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An Evaluation of F.E. Fiedler's
Two Measures of Leadership Style.

A thesis presented in partial
fulfilment of the requirements
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Massey University.

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Abstract.An Evaluation of F.E. Fiedler's
Two Measures of Leadership Style.

A short history of research into the study of leadership up to and including an explanation of Fiedler's (1967) contingency model of leadership effectiveness is presented. Some doubt is raised as regards the validity of Fiedler's two measures of leadership style (A.So. and L.P.C. Scores) and a comparison between the two is attempted.

Five groups of leaders (total N of 14) completed Fiedler's standardised measures of leadership style and scores for the two styles, measured by the A.So and L.P.C. were computed. A comparison between both sets of scores and between mean scores for each group suggested that, contrary to Fiedler's prediction, A.So. did not behave significantly similarly to L.P.C. with A.So. Score appearing to differentiate leadership styles in the generally expected direction whilst L.P.C. Score failed to differentiate leadership styles.

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1. Short History of the Psychological Approach
to Leadership and Leadership Style.

Leadership is an integral part of interpersonal behaviour except at two theoretical limits. One exists when the individuals of a population act in a haphazard manner such that behaviour is unpredictable, the other where laws or rules dictate all action thus eliminating choice, (a situation referred to by Jones and Thibaut (1958) as "non-contingent interaction".) Between these two extremes individuals, groups and organisations have the opportunity to choose within certain limits the chances to influence and to be influenced. This conception, that leadership involves the use of influence, is fairly widespread as the following definitions of leadership indicate:

"Leadership is a kind of interaction between or among people. Any group member's attempt to change the behaviour of one or more members of a group is an attempt at leadership" Bass (1960)

"Leadership may be considered as the process of influencing ---" Stogdill (1950)

"Leadership refers to an influence relationship ---" Hollander and Julian (1966)

"Leadership is an ability to persuade or direct ---" Reuter (1941)

There is less agreement, however, concerning the specific kinds of influence that are uniquely those of leadership. The history of leadership research to follow clarifies some of the problems in identifying those specific kinds of influence and may help show how Fiedler's Contingent Theory of Leadership Effectiveness helps overcome some of these difficulties. Whether Fiedler's method at its weakest point, his measure of leadership style, can cope with these difficulties is in part the aim of this study.

Psychologists had arrived at research into leadership at a relatively late stage. The first experiments were achieved by Binet and Termin who were active during the early 1900's and were concerned with leadership amongst children. Work in this area characterised research for several decades though this laboratory beginning to leadership study was, regrettably, quickly put aside with the emergence of World War 1. It was evident at the time that the various allied Armed forces possessed little or no means by which to select their leaders. Industry was also expanding and it, too, began to feel the need for new methods of selecting leaders - executives as well as "shop floor" supervisors. Such pressures produced conferences typified by that instigated in 1927, by the Taylor Society

and Personnel Research Federation. Its conclusion, that more experimental research into leadership was required, recommended specifically -

- 1/ questionnaires and interviews with leaders.
- 2/ the analysis of leadership abilities.
- 3/ the training of individuals in leadership techniques.

Research in areas one and two progressed first and as a consequence a Trait Approach to leadership study developed. By this method attempts were made, ranging from field observations on performance to personality tests and correlational techniques, to isolate these essential characteristics or traits of leaders that made them what they were. However, by and large, the early trait theorists failed in their attempts mainly because of a failure to isolate a consistent pattern of traits that characterise leaders. Also their observations ignored the differing types of leadership. For example Hamphill (1950) distinguishes between "effective" leadership where the leader is obvious and improves group performance along existing, or towards new and worthwhile goals. And those leaders whose efforts are shunned who exhibit "attempted" leadership and those who changed behaviour "successful" leaders, though not towards the established or new worthwhile goals. Thus those traits that allow a leader to emerge may not make a person an effective leader. It could well be however, that a further pinpointing of leadership types could lead to a consistency of leadership traits. It is, though, becoming an ever increasing possibility that those minimal abilities required, such as intelligence, are widely distributed amongst non leaders as well. Another problem was that personality traits were poorly conceived and at least then, unreliably measured. A summary of the inadequacies of the trait approach has been provided by Gouldner (1950). Other resumes of the trait approach, Stogdill (1948), Jenkins (1947) and Gibb (1947) reflect both a growing disenchantment with the old trait approach to leadership, and the emergence of a new direction in leadership studies. A direction commonly referred to as the Situational approach. This approach was partly based on recommendations such as that advised by the Taylor recommendation number 3 whereby research on training leaders was beginning to suggest that the real or near to real situations were important. But by far the greater impetus was provided by those leadership studies based on the study of military leaders made in World War II. One of the important conferences at that time was the September 1950 Office of Naval Research (ONR) of the United States at Dearborn, Michigan, where those O.N.R. - contracted research projects begun since 1945 were aired. Perhaps one of the most significant points to emerge was the recognition that perhaps the group situation

wherein leadership emerges was an important variable in the understanding of leadership. (Darley, 1950)

What followed in the field of leadership research was progress in the development of methods for studying leadership as a phenomenon of groups. Typically an era of experimentation developed whereby the emergence or transformation of leadership as the group situation varied, from Authoritarian to Democratic was observed. For example the early work completed by Lewin et.al. (1938). The defining of these two clusters or poles of leadership behaviour had been confirmed by a wealth of research groundwork which was laid by Bales (1953). He observed initially that "instrumental" (task orientated) and "social-emotional" (human relations orientated) leaders were very often generated in his small groups. Thus the former leader catered for a group's need to achieve goals and the latter leader allowed for a group's need to maintain group cohesion. Early resumés (Anderson, 1959) in this field suggested that the Authoritarian Democratic construct provided an inadequate conceptualisation of leadership behaviour mainly because many of the experiments gave contrasting results. However one effect was a search through the experimental method and the isolating of a major problem. There seemed to be a preoccupation with the individual differences and, as a consequence, a tendency to focus on the variance in situations and then the variance in individuals to the detriment of the relationship or interaction between the two. Cronbach (1957) puts the matter squarely by suggesting that now, not only should variance amongst organisms (individuals) and variance amongst treatments (groups) be noted but also the "neglected interactions" between the two.

The research thus far indicates that at least three factors should be taken into account when leadership theory is advocated. The first is a consideration of the situational variates, such as the position, needs a composition of the group being led. Current research reveals numerous difficulties in this area. In principle all members of a group may be leaders in that at some stage each may take action that serve group functions. It appears then that to begin to identify effective or successful leadership at least, the researcher must first locate what states or needs are of value to the group at a given time and then determine which member actions contribute to the attainment of these states. Some theorists prefer to limit group functions to a few categories such as decision making, coordinating planning and task attainment. In such a case, leadership would refer only to a special class of functions. Some prefer listing all possible group functions but as Cartwright and Zander (1968) suggest, "it is not possible at the present state of research to develop fully a satisfactory designation of leadership functions

that are peculiarly functions of leadership". And they suggest that a more promising endeavour of research might be to observe, empirically if possible, the emergence of all group functions and put labels on them later. A mammoth undertaking. Many researchers have found it useful to organise all group functions however under two loose headings. They are those of "goal achievement" and include behaviours such as "initiates of action", "keeping members' attention on the goal", "clarifying issues", "developing plans", "evaluations" and providing expert information etc., and "group maintenance" which includes behaviours that "arbitrate in disputes", "keep interpersonal relations pleasant", encourages, stimulate self direction" and "increase self direction" among members. Small group researchers have given these poles other names. Bales and Slater (1955) use the terms "Task specialist" and "Social-emotional specialist" and although they dealt with small groups that met only four times, similar work with large stable organizations indicated smaller poles. Fleishmann et.al. (1955) working in this latter area demonstrated that at least 83 per cent of all leader behaviour in a large organization could be classed under two factors, one of "initiating structure" and the other of "consideration". This last differentiation has introduced another problem in this area of classification of situation. This involves classification of group types. Stogdill (1950) points out that group and organization is one example where much of the literature had used the terms interchangeably. He indicates that this is quite a confounding mistake. Once groups and organizations have been defined the researcher is still left with the problem of sorting types of groups and types of organizations.

A second consideration is that of the Leader's behaviour or style. The Leadership behaviours most often identified are those producing effective leadership. This is not surprising as effective leadership is probably the most easily identifiable, most productive for the group's involved and (since groups that continually fail to complete their tasks tend to disintegrate) most stable. Styles of effective leadership are popularly described in terms of group functions, such that effective leadership improves group productivity or goal attainment by exhibiting behaviours suitable for "goal achievement" or "group maintenance". Another important consideration in acts of leadership is the recognition that, if they are to be effective, then they rely on some basis of power or influence. A summary of the argument is given by Cartwright and Zander (1968). Influence can be viewed as a relationship between individuals roles, group organization and nations. Between individuals for example, influence may be as a result of prestige, strength, skill, information and ability to satisfy intangible needs such as respect etc. These

influences can be categorised for example French and Raven (1959) name five "bases of social power". Methods for applying this influence can also be categorised, persuasion, control of rewards, control of environment and resources to mention a few. And it appears possible also to categorise the motivations and conditions of those willing to be influenced. The state of research exploring the relationship between these three components of influence or power is healthy but for the purpose of this study it seems enough to recognise that power and/or influence is a complex factor that needs to be considered in theories of leadership.

The third consideration is an understanding of the relationship and interactions of those important variables (and I have not mentioned nearly all of them) between considerations one and two. Fiedler (1964;1967) by forwarding his Contingency Model of Leadership Effectiveness has offered a method by which the relationship can be explored. His model has provided a basis for much of the research into leadership over the last decade. It is now my intention to describe Fiedler's model, especially his method of measuring leadership style.

2. The Nature of Fiedler's Leadership Theory and an Explanation of his Measures of Leadership Style.

Fiedler's (1965) proposed hypothesis is "that the type of leadership attitude and behaviour which will be most effective is dependent or contingent upon the favourableness of the group task situation". And to test the hypothesis Fiedler studies the styles adopted by leaders and related those to effective leadership in groups of different natures with varying tasks. Such an understanding relied on several definitions.

Fiedler's taxonomy of groups he manages using several steps (Fiedler's, 1967). Firstly he means by "groups" those sets of individuals who share a common fate "who are interdependent" in that an event affecting one member will effect all members. They (members) are typically interacting in an attempt to achieve a goal and are rewarded if the goal is achieved and punished, or feel they are, if the goal is missed. It is a definition that includes "Task groups" but not "social or therapy groups". The second step divides groups into interacting, co-acting and counteracting groups. In interacting groups, group members are interdependent - each member must do his part if the team is to be successful. In co-acting groups, the members, although they work together on a common task, work independently of other team members, they effect each other's performance only indirectly. The third category, counter-acting groups, occurs where members are working together

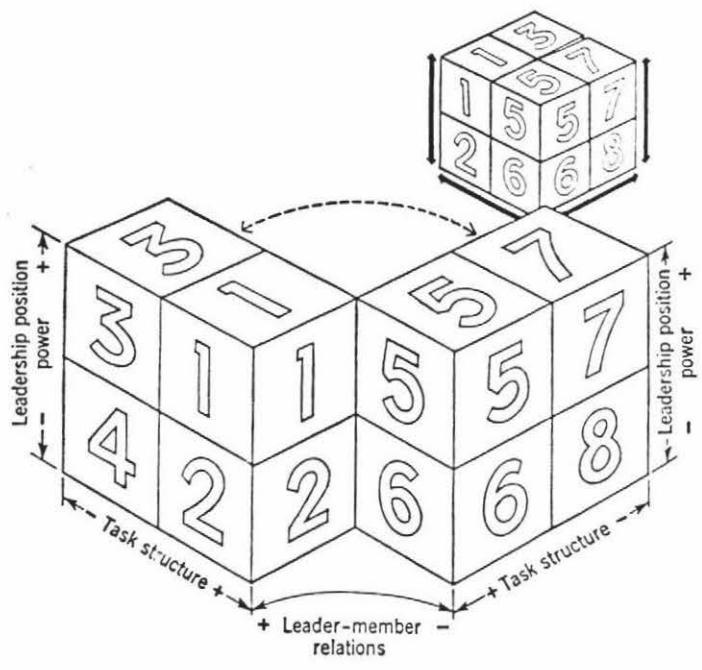
for the purpose of negotiating and bargaining. Each member works independently for his own aims at the expense of the other members. Since Fiedler considered his understanding of interacting groups to be relatively more advanced, he concentrated his research on them. He further classifies this group in terms of "power position", "task structure" and "leader group member relation", and it is explained although he considered these to be the most important of the group situational variants affecting leadership, there could be others. Position Power is meant as the "degree to which the position itself enables the leader to get his group members to comply with and accept his direction and leadership. A leader in a high position of power would find it easier to influence the group in his desired direction whilst the leader with a low position of power must first convince his group that they should follow him. He developed his own check list of 17 items to operationally define position power. Task structure is a relatively obvious important situational variant as the task is the reason that the groups were set up in the first place. Fiedler uses Shaw's operational measure for task structure and it includes decision variability, goal clarity, goal path multiplicity and solution specificity. The assumption behind the score is related to the degree of control a leader has over his group. An easy task structure lending itself to greater leader control than a difficult task structure, thus allowing the leader greater influence. Leader-group member relations has as its basis the assumption that the leader is an important variable and if liked, trusted, respected, etc. his directions, rightly or wrongly, are more likely to be followed than those of a disliked leader. Fiedler uses Hemphill's (1950) system, to differentiate between effective, successful and attempted leadership acts, and impresses that he is interested in the two former cases only. To ascertain operationally whether leader-group relations are poor or good a sociometric rating questionnaire asking which leader would the group chose under certain conditions is used. More recently, however, the leader is simply asked to rate his group on a scale practically identical to the least preferred co-worker scale (to be described later).

On a Three dimensional plane these factors (leader-member relations, task structure and power position) represent an eight celled cube (Fig.1) each cell of which is ranked in terms of assumed favourableness for the leader. Thus cell one, being the most favourable for the leader, would be expected to have good group member relations, a relatively recognisable task structure and power position. The least favourable cell, cell eight, for the leader would then possess poor member

Fig. I.

A model for the classification of group task situations.

Source Fiedler (1967)



relations, a relatively unrecognisable task and little leader power. Fiedler then measures whether these different situations require different types of attitudes on the part of the leader by plotting the correlation between leadership style and group performance for each group task situation. A relationship is found (Fig.II) which indicates that directive controlling leaders appear to be most effective in situations which are either very favourable or very unfavourable for them; whilst non-directive considerate leaders seem to perform best in situations of intermediate favourableness. It is, perhaps, important to note that Fiedler has gained his relationship by testing his hypothesis more rigorously in some of his 8 cells than in others. For example Fig.II indicates that the wealth of Fiedler's research has been concentrated in cells 1, 3, 4, 5, 7 and 8 whilst, at the other extreme, cell 6 had yet to be tested.

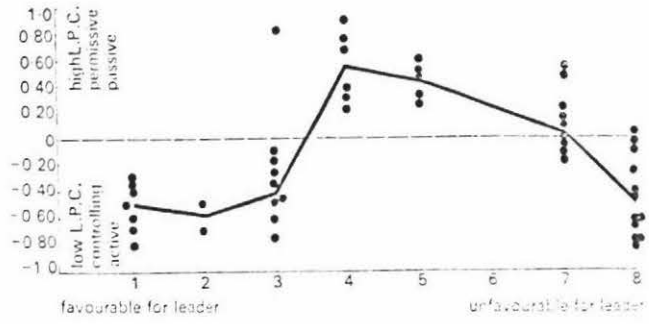
Fiedler is able to define and objectively describe his measure of leadership style. Firstly he considers the leader to be, "the individual in the group given the task of directing and co-ordinating task-relevant group activities or who, in the absence of a designated leader, carries the primary responsibility for performing these functions in the group". (Fiedler, 1967) And at any one time the leader is that individual who is either appointed from sources outside the group but still within the organization or elected by the group or is the most influential. Leadership style is defined, Fiedler (1967), as "the underlying need structure of the individual which motivates his behaviour in various leadership situations". The operational measure for which is relatively simple. Its development begins with Fiedler's interest in the operational measurement of interpersonal relations in the therapeutic setting using Q technique methodology (Stephenson, 1953). It was found that reputedly good therapists tended to describe their patients as more similar to themselves, while reputedly poor therapists tended to describe their patients as quite dissimilar. A measure called assumed similarity (A.S) was developed and when interpreted it indicated psychological warmth, acceptance and permissiveness. It was used with other groups with some success until finally Fiedler questioned the effect these perceptions might have on performance of small task groups. The first study was performed on high school basketball teams and this plus subsequent studies (Fiedler, 1966) indicated that the best measure for predicting group performance was the similarity the leader perceived between the most and the least preferred co-worker he had ever had. The score was called the assumed similarity between opposites (A.So.) More recently Fiedler developed a score based on only one

Fig. II

Graph showing the relationship between group task structure, group performance and leaders style (L.P.C. Score).

Source. Fiedler, 1965. Results from over 800 groups.

Correlation-
leader L.P.C.
scores and
group perfor-
mance.



Leader member
relations.

Task structure.

Leader position
power.

favourable for leader				unfavourable for leader			
good	good	good	good	mod. poor	mod. poor	mod. poor	mod. poor
str.	str.	unstr.	unstr.	str.	str.	unstr.	unstr.
strong	weak	strong	weak	strong	weak	strong	weak

of these co-worker descriptions, the least preferred co-worker or (L.P.C.). A full description of the development of these scores can be read in Fiedler (1967).

Thus to measure leadership style the individual is given a specific set of instructions asking him to describe firstly his least and then most preferred co-worker. The descriptions are made on 16, 20 or 30 adjectival items each a 7 or 8 point scale, using Osgoods semantic differential technique (Osgood, Succi and Tannenbaum (1957)). Once the scales of "interpersonal perceptions" are completed Fiedler is able to compute his two scores:

The L.P.C. score obtained by allocating each item a weight of one to eight points, with 8 points indicating the favourable pole of the item, and totalling the points for all items. Thus a high L.P.C. score represents a person who describes his least preferred co-worker in relatively favourable accepting terms while someone with a low L.P.C. score describes his least preferred co-worker in unfavourable, rejecting terms.

The A.So. Score. This is assessed by comparing the description of the least and most preferred co-worker by taking the numerical difference in score between them on each item and applying the "D" statistic suggested by Osgood, Succi and Tannenbaum (1957). The "D" statistic is based on pythagorean theory and takes into account both the profile co-variation and the discrepancies between the means of the profiles of the scores. Its formula is:

$$D = \sqrt{\sum d^2}$$

where d is the difference between M.P.C. and L.P.C. scores on each item.

A person with a low A.So. Score therefore is assumed to make few distinctions between workers regarding them all, usually, fairly favourably. A high A.So. Score represents a person who does distinguish between workers.

The computations of these two scores assumes

- 1/ the intervals on the itmes "interpersonal perceptions" are equal units.
- 2/ the variables across which the differences are taken are independent.
- 3/ that all measures are equally weighted. As Shouksmith (1970) comments "It is doubtful if the semantic differential meets these requirements but there is some justification for using the technique since in practice

3. cont...

it has been found to fit within reasonably close limits".

Both A.So. and L.P.C. scores are highly correlated according to Fiedler (1966) and he concludes, after reviewing his research, that "most of the variance of the A.So. Score is in the description of the L.P.C. since nearly everyone describes his most preferred co-worker in relatively favourable terms. As a result, the correlation between A.So. and L.P.C. scores ranges from .80 to .95 which is essentially as high as the reliability of the scores themselves. While there may be some differences between scores, we shall here interpret them as indicative of the same underlying psychological attributes or behaviours". Consequently Fiedler (1967) assumes the two scores to be interchangeable and in his more recent work, uses a score derived from only one of the descriptions, namely that of L.P.C.

Fiedler (1966; 1967) over a number of empirical studies interpretes a specific combination of the two scores to represent two distinct leadership styles. Style 1 leaders are characterised by a high L.P.C. or low A.So. score. It indicates a person who is motivated to seek prominence in interpersonal relations, is warm, integrative and attempts to reduce anxiety and increase personal adjustment amongst his co-workers. Style 2 leaders are characterised by a low L.P.C. and high A.So. score. Typically this is a person who is concerned with performance, is cool critical and clear sighted. He gains gratification from success on the particular group task. This leader is able to relegate interpersonal relations to a secondary level. As Fig. II indicates both styles of leadership are effective under certain conditions.

These two styles may at times exist but it is becoming increasingly evident that the "styles" are not such simplistic static notions as at first thought. Fiedler (1966), possibly as a result of the pressure brought by the Bishop (1964) and Myers (1962) studies (whereby Fiedler's two styles were shown to change with the instigation of stress conditions) states: "It is now clear that these scores have been difficult to interpret because the behaviour with which the correlate changes with the psychological stress or threat which the leader experiences in the situation. Thus, the high L.P.C. Leader in stressful conditions behaves more like the low L.P.C. Leader under relaxed conditions

than the high L.P.C. Leader in relaxed conditions". Ashour (1973) summarises several studies in this area and some of the more interesting conclusions indicating Fiedler's scores to be more complex than suspected follow. Since it was contended by Feilder that Style 2 leaders achieved satisfaction from task performance alone it was hypothesised they would be more sensitive to success or failure comments. Some evidence indicates otherwise. Also, Style 2 leaders were expected to be less interested socially in people and perhaps be even more extra punitive than Style 1 leaders, there seems to be evidence to the contrary. Also Style 2 leaders (in an unpublished study) were found to request, when forced to do so by a hypothetical work situation, groups having good interpersonal relations while Style 1 leaders wished to have efficient groups. This again suggests a more complex situation. That Fiedler's Style's can vary over time was indicated by Stinson and Tracy (1974) and as well they, by using several other behaviour measures, suggest that L.P.C. score did not adequately reflect leadership behaviour at all.

In some instances the response to such arguments has led to outright rejection of Fiedler's explanations of his two styles. Some have supplanted their own theories suggesting, for example that Style 1 leaders are more cognitively complex than Style 2 leaders or that a "higher error of rating" occurs which when exhibited indicates an inability of the rater (Style 1) to differentiate between item poles. Such explanations attempt to force Fiedler's concept back into a simple linear relationship. Others, however, have taken a broader view of the problem and consider that Fiedler's global measure may be factorally complex, Cronbach (1955) recognised such problems very early. He considered that research dominated by simple operationally defined measures may conceal more than they reveal and suggests "only by careful subdivision of the global measure can an investigator hope to know what he is dealing with". This conclusion he supported by indicating that the A.So. Score could be subdivided into at least two components.

It is, therefore, possible that Fiedler's two scores are not yet fully understood and one area of current research attempts to make a finer study of the two measures of leadership style.

3.

Aims

Because of the doubts raised concerning Fiedler's two measures of leadership style this study undertakes to:

- 1/ Compare the two measures of leadership style (A.So. and L.P.C.) administered to a group of New Zealand leaders.
- 2/ And compare groups of different New Zealand leaders on the two style scores. With a view to investigating their validity.

4.

Method.

Subjects.

Subjects for this study consist of five groups of leaders. They are considered to be successful leaders as all have gained prominence and a degree of success in their respective competitive fields. The first group are 39 veterinary students (V75) who, like the second group of 17 veterinary students (V74), have succeeded in a competitive academic field and would be expected upon graduation to become technological leaders in the communities they join. The third group consists of 15 wool diploma students most of whom have an association with farms, are already proven leaders in their field and are attending university to increase their knowledge and skills. All students were attending Massey University at the time the study was undertaken. A fourth group of 22 senior Nursing Sisters (N.S.) have also proved to be successful and effective leaders in the nursing field as their degree of promotion indicates. The last group, 21 Unilever Staff (U.S.) consists of managers and supervisors of a large industrial firm. Their success and effectiveness is evident from the fact that the firm is thriving. All groups except that of Nursing Sisters (female Only) consisted of both male and female subjects.

Materials.

A series of ten bi-polar scales of seven step intervals were chosen from Fiedler's standard scales for measuring leadership style (See Fig. III). These were initially amongst those defining the evaluative factor in Osgoods et.al. (1957) semantic differential technique.

Procedure.

All groups were tested under similar classroom situations. They (S's) were sat at lecture desks and introduced to the questionnaire independently using the standard procedure which follows Fiedler's (1967) instructions. This was:

People differ in the ways they think about those with whom they work. This may be important in working with others. Please give your immediate first reactions to the items on the page placed in front of you. On the page are pairs of words with opposite meanings such as "very neat" and "not neat". You are asked to describe someone with whom you have worked by placing a mark in one of the seven spaces on the line between the words (an example was shown). Look at the words at both ends of the line before you put your mark. Please remember that there are no right or wrong answers, work reasonably quickly remembering your first answer is likely to be your best. Do not omit any items and mark each one once. Turn the page in front of you over and thinking of the person with whom you can work least well, someone you work with now or have worked with, describe him as he appears to you by using the mark X".

When this had been completed, subjects were then asked to "describe, using the mark ✓, the person with whom they could work most well".

Fig. III

Copy of the sheet of Bi-polar items
administered to subjects.

Massey University

Department of Psychology

Social Psychology

Measurement of Leadership Style.

Concepts to be judged. 1/ Least preferred co-worker (X)

2/ Most preferred co-worker (✓)

- | | | | |
|------|------------------|------------------------------------|-------------------|
| (1) | Friendly | __ : __ : __ : __ : __ : __ : __ : | Unfriendly |
| (2) | Unhelpful | __ : __ : __ : __ : __ : __ : __ : | Helpful |
| (3) | Not contented | __ : __ : __ : __ : __ : __ : __ : | Very Contented |
| (4) | Unselfish | __ : __ : __ : __ : __ : __ : __ : | Selfish |
| (5) | Dynamic | __ : __ : __ : __ : __ : __ : __ : | Static |
| (6) | Lazy | __ : __ : __ : __ : __ : __ : __ : | Industrious |
| (7) | Not enterprising | __ : __ : __ : __ : __ : __ : __ : | Very Enterprising |
| (8) | Reliable | __ : __ : __ : __ : __ : __ : __ : | Unreliable |
| (9) | Useful | __ : __ : __ : __ : __ : __ : __ : | Useless |
| (10) | Disloyal | __ : __ : __ : __ : __ : __ : __ : | Loyal |

Your name

Department
or section

M.72/71/S.S. Social (These items were used by Shouksmith (1970))

Two scores are derived from the ratings. The L.P.C. score, consisting of the summed rating over all items for the evaluation of the least preferred co-worker. And the A.So., consisting of the "D" score (See page 10 of text) which is a measure of the distance between profiles of the least and most preferred co-worker.

5.

Results.

Scores obtained from the five groups are tabulated and the mean A.So. and L.P.C. scores, standard deviations and correlation between A.So. and L.P.C. scores are listed in Table I. Results from a simple one way analysis of variance comparing all A.So. scores then all L.P.C. scores are given in Table II and the resulting T tests for significance between group means are presented in Table III.

Table IA.So. and L.P.C. Scores of five groups of N.Z. leaders

<u>Group</u>	<u>N</u>	<u>Mean A.So.</u>	<u>S.D.</u>	<u>Mean L.P.C.</u>	<u>S.D.</u>	<u>r</u>
V75	39	10.11	2.58	34.64	10.82	.75
V74	17	9.68	2.72	35.59	9.90	.85
W.D.	15	7.92	2.06	42.60	9.00	.84
N.S.	22	10.61	3.02	37.41	9.04	.85
U.S.	21	9.35	2.05	38.05	8.43	.79
All groups	114	9.53	2.60	37.66	9.88	.82

Table IIAnalysis of varianceA.So. Scores, all groups

Source of variation	d.f.	Mean Square
between groups	4	18.73
within groups	109	6.50

F = 2.88 significant at the .05 level

L.P.C. Scores, all groups

Source of variation	d.f.	Mean Square
between groups	4	187.00
within groups	109	91.07

F = 2.05 not significant at either .01 or .05 levels

Table III

T tests for significance between A.So. means for the
5 different groups of leaders. Table includes the
 level of significance

Groups	V75	V74	W.D.	N.S.	U.S.
V75	X	N.S.	.01	N.S.	N.S.
V74	N.S.	X	N.S.	N.S.	N.S.
W.D.	.01	N.S.	X	.01	N.S.
N.S.	N.S.	N.S.	.01	X	N.S.
U.S.	N.S.	N.S.	N.S.	N.S.	X

N.S. - not significant

6.

Discussion

An overall correlation between the two Scores of .82 is within Fiedler's acceptable limits whereby he suggests the two measures of leadership style are interchangeable (Page 11 of Text.). However an overall groups one way analysis of variance indicates that only the A.So. Scores are significantly variant (.05 level) whilst the L.P.C. Scores were not. If the A.So. and L.P.C. measures are inter-changeable then presumably the variance in scores in one should be matched by a near equal variance in the other; the analysis in this instance indicates otherwise. Since a correlation of .82 still leaves some 33% or more of the variance unaccounted for in each measure it may be possible that further factors important to the measure of leadership style exist and that some note should be taken of this remaining variance.

Fiedler (page 11 of Text) often assumes that the L.P.C. Score is by its own, a fair measure of his two leadership styles. This study suggests, however, that this notion may be too simplistic as the results indicate that A.So. Scores only significantly discriminate between the different types of leadership style represented in the five groups. Cronbach and Gleser (1953) argue that by its nature the "D" (A.So.) Score must be a more successful measure as, unlike the L.P.C. Score which is a "level" score only, it includes a measure of "order" and "scatter" components as well. These two latter components appear useful in producing successful significant variation in score (as indicated by the analysis of variance) and it is wondered therefore how wise is the assumption that L.P.C. Score alone is able to distinguish the two leadership styles as well as the A.So. Score. It could well be that Fiedler, by making the initial assumption that the description of the most preferred co-worker (M.P.C.) does not contribute much to the discrimination of the two styles, actually hides the possibility that the "D" (A.So.) Score may.

Between the 5 groups there appears to be some variation in styles of leadership. This variation is reflected by the variance in A.So. Score only and comparisons can be made in terms of it. Significant differences (using students t) between group A.So. means occur between N.S. and W.D. (at the .01 level) and W.D. and V75 (at the .01 level). Using Fiedler's (1967) model V75 and N.S. can be interpreted as exhibiting, an autocratic, cool, critical and task orientated style of leadership compared to the W.D. group whose style is interpreted as being comparatively more warm, personal, caring and less task centered. Significantly V74, a very similar group to V75 have the next highest mean score and therefore, although in an intermediate area tend to be more like their colleagues (V75) in style than the other end of the measure represented

by W.D.. U.S. are also in the indiscriminate zone though appear to be nearer the "higher pole" (represented by N.S. and V75 mean A.So. Scores) than the "lower pole" (represented by W.D. A.So. Score). These results fit reasonably close to actual observed leadership styles. The veterinary students (V75 and V74), when tested were in a very competitive academic situation where self interest along with a cool analytic approach to the task at hand produces best results and progress. Their style of leadership would thus tend towards the "high pole" of the A.So. group. Nursing Sisters have commonly been described as autocratic and relatively clinical. The heirarchical scale of promotion in terms of academic success in the Nursing service would tend to discriminate, promoting towards sister status those leaders in this category. On the other hand, Wool Diploma leaders who hail from rural situations, and who are involved with farms and families would be expected to possess a warmer more personal style of leadership. Interestingly Unilever staff, whom I would have suspected to be very task centered as production is the important function of the firm give scores (A.So.) in the indiscriminate zone of leadership style. It is possible that had the group been divided further into "shop floor" leaders (leaders more concerned with the people with whom they work) and "management" staff (leaders more concerned with completing tasks) the results may have been more significant. Overall however it appears that as a rough guide in distinguishing leadership style in terms of Fiedler's Model the A.So. measure has some merit.

One last interesting comparison may be made between those groups occupying the high A.So. score position: these are the groups containing N.S., V74 and V75. The A.So. Score indicated that N.S. have a more definite style (higher A.So. Score) than do both groups of vets. Although the difference is not statistically significant, it does represent a relatively real division as N.S. are the older, more experienced leaders, having a longer in-service record when compared with the younger Vets and would therefore be expected to possess a more definite leadership style. One might predict that, at least for these particular groups, A.So. Score may distinguish between more definite styles of leadership.

Overall the fact that, in this study L.P.C. is shown not to distinguish leadership style suggests that Fiedler's (1967) division of leadership styles into Style 1 (high L.P.C. and low A.So.) or Style 2 (low L.P.C. and high A.So.) as a concept is not applicable. Perhaps a system of measuring leadership style in terms of A.So. score only might be more appropriate.

Conclusion.

The evidence given is suggestive only. It suggests that Fiedler's two measures of leadership style (A.So. and L.P.C.) may not be as interchangeable as he predicts. It is possible that the A.So. Score incorporates more information and is a finer more discriminative measure. There is, however, a disturbing lack of recognition for the relatively large amount of variance left unaccounted for by the joint A.So. - L.P.C. concept. What factors important to leadership operate in this area are not known and not pursued by Fiedler.

As far as the leadership style of each group of leaders was known to me, the A.So. Score offered a fairly rough collaboration of style. It is important to note, however, that there are few New Zealand norms for the A.So. Score and comparisons of high or low score could only be made between groups. Since the A.So. measure appears to discriminate leadership styles by at least placing leaders toward the "correct poles" of style (and perhaps may between high scores, distinguish the more definite styles) it may be appropriate before definite conclusions are made, that further study investigates New Zealand norms.

Certainly Fiedler's concept of Style 1 and Style 2 leaders does not fully apply in this case. Perhaps however a concept of leadership style based on A.So. Score alone may eventuate.

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