win their approval and support. Their high score was due in part to her leadership with its insistence on not wasting time in useless discussion. This was one of the few groups which reached the end of the passage. S.5 appeared to be the group's servant rather than its master; at crucial points the discussion was often between Ss 1 and 3. S.5 said she did not feel she was the leader, and this modest attitude probably did much to win the support of the intelligent members.

II CASE STUDY OF GROUP XII WHICH HAD TWO LEADERS

Productivity score: 61

Average intelligence: 159.8

Average satisfaction with achievement: 2.6

Average satisfaction with pace: 2.4

Average satisfaction with method: 3.6

Average satisfaction with personal relationships: 4.0

Ratios

	S:A	S:GF	S:O	S:CS
S.1	18:20	18:5	18:13	18:5
D role	1:1.1	1:0.2	1:0.7	1:0.2
S.2	58:32	58:29	58:18	58:29
B role	1:0.5	1:0.5	1:0.3	1:0.5
S.3	28:26	28:6	28:8	28:16
E role	1:0.9	1:0.2	1:0.2	1:0.5
S.4	26:30	26:8	26:11	26:9
D role	1:1.1	1:0.3	1:0.4	1:0.3
S.5	55:52	55:38	55:25	55:27
A role	1:0.9	1:0.6	1:0.4	1:0.4

This was a highly productive, highly intelligent group, well satisfied with personal relationships. There were four roles in which agreements were as numerous as suggestions. There were also a fair number of criticisms from all subjects except S.4, but there was a degree of tolerance for them. It is possible that the many agreements contributed to the satisfactory nature of personal relationships. Leadership was equally divided between Ss 2 and 5. These two subjects went so fast that it was difficult for the other subjects to keep up with them. Complaints were made about this in the interview. S.2 was especially considered to be the pacesetter. It seems that Ss 2 and 5 contributed at other people's expense, although productivity would have suffered if the pace were to have been slowed down.

The two leaders had similar rather than complementary roles. S.5 was said to have a "clear decisive voice", to have "a loud voice to which the group listened", and to have organised the group by suggesting that difficult words should be left. She, herself, felt she was a critic, and, to some extent the initiator of discussion.

S.2 was considered an organiser, and, in particular, a pacesetter. S.5 said of her "she seemed to crystallise a lot of decisions, she picked out one's suggestions, read the passage out and made decisions".

Ss 1, 3 and 4 were considered to be rather quiet. S.4 was hampered by being less intelligent than the others, and confessed to being "rather poor at English language". She played a slighter role than her usual one. S.1 attracted feelings of liking from the others. S.2 said she was a "sweet, amicable girl" and S.4 said she was quiet and retiring without being shy. S.3 felt an "odd body". She had a bad cold and did not feel like joining in.

This group's high productivity score owed much to the high intelligence of the two leaders. S.2 had twenty-nine correct suggestions, and S.5 had twenty-seven. S.2, who was accused of going too fast, scored 182 points on the intelligence test, out of a possible 193. Her high intelligence seems to have led her to go quickly; she did not ask for other subjects' opinions or agree with them as much as is perhaps necessary for good leadership. S.5 was a little ahead of her, for she

had more contributions, and a more usual set of ratios, not lacking in

O or A.   The distance between these two subjects and the rest of the

group was great, greater than the distance between the two top-ranking

subjects themselves, and it is probably correct to regard them both as

being leaders.

III CASE STUDY OF GROUP V WHICH WAS MULTIPLE-LED

Productivity score: $60\frac{1}{2}$

Average intelligence: 160.8

Average satisfaction with achievement: 2.8

Average satisfaction with pace: 3.2

Average satisfaction with method: 1.2

Average satisfaction with personal relationships: 4.0

Ratios

	S:A	S:GF	S:O	S:CS
S.1	26:35	26:21	26:6	26:18
C role	1:1.3	1:0.8	1:0.2	1:0.6
S.2	32:12	32:27	32:9	32:18
C role	1:0.3	1:0.8	1:0.2	1:0.5
S.3	25:16	25:14	25:6	25:15
D role	1:0.6	1:0.5	1:0.2	1:0.6
S.4	11:21	11:18	11:3	11:9
D role	1:1.9	1:1.6	1:0.2	1:0.8
S.5	19:17	19:8	19:5	19:14
D role	1:0.8	1:0.4	1:0.2	1:0.7

This was another good group with a good productivity score and

good personal relationships.   It was typical of multiple-led groups in

that no one person stood out from the rest;   there were two C and three

D roles.   Some slight specialisation occurred in the roles of S.1 and S.2, S.1 specialising in agreements, and S.2 in suggestions.   These roles are reminiscent of Bales' Best-liked and Best-idea men.   Both subjects, however, had the same number of CS.

It is easier to discuss the similarities among subjects' roles in this group than their differences.   They all had similar numbers of O, as well as Q and R.   The S:O ratios for all subjects were the same, 1:0.2.   The S:GF ratios of three members were higher than for most groups, being 1:0.8, 1:0.8 and 1:1.6.   The S:CS ratios were also rather high, S.2 only having a ratio as low as 1:0.5.   Single leaders often have ratios of 1:0.5 for S:CS (cf. the case studies for Groups III and XII). Group V, on the other hand, tended not to speak unless they had something to contribute.   Numbers of correct suggestions for all subjects were rather similar, being 18, 18, 15, 9 and 14.   No representative emerged to act for the group in dictating the passage.   Instead, the members dictated the passage together 21 times and "went forward" together 7 times.

As Bales has pointed out, there exists in non-led groups some confusion about the identity of the leader.   In Group V Ss 3 and 4 chose S.1 who had the most agreements, S.1 chose S.5 and S.2 and S.5 said there was no leader.

The reasons S.3 gave for choosing S.1 were not based on fact.   She said S.1 "kept things going, made more suggestions and broke pauses".

In fact, she did not do these things more than the other subjects. S.4's reasons were more accurate. She said that although S.1 was not prominent, she was the first person to start off on the right lines, and made an initial impression. S.2 said S.1 was quicker at thinking of things, and S.1 herself said that if she were a leader, it was because "she saw some things quicker than they did". S.1 had the advantage of reading English, and being good at words, but she was not a leader in the sense that S.5, Group III was a leader, for her contributions were too few. Neither was S.5 a typical leader although S.1 said she integrated the group, took the initiative and had more confidence.

S.5 herself said she was one of the mass, but would have liked to have a leader. In reality, in this group there was no lack of leadership potential. S.4 would have given a lead if the situation had been critical enough. S.2 also, who was often the leader in other discussions and liked to be, did not find an opportunity to exercise leadership in this discussion. She said that S.1 was better at words than she was and that she was not a leader because she had to follow the others' method which she did not like.

The members of this group were not without leadership ability. However, no leader arose, and it is not easy to find an explanation. Possibly it was because the members were evenly matched or because there was no need for leadership in a situation in which every member took her part.

The adjustments made by the quieter members are worth noting. S.4, who was not good at the puzzle, made a role for herself in expressing GF and A comments. This fact made her role one of the unusual ones. S.3, who really preferred to be in the background, said much more in this discussion than usual in discussions with strangers. It may be noted that in this group the quiet members said more, while the more voluble ones felt a certain check on their behaviour. The effect of this was an equality of contribution, which resulted in a multiple-led group.

A P P E N D I X   V

Productivity and role structure

Group	Position	Productivity Score	Type of role structure
VIII	1st	67	multiple
XVII	2nd	62	multiple
III	3rd	61	single
XII	3rd	61	double
V	5th	$60\frac{1}{2}$	multiple
XXIV	6th	60	double
XIII	7th	59	single
XXVI	8th	58	single
XXVIII	8th	58	single
XXI	10th	$57\frac{1}{2}$	single
XV	11th	56	double
XIX	12th	55	double
I	13th	54	single
VII	14th	53	single
XXIII	14th	53	single
XXV	14th	53	single
XXIX	14th	53	single
XIV	18th	50	multiple
X	19th	$48\frac{1}{2}$	double
XXVII	20th	47	single

Group	Position	Productivity score	Type of role structure
XVI	20th	47	single
VI	22nd	45	multiple
IX	23rd	43	double
XXII	23rd	43	single
XI	25th	42	single
XVIII	26th	$41\frac{1}{2}$	single
IV	27th	41	single
II	28th	35	single
XX	28th	35	multiple
XXX	30th	27	single

A P P E N D·I X   VI

A COMPLETE ACCOUNT OF GROUP XI

	S.1	S.2	S.3	S.4	S.5
S	17	11	60	8	19
S-	3	0	2	0	2
St	1	1	3	0	1
C	3	3	0	0	3
Co	2	0	3	0	4
C+	0	0	0	0	0
Dis	0	0	1	0	1
A	30	12	45	6	40
Sup	2	0	1	0	3
O	11	2	21	3	14
GF	6	3	9	1	3
RP	8	8	19	6	8
Rep	13	7	10	1	9
SM	2	2	2	1	2
I	4	1	4	1	1
D	21	16	35	2	8
D together	5	5	5	5	5
Att	0	3	0	0	1
W	2	3	0	0	0
E	0	1	3	1	0
(E)	0	0	0	0	0
B	1	3	0	1	0
!	0	0	2	0	0
V	3	1	3	0	6
QI	3	2	8	1	3
QS	0	0	1	1	1
QM	1	1	2	2	2
SR	1	0	1	0	0
N	0	0	1	0	0
RI	3	4	2	3	5
RS	0	0	1	0	0
RM	0	1	0	2	0
UR	2	1	1	2	0
UN	1	0	1	0	0
P	1	0	0	0	0
PC	0	1	1	0	2
RA	1	1	1	0	1
M	0	1	1	0	0
Totals	140	86	230	41	136
Correct S	7	8	26	5	7

Productivity score: 42

2. Individual intelligence scores.

S.1 122
S.2 147
S.3 176
S.4 120
S.5 165

Mean: 146
Mean deviation: 19.8

3. Individual satisfaction ratings.

	S.1	S.2	S.3	S.4	S.5	Mean
Achievement	3	0	-2	3	2	1.2
Pace	3	3	0	1	5	2.4
Method	3	0	-2	3	3	1.4
Personal relation-ships	4	4	6	3	5	4.4
Experimental experience	4	5	4	3	4	4.0

4. Recording of the discussion with a classification of remarks.

¦ ¨	Pause of 25 seconds
! St	3. Oh! I see. There are various words in the sentence that are wrong and the correct words are connected with them in some way.
	E. Yes, yes.
V	3. Yes
	E. Mm.

_____ 1st minute

ӡ	Pause of 25 seconds
S	5. "Elizabeth's yard" is Elizabeth's court, I suppose.
A S	3. Yes, and "sultana" is current
A	5. Yes.
A	1. Mm.
	Pause of 15 seconds.
S	3. French and Spanish farthingales.
S	1. Two main sources of inspiration.
A	5. Farthingales, yes.

AR	1. Two main sources of inspiration.
A	4. Yes.
	Pause of 6 seconds.
SM O	3. Do you think it is better to go straight through and do the obvious ones ......
A	5. Yes.
	3. ... or keep to one sentence and do it properly? I should think go straight through.
Sup.O	5. Straight through because you get the main idea then, don't you?
A.GF	3. Mm, yes. "Mary Tudor had led in the Spanish farthingale".
Rep	5. "Had led in".
QM	3. Mm?
S-O	5. "Led in" isn't what it should be is it?

_____ 2nd minute

	Pause of 5 seconds.
S	5. "Brought in" I should think.
B Att.	2. I don't know what "hail" means.
A	1. No.
SA	3. No. Reign.
A	5. Yes, just reign, yes.
QM	4. "Padded, not-gaseous appearance", I've got.
A.UN	3. Yes. What did they ...
RM B	4. I don't know.
QM	5. What, what?
RM	4. (reply)
A	5. Mm.
C	2. But this is "not-gaseous".
A S	4. Mm, solid, perhaps.
A	3. Yes, yes.
A	5. Yes.
S	3. Elizabeth's fashion.

_____ 3rd minute

Rep.	1. "Two-door time".
B	2. I don't know what "two-door time" is.
A	1. No.
SS	3. Dispersed is probably moved or something like that, gathered.
A	1. Yes.
GF	3. The skirt was gathered.
A	5. Yes.

GF	1. "Hoops and ..."
S,O	5. Creases, isn't it, furrows?
A	3. Mm.
GF S	1. "From the valueless downwards," from the waist.
A	5. Waist, yes.
A	3. Mm.
GF S	1. "After the introduction of starch".
A GF	5. Introduction, yes, of starch, in 1564.
GF S	3. The high neck.
A	2. High neck.
	Laughter.
GF	2. "Was embellished with".
Rep.	3. High neck.
Rep.	2. "Was embellished with".
S	5. Uncreasable.
A	1. Yes, uncreasable one.
S	3. Or hard.

_____ 4th minute

A Sup	1. Yes, starched.
A	3. Mm.
GF	1. "The French flowing-in".
Rep.	5. The French ...
S	3. Influence.
S	5. Influx.
A	5. Yes, (to influence).
AR	3. Or influence.
V	5. Yes.
GF	2. "Pierced".
	Pause 7 seconds.
Rep.	1. "Pierced".
	Pause 12 seconds.
S GF	3. Causing an extension in the size I should think, of the farthingale.
Rep.	1. "Lower extremities in ..."

_____ 5th minute

	Pause 20 seconds.
QI I	1. We haven't done the first sentence properly, have we?
RI	5. No.
Rep.	1. "The French..."
Rep.	5. "The fashions threadbare".
Rep.	1. French influence.
A	5. Mm.

S-	1. "Pierced" is the wrong word. Oh, that sentence. Oh, no.
	Pause 6 seconds.
W B	2. I wish we could do that "threadbare".
	Pause 22 seconds.
S	1. I'm sure (S) comes into it.
	Laughter.
	Pause 15 seconds.

_____ 6th minute

SM	3. I think it's best to go all the way through ...
A	1. Go all the way through, yes.
A	5. Yes, mm.
E	3. To begin with and get as many as we can.
V S O	1. Yes, gathered to the waist?
A GF	3. Yes, "with an established order".
S O Co	5. Fixed, is it? No.
A	2. Yes.
GF	5. "Order of tapes".
GF	2. "Was slightly thrust".
Rep.	1. "Slightly thrust as a ..."
Rep.	3. "Slightly ..."
	Pause 22 seconds.
N	3. It would be a help if we were fashion experts wouldn't it?
A	5. Yes.

_____ 7th minute

S	3. Um, "with a more comprehensive", I should think a fuller and thicker ruff.
	Pause 18 seconds.
SO	3. "Which was wasted gradually", which fell away gradually, do you think?
A	5. Mm.
	Pause 5 seconds.
GFSSSS	3. And reached the edge of the hoop, I should think. The skirt was always separate, and the differently coloured underskirt ...
QI	5. Which is the bit you're doing now?
RI	3. Well, the bit further down.
RI	1, 2 and 3. The second paragraph.
V	5. Oh, I see.
Rep.	3. "Was wasted gradually over the skirt".

_____ 8th minute

	Pause 11 seconds.
Rep. S	3. Came to the brink of the farthingale.
	Pause 29 seconds.
	Laughter.
S	2. That "refuse" is waist.
	Pause 8 seconds.
s	5. "Heath" is more. Eight or more inches.
A	3. Mm.
A	2. Mm.

_____ 9th minute

	Pause 12 seconds.
GF	4. From the waist down.
A	3. Yes, waist.
A W	2. The waist down. What's the "stubbornness"?
V	5. Mm.
S	3. It might be thickness.
A	5. Mm.
	Pause 13 seconds.
UR	4. "A slender fish hook", do you think that's ...
SS	2. A slight angle.
A QM QS Rep.	4. Oh, a slight angle did you say? They had them, yes. A slender angle to the body, is that what they called them?
RS Sup.	3. Well, if it's "slender fish hook to the body", I should think it's a slight angle.
Sup.	5. (simultaneous unrecorded support.) Yes.
	Pause 7 seconds.
GF	1. "Small money present."

_____ 10th minute

	Pause 9 seconds.
Rep.	2. "Small money present".
S.Rep.	3. Perhaps it's "farthing" again. Farthing.
Rep.	1. A "farthing sleeping"...
S S Co	3. Farthingale, no. Resting on the edge ...
A	5. Mm.
A	1. Mm.
A GF	3. ... of the farthingale. The French influence again.
Rep.	1. "Small money present".
S O	3. Headgear.
Sup O	5. Well, that isn't any particular fashion is it?
GF	1. "Treated with partiality during Elizabeth's reign".

Rep.	2. "Head" ... "head ... furniture".
	Pause 6 seconds.
S	5. "Treated with" ... favoured, "partiality".
S S O	3. The most popular of the caps was the heart-shaped. Is it?

_____11th minute

A	3. Heart-shaped, yes.
AR O	5. Do you think favoured should be, instead of partiality? Treated with ...
A	3. Yes, yes.
Rep.	5. Favoured with ...
Rep.	1. Aroused, aroused.
S O	3. Of the caps was the heart-shaped which started instead of aroused?
A GF	1. Yes, yes, "its own strange hairstyle".
	Pause 13 seconds.
S	4. Wire frames.
	Pause 6 seconds.
QI	3. Where?
RI	2. "Telegram frames".
A	3. Oh, yes.
	Pause 9 seconds.
QI	3. We said wire frames, didn't we?
RI S	4. Yes. Were crimped, crisped and coiled.
S Co	1. Head coils, no.

_____ 12th minute

A.	3. Mm.
	Pause 8 seconds.
QI	3. We need "head filaments", now, don't we?
A Att.	5. Mm. Well, that sentence "in regularity" doesn't make sense either ...
A.	3. No.
	5. ... in regularity to occupy"...
	Pause 8 seconds.
QS	3. May I ask if it's just single words we've got to alter or whole phrases?
	E. I'm afraid I can't answer that.
V	3. Oh, oh.
S-O	5. It is here, isn't it? I should think.
	3. Yes.
Sup.O	1. It doesn't make sense otherwise, does it?
A	5. No.
s.	3. "In regularity" may be "as a rule".

A	5. Yes.
S	1. Or often.
A	3. Mm.
GF	5. "To occupy ..."
SS	3. (interrupting) Well, to fill in the space ...
A	5. Yes
S O GF	3. ... spaces made by the curving, is it?

13th minute

A.	5. Curved, yes.
s	1. Extinct, out of doors.
A	2. Mm.
A	3. Mm, mm.
Rep.	1. Head filaments.
S QI	3. Head wires which were often extinct, did you say?
RI	1. Yes.
Rep. I	5. We've got head wires. "Extinct", "as a siege".
	Pause 21 seconds.
SO	3. The hair which was made up still higher, do you think?
A	1. Mm.
GF S S	3. And decorated with a small flat cap or a ...
	Pause 5 seconds.
S	4. Abundance.

14th minute

A St	3. Abundance, yes. I should think there are several words which would fit there.
A	2. Yes.
O SM	4. Shall we go through it again?
A	3. Yes, we shall have to because ...
A.	1. Yes.
	Pause 18 seconds.
I W	2. We did say something for "threadbare".
RI	5. No, we didn't.
	Pause 10 seconds.
SO Co	5. Well does it mean prevalent? But I don't see how ...
A	3. No.
A	1. No.
	5. ... it can be got in that way.
A	3. No it isn't.
S	2. Worn.

A	All. Yes.
D	All. The fashions worn at Elizabeth's court owed much to those current at the time in France and Spain, their two main sources of ...
P	1. Inspiration.

_____ 15th minute

A	3. Mm.
D	All. In women's dress the French and Spanish farthingales ...
D	3. Generated two distinct ...
C	1. "Generated" isn't right.
C	5. "Generated" isn't right.
S D	1. Started two distinct outlines. Mary Tudor had led in the ...
D	1. and 3. Spanish farthingales.
PC	5. Brought in, surely.
S.	5. Introduced.
A	3. Yes.
D	1. And by Elizabeth's reign.
D	3. The typical ...
S	5. Streaming might replace "flowing".
A	1. Yes.
D	3. Bell-shaped.
C	1. Oh, no.
AR	3. "Bell-shaped's" all right I should think.
D	2. Skirt had partially ...
S O	3. Had nearly, do you think?
M	2. That was the awkward one, wasn't it?
S Rep. M	3. Had nearly regained, had nearly ... Wait a minute.
S	1. Replaced.
A	3. Yes.
D	2. The square-cut academic dress.
S-O	3. Do you think academic's right?
UR	2. I should think ...
S O	3. Formal, I should think, perhaps, is it?
D QI	2. And rather padded, what did we have for "not-gaseous"?

_____ 16th minute

RI	3. Solid.
RI	4. and 5. Solid.
D.	2. Which had been ...

D	3. Which had been ...
S QI	5. Typical, wasn't it?
W S O	1. Oh, dear, what does that mean? Of the appearing-sooner two-door time? Double-necked?
S O Co Rep	5. Peculiar, is that, Jill. Oh, no, it can't be because it would be "of". Typical of the ...
	Pause 17 seconds.
S O	3. It would be earlier, "something time", wouldn't it?
A	5. Yes.

_____ 17th minute

	Pause 17 seconds.
RA O	5. Don't you think that means "which had been the peculiarity of"?
A	3. Mm, yes.
A	1. Yes, that will do.
	Pause 7 seconds.
S	2. Previous.
UR	3. Was ...
Rep	2. Previous.
S O	1. Previous times?
Att	2. What about the "two-door"?
A	1. Yes, yes.
Rep	3. "Two-door".
Rep	5. "Two-door".
St	2. It ought to be something like era.

_____ 18th minute

	Pause 28 seconds.
I QI	1. Which had been the peculiarity of the some-thing time, isn't it? And we want something for two-door.
I QI	3. Well, we want something for "appearing sooner", don't we?
RI	2. Well, "appearing sooner's" previous.
A	3. Oh, mm.
W	1. Previous something two-door. What does it mean?
Rep	2. "Appearing sooner two-door".
	Pause 12 seconds.
S	3. Double something.
	Laughter.

	Pause 7 seconds.
SM	2. Let's go on to the next bit.
A	3. Mm.
A	5. Yes.

_____ 19th minute

D S	2. The skirt was held up.
C	5. No.
D PU	3. and 5. Gathered on a supporting.
	5. Fabric. Fab ...
S-O	3. Fabric must be wrong, mustn't it?
A	5. Yes.
S	4. Frame.
A	1. Frame.
A D S O	3. Frame. "Of hoops and", not ropes, I should think, would it be? Cords, perhaps.
Unrecorded comment.	
D	4. So as to be entirely unhampered by creases.
A	3. Mm.
D S	1. The skirt was always separated.
D	4. And from the waist.
D	1. and 4. Waist downwards.
QS	3. Separated from the waist downwards.
Co	1. No.
C	2. No, can't be.
S QI	3. What was that? Bare.
O A	5. Bare, mm. Is it?
C	1. No.
Co	3. No, no.
UR	1. I see ...
	Pause 8 seconds.
QI I	1. We had it before didn't we?
QI	2. Did we?

_____ 20th minute

RI	5. Yes, we had something.
RI	1. Something, I think.
	Pause 14 seconds.
	E. You've got ten minutes.
O SM	1. Shall we go on?
A	3. Mm.
D	1. and 2. After the introduction of starch.
D	3. In 1564.
D S	1, 2 and 5. The high neck was decorated.
Rep	2 and 3. Decorated.

D	3. With a hard ruff.
S	2. Stiff.
D	3. Stiff or hard ruff.
	E. Oh, stiff or hard. Please decide.
RA	2. Stiff.
A	1. Stiff.
D	1. and 3. The French influence.
S O	1. Started, is it? Started in the '70s.
A S S	3. Yes, I don't know whether the word means started or appeared or ... Came in, came in.
A	1. Yes.
A	5. Yes
D	3. In the '70s.
D	1. In the '70s.
D	3. Causing an ...
D	All. Extension in the size of the farthingale to a ...

_____ 21st minute

D S	1. To several, to several ...
	Pause 7 seconds.
S	3. Something in size, instead of diameter.
A	5. Yes.
Rep	3. Several er ... ,
S Co Rep	5. Inches, no, it can't be inches. Extremities.
St O	3. Lower and wider hoops, really, isn't it?
A	4. Yes.
A	5. Yes.
	Pause 6 seconds.
S	4. Hoops in circumference.
A	3. Yes.
S	4. Series of hoops in circumference.
Rep	3. In diameter.
	Pause 11 seconds.
S O D	3. It was worn gathered to the waist, or pinched do you think?
D	1. Gathered to the waist.

_____ 22nd minute

A S	2. Yes, mm. Held tightly.
A	3. Yes, held tightly, yes.
	Pause 8 seconds.
S O	3. Instead of "established order", it's something like definite number, isn't it?
A D	2. Yes, and was thrust ...

S D	3. And was slightly protruded as a ...
	Pause 11 seconds.
S	2. Held up, something like that.

_____ 23rd minute

	Pause 10 seconds.
QI	3. Did we get anything for "the neck was"...
M	3. and 5. ..."Bellow as an ox?"
RI	5. No.
S	3. The neck was low, bellow.
A	1. and 5. Yes.
D	2. and 3. As a ...
	Pause 16 seconds.
D	1. And was finished with a ...
Att	2. What about the "ox" part?
B	1. I forgot about that.

_____ 24th minute

	Pause 49 seconds.
QI S O	4. What did we say for ... Low as a halter neck is? Or ... How would that fit in?
A	5. Oh, yes.
A	3. Yes, yes.
E	4. I think that's what it means.
A	5. Mm.
S O	3. The neck was low like a halter, would that make sense?
UR	4. Well, I think ...
Dis S O	5. It would be better if we said a halter neck. It explains all that, doesn't it?
A	3. Yes.
A.	1. Yes, yes, it would.
D.	5. In contrast, in contrast ...
D	5. and 3. To that which the Spanish prevailing modes ...
S O	5. Prevalent Spanish modes, don't you think?
Dis	3. Well, it's all the same as "prevailing Spanish modes".

_____ 25th minute

A	1. Yes.
A	5. Yes.
D	2. Spanish prevailing modes.
S S O D	3. Had commanded. With a wider? or bigger?
I O	4. Fuller.

A	3. Fuller.
A	1. Yes.
	E. You've got five minutes.
SM O V	1. Righto. Shall we go on.
QI I	3. We didn't get "recapitulation", did we?
RI	2. No.
St O	1. It means going backwards, doesn't it?
A St.	5. Yes, the long and the short of it.
S	2. Recapitulation could be form.
QM	1. Pardon?
RM	2. Form.
A	1. Yes.
QM	5. Form?
!	3. Oh!
SM E	2. Well it seems to be getting late. Put form, I think we'd better.
UR	1. I'm sure,....

_____ 26th minute

	Pause 23 seconds.
	E. Do read out what you've done. You've got four minutes. Do read it out.
QM	2. From the beginning?
	E. No, from where you've got to, so that I know what you've got.
V	2. Oh.
D	3. and 5. ... of this ruff formed a sort of basque.
Rep O	1. Which was wasted, isn't it?
S I	3. Which was spread out, we had before.
UN	? Yes.
D UN	1. Over the skirt. Over the skirt. I think we shall all be ...
D	2. And reached.
D	1. And attained the edge of the skirt.
PC	2. Reached.
V	1. Oh!
D	All. The skirt was always ...
D	3. And reached the edge of the hoop.
A	1. Edge of the hoop, yes.
D	2. Separated.
D.	1. The skirt was always ...
D	3. Separate.
D	All. And the different coloured underskirt could be
D	3. Different coloured.
D	2. Could be seen.
D	

D	3. Seen when the wearer ...

_____ 27th minute

Rep	2. Seen when the wearer ...
	Pause 10 seconds.
SM 0	5. We'd best go on, hadn't we?
A	3. Mm.
D	All. With this change in the ...
S	3. Style.
A	1. Yes.
D.	1. and 3. Of the farthingale the stomacher ...
	Pause 6 seconds.
D	2. To a point.
S	3. Suited, became.
A	4. Yes.
A	1. Yes.
D S	3. Became longer.
A	5. Yes.
D	1. and 3. To a point eight or more inches below the waist in front.
0	1. Grew in thickness, is it?
S S 0 E 0	3. Became fuller, or became harder, I think. Stomachers are hard, aren't they?
A	2. Mm.

_____ 28th minute

D	2. And from the waist down.
D	1. Down.
D	3. Was worn at a slight angle to the body with the ...
I	1. We didn't get that.
A	3. Mm.
Rep	1. Small money present. Small ...
D	3. Resting.
D	11. Something resting on the edge of the farthingale.
S	3. With the tip.
A	1. Yes.
A	5. Yes that's it. Of course.
S D	3. Tip now resting. The French influence was also perceptible in the styles of ...
D	1. and 3. Hairdressing and head,..
D	1, 3. and 5. Gear.
A	5. Yes.
D	3. Treated with ...
D	2. Favour.

D	3. and 5. During Elizabeth's reign.
D	1. By chance ...
D	1. and 3. The most ...
D	3. Popular of the caps was the heart-shaped, which aroused which started its own strange hairstyle.
D A	5. Mm. As a rule ...
D	3. As a rule to fill the spaces made by the curved side of the cap the head wires which were often, which were out of date?
A	1. Yes.
A	2. Yes.

_____ 29th minute

D	1. Were given.
C	5. I don't think that's very good.
Co	3. No, I don't think it means out of date.
Rep	5. Which were often ...
S	3. Superfluous.
QS	5. Superfluous?
C	1. Oh, I don't see that.
C O	2. It doesn't make sense does it?
C	1. Extinct doesn't mean exactly that.
A	2. No.
S O	5. It doesn't mean hidden, does it?
E	3. But we're not necessarily substituting words with the same meaning are we? I mean sometimes ...
A	5. No.
C	1. Yes, but they've got to have some connection.
A	3. Some connection, yes.
SM	5. Let's go on.
D	3. Were given up.
D	3. and 5. As a ...
	Pause 17 seconds.
S O	5. It doesn't mean surround, does it?
A	3. Ah, yes. I should think it does.
A	2. Yes.
D	3. Was given up ...
A	5. Something like that.

_____30th minute

5. The interviews

Subject 1.

1. How did you feel about coming to the experiment? I came to see what you were doing. I got the same feeling as in an exam. - blockage.

2. How did you feel about meeting people you didn't know? I didn't mind the people.

3. How did you feel when it was all over? I felt I would be able to do it much better if I had known English and History.

4. Would you look at your version of the passage again, and tell me which words you are dissatisfied with? Nipped in, for held tightly; commanded; cut out "the" in front of heart-shaped.

5. Would you put on a 12-point scale, from +6 to -6 your satisfaction with the version as a whole? Plus 3 - words are missing.

6. Would you put on the scale your satisfaction with the pace? Plus 3.

7. How satisfied were you with the method you used? There was not much method for the first two sentences. We tended to forget words the second time. Plus 3.

8. How satisfactory did you think the personal relationships were? I couldn't tell in such a short time. They were all right. I didn't think about personal relationships - we were just helping each other. I wished at the time that I could have been doing something else. Plus 4.

9. How much satisfaction did you personally get out of the situation?

Plus 4.

10. Did you think there was a leader? S.3 was a leader. She found the

most correct words. She spoke more than anyone else. She was

familiar with the fashions at that time. The way she spoke - she

spoke in an authoritative voice. She tended to make people think she

was right when they might have thought of a better word themselves.

She set the pace, organised the group, suggested the method.

11. What were the other roles? There were no critics. Ss 1, 2 and 4

were similar in a way, quieter than the other two. This might be

traced to the kind of subject they do. S.5 had the next most important

part. S.5 made the next number of suggestions to S.3.

12. What was your own role? I suggested one or two things. S.3 said

things first. I lost myself; the leadership was too strong; it

suppresses others. I am always fairly quiet; I always play the same

part although I may speak.

13. Did you think the group worked as a team? It didn't work as a team.

There was more collaboration during the second reading.

14. Were there any factors specially integrating or disintegrating?

There was nothing specially integrating or disintegrating.

15. If you had to choose a leader for another similar discussion, whom

would you choose? S.3 would be a future leader. You couldn't

prevent her from acting as a leader. Sometimes she made suggestions.

Her manner made her a leader; she guided the group; she knew what

she was talking about.

16. Have you ever sat on a committee? Yes, I liked the committee.
I like planning things and organising. I only like the things I'm
interested in. I have to be able to work with people harmoniously.
I have to be practical. I like discussions, especially when I am
interested in the subject. I get more out of a discussion than
reading. You get different points of view.

17. Do you like team games? I like team games; I like the skill not
the teamwork. I like the team spirit. I like playing part in a
team, trying to fit in harmoniously.

18. Do you ever do crosswords? Twice a year. I am indifferent at them.

Subject 2.

1. How did you feel about coming to the experiment? I felt curious.

2. How did you feel about meeting people you didn't know? I knew
S.1 and S.4 slightly.

3. How did you feel about the recording? I wasn't worried.

4. How did you feel when it was all over? I wondered what it was all
about.

5. Would you look at your version of the passage again, and tell me
which words you are dissatisfied with? Gathered; by chance.

6. Would you put on a 12-point scale, from -6 to +6, your satisfaction
with the version as a whole? Nought. Not good, though the
passage was quite hard.

142.

7. Would you put on the scale your satisfaction with the pace?

   It was not too bad; we could not have gone much more quickly;

   we wasted time in the beginning. Plus 3.

8. How satisfied were you with the method you used? There wasn't

   really a method. I can't think of a method we could have adopted.

   We weren't working together in the beginning. Nought.

9. How satisfactory did you think the personal relationships were?

   We got on all right, but I don't know if we would have done, if we

   had got to know people better. Plus 4.

10. How much satisfaction did you personally get out of the situation?

    Plus 5.

11. Did you think there was a leader? S.3 was a leader. She knew

    more than the rest. Her personality - she was less retiring.

    Whether she would still have been the leader when the others got to

    know each other better, is a moot point.

12. What were the other roles? There was no critic. No diplomat,

    no organiser.

13. What was your own role? I made a few suggestions. I was in the

    group. I was thinking most of the time.

14. Did you think the group worked as a team? It worked as a team.

15. Who contributed most to integrating the group? There was no

    integrator. Integrating was the fact that everyone had to do their

    bit.

16. Was there anything disintegrating?   There was nothing disintegrating.

17. Have you ever sat on a committee?   I like organising things;   I

    like being on a committee.   I was interested in the things the

    committee was trying to do.   I like discussions if it is something

    I am interested in.   I like to hear other ideas.   It gives you an

    idea of what the other person is like.   I play a greater part in

    discussion, outside this experiment.   It makes a difference whether

    you know the people.

18. Do you like team games?   I like team games.   I like team spirit

    and skill.

19. Whom would you like as future leader in this discussion?   S.3

    because she had more ideas.   S.4 was a bit quieter.   Apart from

    S.3 the others played much the same part.   S.4 was quiet, not an

    isolate.

20. Do you ever do crosswords?   They are not interesting.   I never do

    crosswords.

    S.3 was the dominant personality.   She was naturally a leader in

    this situation.   She did not try to make herself a leader.   Others

    followed because they hadn't as many ideas.

Subject 3.

 1. How did you feel about coming to the experiment?   I felt nothing

    coming, nor about the recording, nor about meeting people.

2. Would you look at your version of the passage again, and tell me
which words you are dissatisfied with? "Lines" isn't right.
Square-cut; unhampered. Nothing corresponding to "low". "Certain"
rather than "definite". As a halter. Not "form" for recapitulation.
Something left out for "wasted gradually". Treated with favour.
By chance. Extension. And was finished. Harder.

3. Would you put on a 12-point scale, from -6 to +6, your satisfaction
with the version as a whole. Minus 2.

4. Would you put on a scale your satisfaction with the pace? Fairly
slow, extra difficulty because wasn't sure which adjectives usually
went. Nought.

5. How satisfied were you with the method you used? If each had a
pencil-division into groups and each taken a section. Minus 2.

6. How satisfactory did you think personal relationships were? All
right. Plus 6.

7. How much satisfaction did you personally get out of the situation?
It was a bit unduly difficult. Plus 4.

8. Did you think there was a leader? No leader.

9. What were the other roles? No critic. I made suggestions about
method myself, but that does not make me a leader. No pace setter,
no organiser. I thought they were an extremely dull lot. No-one
did much more than suggest odd words. I felt that I didn't know

what I was expected to do. I can't remember them (the other members).
It was partly that I was concentrating on the passage. I didn't
think anything about them.

10. Did you think the group worked as a team? It worked as a team.
Not much teamwork called for. Nothing integrating or disintegrating.
No leader. I didn't feel that I wanted to get other people into the
group.

11. Have you ever sat on a committee? Do you like discussions? I am
naturally argumentative. I like exchanging views.

12. Do you like team games? Party team games - it depends entirely on
the party and the people.

13. Do you ever do crosswords? I do the "Times", "Telegraph", "Sunday
Times", "Observer" and the "Statesman". I do a crossword three times
a week. Depending on practice I vary from hopeless to good.

14. What is your usual role? In philosophical discussions I make counter—
arguments, criticisms. It depends on the topic whether I am forth-
coming or not.

15. When you have read a thing do you usually rush to discuss it, or do
you just prefer to think about it? Both, it depends on circumstances.

Subject 4.

1. How did you feel about coming to the experiment? I didn't mind coming.
I was rather interested. I wasn't apprehensive.

2. How did you feel about meeting people you didn't know? I took them

as a matter of course.

3. How did you feel about the recording?   I have done it before.   I
   don't like reading aloud.

4. How did you feel when it was all over?   I was shocked at the passage.
   I found the experience rather enjoyable.

5. Would you look at your version of the passage again, and tell me
   which words you are dissatisfied with?   Two main sources of
   inspiration.   Unhampered by creases.

6. Would you put on a 12-point scale, from -6 to +6, your satisfaction
   with the version as a whole?   Plus 3.

7. How satisfied were you with the pace?   The pace was quite good.
   It was slow to start.   Didn't get suggestions.   Plus 1.

8. How satisfied were you with the method you used?   Plus 3.

9. How satisfactory did you think personal relationships were?   We
   didn't have any violent quarrels.   There were humourous remarks.
   Plus 3.

10. How much satisfaction did you personally get out of the situation?
    Plus 3.

11. Did you think there was a leader?   S.3.   She read the passage out.
    She paused when the word couldn't be found.   She either supplied it
    herself, or left it open for others.

12. What were the other roles?   No critics in the group.   S.3 a pace-
    setter.   No organiser,   S.1 humourous.   S.5 quiet.   What S.2

said was worth saying.

13. What was your own role?   I didn't contribute much myself, although
I was not out of it.   I couldn't think of the words.

14. If you had to choose a leader for another similar discussion, whom
would you choose?   S.1 or S.3.   S.3 did it well.   They would be
equally good as leaders.   I prefer S.1 - they are different types.
S.3 rather domineering, but very helpful.

15. Did you think the group worked as a team?   It worked as a team.
It was slow in getting started.   Once the group had found a leader
it was all right.

16. Was there anything disintegrating?   There was nothing disintegrating.

17. Do you like discussions?   I like discussions, they widen your point
of view.   When you discuss things, you don't actually study.   You
know what somebody else thinks.   Discussing with the people you meet,
interesting.

18. Do you ever do crosswords?   Leadergram, Picture Post.   I do one
about twice a year.   The easy ones, News of the World.   I am
indifferent at them.

19. When you have read a thing do you usually rush to discuss it, or do
you prefer just to think about it?   I think and discuss, but I
think much more.

20. Do you like team games?   I like both the teamwork and the skill.
I like games of any sort, and the team.

21. What is your usual role in discussions?   I talk as much as the

others.   When I am with strangers, or in a strange situation I am

quieter.

Subject 5.

1. How did you feel about coming to the experiment?   I was curious,

not at all apprehensive.

2. How did you feel about meeting people you didn't know?   I didn't

mind meeting people.

3. How did you feel about the recording?   I didn't mind because it was

not for general publication.

4. What did you feel when it was all over?   I didn't feel anything

particularly.   I was still thinking about one or two things we had

been doing.

5. Would you look at your version of the passage again and tell me which

words you are dissatisfied with?   Definite number of tapes;

protruded; by chance; head wires.

6. Would you put on a 12-point scale from +6 to -6 your satisfaction

with the version as a whole?   Plus 2.

7. How satisfied were you with the pace?   Plus 5.   It's not very

finished.   You can see it's been done in a hurry.

8. How satisfied were you with the method you used?   If I had done it

by myself I would have read it through first and filled in the gaps

afterwards.   Plus 3.

9. How satisfactory did you think personal relationships were?
Got on all right.   Plus 5.

10. How much satisfaction did you personally get out of the situation?
Plus 4.

11. Did you think there was a leader?   S.3 was the leader.   She brought us back to the point.   She read it through and set the pace.   She made more suggestions.

12. What other roles were there?   S.4 although she didn't say a lot made suggestions which were real solutions which the others hadn't seen.   The others were passive.

13. What was your own role?   I made suggestions.   I am usually more forthcoming in discussions.   I tend not to see others' points of view.   It wasn't obvious here.   I didn't disagree.   Usually the group agreed.

14. If you had to choose a leader for another similar discussion, whom would you choose?   S.3.   She wasn't dogmatic;   she was willing to hear what others had to say.   The others weren't as qualified as she was.   She stimulated others to make suggestions - I felt stimulated myself.

15. Did you think the group worked as a team?   There might have been a bit more method.   It may not be possible to have a method in this type of situation.

16. Was there anyone integrating the group?   The leader led rather than integrated.   She left it to others to follow.

17. Was there anything disintegrating?   No.

18. Have you ever sat on a committee?   An informal committee.   I was interested in the subject.   No organising to do.

19. Do you like discussions?   Yes.   I like them for discussion's sake. It encourages friendliness if you go about it the right way.   I disliked some of the people who went off into irrelevant subjects - we were short of time.

20. Do you like team games?   Yes, I like the teamwork.

21. Do you ever do crosswords?   I am not persevering.   I do the "Telegraph" and the "Times" about once a week.   I am bad at them.

22. When you have read a thing do you usually rush to discuss it or do you prefer to think about it?   I go away and think.   Usually discussions are spontaneous.   When you agree to go and discuss a thing it's a flop.

6. Ratios

	S:A	S:GF	S:O	S:CS
S.1	17:30	17:6	17:11	17:7
D role	1:1.7	1:0.3	1:0.6	1:0.4
S.2	11:12	11:3	11:2	11:8
E role	1:1	1:0.2	1:0.1	1:0.7
S.3	60:45	60:9	60:21	60:26
B role	1:0.7	1:0.1	1:0.3	1:0.4

	S:A	S:GF	S:0	S:CS
S.4	8:6	8:1	8:3	8:5
F role	1:0.7	1:0.1	1:0.3	1:0.6
S.5	19:40	19:3	19:14	19:7
D role	1:2.1	1:0.1	1:0.7	1:0.3

7. Case Study

This group contained three members with a rather low intelligence. The second most intelligent member confessed to being bad at crosswords, and she was not able to help the group do the puzzle. The burden of making suggestions therefore fell upon S.3, the leader. She made sixty suggestions, twenty-six of which were correct. This was something of a marathon effort. She could not, however, do the work of five people, and the productivity score was low, being forty-two.

All the subjects chose S.3 as leader. They accepted her while making reservations about her leadership. She was said to be domineering, and to suppress others who might have thought of a better word. S.3, on the other hand, found her colleagues an extremely dull lot. Indeed, she hardly noticed them because she was concentrating so hard on the passage. This was a defect in her leadership, for she should, perhaps, have tried to get more out of the group; she should at least have been aware of them. Perhaps she should have given more time to leading and rather less time to making suggestions. This is the dilemma this group was in: on the one hand, the leader carried almost the entire work load and could not give time to organising and integrating the group, and on

the other hand, the group missed her attention to integration, but could not make suggestions.

Ss 2 and 4 had very small roles. Ss 1 and 5 did little else besides agree, although they did make a number of incorrect suggestions. They had very similar roles. It should be mentioned that S.3 herself did not think she was the leader. She said, "I did make suggestions about method myself, but that does not make me a leader". However, there was complete consensus in the group, and S.3 was a natural choice since she was older, a post-graduate student, and the most intelligent member of the group.
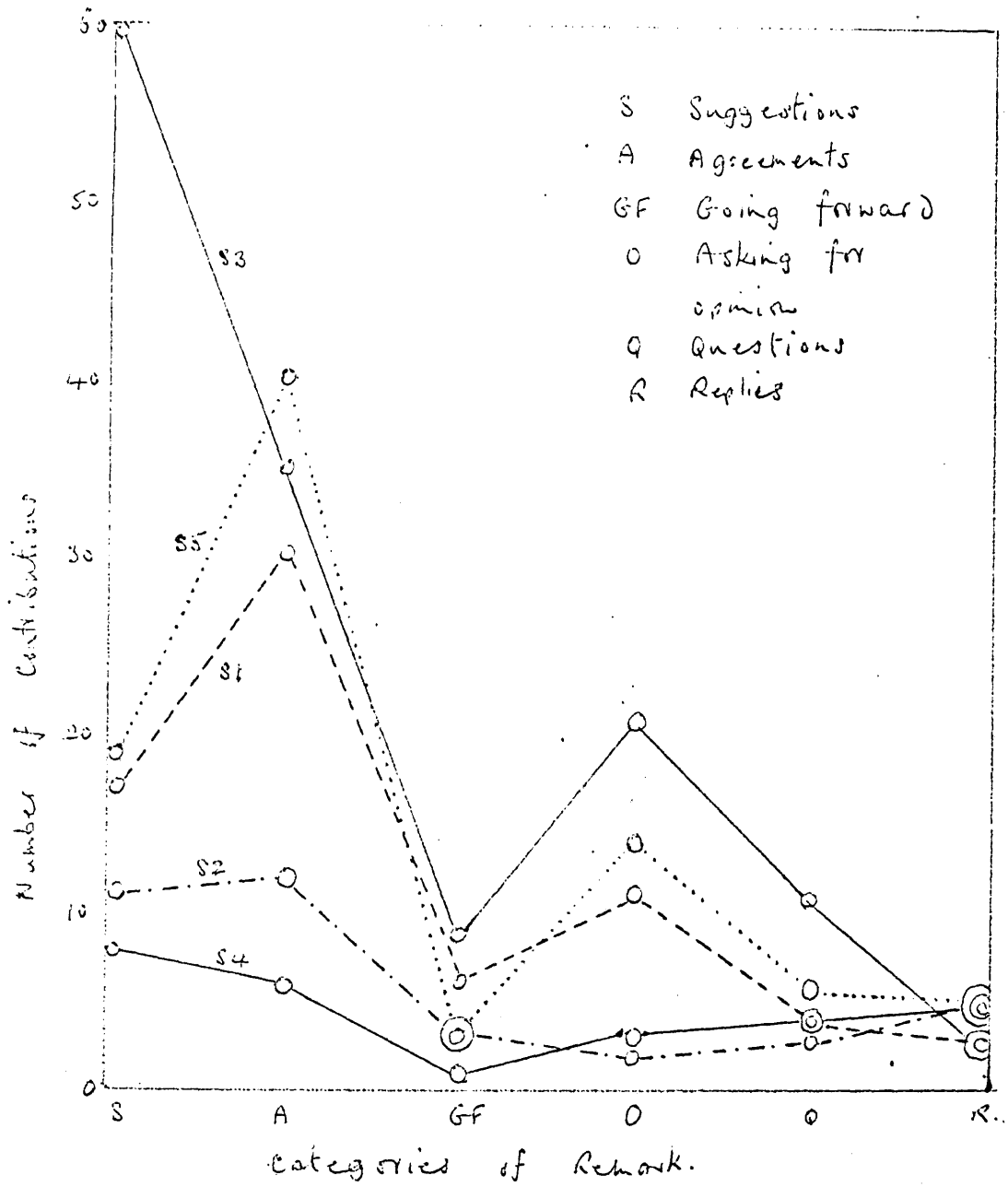
Fig. 4.   Graph showing role playing in Group XI in which S3 was
the leader

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