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AN EXAMINATION OF THE
RELATIONSHIP BETWEEN THE
PERSONALITY AND COGNITIVE
STYLE OF A MANAGER AND
THE TASKS HE/SHE CHOOSES
TO PERFORM

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PhD THESIS

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CONTENTS

	<u>Page No.</u>
<u>Introduction</u>	5
1 General Background to Research	5
2 The Area for Investigation	6
3 Hypotheses	11
4 Limitations of the Research and Key Assumptions	11
<u>The Importance of the Topic and Contributions to be Made by the Research</u>	12
5 Breaking the Vicious Circle	12
6 Training and Training Needs	14
7 Performance Appraisal, Coaching and Counselling	24
8 Staff Selection	36
9 Organisational Change	43
<u>Prior Research</u>	54
10 Identification of a Manager's Tasks and Functions	54
11 Defining Personality and Cognitive Style	143
12 Personality and Links with Task Preferences	151
13 Cognitive Styles and Links with Task Preferences	177
<u>Methodology</u>	221
14 Population to be Studied	221
15 Assessment of Task Preferences	232
16 Assessment of Personality Characteristics	250
17 Assessment of Cognitive Style	276
18 Data Collection	285
<u>Results</u>	
19 Introduction	292
20 Findings on General Activity Patterns	297
21 Observational Data - General	300

CONTENTS continued

22	Psychometric Test Data - General	300
23	Correlations Between Personality Factors/Cognitive Styles and Time Spent in the Ten Managerial Roles	300

Discussion of Results

24	Consideration of Correlations	304
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Conclusions

25	General	336
26	Conclusions Emerging From the Research Approach	339
27	Conclusions Emanating Directly From Data Obtained During the Study	344
28	Conclusions Concerning the Need for Further Research	350
29	Conclusions Relating to the Hypothesis	352

	<u>References and Bibliography</u>	353
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LIST OF TABLES AND ILLUSTRATIONS

<u>Figure No.</u>		<u>Page No.</u>
1	Johari Window	18
2	Sources of Selection Information	37
3	Managing the Process of Organisational Change	48
4	Diary Recording Form	69
5	Major Dimensions of Leadership Behaviour	83
6	Skills Required by Senior Managers	94
7	Skills Required by Middle Managers	94
8	Summary of Responses (Margerison)	97
9	What Major Influences Helped You Develop as a Manager? (Margerison)	98
10	Summary of Results Obtained (Margerison)	101
11	Key Factors in Managerial Leadership	105
12	A Comparison Between Chief Executives and Middle Managers	106
13	Management Relationship Types	111
14	Types of Leader Behaviour	112
15	Comparison of Work Activities of Effective and Ineffective Foremen	119
16	Analysis of Incoming Mail by Purpose	126
17	Analysis of Outgoing Mail by Purpose	127
18	Analysis of Contacts by Purpose	128
19	A Contingency View of Managerial Work	130
20	Belbin's Management Team Roles	166
21	A Summary of Differences Between Convergers and Divergers	187
22	Work Preferences	202
23	Kolb's Learning Cycle	207
24	Relating the Experiential Learning Model to Problem Solving	214
25	Summary of Biographical Information Relating to Subjects	231
26	Seven Methods to Study Managerial Work	233
27	Myers-Briggs Personality Types	270
28	Average Time Spent By Managers on Each Activity	297
29	Comparison of the Manager's Estimate with Actual Time Spent in Each Role	299
30	Correlations Between Various Personality Factors/Types/Cognitive Styles and Time Spent in the Ten Managerial Roles	301

LIST OF TABLES AND ILLUSTRATIONS

continued

<u>Figure No.</u>		<u>Page No.</u>
31	Leader Role (graphical representations)	306
32	Liaison Role (graphical representations)	314
33	Monitor Role (graphical representations)	318
34	Disseminator Role (graphical representations)	320
35	Spokesman Role (graphical representations)	325
36	Entrepreneur Role (graphical representations)	327
37	Disturbance Handler Role (graphical representations)	328
38	Resource Allocator Role (graphical representations)	332

APPENDICES

	<u>Page No.</u>
I Biographical Information	372
II Examples of Paperwork used in Data Collection and Analysis	373
III Examples of Activity Records Made During Observation. With Categories Applied	376
IV Activity Data	378
a) Percentage of Activities Within Each Role	379
b) Percentage of Time Spent Within Each Role	380
V Psychometric Test Data	381
a) 16PF Raw Scores	382
b) Myers-Briggs Type Indicator Raw Scores	383
c) Scores on The Learning Style Questionnaire	384
VI Correlational Data	385
a) Correlation Between Roles	386
b) Correlation Between Psychometric Test Data and Managerial Roles	387
VII Detailed Analysis of Correlational Data	390

DECLARATION

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ABSTRACT

This research arose from a practical managerial issue: the different, sometimes radically different, ways in which individual managers did what was apparently the same managerial job in the same organisation.

The questions prompted were: How can any differences in task preference be identified? What influences the choices made? Can the influences be identified? Can any be measured? Is it possible to predict where and how a manager's preferences might be exercised on the job. The project set out to accurately and consistently identify the tasks carried out by seven managers and establish whether this pattern of work was related to measurable personal characteristics of those managers.

Each manager was observed constantly over a period of several working days. Each activity was timed and recorded; subsequently the activities were classified using the ten managerial roles identified by Henry Mintzberg in his 1973 study of managerial work. The seven managers also completed Cattell's 16PF, Myers-Briggs Type Indicator and Honey and Mumford's Learning Styles Questionnaire. All the results obtained were subjected to correlational analysis in order to establish whether any statistically significant relationships were present within the data.

The research establishes clear relationships between the task preferences expressed by managers through their managerial activities and aspects of the personality and cognitive styles of those managers. Additionally, there were strong indications of two further influences affecting the manager's choice: the preferences expressed by more senior managers; and the organisation's management style and culture.

INTRODUCTION

1. General Background to the Research

1.1 This research was prompted by ideas and feelings generated during many day-to-day contacts and informal observations over a number of years as a middle and then senior line manager. It concerns the different, sometimes radically different, ways in which individual managers carry out what seems to be the same job. The author was struck by the diversity of approach adopted by managers and supervisors who were occupying very similar posts at the same managerial level; were responsible for carrying out ostensibly the same technical functions and duties in the same organisation, and in some cases were working for the same senior manager in the same department.

1.2 A number of questions came to mind:-

- a) What is a manager?
- b) What are the functions of a manager?
- c) What tasks make up the manager's job?
- d) What scope is there for individual choice in task selection?
- e) How might a researcher determine what tasks are being chosen for attention?
- f) What might influence the manager's choice?
- g) How might these influences be identified?
- h) Can the extent of any of the influences be measured?
- i) If appropriate measures exist is it possible to use the results to predict where an individual's preferences might

- 1.3 It became evident upon superficial investigation that most of the questions posed were not novel, in fact several seemed to be, academically at least, 'old hat'. The first two questions appear to have been surrounded by a multiplicity of proposed solutions and explanations, with many of the answers saying apparently the same things in more or less different ways. Questions c), d) and e) have been the subject of excellent, detailed work in recent years, notably by Sune Carlson, Rosemary Stewart and Henry Mintzberg. Both Stewart and Mintzberg have made a number of suggestions regarding the broad influence and determinants of managerial behaviour without exploring these in any depth. Mintzberg has, however, indicated specifically that more work is necessary in order to establish which influences are important for the way in which a manager performs his job.

2. The Area For Investigation

- 2.1 For many years management theorists have examined aspects of the manager's job in order to generalise about a manager's work. Rosemary Stewart (1979 p 67) condenses their various ideas into four functions about which there seems to be some general agreement. Firstly, the manager plans: sets objectives; forecasts; analyses problems; makes decisions, i.e. formulates policy. Secondly, he organises: he determines what activities are necessary to achieve the objectives; he classifies work; divides it and assigns it to groups and individuals. Thirdly, a manager motivates, i.e. he inspires his staff to contribute to organisational goals, stimulates

loyalty to staff to contribute to organisational goals, stimulates loyalty to group aim, and encourages individuals to work hard for those objectives. Fourthly, the manager controls what is done by comparison of performance with targets. Drucker (1977 p 55) uses the term measurement rather than control and implies that the manager does not merely see that instructions are obeyed but carries out an active assessment of attainment against objectives and using techniques such as appraisal and counselling establishes yardsticks for self control.

2.2 Other authors have added a fifth function:

Co-ordinating. Stewart (1979 p 66/67) and Carlson (1951 p 24) feel that such a concept, rather than identifying one element of the manager's job actually refers to all operations which lead to a certain result, i.e. represents a composite of other functions.

2.3 As there have been various descriptions of the functions of a manager so there have been many attempts to define 'management' and 'a manager'. In an unashamed attempt to avoid the morass of argument and counter-argument surrounding such definitions, and particularly bearing in mind the issues to be discussed later in this account, it is proposed to accept the broad view advocated by Stewart (1979 p 69) that the manager's job can be defined as 'deciding what should be done and then getting people to do it'. At the simplest level therefore a manager can be seen as anyone who has staff responsible to him/her.

2.4 Lists of management functions, definitions of management and the manager, at best tend to disguise and at worst ignore, the diversity of

management posts. The job of the chief executive in a Multi-National seems to bear little resemblance to that of a junior manager in a family business. The job of a sewage works manager is hardly comparable with that of an advertising manager in a chain of supermarkets. These jobs differ, not only because they have different technical functions but also because of variations in the nature of the organisation within which the post is situation.

- 2.5 In a sense, however, the job of any manager is what he makes it. Within the broad aim and objectives of his organisation there are, potentially at least, a number of routes to a particular goal. The job is open ended. Each manager holds responsibility for his operating unit however large or small. He is involved in a process of revision, refinement, change and response to change. At no time can he sit back and say that the job is finished. More perhaps than any other employee the manager is able to select his activities. He is in a position to delegate responsibilities and duties to others, to choose tasks for his own attention and to shelve jobs which are, to him, of low priority. Some activities are determined by the nature of the post occupied but the majority of tasks are open for the manager to determine whether to allocate his time 'here' or 'there', to decide to concentrate on one sphere of operations or another. Such decisions are not, however, made 'in a vacuum or on purely intellectual bases' (Knudson et al 1979 p 78), but in a context which includes many, varying influences.

2.6 The way in which tasks are selected for attention (whether the decision is conscious or not) may be affected by many variables, some of which have been inferred earlier. It would seem possible, albeit arbitrarily at this stage, to divide these variables into two categories 'external' and 'internal' to the individual.

2.7 External Influences. Characteristics of the organisational environment, corporate pressures, are seen as a major source of influences external to each individual manager. These may be: products of the policies and aims of the organisation; the size of the company and its relative stability the desired corporate image or identity; the nature of the business, whether it is public or private sector for instance; and for some industries, the National political and economic climate. Or they may be a function of the organisational structure, whether it is dependent upon formal or informal communication system, whether it is organic or rigid, etc. It seems probable also that: qualities of other individuals within the organisation; the management styles, personalities and preferences of more senior managers; the quality and effectiveness of peers and more junior staff, could all exert some influence on the manager and the way in which he chooses to interpret his duties and carry out his job.

2.8 Internal Influences. Internal influences, on the other hand, are seen as those personal characteristics of the manager that might influence task selection. They may include factors such as managerial style, perceived role, etc. which can be viewed either as superficial products of the kind of externally derived

influences described above (that is, merely short lived behavioural responses to situationally determined stimuli) or as the consistent expression of more permanent, perhaps deeply rooted personal characteristics. It seems likely that internal influences do include those aspects of the individual that have been identified by numerous researchers as constituting relatively enduring human traits. Firstly, personality; which according to Pervin (1980 p 6) 'represents those characteristics of the person or of people generally that account for consistent patterns of response to situations'. Secondly, attitudes and values; 'which represent the intensity of each person's sentiments towards or against the attitude object' (Thorndyke and Hagan 1977 p 437). Finally, cognitive styles; which can be seen as representing one or more aspects of personality, and refer to the 'consistent ways in which individual's organise their environments' (Goldstein et al in Fransella 1981 p 121).

2.9 It has been suggested (Mintzberg 1973 p 119) that there is a great deal to be learned by studying the effects that the personality and style of the manager have on the work he performs. The term style is used by Mintzberg in this context to refer to management style, with its emphasis on factors such as role playing. In this work it is proposed to concentrate upon those consistent aspects of the individual which seem less susceptible to masking by short term situational effects.

2.10 The research is concerned with distinguishing the tasks a manager selects for his attention and those he does not. It seeks to establish whether there is any relationship between the activities

performed and personal characteristics of the manager. Whilst it is appreciated that concepts such as personality and cognitive style are not necessarily parallel (indeed distinctions between the two are difficult to make) it is intended to use measures of both personality and cognitive styles as a means of identifying, measuring where possible and comparing, personal characteristics.

3. Hypotheses

- 3.1 That there will be a significant correlation between the types of task a manager chooses to perform and some measurable aspects of the personality of that manager. (Personality is defined in Section 11).
- 3.2 That there will be a significant correlation between the types of task a manager chooses to perform and some identifiable aspects of the cognitive style of that manager. (Cognitive style is defined in Section 11).

4. The Limitations of the Research and Key Assumptions

- 4.1 It is assumed that individual task preferences exist. That is, that there are aspects or characteristics of the individual which predispose him/her to perform one task rather than another.
- 4.2 It is assumed that these differences in personal characteristics can be identified and/or measured.
- 4.3 It is assumed that preferences can be identified by observational analysis of products, that is, of the tasks actually performed.

- 4.4 It is appreciated that many variables could affect the choice a manager makes to carry out one task rather than another. This study is concerned only with the possibility of identifying links between the personality of the manager (including cognitive style) and the choices he makes. It is recognised, therefore that factors external to the individual may exert an influence (for example, corporate pressures), it is intended to identify these potential variables and where possible to control for them within the research methodology.

The Importance of the Topic and Contributions to be made by the Research

5. Breaking the Vicious Circle

- 5.1 Studies of management activities have shown that the manager's day is, in general, fragmented and disjointed. Attention must be rapidly switched from one person or one problem to another. The manager receives much information and often lacks effective means of disseminating the data to others. Recent research paints a graphic picture of an individual involved in short bursts of hectic activity generally in response to immediate concerns. This picture contrasts sharply with the traditional view of the manager as the cool character who plans, organises, controls etc. In many organisations the manager is overburdened with work. He is totally dependent upon information and communication, in both cases, usually verbal. The more complex organisational problems call for reflection, detachment and foresight but day-to-day pressures force him to focus on what is immediate and tangible.

- 5.2 As organisational problems increase and become more complex so fragmentation of activity and emphasis on the concrete increases, also plainly, the trend towards larger organisations (and this is especially evident in the public sector) has led to the development of increasingly diverse management problems. The complexity of the issues that senior managers face require that they increasingly turn to 'off-line' management scientists, internal and external consultants, for advice and assistance. This in turn imposes certain requirements on the specialist, the most important perhaps, being the need to respond in a meaningful way to a dynamic situation. To use methods which may not be scientifically elegant but are suited to the practical needs of the manager and the organisation.
- 5.3 As Mintzberg (1973 p 189) puts it 'Managers have the information and authority: analysts have the time and the technology', somehow the analyst must extract the data and feed it back to the manager in a cogent, practically useful, form. In order to break out of the vicious circle enclosing him, the manager needs to understand the nature of the problem. Only with greater understanding of his own behaviour will he be able to alter his working habits to cope with the pressures and demands.
- 5.4 In a later piece of work (1975 p 58) Mintzberg states 'the manager's effectiveness is significantly influenced by his insight into his own work', thus managers who are able to be introspective about their own work are likely to be effective in their jobs. In the same paper, Mintzberg identifies three major areas where the manager can significantly influence his

effectiveness (once he becomes aware of the problems that is). Firstly, he must derive systematic ways to share his information and develop means to monitor the effectiveness of the systems he employs. Secondly, he must deal consciously with superficiality by giving his attention to issues that require it and delegate those that do not, he must avoid 'retained hobbies' ie tasks carried out merely because they are enjoyable or because they have always been carried out. Thirdly, he must gain control of his own time and learn to utilise opportunities to develop himself and his colleagues.

- 5.5 This investigation seeks to provide a means of assessing not only the overt effects of the various influences on the way a manager divides his time (this has been done more than adequately elsewhere), but also of identifying and perhaps quantifying some of those influences. In this way it is hoped to produce and enable others to produce the type of feedback necessary for the manager to escape the vicious circle.

6. Training and Training Needs

- 6.1 It still appears to be a widely held belief amongst many senior managers that a manager is born and that little or nothing need be done to aid development. According to this popular theory all that is required is lots of experience; the good manager will always learn for himself and the bad ones fall by the wayside. Fortunately perhaps, others more conscious of the demands on managers, seek those with the potential to develop and then attempt to organise and stimulate that development.

6.2 Knowledge vs Skills Conventionally the first move is to ensure that the selected individual has technical training in a particular discipline and is given experience of a specific function. The second step involves the teaching of knowledge about management and management tools such as, budgetary control, operations research, costing methods etc. These are the simple stages of management training. Difficulties begin to arise when the trainer or facilitator attempts to develop those elements at the core of the manager's job, managing people and making decisions; and when consideration is given to the manager's attitudes towards management. How does one improve skills, how does one change attitudes and perhaps more fundamentally, can one modify attitudes at all?

6.3 According to David Letheridge (1975) there are at least eight prime skills which have been identified as important to the job of the manager. yet the emphasis of much current management training hardly touches the development of these apparently essential and complex skills, concentrating instead on the improvement of technical knowledge by teaching the tools of management. Letheridge suggests that: if you present a student with facts and data you affect only his immediate actions; if you teach him techniques and how to use tools then you affect his actions as long as the appropriate technique is remembered and applied in relevant situations: if, however, you create an environment in which he can understand the skills of management and learn which situations are and are not relevant for appropriate techniques then the individual acquires the ability to respond to a 'world of

change'.

6.4 Knowledge does not therefore necessarily go hand in hand with skill. The best degrees do not always identify the best teachers. So with management; qualifications alone do not make the best managers. Management schools may confer diplomas and degrees, they rarely teach students to manage. Knowledge can be obtained from reading, it can be taught through lectures, films, etc. Skills must be acquired through a quite different process. The learning of skills can be slow and painful with plateaux where no development is visible. The rate of learning is geared to the amount of practice and the quality and quantity of information fed back to the learner.

6.5 Levels of Learning Bloom et al (1956) identified several levels of learning and arranged these in the form of an hierarchy as follows:-

- | | | |
|-----|---------------|---|
| I | KNOWLEDGE | Simple knowledge of facts, terms and theories. |
| II | COMPREHENSION | Understanding of the meaning of knowledge. |
| III | APPLICATION | The ability to apply knowledge and comprehension in new concrete situations. |
| IV | SYNTHESIS | The ability to re-assemble these parts into a new and meaningful relationship, forming a new whole. |

V EVALUATION

The ability to judge the value of material using explicit and coherent criteria, either of one's own devising or derived from the work of others.

What seems to be required of management training is that it should take the trainee through at least levels I and II of Bloom's hierarchy into level II (and hopefully perhaps IV and V.)

- 6.6 Considering the problem of learning management skills, Mintzberg (1973) refers to three methods of skills acquisition: 'Cognitive learning' where the student reads about a skill or listens to someone talk about it; 'Learning by Simulation' which involves practising the skill in an artificial situation using structured feedback, e.g. role play in front of closed circuit television cameras; and 'on the job learning' where the student performs the skill as part of his work and relies on self analysis and natural feedback from others. the first seems a relatively sterile approach concerned only with obtaining knowledge of a skill rather than acquisition of the skill, it can be seen as a kind of 'primer' stage. Learning 'on the job', with its heavy reliance on work place colleagues (often unwilling or unknowing guinea pigs) providing sufficient, adequate, feedback, seems to be a somewhat hit or miss method of learning a skill. Learning is most effective when the trainee performs a required skill in as realistic a situation as possible and is then able through structured feedback to analyse his own performance in an explicit way. A prime essential is that the

student must receive constructive rather than destructive feedback from someone who understands the nature of the skill.

- 6.7 Self Perception and Learning In his primer for action learning sets (1980 p 1 - 2) Bob Garrat sums up this problem in the following way 'ones perception of self has to be seen through the perception of others. That is we can never directly experience our own behaviour in isolation, because both experience and behaviour are always in relation to someone or something other than ourself'. He uses the 'Johari Window' (fig1) as a model to indicate the relationships between the views of oneself and of others.

Fig.1 Johari Window

		VIEWS OF SELF	
		Known	Unknown
VIEWS OF OTHERS	KNOWN	'PUBLIC DOMAIN' What you and others know about yourself through behaviour, words and values.	'BLIND' DOMAIN What others know about you but have not told you.
	UNKNOWN	'HIDDEN' DOMAIN What you know about yourself but are unwilling to tell.	'UNKNOWN' DOMAIN Which can give insight into your inner self by learning from others about your 'Blind' areas and sharing with others some of your 'Hidden' areas.

Garrat claims that the manager's cultural and social conditioning tends to lead him firstly, to avoid studying himself, or his relations with others, too closely; secondly, to avoid being too critical of himself; and finally, to avoid consciously attempting to modify his own behaviour.

6.8 Inaction and acceptance of inadequate performance in certain areas is perhaps the comfortable option, particularly for those already under pressure. Valerie and Andrew Stewart (1978 p 26 - 27) identify 'self protection' as one of the major hindrances to learning. They outline the extraordinary lengths to which some people will go in order to protect their model of the world from change. Learning new skills will be particularly difficult for these individuals because, for many, even the recognition that training is necessary is the precursor of change. Sadly, when the manager seals himself off from feedback about his own performance (in whatever form) he is condemned to learn by 'catastrophe' or not at all.

6.9 Blocks to Learning Gagne (1974) offers some explanation of these phenomena, perhaps, when he suggests that learning can be seen as a chain of process containing eight events: motivation, or expectancy; apprehending, distinguishing new data from competing stimuli; acquisition, making sense of new material and relating it to existing knowledge; recall, storing material in memory; generalising, applying the new material to new situations and developing strategies; performance, putting strategies into practice; and finally, feedback, obtaining knowledge of results. Failures to learn can occur at any of these stages and according to Gagne identification of these

blocks to learning is the prime task of the teacher or tutor.

The fault can often lie with the style of the teacher and the nature of the teaching materials (see later section on learning preferences).

- 6.10 Megginson and Boydell (1979) have identified four major blocks to learning that they attribute to aspects of the learner. Firstly, 'perceptual blocks', where the learner is unable to see the problem or recognise what is happening. These may be the result of: narrowing the problem too far; failure to use all available data; failure to separate cause and effect; seeing only what one expects; and an inability to see a problem from alternative viewpoints. Secondly, 'cultural blocks', where the individual is conditioned to accept a set of cultural norms or ideas. These might be: beliefs that an expert is always right; a desire to conform to adopted patterns and roles; failure to question established methods, processes and people; over emphasis on competition or co-operation; too much reliance on logic or intuition. As a consequence, the manager may cut himself off from potential solutions. Thirdly, 'Emotional blocks', resulting in negative feelings about problem areas. These can be created by: fear of taking risks; feelings of insecurity; inability to tolerate chaos; concern about looking foolish; inability to relax; over motivation towards success, etc. Such difficulties will place limitations on available options. Lastly, 'Intellectual blocks', where the learner simply has not got the mental tools to tackle the problem. This can include not only the basic level of mental ability necessary for learning and problem solving, but also lack of skills such as: use of language;

an inadequate range of strategies for problem-solving; rigidity of thought; inability to cope with multiple problems, etc.

- 6.11 It can be seen from the evidence presented above that whether a manager, or any other trainee, is prepared to learn, in every sense of the word prepared, is a function of several factors. Bruner (1973) summarised these as the nature of the learner, the nature of the knowledge to be learned and the nature of the learning process. It is believed that this research has importance for each of these major variables.
- 6.12 Feedback The learning of skills takes place under conditions of sufficient practice and in the presence of feedback which allows the individual to adequately monitor his performance, (with help if this is necessary). In order to create a climate in which the requisite interaction can occur, the manager must be satisfied that the training he is receiving is non-threatening and also that it is likely to be effective. The latter condition can only be met if the performance appraisal data being fed back is seen to be, as far as possible, objective. It is believed that as well as providing a means of identifying and assessing the influences affecting a manager's behaviour (which may in itself provide a valuable source of feedback), this research will give rise to a means of objectively identifying areas where skills are deficient or lacking, i.e. of diagnosing management development needs in general. Such data could then be used to provide the basis of constructive feedback to the manager about his performance in particular task areas and to provide specific data regarding his individual development.

6.13 Self Development If blocks to learning of the type identified by Gagne, Megginson and Boydell, can be related to specific personality traits or to problems in specific task areas, then the problem of initiating desired changes and removal of blocks may well be less severe. For instance, one of the major assumptions underlying the concept of management self development is that the self developer seeks both information and meaning. The individual is clearly a key element in the learning process, in particular he has, on the one hand certain natural tendencies to learn and develop, whilst at the same time he suffers from a number of internal blocks to learning and development. The degree to which a person is able to develop in a given situation will be influenced not only by the learning climate around him, including training opportunities etc. but also by his own skills, personality and learning preferences. The availability to the individual (and to the counsellor/facilitator) of data relating to his own pre-dispositions, would seem, potentially at least, critical to his choice of development track. As Knowles (1970) puts it, 'the mature individual wants to understand - he needs a personally satisfying explanation of what has happened, is happening, will happen'. It is felt that this piece of work may help provide some of these explanations.

6.14 Task Preference and Learning If individual managers do, consciously or otherwise, avoid particular work areas, then this has significance for attempts to link formal lecture room training with on the job practice, a policy which has been adopted in many areas of industry. Following the notion that after a formal training course the learner returns to his

post to acquire the skills associated with the knowledge he has been given. If that individual only involves himself in those tasks within his areas of preference then no amount of training will have any effect on skills in non-preferred areas. Unless the manager (and the trainer) is made aware: firstly, that an individual does exercise choice in his selection of task, and that the choice is not necessarily based upon logic, or even upon the requirement of the job but upon characteristics of the individual; and secondly, that the tasks carried out largely govern the areas where skills are being acquired, then all training will serve to do is reinforce areas where skills probably already exist, and completely miss areas likely to be deficient. Confirmation that personal task preferences (whether exercised consciously or otherwise) inhibit the acquisition of managerial skills could mean that identification of the preferred task areas and the basis upon which those task areas are selected, may prove to be an essential part of the assessment of the training needs of the manager. The availability of such information to the trainer would not only permit careful structuring of formal training to meet the specific needs of the individuals but might also help ensure that subsequent 'on the job' experience is tailored to reinforcing the required skill, for example, the manager could be placed in a role which forces him to practice that skill.

- 6.15 Further, if it can be shown that task selection is linked in some way to information processing preferences (ie cognitive styles) this may mean that in order to prevent teacher/learner mismatches, which might inhibit learning, materials and teaching styles could be structured (or re-structured) to present information in a form

which is more salient to the learner.

7. Performance Appraisal, Coaching and Counselling

7.1 In many ways, management appraisal, coaching and counselling are inseparable (or ought to be). In the context of management development, without some form of appraisal whether subjective or objective, coaching and counselling would seem to be futile; similarly, to carry out appraisal without feeding back the information obtained in some constructive way would seem to be a waste of management opportunity. For the purposes of this section it is proposed to consider the importance of the research for formal appraisal (including the necessary feedback process) and then go on to examine the implications of the work for coaching and counselling outside the formalised appraisal system.

7.2 Traditional Appraisal/Performance Review Most organisations of any size have developed procedures for collecting, collating and recording information about individuals and their performance. These schemes usually have some or all of the sort of objectives identified below:-

- * To provide an inventory of people, skills, potential, etc. as an organisational data base.
- * To give a means of assessing individual performance which can relate in some way to reward.
- * To help the individual and his subordinates plan personal and job objectives. To consider ways

of achieving these aims.

- * To provide the individual with feedback about his personal performance, strengths and deficiencies.

(adapted from Hardy 1981)

- 7.3 Whilst it is evident that each of these objectives is desirable in its own right, strenuous efforts have been made to develop paper systems and procedures to provide for all four simultaneously. Unfortunately, however, some of these objectives (notably c and d) are notoriously difficult to achieve, others would seem to be almost mutually exclusive in a psychological sense. Several workers have attempted to identify the reasons for failures in appraisal techniques. Hardy (1981) suggests that whilst there is an understandable reluctance for any individual to admit significant deficiencies which may be the basis of future decisions, by others, about his future; without such admissions there will be no commitment at a personal level to deal with these deficiencies, thus (a) is not compatible with (c) and (d). It follows, therefore, that in order to be effective in a developmental sense any data relating to objectives (c) and (d) should be personal to the appraiser and the appraisee, ie, not be available for general judgements and decisions. Other workers have shown that the appraisal interview is often seen as personal criticism, subjectively derived. Individuals who view appraisal in this way perform, subsequent to the interview, worse in the areas most closely scrutinised. It has been suggested that in such cases lowering of self-esteem results in: vigorous attempts to justify past performance; the adoption of

super-defensive stances regarding decisions taken; increasing criticisms of the job, the organisation, subordinates and superiors; and worse perhaps, praise (particularly if separated from the behaviour that prompts it) is seen as a sweetener before the axe, over-politeness, or condescension. Under these circumstances (c) does not aid (d) but actively inhibits any development in this direction.

7.4 The traditional appraisal procedure can be counterproductive and at its worst, destructive, notably because the superior is expected at the one time to be both an effective judge and a constructive and sympathetic counsellor. The 'judge, jury and executioner' type appraisal interview breaks both of the norms of social interaction (Goffman 1956) in that, rather than self esteem being boosted by the interchange it is lowered; rather than personal criticism being minimised in the exchange it is seen to be maximised.

7.5 Criteria for Good Appraisal There would seem to be a general consensus amongst those who have examined appraisal more recently that there are a number of clear criteria for good appraisal. Firstly, that the objectives cannot all be met at the same time. They should be fulfilled by different means, at different times and preferably by different people. Secondly, that criticism only improves performance: when it is given in a non-threatening environment; when it is related to specific instances; when it is perceived as objective; and when the receiver of the criticism trusts the transmitter. Finally, that improved performance is produced only: when criticism is constructively linked to jointly agreed, attainable goals; when the appraiser is

seen as helpful, facilitating, receptive and (very importantly), sufficiently influential to make or influence the necessary plans and decisions; when evaluation is carried out objectively, by someone other than the individual's immediate supervisor; and when the results are geared not to punishment but to further goal setting.

7.6 Judging Performance Peter Warr (1976) in his work on judgements about people at work, in particular, methods of improving appraisal rating scales and appraisal techniques, stresses the need not only for skilled development of any scales used for this purpose, but also for careful training of the staff who will administer the scales. Research findings indicate that open ratings tend to be significantly more favourable than ratings that are not intended to be seen by the appraisee. The implication is that subjective ratings are as much a function of the judge, and the context of the judgement, as they are of the individual being rated. Warr does not deny the importance of providing feedback and discussing a person's performance with him, he feels however that goals can be 'linked to behaviour' (Warr 1976 p 219 - 220). The aim should be to encourage participation in forward looking goal setting rather than to hold inquests about past decisions, or merely provide a forum for the superior to let a subordinate 'know where he stands' in the punitive, threatening sense of the phrase.

7.7 Margerison, in an unpublished paper entitled 'Turning the Annual Appraisal Upside Down' summarises what he calls 'critical problems in appraisals' and several of the difficulties he points to have relevance for this research. Firstly, he feels that the objectives of appraisal

are often confused. It is seen as essential for both the organisation and each individual, that before appraisal is undertaken, clear objectives are established by a thorough analysis of individual performance. Secondly, the appraisal starts in the wrong place, appraisal cannot succeed when an employee's boss has to provide the formal information. More often than not the manager will sit down and in a few minutes try to summarise the work of his subordinates during the year. He will not remember everything and, if all is well in a management sense, cannot know everything his subordinate does. If the immediate supervisor makes the performance assessment, he pre-empts meaningful discussion, his main aim will be to justify the conclusions already reached. Most appraisals are, therefore, carried out on the basis of insufficient, extremely subjective knowledge. Finally, the interview is embarrassing: what behaviour is appropriate from whom?, should the appraiser act as interrogator? counsellor? manager? checker of the facts?; the embarrassment works both ways, the appraisee is probably ill at ease, is apprehensive and feels threatened. There seems to be little wonder that the interaction can end up a mechanical, thin pretense of appraisal.

- 7.8 Internalisation of Feedback It can be clearly seen that there are a number of problem areas within the traditional approach to appraisal. In the main these centre around: the way in which information relating to individual performance is gathered and the consequences that collection system has for the validity of the data finally produced; the roles and perceived roles of the appraiser and appraisee; and the use to which data is put. Feedback or counsel is fully accepted, ie, believed and internalised so that is eventually acted upon,

only if:-

- * Data is hard, recent and objective;
- * The giver is credible, in that he is viewed as someone who knows what he is talking about and can deliver what he promises.
- * The giver is seen to be acting out of genuine interest in the receiver;
- * The receiver sees that he can do something about the feedback or counsel.
- * That goals are attainable.

(adapted from Hardy 1975 p 330)

It is felt that in the field of management appraisal, this research may have importance for each of the areas where problems have been identified.

- 7.9 One aim of this work is to produce an accurate, convenient, and as far as possible objective, means of analysing the way in which a manager allocates his time. Such information taken in conjunction with more conventional performance indicators, eg, unit costs, delivery dates, etc. could provide some real insight into areas of low and high achievement. Data collection could be carried out by any independent person or even by the appraisee on a self report basis. With suitable time sampling the information could be used to provide a thoroughly representative measure of that individual's behaviour. This approach would, in

any case, seen to be an enormous improvement on traditional methods of gathering appraisal data. It would give rise to a structured source of non-judgemental and perhaps more valid information upon which to base discussion.

7.10 Regarding the roles of the participants in management appraisal, the provision of an accurate independent account (for both parties) of the appraisee's actual, rather than 'superior perceived' activities, should move some way towards removing the role of judge from the appraiser. The availability of information regarding an individual's pre-dispositions to work in a particular way may: enable to appraiser to: detect areas where problems might be expected; anticipate areas where the appraisee might be particularly exposed; and tailor his approach accordingly. From the other point of view the data may assist the appraisee in understanding and recognising aspects of his own behaviour of which he may be unaware, or which he may be unable or unwilling to accept without substantial evidence. The non-judgemental emphasis of the information collection techniques and the subsequent data should help reduce the feelings of alienation that can be generated when an individual's behaviour is subjected to evaluation. This research may provide a viable means of minimising the stress produced by the traditional approach which relies so heavily on subjective judgements made by potentially threatening others.

7.11 It is further believed that if this study establishes the existence of links between task preferences and identifiable personality characteristics, then this will have significant benefits for the third major problem with

conventional appraisal, 'the use to which data is put'. Most workers have identified realistic, forward looking goal setting as the critical element in obtaining real gains from appraisal systems. Whilst it is appreciated that there may well be no measurable changes in core areas of personality, it seems possible that with well planned agreed goals, structured training, etc. the more peripheral aspects: personal styles; managerial style; role taking; expressed attitudes and values; etc. might be susceptible to modification. It seems probable that the outward manifestation, at least, of these traits could be changed. This work may provide a behavioural 'ruler' or 'benchmark' for the individual against which changes might be measured.

7.12 Helping Strategies Moving away from counselling and coaching in the context of formal appraisal and development schemes. Within the work situation there is much scope for skilful and aware managers to promote the development of staff. In the general area of career development and counselling Scally and Hopson (1979) distinguish six helping strategies:-

- * Giving Advice: Offering opinions
 based upon ones
 own view of a
 situation.
- * Giving Information: Giving a person the
 data needed to
 resolve a problem.
- * Direct Action: Doing something

for someone,
providing for
immediate needs.

* Teaching: Helping someone to
acquire knowledge
or skills; passing
on facts and
skills to improve
a person's
situation.

* Systems Change: Changing systems
or structures to
resolve
difficulties for
people.

* Counselling: Helping the
individual explore
a problem; clarify
issues; discover
alternatives;
decide what to do;
ie. helping people
to help themselves.

Many of these strategies rely on the skill of the helper to identify 'best fit' solutions, counselling however, emphasises the notion (of Rogers 1958) that the person with the difficulty is the one with the resources to deal with it. The counsellor does not hand out solutions, he helps the client identify his problem, and enables him to make his own decisions regarding the potential answers. Whilst counselling has often been used as a response to crises it can also act as a stimulus, helping a person to develop and grow. In a work

context, coaching and counselling should not merely be concerned with making the best of specific circumstances and incidents but should be aimed at, helping people to recognise the signs of oncoming crises, encouraging subordinates (and peers) to acquire skills to deal with problems before they become critical, and possibly before they become problems.

7.13 Coaching Megginson and Boydell in their book 'A Manager's Guide to Coaching' have attempted to describe a range of activities which could provide outside the formal appraisal system, opportunities to promote personal development through coaching, for example:-

- * Membership of a working party.
- * Development of a new product or service.
- * Promotion within the organisation.
- * Re-organisation of job structure.
- * Planned delegation of specific tasks.
- * Provision of cover for holidays, sickness, etc.

Coaching is defined by Megginson and Boydell as 'a process in which a manager, through direct discussion and guided activity, helps a colleague to learn to solve a problem or do a task better' (1979 p 5). They regard coaching as central for the improvement of operational effectiveness in an organisation. In order to be successful, however, coaching and counselling must be purposeful; the coach must have clear aims; he must be aware of

what he is doing; and above all he must be sensitive to both positive and negative changes. Whilst recognising the artificiality of breaking down an essentially dynamic interpersonal process into discreet stages, in order to provide areas for thought, the process of coaching has been divided into a sequence of events given below. It should be stressed however that, in reality, these events intermingle and interrelate in a complex way.

- | | |
|---------------------------------------|--|
| 1. Recognise/make
the opportunity. | 3. Set the
climate. |
| 2. Identify
resources. | 4. Develop the
helping
relationship. |
5. Agree the plan.
6. Set goals and targets.
7. Review work progress.
8. Provide help as necessary.
9. Review learning.
10. Confirm new competence.

(Adapted from Megginson and Boydell
1979 p 26)

- 7.14 In a coaching situation aimed at management development there are two sorts of target, task related and learning related, goals. However large or small the task these should possess the following characteristics:

7.14:1 Task Goals and Targets

- * The goal should be a clear statement of what is to be achieved and should where possible be quantifiable.
- * The necessary time and budget must be available.
- * Any constraints should be specified.
- * Major goals should be broken down into target areas.

7.14:2 Learning Goals and Targets

- * The knowledge, skill, personal development to be attained must be specified.
- * The specification should allow the skills etc. to be generalised to other appropriate situations.

7.15 The recent shift in emphasis from crisis counselling, where in effect problems have been allowed to identify themselves by becoming disasters; to developmental counselling, where counsellor and client work together to identify difficulties and potential areas and derive plans to deal with deficiencies has given rise to a greater need for valid information about the person being counselled. In the case of a manager this must include consideration of task preferences and areas of neglect. The switch in emphasis, referred to above, has also pointed to a need for better predictive instruments, which will be essential for the counsellor and his client to anticipate those

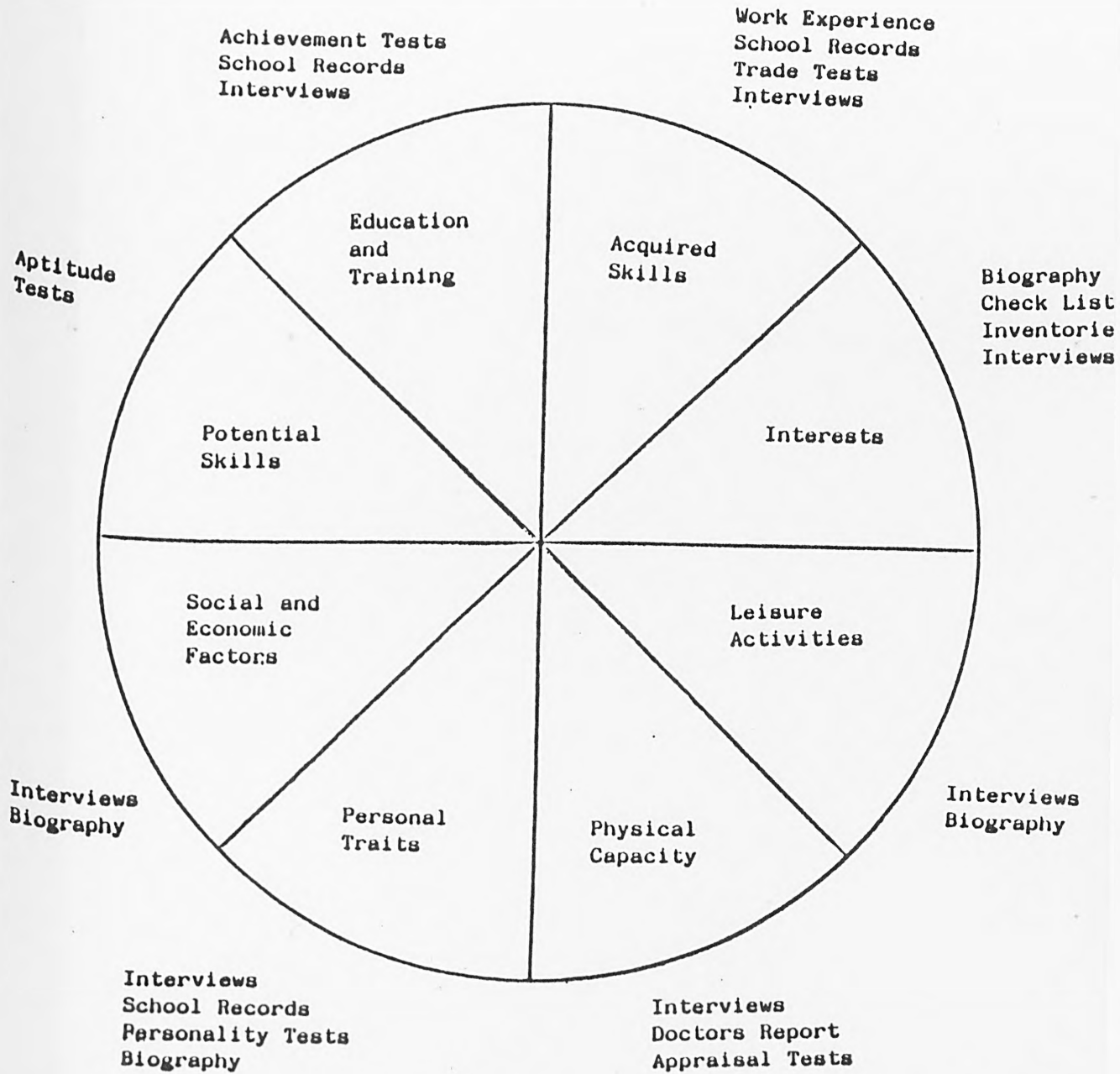
areas where development might be facilitated. The research is aimed at producing good factual data relating to task performance but also it is hoped to establish links between actual behaviour and scores on useful predictive instruments.

8. Staff Selection

- 8.1 In view of the wide differences between management jobs and the wider differences between individuals, it would be surprising perhaps if a group of applicants measured up exactly to the demands of the position for which they are being considered. There are three approaches to resolving what Warr (1976 p 169) calls 'person job discrepancies'. Firstly, one can attempt to compensate for individual deficiencies through training and development. Secondly, one can modify the task so that it is more closely matched to the individual's abilities. The third approach is to concentrate much more on selection and through the use of appropriate techniques, choose the individual most closely suited to the requirements of the posts.
- 8.2 For a number of years alternatives have been available to the use of formal interviews as the sole means of identifying the correct person for the job. Considerable effort has been directed at writing job descriptions and arranging advertising such that applicants will, in the main, possess the necessary qualifications and skills. In reality, however, that is only the beginning. Figure 2 summarises the sources of information potentially available for assessing various aspects of an individual's personality and abilities, these include: personality tests; aptitude tests; school records; attainment tests; tests of abilities and

skills; etc.

Fig.2 Sources of Selection Information



8.3 It is easy enough to say that effectiveness in the selection process involves the use of all the tools available. The list given in Figure 2 is extensive but to the methods mentioned in 8.2 can be added the action based selection systems proposed by Margerison and others. These workers advocate the use of: experiential simulations; workshops and assessment centres which allow observation of applicants; case studies; presentations; biographies; self assessments; etc. The problem that ultimately faces the person making the selection is to relate all this available data to actual performance in post.

8.4 Accuracy in Selection Interview Studies of the accuracy with which interviews can predict later, on the job, performance have generally been carried out within the framework of the selection approach known as 'test orientation'. This emphasises the correlation between a predictor (of whatever form) and a criterion, such correlation is then taken as a measure of the validity of the predictive instrument. Generally the validity coefficients obtained from both interviews and 'objective' means of selection, such as test results, have been low; according to Peter Warr (1976 p 220) results have averaged between 0.20 and 0.30. Warr does point out however, that a great deal of the research is 'notable for its confusion and inadequate empirical foundations' (Warr 1976 p 221). He feels that the test orientation is not necessarily a meaningful way of considering the usefulness of selection procedures. What researchers seem to agree on, is that the interview is best seen as one of several selection components. The interview may be used to yield data about particular attributes such as social and interpersonal skills, response to stress

etc. but other devices might be better used to predict other characteristics or behaviours. At this stage it should be mentioned that whilst much has been written and said about the unreliability of interviews as a means of selection, little emphasis has been placed upon the major factors that contribute to this deficiency. Firstly, (a chicken and egg situation if ever there was one) poor selection for the interpersonal skills necessary to a good interviewer; and secondly, inadequate training in interviewing techniques.

- 8.5 Adopting the approach proposed by most workers in the field ie, a battery of selection tools, the person responsible for making the selection is faced with a vast array of potential sources of information. When choosing a manager, the problem of identifying which techniques, instruments or measures to use, is perhaps, even more difficult. As indicated earlier, most recent research has shown that managerial jobs involve a wide range of variations imposed upon certain basic similarities. This suggests, that in order to carry out a particular management job, a person must possess a range of general abilities, together with skills and aptitudes geared to the specific requirements of that job. Another possible explanation is that the more specialised areas of skills, traits, predispositions and aptitudes may affect the way in which general abilities manifest themselves in on the job behaviour.

- 8.6 Predictive Instruments Most of the widely adopted and commonly accepted measures used in selection produce profiles and scores that have been normalised against populations of: 'sales managers'; 'air-line pilots'; 'army officers'; 'graduates', etc. If it is intended to select for

instance, a production manager, the candidates are chosen whose personal profile approximates most closely to the production manager norm. The drawback with this apparently simple approach is that, once appointed, the new production manager (who shows all the basic requirements of a normalised production manager) will almost certainly carry out the job in his unique manner, emphasising those elements of the job that he feels to be important, personally satisfying, etc. and ignoring or delegating those he does not. When the manager's work preferences match those of his subordinates, when he delegates or ignores those tasks that his staff find stimulating, ie, those within their own range of preferences, then there is no problem. If however (as often seems to be the case), 'like' has selected 'like', everyone in the department wants to be, say Public Relations man, and no-one is interested in, for instance, monitoring performance, then at the extreme, potentially critical management functions can be delegated all the way down the management tree to the office junior.

- 8.7 This research is aimed, not at the generality of a manager's job but is concerned with the examination of detail. If a link can be established between measurable personal characteristics and task preferences expressed through performance on the job, then it may be possible to provide a battery of predictive instruments which will give a much greater chance of selecting the right candidate. Not merely an individual to fit a generalised job type but a person suited to the duties of a specific post in an existing organisation and structure. It may be possible for instance, to select a manager for duties which have a high requirement for a particular task preference or

orientation e.g. industrial relations, information dissemination, trouble shooting etc. This aspect of the research could have major implications also for team building, where selection needs to be very carefully geared to complement the skills of an existing team.

- 8.8 Team Building It seems quite common for a kind of job sharing to develop naturally, especially at a managerial level, even in extremely formal organisations. What is essentially one job, operating an organisation, is split between two or more managers. Where such a system functions effectively, each manager concentrates upon his own area of skill, preference, or interest, and in this way contributes to team aims or corporate objectives. Perhaps more commonly, one manager chooses what he wishes to do and leaves the rest to the others. Hodgson et al (1965) refer to the "grouping of several managers in one job as follows: 'the executive's roles in the organisation tended to become specialised around the performance of certain tasks and the expression of certain emotions. Role specialisation was seen to have important roots in the executive's personality and important consequences for his behaviour in the organisation. Several specialised roles were differentiated from one another in the top executive group, yet maintained a tightly integrated complementarity. They formed what we have called an executive role constellation'." (Hodgson et al 1965 p 477) Hodgson suggested that a triad is the least stable role constellation and the diad the most stable (whether operated as a peer relationship or a superior/subordinate arrangements. Senger (1971) and others have identified a sort of task/people split as being the most common sharing arrangement. One manager takes

the 'public relations' role and the other the 'book-keeping' role etc. Mintzberg emphasises that managerial roles form a gestalt and that job sharing can only be really effective when information, as well as tasks, can be shared. Because much of the information is verbal and because many managers are the victims of severe time constraints, efficient managerial job sharing is notoriously difficult to achieve. Effectiveness is largely dependent upon the ability of the team to share data, to disseminate information not only amongst subordinates but amongst themselves.

Management teams have two major advantages: Firstly, the burden of work for each individual can be reduced; Secondly, there is scope for specialisation in particular roles. The main disadvantage is the amount of time taken up simply transmitting data. If the unit is too large, merely keeping others informed may prevent vital tasks being carried out. In order for a team to be successful it must be made up of members who complement each other. The closer that complementarity, the more effective the team. All the managerial tasks and roles must be performed, therefore individuals must be prepared and able to do different types of work. At the same time however each must be working towards corporate aims. The team members must of necessity therefore be highly compatible in terms not only of skills and abilities but also of personal characteristics such as temperament, etc. Later in this work (Section II) it is proposed to consider the work of Dr. Meredith Belbin (1981) which is specifically concerned with links between personality, management and team role. The use of such knowledge for management team building.

8.10 It is hoped that this research will provide a valuable aid for the matching of individuals to team requirements. Where however, management job sharing of the type outlined above is inappropriate, impractical, or undesirable, this work may help in the selection of subordinate staff to provide personnel strength in areas for which the manager shows low preference. In this way, more effective delegation might be facilitated and the neglect of certain task areas avoided.

9. Organisational Change

9.1 The arguments in several of the preceding sections suggest a relatively flexible view of personality. It should be borne in mind, however, that research generally has indicated that whilst peripheral areas of personality may be amenable to modification, central or core areas are relatively stable and enduring. Bearing this in mind, it may well be that the ultimate importance of this research lies in providing a means of bringing about organisational change on a more rational basis, enabling structural and other changes to be aimed at optimising the use of individuals based upon their identified task orientations. Fiedler (1960) makes the case as follows, 'we should concentrate upon changing a man's work environment rather than altering his personality'. In this way the manager can be placed in a situation that will optimise his effectiveness, thus, fitting the organisation to the skills of the employees.

9.2 Matching the Person to the Post Many organisations were originally structured, or have grown up, to a greater or lesser extent around personalities in post. The jobs, including the formal and informal

relationships developed by the specific abilities and weaknesses of particular individuals, often continue long after the person who consciously or otherwise, shaped the post, has moved on. This is especially true of the more rigid, formal, organisational structures. Managerial and organisational effectiveness can, in this way, be influenced by the choices that a previous post holder has made. Too often these largely unconscious choices, probably based upon individual preferences, pre-dispositions, and personality needs, have come to be regarded as essential ingredients of the job. Attempts to appoint exactly the right person to precisely fill the vacant slot, will more often than not fail. As has already been indicated, people vary; different managers, even those who have fundamentally similar backgrounds, training and abilities will do the same job in different ways. Even in highly bureaucratic organisations, like the services, the officers have different, sometimes radically different, approach to the management of their subordinates. The individual can and does, mould any job to some extent, for, however detailed the job description there is always some room for interpretation and the exercise of choice. The opportunities for influencing the nature of the job are likely to be much greater in management positions, where the tasks to be undertaken are usually much less clearly defined than in other more specialised or more junior jobs.

Paradoxically perhaps the consequences of 'wrong' or inappropriate choices can often be much more critical at a managerial level. It can be seen that the preferences and needs of the individual may interfere with the organisation and conflict with or inhibit operational effectiveness.

- 9.3 Matching the Post to the Person Glickman et al (1968) conclude that an adequate philosophy of management and organisational development cannot concentrate exclusively on manipulation of the individual by selection, appraisal and training. The concept of moulding the position to the man and the organisation to the employees should not be considered as an improvised contingency measure but as a desirable practice. Whether an organisation works because of its formal structure or despite it, 'management organisations are structured around people' (Glickman et al 1968 p 10).
- 9.4 Changes in organisation life must come not only as a result of changing people's attitudes and behaviour through training, but also from structural change, that is, changes in the roles that people are expected to play and the decisions they have to make. Such that better and changed performance is both encouraged and reinforced. This type of change programme requires recognition and integration of all the factors affecting the organisational system. An attempt has been made to illustrate some of the possible influences in Figure 3.
- 9.5 Formal/Informal Structures Many institutions and organisations have structures which have been formally imposed by authority or custom. The structure produced by lines of authority in military establishments is well known and clearly defined. Organisation charts are available to indicate the system of power of authority relations right down to the lowest supervisory level. Power or dominance is not necessarily the only determinant of structure within an organisation; communication needs, work flow requirements etc.

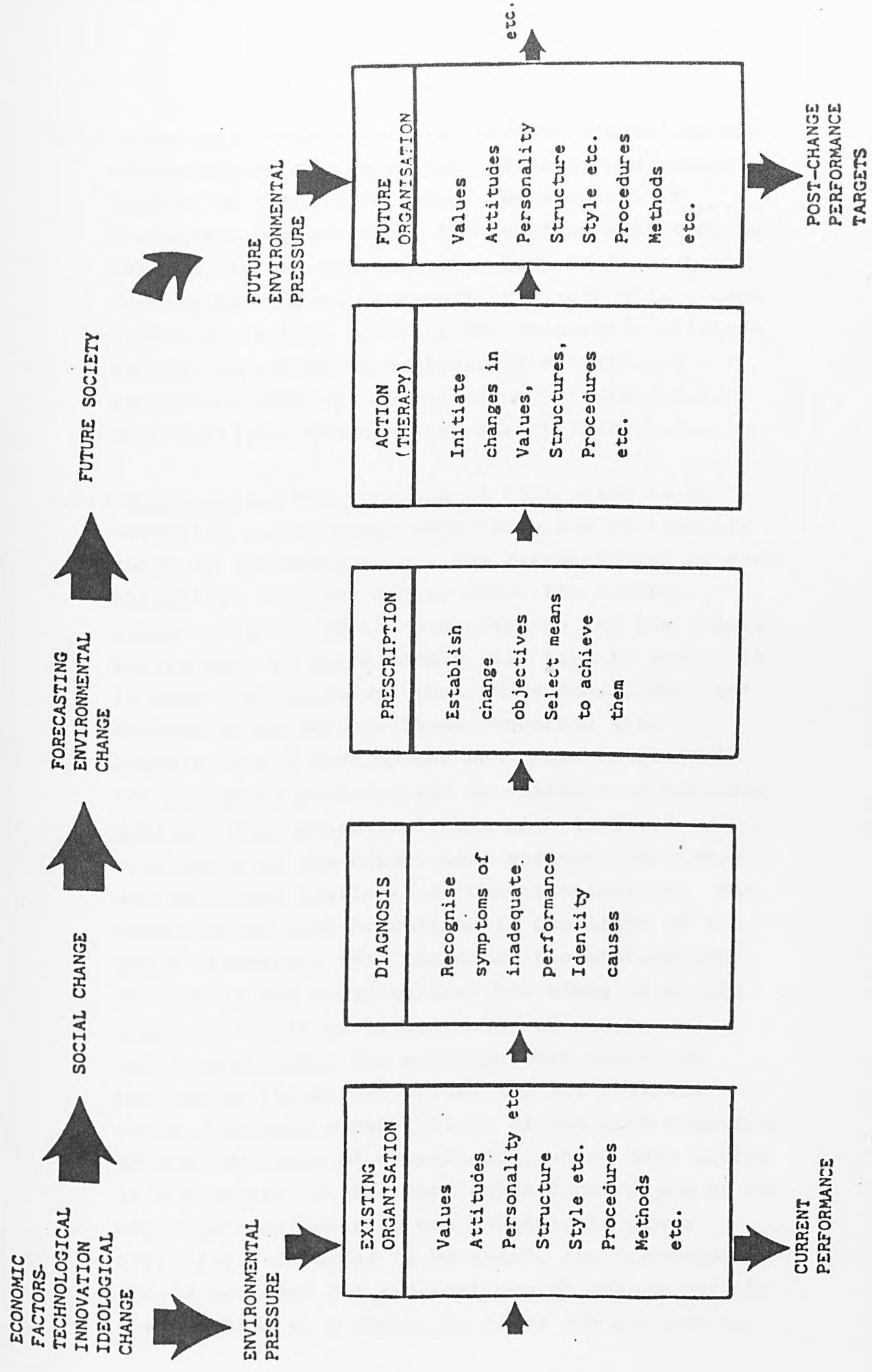
are also common influences. It must be said however that many relations are derivative in that they are unintentionally fostered by the formal organisational arrangements. Informal structures that emerge within a group already possessing an official hierarchial pattern are referred to by Davis (1969 p 93) and others, as 'operating structures'. These may be partly a function of the formal structure, they are also a response to the actual demands of the task, people and setting in which the work behaviour takes place. When the formal structure is: inadequate; inappropriate; out of date; unrealistic; or inefficient, operating structures are especially likely to develop. The discovery of the operating structure is crucial to any understanding of a group's performance. Because of etiquette, social pressures, etc. the uncovering of the informal structure can be a difficult, delicate, and even unpleasant, job for the researcher.

- 9.6 Traditional types of organisation, formally hierarchical and functionally specialised structures have come to be seen by many researchers (e.g. Argyris 1964: McGregor 1960: Beckhard 1969: etc) as unable to respond adequately to new conditions, whether these spring from external pressures such as social, economic or technological change, or from human factors within the organisation. Such organisations often fail to provide sufficient opportunities for employees to grow, or to perform at a level consistent with their potential. Increasingly the major industrial and commercial enterprises are looking to a controlled organisational development aimed at promoting a process of continuous adaptation to environmental changes, however derived. As indicated in Figure 3 this evolutionary process can

(to facilitate study and discussion) be divided into distinct phases, although in practice these may overlap or occur in parallel. It is considered necessary in the context of this work to expand a little on the brief descriptions given in Figure 3 and to also look briefly at the necessary conditions for the change process, as follows:-

- 9.6:1 Creating the Climate for Change This phase is directed at producing a small number of practitioners to work alongside professional behavioural scientists. The second, and no less important objective is to make management, supervision, trade union officials and worker's representatives aware of the aims of organisational development; to give an appreciation of the contribution of the behavioural sciences; and to assist generally with an understanding of how organisations function.

Fig.3 Managing The Process of Organisational Change



9.6:2 Diagnosis This phase will involve a detailed and comprehensive review of the current organisation, leading to identification of the symptoms of inadequate performance. The symptoms must then be related, in an objective way, back to their underlying causes. Currently the most widely used technique in this phase is the diagnostic attitude survey, supported by analysis of statistical indicators such as: labour turnover; absenteeism; profitability; growth rate; market share, etc.

9.6:3 Prescription The function of this phase is to establish clear change objectives and to identify means of achieving them. The establishment of such objectives requires a view about the future characteristics of the organisation and the future environment in which people will have to work. It is essential therefore that there should be close collaboration between those concerned with organisational development and those responsible for corporate planning and formulation of business policy. This phase implies a high level of confidence in the behavioural science techniques and expertise available to the organisation. The prescription must be derived in the light of the total situation, this includes: the history and culture of the organisation; the kinds of people involved, their abilities, aspirations, pre-dispositions; the environmental pressures bearing on the organisation; and its business goals. Package prescriptions of the kind sometimes offered by firms of consultants, which have little if any regard for the particular constraints of the organisational setting are unlikely to prove effective. In order to be valid, the prescription should consider the implications of change for the organisation as a whole, in terms of: changes in

attitudes, beliefs and values; changes in organisation structure and management styles; and changes in procedures, techniques, methods and working practices. A change programme which is confined to developments in any one of these areas and ignores or neglects implications for the others will inevitably run into problems.

9.6:4 Action It is this phase which places most demands upon organisational management. For the managers must initiate and facilitate the necessary changes. It must be accepted at the outset that the action phase cannot be achieved without meeting resistance, probably at all levels within the organisation. There will, almost inevitably, be a temporary loss of satisfaction and reduced morale among informal groupings within the organisation and possibly throughout the organisation as a whole. It is frequently the case that those aspects of the existing organisation which give rise to greatest satisfaction are those which it is most important to change (notably those elements based upon past personal preferences). During this stage therefore there will be a requirement for greatly increased use of: consultation; participation; training; counselling; and communications techniques.

9.7 Organisation development should ideally be a continuous process of response to change (and anticipated change) rather than a once and for all reaction to immediate pressures. This implies a need for constant revision of diagnoses and prescriptions in the light of ongoing feedback from many sources. An essential requirement of this type of systematised organic approach is the need for valid data established against measurable and acceptable criteria. There are a number of aspects

of an organisation which might affect the methods employed to gather information. Using categories described or implied earlier:-

* The Prescribed or Formal Structures

What are the: procedures; policies; image; style; clients; hierarchies, etc?

* The Informal or Operating Structures

What actually happens, what are in reality the links between: environment; task; technology; people, etc? Who communicates with whom and through what channels?

* The Perceived Organisation

How is the organisation, its structure, aims, policies, image, clients, etc. seen by the participants? How do the perceived roles, etc. relate to the prescribed and actual structures?

* The Desired Organisation

What would be the ideal? What arrangement would best meet the needs of the people and the organisation? How can the various factors be brought together most effectively?

- 9.8 The prescribed organisation can be identified from existing documentation and discussion with senior management. Data sources are, organisation charts and manuals; rule books; procedures; policies; regulations, etc. The actual or operating structure can be determined only by long term study and observation. The means of acquiring information are varied and may have to be tailored to meet particular circumstances. Data sources include: diaries; activity samples; direct observation; indirect observation, etc. Problems can occur when trying to separate the actual

organisation from the perceived. Distinctions become blurred because of the tendency of individuals to behave in a way which is closely linked to pre-conceptions and perceptions about the organisation. In the main, the practical applications of organisational analysis are directed at the perceived and desired structures and it is precisely in these areas that sources of valid data are least likely to be available. As mentioned earlier the traditional and most widely used method of data collection employed in this area is the structured interview built around responses to a determined questioning strategy, with all the attendant problems of that approach. It is hoped that this research will provide, at least for management and supervisory posts, a means of obtaining objective and valid data with respect to:-

- * the exact nature of the job and tasks undertaken by each individual;

- * some of the underlying determinants of the individual's 'on the job' behaviour.

Possession of such information should greatly aid:-

- * Diagnosis of existing problem areas and their causes.

- * Elucidation of informal relationships within the organisation.

- * Prediction of the ways in which people factors will affect the direction or nature of change.

* Preparation of a desired structure and organisational objectives.

9.9 The Person, the Product and the Response

Traditional research into management, managers and manager's jobs has concentrated upon the general. Has sought to identify the common elements, the essential ingredients of managerial work. Recent research has examined the differences between widely held beliefs about the nature of the manager's job and actuality. The emphasis of this later work has been on the tasks, or what Jackson and Messick (1965) call the product and response. Where attention has been paid to the factors affecting the product the effort has been almost exclusively directed at influences external to the individual. This research will be concerned not merely with the product and the response but with the person. It is not only intended to further develop the tools necessary to describe and study the products of the choices that managers make, but also to produce a means of exploring the internal influence which affect (or perhaps effect) those choices.

- 9.10 Scholefield (1968 p 219 - 234) seems to sum up the issues quite nicely 'The executive's first concern should be to identify the activities that he has to undertake because no-one else is in a position to deal with them effectively. Only when he has completed these tasks should he undertake work that could be done by other people.' He may then choose to take on activities which are particularly important to the enterprise or for which he has special expertise. Within this area of choice the effectiveness of his use of time is likely to depend rather heavily on his capacity for making a realistic appraisal of his own abilities and those

of his subordinates and colleagues. This research should provide a little help.

PRIOR RESEARCH

10. Identification of a Manager's Tasks and Functions

10.1 Introduction

10.1:1 The problem facing any researcher in the field of management activities is how to impose some kind of ordered description and analysis upon the material obtained from the study. Although a great deal has been published about the manager and his job, we continue to know very little. Much of what has been written seems to be merely repetition or a 'rehash' of what has gone before. In the words of Roy Lewis and Rosemary Stewart (1958) 'we know more about the motives, habits, and most intimate arcania of the primitive peoples of New Guinea or elsewhere, than we do of the denizens of the executive suite in Unilever House...' Despite the repeated attempts of certain individual workers, in many areas, generalities devoid of hard data are the only guides we have to what managers actually do, and why. Whilst it seems fine to describe the job in terms of the percent time spent talking, writing, etc. many important elements are likely to be far more abstract, complex, or psychologically based. Over the years, a whole range of descriptive dimensions have been proffered as explanations.

10.1:2 Management Functions The first and perhaps most pervasive view of the manager's job was introduced in 1916 by Henri Fayol. he described management in

terms of five functions:-

- * Planning
- * Organising
- * Co-ordinating
- * Commanding
- * Controlling

In the 1930's Luther Gulick and his associates built on this work as follows:-

* Planning: that is, working out in broad outline the things that need to be done and the methods for doing them to accomplish the purpose set for the enterprise;

* Organising: that is, the establishment of the formal structure of authority through which work sub-divisions are arranged, defined and co-ordinated for the defined objective.

* Staffing: that is, the whole personnel function of appointing, training, and ensuring adequate work conditions for staff.

* Directing: that is, the continuous task of making decisions and embodying them in specific and general instructions, and serving as leader of the enterprise.

* Co-ordinating: that is, the critical duty of the inter-relating and integrating the various parts into a whole.

* Reporting: that is, keeping superiors informed of what is happening, this includes keeping self and subordinates informed through records, research and inspection.

* Budgeting: that is, fiscal planning, accounting and budgetary control.

Gulick (1937 p 13) saw this as a 'valid and helpful pattern into which can be fitted each of the major activities or duties of any chief executive.' A number of later researchers have been critical of this rather simplistic view of what a manager does. Mintzberg was particularly scathing about this 'classical' approach, he states 'thus we can find little of use in the writings of the classical school. They have served to label our areas of ignorance, and may have fulfilled the need of telling managers what they should be doing (even if it did not tell them what they did). But the classical school has for too long served to block our search for a deeper understanding of the work of the manager' (1973 p 11). In context, however, what Fayol and his followers did was to provide the first widely accepted set of terminology for describing managerial work (or perhaps more correctly the objectives of managerial work). The fact that they were so effective in shaping (or perhaps constraining) later thinking serves only to highlight the great need for an adequate means of classifying and describing managerial work. What their descriptions did was to define areas that needed investigation rather than to produce explanations in themselves. Too often, these descriptive terms seem to have been regarded as solutions engraved in stone.

10.1:3 Management 'Styles' - Early Theories Lewin, Lippitt and White in the late 1930's made their own significant contributions to management research with their concepts of 'authoritarian, democratic and 'laissez faire' styles of management (Lewin et

al 1939). Tannenbaum and Schmidt (1958) considered a continuum of behaviour from 'boss centred' to 'subordinated centred'. The notions of 'participative leadership' (Argyris 1957 and McGregor 1960) and 'benevolence' (McMurray 1958) have all generated extensive discussion and varying amounts of follow-up research but none of these workers seem to have been particularly concerned with what the manager actually did in any specific sense.

10.1:4 'Carnegie' Theories Other workers seem to have limited themselves by concentrating upon one aspect of the manager's job, or by adopting a particular ideology or professional discipline as an integral part of their methodology and theories. One such group, based upon the Carnegie Institute of Technology in the United States, devoted their attention to the study of programmed decisions. The work of the group had its roots in the research of Barnard (1961) and the publication of 'Administrative Behaviours' in 1957 by H.A.Simon. These workers viewed decision making, not in terms of rational choice from known options, but as an accurate reflection of the real constraints and limitations acting upon the manager. They suggest that: managers have no explicit goal systems or preference functions; that the critical and most neglected elements in decisions are definitions of the problem; that alternatives and consequences are only rarely seen clearly; and lastly, that choices are made not to maximise gains for the organisation but to satisfy constraints. They propose that managers react so as to avoid uncertainty and, because the individual and the organisation are subject to such a proliferation of pressures and vested interests, all with differing goals, the manager is unable to pay attention to solutions

that provide optimum benefits. He merely avoids conflict. This is achieved by what Cyert and March (1963) call 'sequential attention to goals'.

The Manager as a 'Low Level Programmer' Expansion of this conceptual framework led the Carnegie theorists to see the organisation as a set of loosely coupled programmes (formal procedures, structures, etc.) and managerial work as consisting of adapting and constructing low level programmes to achieve very basic goals. They suggest that the manager's job is essentially one of a programmer initiating new procedures and changing existing procedures for use by subordinates. As Klahr et al put it 'This conception (ill defined tasks at top, well defined at bottom) seems consonant with the way in which tasks flow into and through organisations. They often enter at the top in ill defined, new forms. The top works them over, defines and operationalises them, and then, if they are to become continuing tasks, passes them down the hierarchy, where they are again converted from their now partially operational states into highly defined states, and again passed down through specially created or adapted structures. Presumably the top, in the interim, has turned its attention to other new, ill defined issues' (Klahr and leavitt 1967 p 112).

'Programming' Complex Tasks This view supports the findings of N.H.Martin who concludes from his study of managers at four organisational levels, that the decisions of higher level managers are characterised by longer time horizons and duration, greater discontinuity, more elastic limits, more abstract data and casual relationships, and greater uncertainty. 'It is up to the executive himself to determine whether the situation warrants a change.

He must search for and construct possible alternative courses of action; he must work out administrative procedures to implement the decision. Such situations may be termed "unstructured". (Martin 1956 p 254) It also implies that the work of the manager is essentially unprogrammed. At the lowest end of the organisation, work is routine and programmed, familiar demands are reacted to with predictable organised responses. Managerial work is, however, more complex, stimuli are often ambiguous and the appropriate responses are not always obvious. 'There is no cut and dried method for handling the problem because it hasn't arisen before, or because its precise nature and structure are elusive and complex, or because it is so important that it deserves a custom tailored treatment' (Simon 1965 p 59). What the bulk of this type of research seems to ignore however, is that what to the observer is disorganised and unprogrammed, may simply be difficult to understand and describe.

The Manager as a 'High level Programmer' Later researchers have suggested in fact that managers may utilise relatively high order programmes in their work, what Mintzberg (1973) calls 'a program to define problems, a program to search for alternatives, a program to make choices.' Attempts have been made, based upon this type of assumption, to describe managerial work systematically as a set of programmes. Whilst most of the work (Simon 1965; Newell and Simon 1972) has involved formalised, simplified, decision process eg, chess games, or geometric theorems, a few attempts have been made to describe managerial work, as a whole, in terms of programmes (Wong 1970; Klahr and Leavitt 1967, Aguilar 1967). Whilst, therefore, the Carnegie theorists have described the manager

as an unprogrammed decision maker who programmes the work of others, their work has led to the idea that what might seem on the face of it to be totally unstructured, reactive tasks, may be amenable to precise, programmable definition.

10.1:5 Economic Perspectives of the Manager The 'Carnegie' view of the manager is supplemented by the largely economic perspective offered by Lindblom. In a series of publications (1959, 1965, 1968 and with Braybrooks 1963) he presents the manager as a 'muddler through', as a user of expedients to avoid constraints and pressures. He actually starts out by attacking the economic view of management and claims that the approach fails because it does not recognise man's inability to cope with complexity; the lack of often basic information; the cost in time and money of adequate analysis; problems of time scales, timing and deadlines; and the difficulty involved in arriving at a clear statement of goals. Lindblom proposes a: manager who avoids pitfalls rather than seeks goals; one who considers only those options which do not result in unpredictable change; one who rarely examines all possible consequences; one who acts in a sequential way, makes incremental changes, interprets feedback and then makes another small change and so on. In Lindblom's opinion 'Policy making is typically a never-ending process of successive steps in which continual nibbling is a substitute for a good bite' (1968 p 25); and of the manager 'His analytical methods cannot be restricted to tidy scholarly procedures. The piecemealing, remedial incrementalist or satisfier may not look like an heroic figure. He is nevertheless a shrewd, resourceful problem solver who is wrestling bravely with a universe that he is wise enough to know is too big for him' (1968 p

A More Traditional View This proposition appears to contrast quite sharply with the common economic view of management and managerial decision making. 'Although theoretical economists have made room for the entrepreneur as a decision maker and actor in economic events, the entrepreneur has typically been cast in the role of a rational man who makes optimal choices in an environment of very limited and highly specified dimensions. As such, his function is confined to that kind of computational link between impersonal forces on the one hand, and foregone conclusions on the other' (Collins and Moore 1970 p 7-8). Decision making for the traditional economic theorist begins with a problem. Explicit goals and all possible courses of action (as well as their consequences) are laid out before the manager, he simply evaluates the consequences, ranks alternatives in terms of the achievement of desired ends, and chooses the most appropriate. Ambiguous problems, ill defined and conflicting goals and unpredictable consequences do not appear to exist in this simplistic world. No conclusion seems to have been reached amongst economic theorists, not only because they could not agree on terminology, but also because they seemed to take no account of the operational implications of the entrepreneurial function. These workers state that the entrepreneur innovates, but omit to describe the means by which this is achieved. The entrepreneurship approach seems to contribute to our understanding by the specification but not by the description, of one component of the manager's job, the initiation of change and innovation. Clearly the two differing views of, on the one hand the manager as a rational profit maximiser; and on the other hand, the unprogrammed individual

muddling through, must in isolation be incapable of providing an adequate theory to describe managerial behaviour. It seems probable that any realistic view of decision making must contain certain elements of both theories (and perhaps a little more besides.)

10.1:6 The Manager as a Leader Whilst the decision theorists and economists concentrate upon decision making to the exclusion of almost all other management activities, studies of leadership appear to concentrate upon the interpersonal relationships between the leader and the led with the same kind of single mindedness. The leader effectiveness workers were, in the main social psychologists, they focussed their attention not upon the job but upon the man. What they sought was a set of personal characteristics or managerial styles, they could be identified with the 'successful' or 'effective' manager. The early researchers in this area concentrated on finding particular traits or constellations of traits possessed by all effective leaders. They were not successful. Where significant correlations were found these were so general (empathy, self confidence etc.) that they were of little practical use as a means of predicting performance.

Management Styles - A More Recent Review In recent years social psychologists have moved even further away from the early standpoints and argue for a situational or contingency theory of leadership effectiveness. This new approach follows the line that no one style of management is always right or best. The effectiveness of a particular style is dependent upon a number of situational factors: the structure of the organisation; the formal power of the individual manager; the nature of his work; the

organisation climate; and the manager's own attributes such as abilities, skills, personality and expectations,

Models of Leader Behaviours One recent approach to providing a more comprehensive framework is given in Reddin's (1970) '3D Theory'. He renames the dimensions of 'consideration' and 'initiating structure' (described in section 10.3:2), calling them, 'Relationship Orientation' and 'Task Orientation'; and adds a third dimension 'Effectiveness'. The latter is said to depend upon the context viewed in terms of: technology; subordinates; co-workers; superiors; and organisation. The theory is carefully derived and is presented in a sophisticated well argued way but has yet to be empirically validated. A similar approach, but developed from empirical work conducted over about 15 years is that of Fiedler (1967). He postulates that a leader can be characterised by a specific personality attribute that reflects a consistency of goals or needs over different situations. Two major goal orientations are proposed, one concerned with the need to be successful in task performance, the other with good interpersonal relationships. Fiedler's 'contingency model' states rather directly that the effects of these attributes are contingent upon three aspects of the situation; these are the relationship between a leader and his followers, the leader's power position within the organisation, and the structure of the group's tasks. Fiedler produced means of measuring each of the situational variables together with an indirect measure of leadership attributes. The measurement index is intended to demonstrate the way in which the effects of leader behaviour are contingent upon situation. The task oriented leader is

comparatively speaking, most effective in favourable or unfavourable conditions whereas the relationship oriented leader is likely to be most effective under conditions of moderate favourability or unfavourability. The contingency model is a well developed example of how components such as attributes, behaviour, context and effects can be demonstrated to be real influences in practical situations. Whilst the concepts embodied in the model offer a valuable means of examining managerial behaviour, the approach does have its difficulties.

Problems with Fiedler's Model These problems relate particularly to the measures which seem to be: somewhat arbitrary; heavily dependent upon the use of rating scales (Yukl 1970); and also difficult to interpret (Bass, Fiedler and Krueger 1964); Fishbein, Landy and Hatch 1969). It is also difficult to be sure that the score is indicative of consistently applied task oriented or relationship oriented behaviour. Studies by Graham (1963) and Sample and Wilson (1965) show in fact that both high/low scorers on the rating scale engage in similar amounts of task/relationship oriented behaviour overall but that the two types of leader are distinguished by the way in which they sequence the two forms. The task oriented leader tends to be directive from the start but is likely to become more considerate once the task has been initiated and organised, the person oriented leader tends to reverse this order. Well over fifty studies have been considered in the development of Fiedler's model, relatively few, however, have involved work carried out in live industrial situations. In order for the model to be widely applicable, then much more 'real life' validation would seem to be required. Despite the

deficiencies identified above, the model does seem to have some heuristic merit. It does provide a basis for further work and perhaps the development of more sophisticated instruments to measure both manager behaviour and the kind of contextual effects that must, ultimately be part of any comprehensive attempt to predict managerial performance.

10.1:7 Studies of Managerial Behaviour In addition to the type of approach described in the preceding sections a number of attempts have been made to analyse the content of the manager's job by studying the behaviour of the individual at work. This leader behaviour studies (Wilkstrom 1967; Walker, Guest and Turner 1956; Hamans 1950; Hodgson et al 1965; Stieglitz 1969; and Sayles 1964) are alike only in that they are concerned with managerial behaviour. They vary widely in aims and methodology, they do not appear to make any attempt to build upon one another's work and most importantly perhaps, do not appear to arrive at any generalisable conclusions.

10.1:8 A problem, in fact, with all the descriptions and theories referred to above is that each approach, in its own way, appears to be limited in scope. All seem to be victims of a tendency to focus on one aspect of the manager's job to the exclusion of other, equally important, facets. It is now proposed to consider in some detail, a series of studies which provide more broadly based descriptions of the manager and his work. These studies, whilst employing different methodologies are characterised by an inductive approach to research. The work activities of managers are examined systematically, analysed in depth, and conclusions are drawn only where there is

sufficient empirical evidence. The studies are not only linked implicitly but in most cases they give careful, explicit consideration to the findings of previous workers in the development of their conclusions.

10.1:9 Ways and Means of Studying Managerial Work In examining this work it is important to keep in mind the basic methods open to the researcher engaged in studies of managers and managerial behaviour. The investigator may directly observe and record ongoing behaviour, he may collect retrospective data about the behaviour, or he may adopt a self recording procedure asking the individual being studied to record information about what he does and why. Whilst it is intended to explore the pros. and cons. of the various approaches later, under the general heading of methodology, it is felt that a brief look at the drawbacks of each of the three basic methods may assist in a better understanding of the results of previous research in the field.

10.1:10 Observation Managers can be observed at work and a detailed record of what they do, where, when and with whom (eg, Copeman, Luijk and Hanika 1963; Minzberg 1968). Continuous recording procedures of this kind are, however, time consuming and often yield large amounts of unwieldy data which can result in a requirement for much complex analysis. To combat this problem some researchers (eg, Thurley and Hamblin 1963) have adopted work measurement type techniques which allow sample observations to be taken at regular intervals. If the presence of the observer does not unduly influence the behaviour of those being observed, direct observation can provide a detailed and comprehensive picture of the day to day activities

of the manager.

10.1:11 Retrospective Studies Retrospective information can be gathered directly from managers using informal, or formally structured, interviews, or questionnaires. In all these cases the manager is actually being asked what he thinks he does. This method, therefore, often yields descriptions of activities which differ (sometimes radically) from what managers are actually seen to do. There are, for instance, many more interruptions, more 'wasted' periods than the managers individually recognise and usually more time is given to personnel matters than they believe to be the case. Retrospective data about the manager's work can also be obtained from his subordinates, peers, or his boss. 'Data about the manager, collected from different, equally subjective sources, do not however, always give rise to the same picture' (Fleishman 1953. Webber 1970).

10.1:12 Self Recording Techniques Self recording of managerial activities has typically taken the form of the manager noting in a diary or on a specially constructed report pad, what he does. This record may consist (or purport to consist) of a continuous record, or may relate to a sample of occasions. One difficulty with this type of approach is to ensure that all activities are recorded as they occur, otherwise the information will suffer from the drawbacks 'identified as characteristic' of retrospective data where categories of work activity are pre-determined by the researcher. The researcher has the problem of making sure that each of those involved in the study categorises his time consistently, in the say way as the other subjects. Also, he has the difficulty of ensuring that the categories hold some salience for the managers

being studied. Finally and perhaps most crucial in a practical world, the researcher is faced with obtaining sufficient, complete, accurate responses for meaningful analysis, from managers whose priorities might not include completing on a regular basis, a set of forms for research purposes.

10.1:13 Analysing the Data More generally, having obtained a set of data using any of these basic approaches, the researcher is then faced with the problem identified earlier, ie, how best to impose some ordered system of analysis to the material he has gathered. At this point it is perhaps important to draw attention to the distinction between the 'contents' and 'characteristics' of managerial work. Answers to such questions as: where managers work; with whom; for how long; what media is used; represent the characteristics of managerial work. Answers to such questions as: what managers do in their work; what activities are carried out and why; describe the content of managerial work. Mintzberg illustrates this distinction as follows: 'the first type of analysis would tell us, for example, that a manager worked long hours in a given week, whereas the second would show that he did so because he was deeply involved in labour relations' (Mintzberg 1973 p 21 - 24).

10.1:14 The detailed consideration below is intended to: include the methodologies described above; to examine some of the ways that have been used to order the data obtained; and to explore some of the constructs and theories that have been derived from that data.

10.2 Diary Studies

10.2:1 Identification of Common Behaviour Patterns The diary method of studying the work of managers was introduced by Sune Carlson, he used the technique to study the work of nine Swedish company directors. The purpose of his study was not to develop any 'normative rules' about how executives should behave, or to describe their typical or average behaviour; he proposed instead, by the use of an intensive study of a relatively small number of subjects, to attempt to identify common behaviour patterns and to establish some general relationships which characterised those patterns.

Fig.4 Diary Recording Form (Carlson 1951 p 46)

Date _____ Time _____	Telephone _____	In ☐	Out ☐
Place (other than own office) _____			
Person _____			
Manuf.dir. ☐	Comptr. ☐	Adv.dir. ☐	
Works man. A ☐	Account ☐	Pers.dir. ☐	
Works man. B ☐	Sales dir.Swed. ☐	Assistant ☐	
Organ.dir. ☐	Sales dir.exp. ☐	Secr. ☐	

<u>A. Question handled</u>		<u>Kind of Action</u>	
Finance, legal	☐	Getting information	☐
Accounting	☐	Systematizing information	☐
Buying	☐	Taking decisions	☐
Production	☐	Confirming or correcting	☐
Product Research	☐	decisions of others	☐
Sales	☐	Giving orders	☐
Personnel	☐	Advising, explaining	☐
Public Relations	☐	Inspecting, reviewing	☐
Organ.planning	☐	Executing	☐
_____	☐	_____	☐
_____	☐	_____	☐
Private	☐	Personal development	☐

<u>B. Question handled</u>		<u>C. Question handled</u>	
Development	☐	Policy	☐
Current operations	☐	Application	☐

10.2:2 For each activity the company director was asked to record:

- a) Place of work;
- b) Contact with persons or institutions (subordinate, customers, etc.)
- c) Technique of communication, whether:-

- * Direct: personal observations, conversation, conferences, telephone calls, etc.

- * Indirect: via others, via papers, etc.

- d) Nature of the question handled, in terms of:-

- * Field of activity or functional area: finance, personnel, etc.

- * Development or Current, operations.

- * Kind or content of action: getting data, advising, etc.

10.2:3 The finding of the study relate to three major areas:-

Work Time With reference to Work Time, Carlson, firstly, found that his subjects rarely experienced uninterrupted time, they averaged only one hour per day alone. Secondly, the work load of each was particularly heavy and tended to preclude social/cultural activity during the working day. Finally, and perhaps most importantly, bearing in mind the generally held view of the manager's job

at the time of Carlson's research, he concluded that the managers studied had, little if any time for planning, and exercised little control over their own work day. The majority of their activities were carried out in response to immediate situations and the unplanned, unprompted and often unpredictable demands of others.

Communications Patterns Carlson presents a whole range of findings with regard to communications patterns but it is considered that these are of little relevance for this research.

Work Content As far as work content is concerned, his findings are not particularly revealing, mainly because he experienced considerable problems with the analysis of this part of his data. Carlson puts it as follows (1951 p 105) 'what one executive regards as a question of development, another may find to be a question of current operations.' In other words he discovered that different managers have different perceptions of the tasks they perform. This has proved to be a major difficulty with self report data in general (see 10.1:1). In his broad conclusions Carlson identifies information, or more correctly, the lack of information, as the manager's main difficulty. He stresses that, in order to manage effectively, the chief executive must ensure that, above all else, he is kept informed.

10.2:4 Relationships between Middle Managers Following Carlson's work there were several other attempts to explore managers and managerial work using diary studies. In 1954 Burns looked at relationships between a group of four middle managers in the same organisation. Each manager kept a diary record for a period of five weeks. Whilst most of the

findings relate specifically to the question of relationships Burns was led to the general conclusion that 'Activities may also be analysed according to another classification - that of content - though here we are on less sure ground' (1954 p 75).

10.2:5 In 1957 Burns went on to conduct diary studies of 76 senior and middle managers in the UK. He discovered that they spent between 42% and 80% of their time in discussion and very limited amounts of time were available for planning. Like Carlson he found that the manager was very seldom alone or uninterrupted. Burns comments specifically upon the tendency for managers to associate closely with a select group of others, 'of the total time spent in conversation with people in the concern (ie the factory), the general manager might spend half with the other two members of this group' (1956 p 60). He found, like Carlson, that the managers studied were notoriously bad judges of their own time allocation, particularly with regard to the time they spent on people and relationships within the organisation. This was indicated to some extent by the amount of time each spent in horizontal and lateral communications as opposed to the formal, vertical line communication.

10.2:6 Contrasts Between the Jobs of Managers at Different Levels In 1963, Copeman et al carried out a comparative study contrasting the jobs of 29 chief executives and 29 section heads using diaries. Their conclusions seem to amount to a logical account of the kind of differences that might be predicted, eg:- (SEE OVERLEAF)

	CHIEF EXECUTIVE	SECTION HEAD
Time at Work	53 hrs	43 hrs
Contact with Superiors	1.5%	14.5%
Contact with Colleagues	16%	10.5%

10.2:7 The Types of Managerial Job Undoubtedly the major application of diary techniques has been in the work carried out in the 1960's by Rosemary Stewart. The focus of almost all her studies is upon the types of managerial job rather than upon the individual manager. Her research was based on the assumption 'that in many managerial jobs the personality of the individual job holder will not alter the demands of the job, although it will influence his management style and help determine what he does with the choice aspects of the job' (Stewart 1975 p 25-30). She does admit, however, in the same paper, that 'there have been surprises for the author in the nature of some of the choice elements.' Stewart explicitly avoided work content in her research. She saw few problems with such questions as: where is he working?; is he alone or accompanied?. She did however recognise that the answers to these questions, whilst providing information about how the manager spends his working day, tell us little about what is perhaps the most interesting part - what does the manager do? In Stewart's view those who have tried to describe work content 'have usually thought in terms of the classic management functions, such as planning and organising, or of activities like giving information or making decisions' (Stewart 1968 p 81). She objects to this approach on the grounds that managerial activities cannot, in the

main, be defined so unambiguously that different managers recording the same tasks will, necessarily, classify them in the same way. This difficulty appears to be an inherent fault in the diary method of collecting data, in that it requires subjects to be provided with precoded pads in order that they can quickly record and code their activities. For such a coding system to be effective there is a pre-requirement for few, unambiguous, categories. This inevitably leads to a loss of information and the imposition of descriptive constraints upon the person completing the diary. 'The use of a simplified diary schedule of this kind means that the amount of information contained in each is extremely limited; it amounts to a description of one's behaviour in a language of less than fifty verbs and nouns' (Burns 1957 p 46). Faced with the problem of defining work content using such a limited vocabulary, Stewart, in common with other users of the diary method appears to have decided to concentrate upon areas more amenable to instant categorisation.

10.2:8 In her book 'Managers and their Jobs' (first published in 1967) Stewart describes a diary study of 160 managers during a four week period. She suggests that all managers' jobs exhibit some common characteristics but that, using cluster analysis, it is possible to delineate five basic and distinct job profiles:-

Group 1 - Emmissaries - These managers spend much of their time away from the company, dealing with and entertaining outsiders. They work long hours but their time is less fragmented than many managers. They are typically public relations managers, etc.

Group 2 - Writers - They spend a greater part of their time writing, dictating and 'number crunching'. They are relatively solitary, work shorter hours and are less subject to day to day pressures. These are staff specialists or those who manage them, typically assistant managers of computer departments, chief electrical engineers, etc.

Group 3 - Discussers - The average manager. They spend much time with people, particularly colleagues and peers, they typically are involved in a very wide range of activity.

Group 4 - Trouble Shooters - They spend more time coping with crises hence their work is fragmented. Much time is spent with subordinates, less with peers. A large proportion of the working day is spent in site inspection. Typically production managers fall into this group.

Group 5 - Committee Men - Much of their time is spent in formal discussions, contracts are vertical and horizontal within the company. Such positions are usually only found within very large organisations.

10.2:9 Internal Influences Stewart apparently has little regard for the effects of what has been referred to earlier (Sections 2.6 to 2.8) as internal influences, 'what managers think and how they behave, are partly determined by their environment, the country, the stage of industrialisation, the locality, the industry. They are also influenced by the manager's background which is, in itself a product of their environment' (Stewart 1979 p 131). This appears to be a viewpoint which might lead to

questions about the breadth and general applicability of a theory which seems to ignore innate qualities. Stewart does, however, in later sections of her book recognise, or perhaps infer strongly, the potential effects of internal factors, 'we know both from common observation and from several research studies that the way in which managers do their job varies. Some of their activities are determined by the particular post they occupy, but within those limitations managers will tend to spend more time on the work they enjoy and less on the rest. The nature of the job will therefore vary, to some extent, according to the abilities, likes and dislikes of its holders' (Stewart 1979 p 71-72).

10.2:10 Management Teams Referring to the establishment of management teams, Stewart describes the way in which good managers surround themselves with individuals who balance or complement their own skills and deficiencies, both in terms of knowledge and personal preference. She also describes an alternative approach where managers who lack certain skills or ranges of skills, seek jobs which they feel will enable them to hide or minimise their deficiencies; these managers tend to perceive the skills in which they are deficient as less important, of lower priority than their areas of preference ability. Stewart sees 'One of the great advantages of understanding more about the differences in managerial work is that the match between the individual and the job can be improved' (Stewart 1979 p 75).

10.2:11 Task Preferences Considering specifically the exercise of preferences she quotes the case of the manager who obtains satisfaction from performing on a larger stage than his own company and will gain

most from the kind of opportunities offered by for instance, public relations oriented management jobs. Other managers clearly draw satisfaction from different areas of managerial work, one will enjoy negotiations with trade unions, another will prefer contact with subordinates, etc. In Stewart's view, not only will the manager's pre-dispositions influence the way he carries out his own functions, but his task preferences will also influence, perhaps radically, the jobs of his subordinates.

10.2:12 In a later piece of work (The Reality of Organisations - R.Stewart 1970) Rosemary Stewart explores the organisational effects of the exercise of managerial task preferences. Once more, her work shows a heavy emphasis on organisational determinants of task selection, and plays down the role of factors within the individual. Once again, however, she frequently refers (albeit in a very general way) to the potential effects of internal influences. Examining the extent to which an individual is able to mould the characteristics of a job, she maintains, 'that this is dependent upon, the level of the job and on the individual's own abilities' (Stewart 1970 p 41), she goes on to propose that, in general, 'the more senior the job the more opportunities there are for the individual to give it his personal signature. The Managing Director has the greatest scope for doing so as he can decide which aspects of his varied job he thinks most important or finds most congenial' (Stewart 1970 p 41).

10.2:13 Stewart goes on to describe the potential pitfalls for the organisation of the choices a manager makes, 'There may be other tasks that he thinks he can do better than his staff. Such a

decision is fraught with the dangers of self deception and the wish to continue doing work that one enjoys rather than what may be less congenial but more appropriate, work for that position' (Stewart 1970 p 79). She stresses the need for effective communication in any organisation and emphasises the notion that employing, for instance, an introvert in the wrong place could result in a serious communications bottle neck.

10.2:14 Leadership Style Looking at 'leadership styles' Stewart expresses the view that different men and women have different needs in their work. Some have a requirement for dependence, or initiative, some are naturally permissive, others are firmly directive. She makes the point quite strongly that it is essential to have a good match between the elements of a particular management job and the pre-dispositions of the post holder. In Stewart's words 'many different styles of leadership work. One may be preferable to another in a particular setting, but if it is alien to the manager's personality he is unlikely to make a better leader by radically trying to change his style' (Stewart 1970 p 85).

10.2:15 Personality/Task Mismatches In an article in Management Today (1976 p 64-67) Stewart further examines the question of personality/task mismatches. 'An admirable works manager may be outspoken and unversed in (and oblivious to) the need for trading with managers in other departments'; such an individual would probably experience severe difficulties if, for instance, he was given the post of personnel manager or sales manager. Stewart continues, 'to consider the way in which the employment of specialists may allow managers to avoid (neglect) areas of non-preference

or lack of ability.' She explains that the relationship between specialists and managers can, on the one hand give rise to resentment when the manager feels that the specialist is intruding in what he (the manager) regards as an essential part of his job; on the other hand the manager may be only too glad to be rid of certain parts of his work. Stewart highlights the case of one large company where the line managers concentrated almost totally upon technical aspects of the job and left the personnel department to deal with all matters relating to labour troubles and welfare activities.

10.2:16 More generally, she emphasises the choice elements of the managers job, 'The supervisor must decide what work to do himself and what to delegate' (Stewart 1970 p 86). She is however careful to point out that these choices are not always conscious, 'decisions are not always the result of deliberate choice. They can emerge without anybody being certain who has taken the decision, when it was taken, or even that a decision was made' (Stewart 1970 p 128).

10.2:17 Management of Time In 1976 Stewart wrote 'Contrast in Management', the result of a study of 450 managers, in twelve job types, the study was completed over two and a half years. In common with other work activity investigations she found that her managers were faced with a wide range of conflicting demands upon their time. She claims that they characteristically used one of four types of strategy for dealing with these demands:-

* Give priority to those with most power or who are most nuisance.

- * Give priority to one's friends.
- * Ration, and hope that no one is too greatly dissatisfied.
- * Devise some, hopefully objective, criteria for defining priority.

10.2:18 Managerial Choices In Stewart's opinion,

'managers are the victim of an anomaly which is, in some senses, of their own construction. They tend to exaggerate the amount of choice they have while failing to appreciate the nature of some of the choices that are available to them' (Stewart 1976 p 85). As in her other work she places much emphasis upon the external (eg, organisational) determinants of task choices 'A manager may be extroverted or withdrawn, casual or meticulous, relaxed or fuzzy, lazy or hard working, steady or erratic, autocratic or democratic; these and other styles do not in general determine the emphasis he gives to different parts of his job though they may have some influence upon it' (Stewart 1976 p 86). She sees delegation as the means by which the manager displays his choices, 'what work to delegate, to whom, and to what extent, that is, how far he wishes to retain an interest in that work' (Stewart 1976 p 87). Whilst here she seems to ascribe a conscious rationality to the decision process (which must be open to some considerable doubt) she does move on to say that it is an unusual manager who will actually weigh up what aspects of the job he should emphasise.

10.2:19 Delegation is seen then, as one way in which the manager can choose which elements of the job to attend to himself. He may do this in a formal way by assigning to others those tasks that do not interest him, that he find difficult or tedious, or that he feels are less important: alternatively he may carry out the job as he sees it, without making any provision for filling the gaps he leaves. Pursuing this question further, in the context of communications within organisations (in particular those links established to service the managers own information needs) Stewart proposes that 'The patterns of contacts a manager establishes may be a reflection of his personal tastes rather than the result of an analysis of the needs of the job' (Stewart 1976 p 93), and that the management effectiveness of the organisation might be seriously affected by the nature of the choices made by managers. Too often, activity patterns based upon decisions made by the manager, choices based upon the managers own personal needs rather than on grounds that can be supported with any objective evidence, come to be seen as essential ingredients of the post. Stewart sees the most important application of management research 'for the manager who wants to improve his own effectiveness is in helping to recognise both the scope that exists for personal choice and the choices that he has made, often unconsciously in his present job' (Stewart 1976 p 116).

10.3 Questionnaire and Interview

10.3:1 Perhaps the simplest method devised to gather information about managers and their jobs is to ask them what they do. This approach has led to many investigations using questionnaires and interviews, either alone or in combination.

10.3:2 'Major Dimension of Managerial Work' In the 1950s the Ohio State University Personnel Research Board initiated a whole programme of work aimed at developing a comprehensive descriptive system for managerial work. They collected over 1800 statements about management behaviour, using interviews, questionnaires, organisational manuals, etc. (Stoghill and Shartle 1948). This data was sorted and assembled into 'major dimensions' of leadership behaviour. These supposed dimensions were then embodied in an 150 item questionnaire (The Leader Behaviour Description Questionnaire), which was then administered to several large samples of managers for subjects to provide retrospective descriptions of their work behaviour. Results indicated that items in the assumed major dimensions did not inter-correlate any more highly than did those in separate assumed dimensions; furthermore as they stood, the dimensions were far from independent (Fleishman 1953a). The results were then subjected to statistical analysis using factor analytical techniques. Two major factors were generated, 'Consideration' and 'Initiating Structure', together with the minor components, 'Production Emphasis' and 'Social Sensitivity'. The major factors were defined by Fleishman (1969) and are summarised in Fig.5 overleaf.

Fig.5 Major Dimension of Leadership Behaviour

CONSIDERATION		INITIATING STRUCTURE	
<u>HIGH SCORE</u> Climate of good rapport and two way communication.	Reflects the extent to which an individual is likely to have job relationships with his sub-ordinates which are characterised by mutual trust, respect for others' ideas, consideration of their feelings, warmth between himself and others.	<u>HIGH SCORE</u> Active in directing group activities through planning, communication of data, scheduling, testing of new ideas, criticising etc	Reflects extent to which an individual is likely to define and structure his own role and those of his subordinates towards goal attainment.
<u>LOW SCORE</u> Likely to be impersonal in relations with group members.		<u>LOW SCORE</u> Inactive in the above areas.	

10.3:3 'Two Dimensional' Approaches Other workers have produced evidence to support the existence and independence of the two dimensions, eg, Halpin and Winer 1957; Stanton 1960, and follow-up work by Fleishman and Harris (1955) demonstrated that excellent stability coefficients could be achieved. It is important to realise when considering these two components that, as they are regarded as statistically independent, a particular individual may display behaviour at any point along each of the dimensions, ie, it is possible for a manager to be very active in direction and goal setting whilst still achieving a good rapport etc, in his relations with others.

10.3:4 The work of many later researchers shows evidence of the widespread adoption of this two dimensional approach:-

* Blake and Mouton (1964)

CONCERN
FOR
PEOPLE

CONCERN
FOR
PRODUCTION

* Likert (1961)

EMPLOYEE
CENTREDNESS

JOB
CENTREDNESS

* Bales and Slater (1955)

SOCIAL
EMOTIONAL

TASK
ORIENTED

* Fiedler (1967) and Reddin (1970)

RELATIONSHIP	TASK
ORIENTED	ORIENTED
LEADER	LEADER
BEHAVIOUR	BEHAVIOUR

The rush to repeat results such as these prompted Campbell et al in their literature survey to comment, 'The many studies using questionnaires and check lists for rating and describing managerial job behaviour led, through factor analysis, to just two basic dimensions of managerial behaviour. Certainly, this must be an over simplification of the characteristics and full range of behaviours demanded by managerial jobs' (1970 p 85).

10.3:5 One further product of the Ohio State studies is the work of Hemphill (1959 and 1960). Hemphill carried out a detailed survey of the literature, interviewed executives, and analysed job descriptions. From this detail study he produced 1500 statements which were ultimately condensed to 575 items in his questionnaire. The questionnaire was then administered to: 96 executives in five companies; at three managerial levels (trainee, middle, and upper); and across five functional areas (R and D, sales, manufacturing, administration, and industrial relations.)

10.3:6 Responses from 93 of the managers studied were subjected to evaluation and the following points established:-

* No significant differences or similarities could be found.

* Job title gave no guide to job features.

* Only when data was analysed by function did any similarities become evident, ie, Industrial Relations posts showed distinct similarities one with the other.

10.3:7 Hemphill then subjected his data to factor analysis and in this way identified ten factors:-

Factor A: Providing a Staff Service in Non-Operational Areas

Renders various staff services to managers; gathers data, interviews, selects employees, briefs superiors, checks statements, verifies facts and makes recommendations. (eg, personnel director, assistant treasurer).

Factor B: Supervision of Work

Plans, organises and controls the work of others; efficient use of equipment, motivation of subordinates, efficiency of operation, maintenance of work force (eg, works manager, district traffic manager).

Factor C: Business Control

Concerned with cost reduction, maintenance of inventories, preparation of budgets, justification of capital expenditure, determination of goals, definition of supervisor roles (eg, budget administrator, operations manager).

Factor D: Technical Concerns with Products and Markets

Development of new business, information on competitors, contacts with clients, assisting sales staff (eg, division director of research, vice president sales.)

Factor E: Human, Community and Social Affairs

Concerned with company goodwill in community, participating in community affairs, public speaking, etc. (eg, regional manager, general manager retail division.)

Factor F: Long Range Planning

Oriented 'to the future, free from routine and direct supervision (eg Assist. Vice President engineer, section supervisor research division.)

Factor G: Exercise of Broad Power and Authority

Recommendations on important matters, keeps informed on company performance, interprets policy, carries high status (eg, division manager, general sales manager.)

Factor H: Business Reputation

Production Quality, public relations (eg, employment manager, chief of process engineering division.)

Factor I: Personal Demands

Post holder carries an obligation to behave in the manner of the 'conservative businessman' (eg, director of purchasing, controller.)

Factor J: Preservation of Assets

Concerned with capital expenditure, tax, preservation of assets, loss of company money (eg, assistant treasurer.

10.3:8 These factors were tabulated against the functional areas and managerial levels mentioned in 10.3:5. This tended to demonstrate that the higher the management level the more the emphasis on: human affairs; planning; and broad power. The lower levels carried more emphasis on: staff services; work supervision; and technical products and markets. Functionally, staff services; planning and technical products and services showed most strongly against research and development jobs, whilst the business control factor was particularly evident in manufacturing and sales posts.

10.3:9 Problems with the 'Ohio Studies' The, perhaps surprising, lack of follow-up to Hemphill's work was explained to some extent by Campbell et al (1970 p 98) who referred to 'the complexities implied by his dimensional analyses' and the fact that he had 'left so much of his executives' jobs undefined from a behavioural standpoint. Job dimensions with labels such as 'providing staff services', 'supervising work', or 'long range planning' are so behaviourally sterile that they offer few if any suggestions about the human qualities necessary for effectively carrying them

out.'

10.3:10 Henry Mintzberg's analysis of the Ohio State Leadership Studies led him to two major conclusions about the inadequacies of much of the data they generated:-

- * That the data were 'inappropriate'
- * That the dimensions were 'inappropriate'

10.3:11 Inappropriate Data In relation to the first of these conclusions Mintzberg claimed that the methodology employed meant that researchers were exploring not the jobs themselves but the managers perceptions of these jobs. For instance, Shartle proposes that 'There are two aspects of executive performance. First, are events shown in the duties, functions and responsibilities which are required in the organisation and are expressed in writing or orally. Second, we have what the executive actually does. These events may vary from what is officially expected of him' (1956 p 100). As Mintzberg points out, what Shartle ignores is that, in addition to what the manager is 'supposed' to do, and what he actually does, there is also the extremely important issue of what the manager thinks he does. This essential difference between what the manager does and what he thinks he does has been shown in the work of Burns (1954), Horne and Lupton (1965), and Harper (1968). All of these researchers first of all asked managers to write down an account of what they thought they did and then, using the diary method, what they actually did. Each of the investigators concluded that managers are clearly very poor predictors of their own work activities.

10.3:12 Inappropriate Dimensions Referring to the second of Mintzberg's conclusions. In each of the studies carried out by the Ohio State group a number of dimensions to describe managerial work were produced by successively condensing many hundreds of statements from a range of sources. The consequence was that the dimensions emerged as 'a mix of the vague POSDCORB type terminology, some very specific work activities, and a series of style and personality characteristics' (Mintzberg 1973 p 214). The problem seems to have been inherent in the generation of the questionnaire items from the initial list of statements. These were, in the first place, assembled: from traditionally based writings on management (with their own built in inadequacies?); from formalised job descriptions (can the description of a manager's job be formalised without assumptions and loss of data?); and from the subjective ideas of managers about their own work activities (see 10.3:10 above). Even if it could be assumed that these sources are sufficient to identify all the important elements of managerial work it seems likely that the subsequent reduction of the mass of statements to produce a workable number of questionnaire items resulted, at best, in a loss of information; at worst, a weighting and possibly a subjective weighting of given job elements. Mintzberg sums up the problem as follows 'As anyone who has programmed a computer well knows, the output of a system can be no better than the input, no matter how elegant the programme. If the input here was unduly influenced by the traditional literature, and POSDCORB in particular, rather than by systematic, inductive research, then it should surprise no-one that the output of the Ohio State Leadership studies has generated little interest'

10.3:13 The Work of the Chief Executive In 1969

Stieglitz published the results of a study commissioned by the National Industrial Conference Board. Whilst not directly linked with the Ohio State work, a similar methodical approach was adopted. Stieglitz administered his questionnaire to 280 American and non-American chief executives. He concluded:-

* Accountability

Most chief executives reported that their accountability to the board was merely a formal arrangement, ie, in reality they were accountable only to themselves.

* Performance Targets and Standards

25% reported that there were no set targets or standards against which they were evaluated. The remainder could describe standards only in very generalised terms, eg, 'overall performance'. Few could even identify the criteria that they might use as measures of their own success or failure.

* Activity Planning

Only 11% of the managers claimed to allocate their time in accordance with the relative importance of certain activities (one of which was planning). Of those who reported planning as their most important activity, only 58% claimed to spend most time on it.

* Hours of Work

All reported long working hours and some difficulty in separating work and private life.

Primary Responsibilities

In response to the questions: What do you consider to be your primary responsibilities?; What are the factors or bases that determine what you delegate?; What aspects of your job (if any) do you believe cannot be delegated and must be reserved to you as chief executive?; Stieglitz found the following elements that almost all his chief executives were agreed about:-

- * Determining overall objectives and plans;
- * Establishing priorities and allocating resources;
- * Formulating policy;
- * Organisation and key executive selection and development;
- * Development and designation of successor;
- * Relationship with Board of Directors;
- * Key external relationships;
- * Control

(adapted from Stieglitz 1969 p 10)

An additional factor in understanding the work of the chief executive is seen by Stieglitz as 'leadership'. This he describes as 'related more to the man than to the job' (1969 p 10).

10.3:14 The work of Stieglitz appears to suffer from the major drawback that it relies entirely upon the manager's view of his own behaviour, Stieglitz seems only to have imposed order upon the data.

Once again, the view of the manager as the Planner, Organiser, etc. is strongly reflected in the findings. This would seem to be more related to what the chief executive believes he should be doing (a product of his education, training and general reading about management) than, to what he actually does (bearing in mind the later findings of more direct studies of managerial work.)

10.3:15 The 'Prime Skills' of a Manager Based upon the tenet 'If the profession of management does actually exist, we could expect to discover a set of general skills which would be required in most managerial activities' (David Letheridge 1975 p 52) attempts to identify what he calls 'prime skills'. Using the eight skills identified by Mintzberg (1973), ie:-

- * Peer skills
- * Leadership skills
- * Conflict - resolution skills
- * Information - processing skills
- * Skills in decision-making under ambiguity
- * Entrepreneurial skills
- * Skills of introspection

Letheridge administered a questionnaire to 56 senior managers, many of whom were taking part in IBM's senior executives courses at Oxford. The sample included a wide spread of industry in terms of size and type, ranging from a board member of IBM(UK) to an owner/chief executive of a small textile company with 20 employees. The questions asked were:-

- * How important are the following skills in

relation to your present job? (All these skills are to be considered in relation to the requirements of your present job and are not to reflect on your own ability to perform a particular skill.)

SKILLS REQUIRED BY SENIOR MANAGERS

Fig.6 % Ranking the required degree of skill as:-

SKILL	High	Med/High	Medium	Med/Low	Low
1. Peer	62	2	27	-	9
2. Leadership	82	-	16	-	2
3. Conflict - Resolution	48	-	38	-	14
4. Information Processing	45	-	38	-	14
5. Decision making under ambiguity	66	2	30	-	2
6. Resource Allocation	32	2	41	-	25
7. Entrepreneurial	54	2	26	-	18
8. Introspection	39	4	50	-	7

SKILLS REQUIRED BY MIDDLE MANAGERS

Fig.7 % Ranking the required degree of skill as:-

SKILL	High	Med/High	Medium	Med/Low	Low
1. Peer	59	2	37	-	2
2. Leadership	57	2	35	-	6
3. Conflict - Resolution	33	2	31.5	2	31.5
4. Information Processing	55	4	37	-	4
5. Decision making Ambiguity	43	2	22	4	18
6. Resource Allocation	30	2	50	-	18
7. Entrepreneurial	28	-	33	2	37
8. Introspection	35	5.5	54	-	5.5

(Adapted from Letheridge 1975 p 53)

Please rank the importance of each skill as either: H (highly important); M (medium importance); or L (low importance).

* Is this list of eight skills comprehensive?

* Are there any additional general management skills you can think of?

10.3:16 Letheridge found that there was some measure of agreement that one significant general skill was missing from the list, ie, the skill of 'relating upwards', maintaining good relationships with and understanding of the boss or bosses. Others proposed were 'tenacity', 'truth', 'helicopter view' and 'environmental perspective'.

10.3:17 Bearing in mind Letheridge's aims in carrying out the work (Section 10.3:15) the findings of the research, and the conclusions drawn seem to be a little restricted. Whilst the eight skills are regarded by all the subjects as being very important, the skill considered as least important by the senior managers was allocation of resources. This view seems to be directly in conflict with the traditional economic view of management which lays great stress on this element (in fact many definitions of management include 'allocation of scarce resources' as the major management task area). Letheridge followed up this point, and when questioned, the senior managers' explanation was that this aspect of the work could be delegated. Interestingly enough the middle managers also rated allocation of resources as one of the least important skills, leading Letheridge to pose the question 'to whom exactly was this crucial task

referred?' (Letheridge 1975 p 53). He suggests that information processing like resource allocation requires analytical ability and as this was another skill ranked relatively lowly perhaps this could lead to the unflattering conclusion that 'British managers make a virtue out of necessity; that being neither numerate nor versed in the techniques of quantitative methods, they subconsciously under-rate the importance of those skills which require some technical ability' (Letheridge 1975 p 53). The overall impression he gained seemed to be that middle managers rated the eight skills as less important to them probably because 'middle managers have to concentrate more on the functional know-how required for their own jobs and consequently value the general professional management skills less highly than top management' (Letheridge 1975 p 112). What this work seems to lack is a comparison between what managers claim they regard as being most important and which areas they actually emphasise, on a day to day basis, by means of time allocation and delegation of tasks. Too much seems to hinge on the rather naive assumption that the managers answering the questionnaire are able to make an objective assessment and therefore provide an answer that does not reflect their 'own ability to perform a particular skill', or indeed some other personal characteristic.

10.3:18 How do Managers Develop In the 1970s Charles Margerison carried out an extensive piece of work using postal survey methods. He describes his work as an essentially practical study, 'Rather than theorise about leadership I have gone out and asked Chief Executives straight forward questions about what they do and how in their view they have succeeded in the positions they now occupy' (1980a

p 2). Margerison set out, based upon information obtained from questionnaires, to draw inferences about the way organisations should be looking at the development of chief executive material. The motivation for the work was the idea that whilst most companies have 'management development programmes' these are usually confined to 'manpower auditing and forecasting, establishing job descriptions, introducing appraisal procedures, putting promotion processes on a more formal base and of course facilitating training and development' (Margerison 1980a p 3). He goes on to say that the measures indicate 'little about the individual managers and the range of experiences they need to learn their job' (1980a p 3).

10.3:19 Margerison started by personally interviewing 20 chief executives, this produced a number of statements and observations. These were then used to construct a questionnaire which was sent to 937 chief executives on 'The Times' top 1000 list of companies. The questionnaire asked mainly for factual information about the number of jobs, age on entry etc of each, it also asked the executives to rate on a scale of importance from 1 (low) to 100 (high), the major influences which had helped them develop as managers.

10.3:20 The following (fig 8) is a summary of the responses received:-

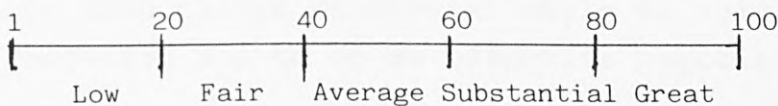
Replies	252 received (208 used)
Employment	2.9 (SD 2)
Jobs	8.1 (SD 4.8)
Senior Manager (Age)	32 (SD 5.3)
Chief Executive (Age)	41 (SD 7.8)

Margerison expresses satisfaction with a response rate of 1 in 4 and concluded that only those with a real interest in the research had been motivated to complete the questionnaire. Based upon the replies received he produced a rank order of the major influences felt by the chief executives to have most helped them develop as managers (fig 9):-

Fig.9 What major influences have helped you develop as a manager?

Rank Order	Statements	Score out of 100	SD
1	Ability to work with a wide variety of people	78.4	16.4
2	Early overall responsibility for important tasks	74.8	18.0
3	A need to achieve results	74.8	21.6
4	Leadership experience early in career	73.6	22.8
5	Wide experience in many functions prior to age 35	67.6	23.6
6	An ability to do deals and negotiate	66.4	21.6
7	Willingness to take risks	62.8	21.6
8	Having more ideas than other colleagues	61.6	22.8
9	Being stretched by immediate bosses	60.4	26.0
10	An ability to change managerial style to suit occasion	58.8	24.4
11	A desire to seek new opportunities	56.8	25.6
12	Becoming visible to top management before age 30	56.0	26.4
13	Family support (wife/parents)	55.2	29.2
14	Having a sound technical training	54.8	26.0
15	Having a manager early in your career who acted as a model (from whom you learnt a lot)	52.0	27.6
16	Overseas managerial/work experience	41.2	30.0
17	Experience of leadership in armed forces (peacetime/wartime)	40.4	33.6
18	Having special 'off the job' management training	32.8	24.4

Scale of Importance



* SD refers to one standard deviation from the mean.

(Margerison 1980a p8)

10.3:21 It is clear from fig.9 that chief executives saw the ability to work with people as the key factor, followed by experience and a personal need to achieve results. They seemed to regard their own progression as a function of the kind of person they are, together with important experiences at the right time. In general, things that were close to them, eg, off the job training in management, were rated lowly. One problem here does seem to be that not all the chief executives had actually experienced some of the factors they were rating (for instance, off the job management training), this must cast some doubt upon the validity of the findings in certain areas. Generally, it appears to be the things that the managers chose to do themselves that they rate most highly. Margerison examined correlations between items to see where strong relationships existed. Factor analysis suggested three major influences on management development success:-

- * Personal Characteristics; such as needing to achieve results, willingness to take risks, desire for new opportunities and having more ideas than colleagues.
- * Strength of Personal Relationships; reflected in the ability to work easily with others, relations with family and a perceived ability to both change managerial style to suit the occasion and to be an effective negotiator.
- * The importance of having people early in one's career who provided opportunities and a source from which to learn managerial skills.

(These factors accounted for 38% of the variance -
Margerison 1980a p 9)

10.3:22 Preferred Methods of Working Another of
Margerison's questions which has relevance for this
research concerns the chief executive's preferences
with regard to approach to work. He selected six
different approaches based upon the work of Holland
(1973) who identified six major preferences in the
way that people go about their work.

* REALISTIC

* INVESTIGATIVE

* ARTISTIC

* SOCIAL

* ENTERPRISING

* CONVENTIONAL

The chief executives were asked to rate these on a
1-25 scale (the scores were later multiplied up to
give a score out of 100) ranging from 1 - 5 = low
preference to 21 - 25 = high preference.

A summary of the results obtained is given in Fig.10 below:-

Method	Definition	Average Score	SD
A REALISTIC	Prefers: concrete, tangible work rather than abstract and conceptual. Prefers technical work, tangible matters requiring physical skill rather than situations where he has to meet a lot of people.	36	23.2
B INVESTIGATIVE	Prefers: work allowing time to understand how things really operate. Enjoys ambiguity where he can think things out for himself. Enjoys exercising curiosity, discovering causes of events.	51	21.6
C ARTISTIC	Prefers: work allowing freedom of expression of artistic ideas. Likes to be independently creative, working on problems of own choice. Does not like being cramped by people or routine.	40	24.4
D SOCIAL	Prefers: work giving the opportunity to meet people, share ideas. Enjoys helping others, influencing thoughts and behaviour.	72	19.2
E ENTERPRISING	Prefers: work offering choice to be enterprising, developing and trying new ideas. Likes to deal with problems which are hard to define but require ability to organise people to meet the challenge and succeed in risk situations.	79	15.6
F CONVENTIONAL	Prefers: work with a clear set of organisation relationships and a specific job of work to be done. Like to get things in order to avoid fuzzy or ambiguous situations. Likes clear systems and not long periods in discussion.	65	23.2

(Adapted from Margerison 1980a p 25)

The rank order for the item is:-

1. Enterprising
2. Social
3. Conventional
4. Investigative
5. Artistic
6. Realistic

10.3:23 Margerison felt that this section 'provided some clear information about chief executives' work preferences. It provides some guidelines against which we can measure the attitudes as well as the skills of people who are moving into senior positions' (Margerison 1980a p 26).

10.3:22 What Can Be Developed in the Manager? In a further article relating to the same piece of research (Margerison 1980b) Margerison further develops his theories about management development. Considering the fundamentally important question about whether it is possible to change personality and its expression through behaviour, he puts forward the view that 'we are unlikely to be able to change people from what they are. They will be what they want to be. However we can help develop a language and skills for communication which will help individuals communicate more clearly and understand others' (Margerison 1980b p 12). For Margerison the importance of his work was that it emphasised the value of certain kinds of work experience. In particular it showed a need for that which extends the individual's range of established personal characteristics. He concentrated therefore on 'existential approach' which 'involves helping managers map their current

situation and understand their preferred way of working and leading' (Margerison 1980b p 13). In this way he hoped to provide a framework to help executives and managers understand and manage their own development.

10.3:25 Crossing Over Margerison in all his work lays great emphasis on the importance of 'crossing over', ie, the period of time around the change from largely technical work to largely managerial work. He sees the role of the trainer during this time as not only providing information about the necessary knowledge and skills that will be required but also helping to provide the budding senior manager with 'a particular insight into his own and other people's way of living' (1980b p 14). The research which he undertook convinced him that managerial work 'is a major way in which a person reflects his personality' (1980b p 14). He believes that if there is to be any real understanding of what is required in management development, more time must be spent in enabling managers to 'understand both themselves and others' (1980b p 14).

10.3:26 Exploration of Task Preference The ideas developed in his earlier work were used by Margerison as the basis for a series of workshops where senior managers were encouraged to explore their own leadership style. To facilitate this he produced a discussion framework based upon the ideas of Carl Jung, more particularly built around for major questions posed by Jung:-

* What sort of
relationship

Towards an
extroverted approach

do we prefer
with others?

or an introverted
approach.

* How do we prefer Towards a practical
to gather the contact approach or
information required towards a creative
for us to do the job? insight approach.

* How do we prefer to Towards an emphasis on
act in given deciding or towards an
situations emphasis on knowing
more about the situation.

which he summarises as follows:-

HOW WE MANAGE
Central Factors

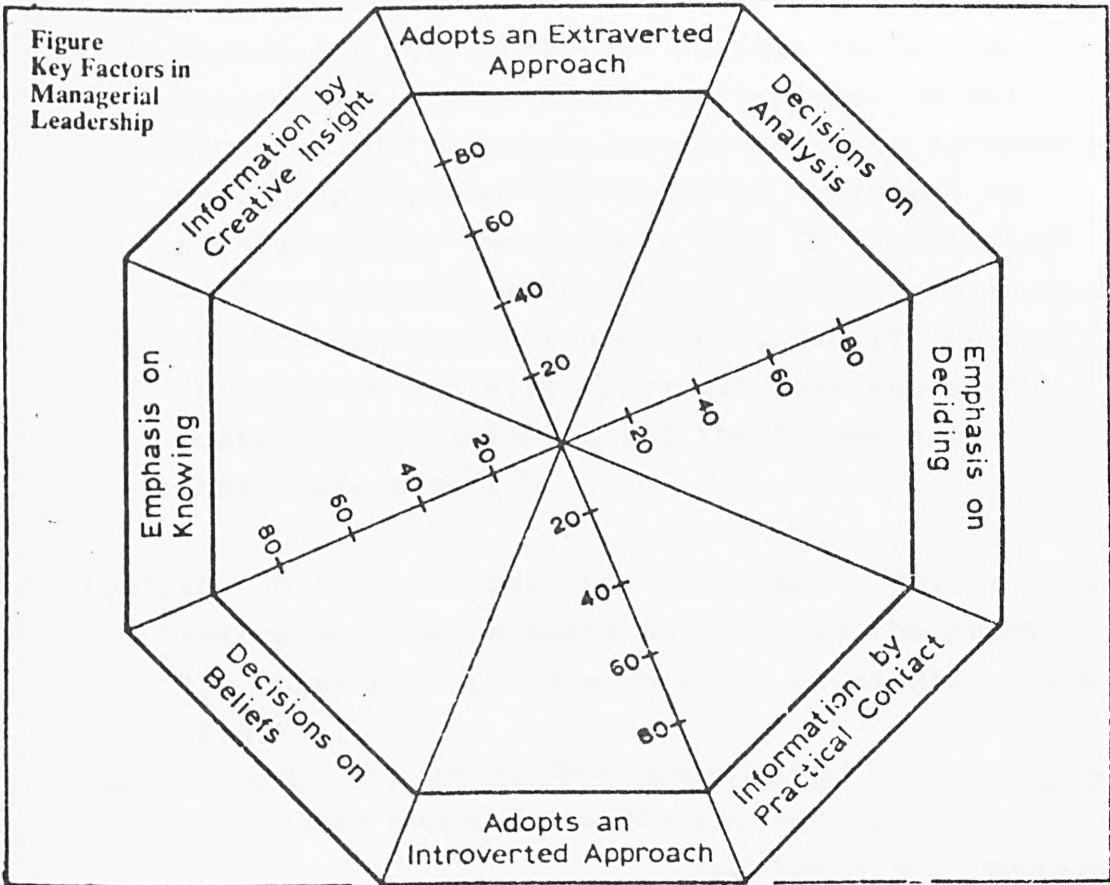
EXTROVERT	MANAGING	INTROVERT
APPROACH	RELATIONSHIPS	APPROACH
PRACTICAL	GAINING	CREATIVE
CONTACT	INFORMATION	INSIGHT
ANALYTICAL	MAKING	PERSONAL
REASONING	DECISIONS	BELIEFS
DECIDING	ESTABLISHING	KNOWING
AND	PRIORITIES	AND
RESOLVING		UNDERSTANDING

(C.Margerison. Unpublished report 'The Chief Executives' Management Development Survey)

10.3:27 Personal Mapping Whilst recognising that everyone has some preference for all the factors mentioned above, Margerison set out to determine which were dominant amongst chief executives. He

constructed a model (Fig.11) to indicate the way in which these factors are linked together and to enable his managers to map out their expressed personal preferences.

Figure 11 Key Factors in Managerial Leadership



According to Margerison, therefore, people can have a preference between being more or less introverted/extraverted in the way they organise their work. Similarly some prefer to gather data in practical, tangible ways; other rely upon little fact, using imagination, insight, 'hunches', to generate their information. With regard to decision making, some individuals are seen to be more concerned with the use of detached analysis and objectivity, others make decisions in accordance with what they believe to be right, and relate facts to personal convictions. Finally, with regard to controlling or managing information, some people prefer to establish order and to resolve issues immediately they feel sufficient evidence is available; others prefer to understand problems in considerable depth, require more information and will carry out more research, postponing decisions until the issues are absolutely clear.

10.3:28 Using questions from the Myers - Briggs Type Indicator test, Margerison compared the profiles of his chief executives with those of middle managers (Fig.12):-

Fig.12 A Comparison Between Chief Executive and Middle Managers

Chief Executives and Managers Profiles		
	Chief Executives N = 191	Managers N = 374
Extravert approach relates by outward searching	68%	51%
v		
Introvert approach relates after quiet reflection	32%	49%
Information by practical contact	45%	69%
v		
Information by creative insight	55%	31%
Decisions on analysis	77%	72%
v		
Decisions on beliefs	23%	28%
Emphasis on doing	73%	76%
v		
Emphasis on knowing	27%	24%

It can be seen that the main areas of difference lie in the first two categories: Introvert/Extrovert approach, and Information by Contact/Information by Creative Insight. Whilst differences in the second category can be explained in terms of the relative remoteness of the two managerial levels from direct sources of information, the differences in expressed preference for an Introverted or Extroverted approach to the job may be a distinguishing feature of chief executives. The figures should however be treated with great care as the chief executives are a self selected sample who voluntarily responded to a questionnaire, ie, they may simply be a sample of extroverted individuals. Whereas the middle managers were a sample taken from people on management courses, who had completed the questionnaire as an integral part of their study programme and therefore had little if any choice. What is important for Margerison, however, is that concepts such as 'personal mapping' can be used to provide valuable data to aid the process of leader development.

10.3:29 His work with senior managers 'indicates clearly that personal characteristics and ambitions are a vital ingredient in the leadership process' (1980a p 16) and for Margerison the task of the specialist adviser is 'not to tell leaders how to manage but have them understand their own personal preferences and the way in which they can be most effective in the job they have' (1980a p 17). He quite clearly believes that management development is unlikely to be able to change people's characteristics (if this is in any case a desirable aim). What it can do is teach the skills necessary to allow individuals to understand both themselves,

and others, better and perhaps as a consequence improve the appropriateness of the overt expression of those characteristics.

10.3:30 Margerison's work provides an interesting contrast in approach and research philosophy when compared with the work activity oriented researched, concerned as it is with managers feelings about the way they carry out their jobs. In examining his conclusions, however, the following points should be borne in mind. First of all, the bulk of his subjects were self selecting, ie, only those who were interested, extroverted, had enough time (or whatever else) replied. Secondly, the chief executives were in fact only recording their own attitudes and opinions about the way they carry out their job NOT how they actually carry out their job. Thus, what may be being demonstrated is perhaps a view of what the chief executives feel they ought to be (or be doing); or what they feel they would like to be seen to be (or be doing), rather than what they really do, or are, in relation to work. Whilst, therefore, Margerison's factual findings about the broad biographical background of this particular group of chief executives (which may not be at all representative of the 937 who were approached), are of interest, some caution must be exercised when generalising from the findings about expressed preferences, etc. What the research may be providing is a more or less valuable representation of chief executives attitudes to managerial work and management development, rather than a picture of characteristics of chief executives' work behaviour.

10.4 Unstructured Observation

10.4:1 Unstructured observation seems, from the small amount of published material, to be the least used method of studying managerial work. The reasons for this evident unpopularity amongst researchers probably lie in the type of unsystematic data that the technique produces. This lack of fundamental structure in collection can give rise to major problems with: loss of data at the study phase; difficulty in analysing results; and findings which are often difficult to replicate because of the improbability of being able to reproduce exactly the same conditions.

10.4:2 'Anthropological Studies' of Work Content One major study has, however, been carried out, by Leonard Sales (1964), using a method which he refers to as 'anthropological'. Sayles studied the work content of the jobs of lower and middle managers in a large American corporation. His technique was to move freely through the company collecting whatever information struck him as important. Using this approach Sayles succeeded in generating data which sheds a degree of light not achieved by many of this more rigorously scientific contemporaries, upon the subject of the manager and his work. he tried to achieve a feel for what managerial tasks and functions were about 'by living within a culture for extended periods of time to comprehend significant relationships and attitudes - even those which may depart from his pre-dispositions and expectaions' (Sayles 1964 p 7).

10.4:3 The study is loose, shows little evidence of sytematic research, and contains even less hard data or evidence from the field studies carried

out. Sayles is however, quite unrepentant about his approach, 'we make no pretence of having conducted a scientific experiment, so we are not proposing scientific hypotheses backed by systematically collected validating data. Rather we have looked and pondered for a long time and then developed a scheme of analysis, by which we mean simply that minimum number of concepts which would explain what was happening' (Sayles 1964 p 8). Data collection consisted of interview and almost random observation of the work of 75 lower and middle managers. Despite the inherent difficulties with information obtained in this way Sayles' findings seem to demonstrate an appreciation of the complex, dynamic nature of the manager's job.

10.4:4 He carries out his analysis under three major headings, each describing one aspect of managerial work:-

- * The manager as a participant in external work flows.
- * The manager as a leader.
- * The manager as a monitor.

10.4:5 Managerial Relationships Sayles sees the manager exercising his role as a participant in external work flows by establishing relationships outside his formal line of responsibility. He describes seven relationship types (Fig.13).

FIG.13 MANAGEMENT RELATIONSHIP TYPES

<u>RELATIONSHIP TYPE</u>	<u>CHARACTERISTICS</u>
TRADING	PURCHASING AND SELLING ARRANGEMENTS WITH OTHER MEMBERS OF THE ORGANISATION TO GET THE JOB DONE.
WORK FLOW	CONTACTS CONCERNING WORK PRECEDING OR FOLLOWING THE JOB CURRENTLY IN HAND.
SERVICE	CONTACTS GIVING OR RECEIVING SPECIALIST SERVICES (TYPING, MAINTENANCE, ETC.)
ADVISORY	PROVISION OF COUNSELLING, ADVICE TO LINE MANAGERS BY EXPERTS (INDUSTRIAL RELATIONS, WELFARE, ETC.)
AUDITING	CONTACTS WITH THOSE EVALUATING, OR MONITORING, OR APPRAISING WORK. (QUALITY CONTROL, WORK STUDY, ETC.)
STABILISATION	CONTACTS WITH THOSE WHO EXERCISE CONTROL OVER OR APPLY LIMITS TO THE MANAGER'S DECISIONS IN ACCORDANCE WITH POLICY (PRODUCTION SCHEDULING, FINANCE, ETC.)
INNOVATIVE	CONTACT WITH GROUPS PROVIDING A RESEARCH FUNCTION.

The exercise of external contacts was observed to be extremely time consuming and important to the manager's job. Sayles sees the individual manager's concern for particular types of relationship as reflecting his sense of priority in terms of his drive for stability and the avoidance of disruptions in the work process.

10.4:6 The Manager as Leader In his role as leader, the manager is seen to focus upon his relationships with subordinates, leading to downward vertical contacts rather than horizontal or lateral. Sayles identifies three types of leader behaviour (Fig.14)

FIG.14 TYPES OF LEADER BEHAVIOUR

BEHAVIOUR	CHARACTERISTICS
DIRECTION	GETTING SUBORDINATES TO RESPOND SIMULTANEOUSLY TO THE ACTIONS OF THE MANAGER.
RESPONSE	RESPONDING TO INITIATIONS FROM SUBORDINATES SEEKING AID OR SUPPORT.
REPRESENTATION OR INTERVENTION	ACTING FOR SUBORDINATES, BY CONTACT WITH OTHERS INSIDE AND OUTSIDE THE ORGANISATION

10.4:7 The Manager as a Monitor As a monitor, the manager appraises and oversees his internal and external relationships, the performance of his management unit, in a search for situations which require his personal intervention. Sayles sees this as accomplished not through a process of measuring results but by the assessment of the progress of work through the system. Thus, the manager implements the necessary checks, receives reports and review data from whatever sources are open to him. Where variance is detected, the causes and effects are examined for significance in terms of the whole process, and action is either initiated or not. The objective of the manager is not to maintain a static system but to develop 'a dynamic type of stability, making adjustments and re-adjustments to both internally generated and externally imposed pressures. By these responses to changes in the environment, he hopes to maintain a moving equilibrium' (Sayles 1964 p 163).

10.4:8 Sayles' view appears to contrast quite sharply with some of the earlier ideas about managerial work. His descriptions clearly do not match the classical notions of well defined lines of authority, maximisation of gain and compartmentalised responsibility. He stresses, the open ended flexible nature of the manager's job; the need for continual, marginal adjustment, and the concept of interdependency through relationships. 'For the most part, the manager operates on a contingency basis trying to detect where the system of human relations may break down. Insofar as his control measures enable him to identify problems, he seeks through remedial changes to return the system to equilibrium. This

requires changes in his behaviour and efforts to change the behaviour of others. Failing here and in situations where such deviations occur with significant frequency, the manager seeks to introduce structural change' (Sayles 1964 p 256-257).

10.4:9 Executive Role Constellations Richard Hodgson, Daniel Levinson and Abraham Zaleznik studied a team of three top executives in an American hospital. Based upon that study they wrote a book entitled 'The Executive Role Constellation' (1965). In this work they examined, in particular, the way in which work and 'socio-emotional' roles were divided amongst the three managers. The research was carried out as a series of unstructured observations. It is a study, not of work, or task orientation, but an exploration of personal and interpersonal behaviour. Hodgson, Levinson and Zaleznik 'make no attempt to divorce work style from work content' (1965 p 68). They introduce in this study the concept of 'role task work', 'the sustained and directed effort of mind in which the person seeks to synthesise the organisation requirements of his position with his own individual needs, interests and aspirations' (1965 p 231). Amongst the three man management team they recognised a set of task specialisations related to personality characteristics, these were delineated as follows:-

- * The Superintendent's role consisted of 'relating the organisation to its environment' whilst exercising 'assertiveness and control'.

- * The Clinical Director operated 'the clinical services within the organisation' whilst demonstrating 'love and supportiveness'.
- * The Assistant Superintendent specialised in innovative activities that resisted tight integration into the control flow of administrative routine', and expressed emanations of, 'friendliness and egalitarianism'.

The authors called this division of responsibility, task and function an 'executive role constellation'. They emphasise their assertion that specialisation and concentration of effort in particular work areas grows up around personal preferences; the idea that roles adopted and tasks selected for personal attention have 'important roots in the executive's personality' (Hodgson et al 1965 p 477). The analysis of Hodgson and his associates, using task/emotional dimensions leads to interesting conclusions regarding the idea of job variations rooted in the consciously or unconsciously expressed preferences of the manager and indicates a clear need for further research in this area.

10.5 Structured Observation

10.5:1 Structured observation techniques have been widely used as a method of studying the manager and his job. Approaches that fall under this general heading do however appear to vary, from systems closely akin to diary study methods, where the researcher categorises activities as they occur into pre-labelled boxes: to the comprehensive methodology of Mintzberg. He recorded all activities, structuring his data both during the observation and later during analysis

in order to provide sufficient flexibility within descriptive categories to cope with the more complex and less well understood aspects of managerial work. Different workers have also adopted different means of arriving at a representative view of the manager's job. Some, like Mintzberg, have continuously observed the manager, others have taken samples of his time either on some form of random basis or using pre-set time intervals. The underlying similarity between the techniques described here is some attempt by each researcher to use a pre-determined, structured strategy for the collection of data.

10.5:2 Activity Sampling One typical approach is based upon the concept of 'activity sampling' (a modified work study technique), this is the method adopted by Kelly (1964 and 1969) and Wiridenious (1958). Both workers attempted to build up a statistically significant sample of observations by examining managerial behaviour at random time intervals. Joe Kelly used activity sampling to study the work of four section managers in an American metal processing firm. He made almost 3,000 random, short, observations of behaviour over a period of three weeks. The information gathered in this way was instantaneously classified into pre-determined categories, producing data very similar to that generated by diary studies.

10.5:3 Kelly describes the contacts of the section manager as follows, 'He spends two thirds of his time with other persons; a fifth of his time with his unit manager, a third with his colleagues; and half with his subordinates' (Kelly 1964 p 284). With regard to the nature of the manager's work

Kelly found that it was 'mainly programming (a half), followed by technical (a quarter), and only a little personnel work (a tenth)' (Kelly 1964 p 284). For Kelly, 'the job, not the individual or his characteristics, determine what a manager does. The manager spends much time on the close detail of work, he is a "task specialist" ' (Kelly 1964 p 285). Crucially, and perhaps in conflict with the findings of other workers, Kelly concludes that 'the task is the principal determinant structuring the behaviour of section managers. What follows as a corollary is that personal factors are of limited significance in determining his behaviour' (Kelly 1969 p 355).

10.5:4 Wirddenius' book is, in the main, concerned more with an analysis of activity sampling as a method of studying work than with the work being studied. he refers to studies carried out in three separate organisations, devoting much of his time to questions of validity and reliability. Wirddenius observed 10 to 12 supervisors by following pre-determined, randomly selected tour circuits of the factory floor. Each subject was observed and interviewed briefly every two hours on average. To test reliability he used two observers to study the same supervisor and compared the results obtained. His work also contains as assessment of the reliability of observations made by superiors and an analysis of the influence of the presence of an observer upon behaviour of a subject. The results of the work are somewhat inconclusive. Wirddenius did, however, find that observer influence was, in most cases, insignificant; in the remainder of cases the effects were seen only at the very beginning of the study.

10.5:5 Methods employing activity sampling effectively take small slices of behaviour. The observer is not in a position to experience the total behaviour of the individual manager and consequently can easily miss the context of particular activities. This leads to inevitable problems with the interpretation of findings, especially with respect to complex activities like diary studies, activity sampling seems to be extremely effective when behaviours are well understood and accurate, simple categories can be devised to allow rapid consistent coding.

10.5:6 'Pre-Coded' Systems In the 1950s, whilst the detailed study of the work of senior managers received relatively little attention (for a number of reasons, not least of which perhaps, was an unwillingness at that time for senior managers to become the subject of research), there were a number of studies carried out which were directed at the work of first line supervisors. Ponder (1957) attempted, using observations, to identify differences in the way that 'effective' and 'non-effective' foremen carried out their work. The effectiveness of each foreman was initially determined using ratings obtained from both the man's boss and his subordinates. each foreman was then observed over a four month period for a total of 16 hours. The data collection method utilised a pre-coding system similar to the ones described in the section relating to diary studies.

Ponder's findings were (Fig.15):-

Fig.15 Comparison of Work Activities of Effective and Ineffective Foremen

	EFFECTIVE	INEFFECTIVE
<u>Activities</u>		
No.of distinct activities per day	200	270
<u>Contacts with Subordinates</u>		
Personal matters	23%	12%
Production matters	20%	40%
<u>Contacts with Others</u>	32%	20%

More generally, Ponder found that the effective supervisor initiated fewer contacts delegated more tasks and issued less precise instructions allowing a greater degree of flexibility for subordinates. He commented that the work of all the foremen studied was characterised by 'considerable discontinuity'.

10.5:7 In 1956 Guest and Jasinski reported the results of a study of 56 foremen. Each of the subjects was observed for one day and minute by minute records were kept of incident, time, topic, activity involved, place, contact and nature of the interaction. The foremen studied averaged 583 incidents per day in a range from 237 to 1,043. Guest reports (1956 p 48) 'Every 48 seconds of the day the Foreman was doing something different'. The following characteristics of supervisory work were identified:-

- * Lack of idle time
- * Constant interruption and fragmentation
- * Simultaneous competing and pressing problems
- * Variety of contacts (rarely less than 25 per day and often more than 50)
- * Number of horizontal and lateral relationships maintained (about two hours per day)

10.5:8 Other researchers: O'Neill and Kubary (1959); Landsberger (1962); Radomsky (1967); and Mintzberg (1968 and 1973) have used a variety of systematic forms of observation to study managers and their work. Most of the studies utilise a limited number of pre-determined recording categories, there has been a tendency therefore for the results of some of the studies to replicate the type of findings derived from research using diary recording techniques, ie, time distributions of those dimensions of managerial work perceived by the researcher (or other researchers) to be important. The method does avoid some of the problems inherent in diary studies, mainly because recording pads are completed by the researcher and not the manager. This appears to ensure:-

- * That coding is carried out consistently.
- * That managerial time pressures do not determine which activities are recorded and which are not.

Despite these advantages, the method still retained the difficulties associated with the use of small numbers of pre-determined codes for the study of complex behaviours.

10.5:9 Inductively Derived Categories for Managerial

Work Concluding their survey of the relationship between managerial behaviour, managerial performance, and organisational effectiveness, Campbell, Dunnett, Lawler and Weik (1970 p 479) noted that there was a need to find improved methods for observing and recording managerial job behaviour. They called for the development of a taxonomy of managerial tasks founded on behaviourally relevant bases established from observations and records of what managers actually do. In 1964 McGrath had suggested, in a paper concerned with organisational research, a system of data collection which seemed to offer the flexibility of unstructured observation combined with the structure imposed by the systematic recording of hard data. The proposed approach was to record all activities and construct categories both during data collection and subsequently during the analysis phase. Henry Mintzberg (1973) sought to provide the needed taxonomy by conducting a major longitudinal study of managerial work. He attempts in his research, using a methodology based upon the suggestions of McGrath, to couple the need for inductive freedom particularly in the approach to complex managerial activities, with the methodological rigour derived from a structured approach to data collection and analysis.

10.5:10 The Nature of Managerial Work In 1973 Mintzberg produced a book entitled 'The Nature of Managerial Work', this publication was based upon a study of five chief executives originally conducted for a Phd. thesis completed in 1968. The study was designed to focus upon the following aspects of

managerial work:-

- * The job not the man;
- * Basic similarities in managers work, rather than basic differences;
- * The essential content of the work, rather than peripheral characteristics.

Mintzberg refers to his methodological approach as:-

INDUCTIVE

The purpose being to describe what was not known, to develop from a study of specific managers to a general statement of managerial role.

COMPREHENSIVE

To capture and describe not specific incidents, but the job of managing.

INTENSIVE

To probe deeply the complex set of managerial activities.

10.5:11 Structured observation was chosen because it seemed to provide a means: to develop theory inductively; to observe directly; to question intensively; and to be at the same time systematic. The method did however restrict sample size and because of this, less quantitative data was generated than in many diary studies. Effectively what Mintzberg did, because of his strong interest in content, was to trade breadth for depth. He looked for a delicate balance in his observational technique, too little structure

would have probably led to a loss of potentially important data, too much would have given rise to inflexibility and an inability to cope with the unexpected.

10.5:12 In practice, all activities and incidents were observed and described on a continuous basis, the elements recorded were described in terms of duration, participants and purpose. Categories were developed during observation and later during the evaluation of records. Mintzberg saw this approach as potentially providing a more objective categorisation than from experience or the literature. Additionally, because detailed information is recorded, very little is lost at the collection stage and the field record provides an opportunity for later re-evaluation or cross validation of categorisations if required. As a preliminary to the data collection phase he obtained: a months worth of scheduled appointments, collected from diaries, secretaries etc. and these were analysed for place, duration and participants; information about the organisation, organisational charts, articles, speeches, annual reports, etc; any information about the manager's background, personality, style, leisure activities, etc. The aim of this was to familiarise himself with the man and his organisation.

10.5:13 During the observations two types of data were collected:-

ANECDOTAL DATA

accounts of specific activities, interesting or critical incidents. This was used to

facilitate coding and to develop and support theory.

STRUCTURED DATA comprising:

- * Chronological Record
(times and basic activities)
- * Mail Record
(the nature of mail received)
- * Contact Record
(meetings, telephone calls, tours, etc.)

(The mail and contact record were cross referenced to the chronological record).

It was through the collection and analysis of this information that Mintzberg developed his categorisation system 'the essence of the inductive process is in the successive iterations of the processing of raw field data - recording, tabulating, coding and recording, analysing these results - until meaningful true conceptualisations appear' (Mintzberg 1973 p 233).

10.5:14 With regard to choice of subject, the methodology imposed restrictions upon the sample size. Mintzberg decided, therefore, to study five managers, each for a period of one week. Rather than attempt to assemble a comprehensive mixture (which would have been difficult with only five subjects) he chose experienced chief executives of medium to large organisations. This choice was based upon three factors:-

- * The ease of understanding the overall role of the post holder.

- * The acceptance of the researcher's presence was down to one person.
- * Organisation materials would provide insight into the chief executive's job, style, etc.

Only experienced managers were selected as it was felt essential that individuals' activities should have had time to stabilise. The managers selected were:-

- A Chairman and chief executive of a firm of consultants;
- B President of a research and development company;
- C Head of a large urban hospital;
- D President of a firm producing consumer goods;
- E Superintendent of a suburban school system.

The individuals and their jobs showed a number of shared features: position in the firm; basic organisational structure; the success of the organisation; the background of the manager, all came up through the line and were college educated (only one possessed MBA).

10.5:15 Mintzberg's Findings The results of Mintzberg's study are comprehensive and detailed. Generally, therefore, the data quoted here are in summary form. His chronological record gives a good indication of the general split of the manager's time (see Fig.16)

Time	Time spent on each of the tasks	
Planning and organising	Time spent on each of the activities	

Fig.16 Analysis of Incoming Mail by Purpose

CATEGORY	DESCRIPTION	%
Acknowledgements	Requests made because of position in company	5
Status Requests	Three types:- a) Requests from peers b) Letters by others for signature c) Requests from independent others	12
Solicitations	From those selling goods, services etc.	5
Authority Requests	Seeking approval, decision, acceptance etc.	5
Reference Data	Internal and external data for refernece only	14
General Reports	Reports, books, clippings for detailed attention	8
Periodical News	Magazines, news letters	15
Events	Information about events improving on organisation activities	8
Reports on Operations	Reports about organisation operations	18
Advice on situations	From experts on specific issues	6
Ideas	From experts on specific issues	6
Problems and Pressures	Relating to specific problems demands or pressures	2

For outgoing mail the following categories (Fig.17) were used:-

Fig.17 Analysis of Outgoing Mail By Purpose

Category	%
Acknowledge Input	12
Reply to Written Request	33
Reply to Information Received	10
Forward Information to Subordinate	23
Forward Request to Subordinate (i.e. delegate handling of reply)	7
Write to Third Party re: Input	3
Acknowledge or reply to verbal contact	6
Write Report	2
Originate Letter or Memo	3

Mintzberg found that the letters or memos originated by the manager had one of three major purposes:-

- * Pressure subordinate to complete overdue work;
- * Inform superior;
- * Inform subordinate.

10.5:16 The Manager's Contacts For the contact record data were analysed both by frequency and by the proportion of time taken up by particular forms of contact. Overall Mintzberg found that the manager's day was 'characterised by a large number of brief, informal, two-person contacts (telephone calls and unscheduled meetings) and relatively few scheduled meetings, which nevertheless took most of their time' (1973 p 249). The contacts were divided according to purpose into thirteen different categories, seven of these dealing with secondary activities and requests, four with information flow, and two with decision making. Mintzberg's analysis can be summarised (Fig.18) as follows:-

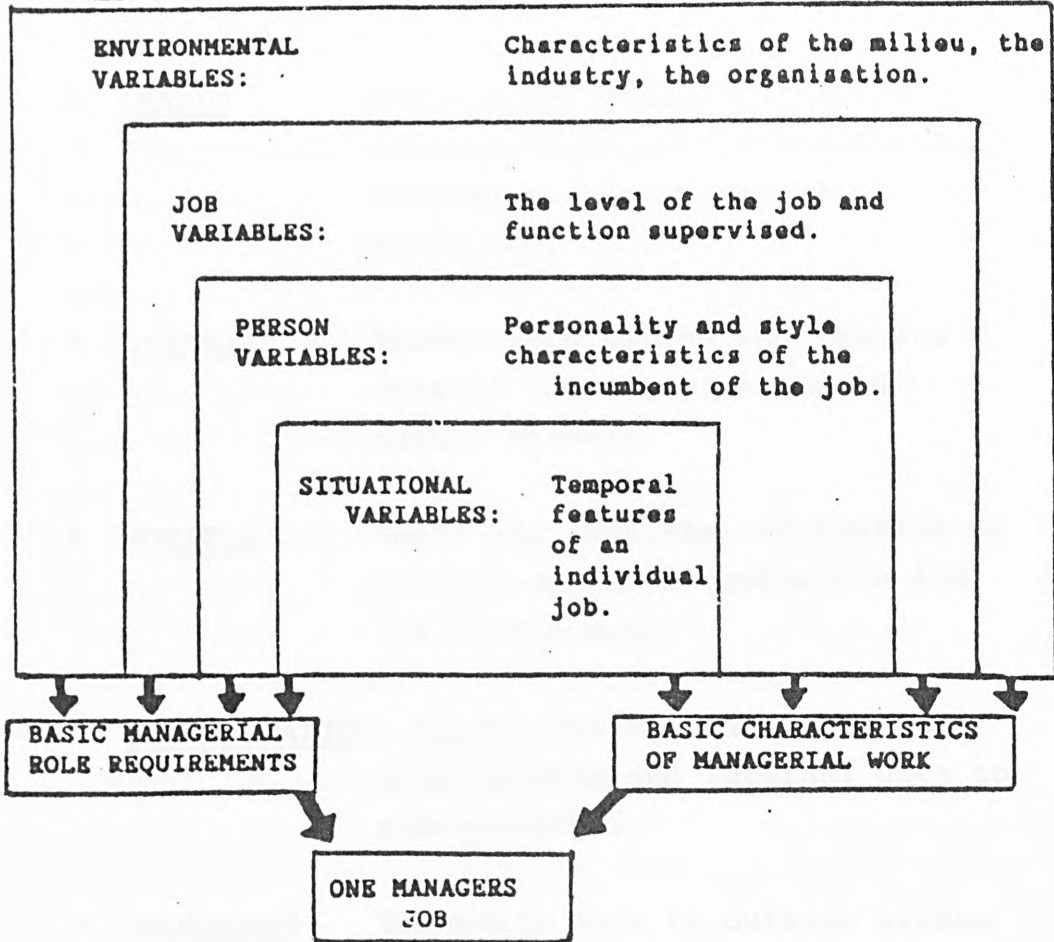
Fig.18 Analysis of Contacts by Purpose

CATEGORY	PERCENTAGE OF	
	NO.OF CONTRACTS	TIME SPENT
Organisational Work	3	2
Scheduling	15	3
Ceremony	6	12
External Board Work	2	5
TOTAL SECONDARY	23	21
Status requests and solicitations	5	1
Action requests	17	12
Manager requests	12	5
TOTAL REQUESTS AND SOLICITATIONS	34	18
Observational tours	2	1
Receiving information	14	16
Giving information	10	8
Review	10	16
TOTAL INFORMATIONAL	36	40
Strategy	6	13
Negotiation	1	8
TOTAL DECISION MAKING	7	21

10.5:17 Considering some of the contact categories in a little more detail, Mintzberg observed that the incidences of his subjects carrying out what he calls 'non-managerial work' were rare. Status requests and solicitations were usually made by telephone rather than fact to face. Action requests, seen as, important, frequent and time consuming were made up of: about 33% requests for approval; about 42% requests for information; 10% requests for action; and 18% requests to apply influence or power. Mintzberg regarded the receiving of information as a critical part of the manager's role. Interestingly around 30% of the data received was in the form of gossip, 'hot' opinion, etc; 28% was received in formal briefings; the remaining 30% by interviews and informal sessions. With regard to the data disseminated by the manager: 43% was of the 'instant' type. Review sessions were made up of; 30% 'deputy review', wide ranging discussions covering many issues in the company of close colleagues; 30% 'functional review', consideration of one functional area with a number of other people; the other 30% was a conglomeration of other types of review. The category concerned with strategy, whilst consisting of a small number of meetings was considered to be extremely important in terms of organisational decision making, as a consequence the meetings occupied a disproportionate amount of the manager's time.

10.5:18 A Contingency Theory Within the jobs of the individual managers Mintzberg found many variations and in his 1973 work he developed a 'contingency theory' to explain some of these differences. His model is shown schematically in Fig.19

Fig 19 A Contingency View of Managerial Work



(Adapted from Mintzberg 1973 p103)

10.5:19 Managerial Roles Mintzberg developed, from his categories of contacts, a basic framework of ten managerial roles which he believes can be used to describe the content of all managerial work:-

- * FIGUREHEAD The manager as a symbol of status and authority.
- * LEADER The manager exercising his relationships with subordinates, motivates, trains, hires, fires, etc.
- * LIAISON Trades information and favours outside the organisation for mutual benefit.
- * MONITOR Seeks and receives information to understand the organisation and its environment.
- * DISSEMINATION Sends external data into the organisation and internal data to subordinates.
- * SPOKESMAN Transmits data to outside groups in a public relations sense, acts as an expert.
- * ENTREPRENEUR Initiates and designs controlled change.

- * DISTURBANCE HANDLER Resolves internal and external conflicts.
- * RESOURCE ALLOCATOR Allocation of scarce organisational resources.
- * NEGOTIATOR Represents the organisation in major negotiations.

10.5:20 The Manager as a Specialist In Mintzberg's view, managers have been pictured traditionally, both by researchers and by individuals within organisations as 'generalists'. They are in fact, specialists required to perform a particular set of specialised roles. The roles suggest six basic purposes of management:-

- * Ensure efficient production of goods and services.
- * Design and maintain stability of operations.
- * Adapt in a controlled way to change.
- * Ensure the organisation serves the aim of those who control it.
- * Serve as a key information link between the organisation and its environment.
- * Operate the organisation's status system.

10.5:21 Referring specifically to the need for future research Mintzberg makes it plain that his theory of roles is not fully operational in the form presented. The chief problem is that there is 'not a simple one to one mapping of activities on

to roles' (1973 p 267). Some activities link with only one role, eg, ceremony - figurehead, others, such as meeting an outsider can link with several, eg, - liaison - spokesman - negotiator. The leader role links to every activity involving subordinates and the monitor role to every activity involving information inputs to the manager. Thus, the researcher studying precisely how much time a given manager spends in each of the ten roles must develop a clear system for mapping activity onto role. 'It may involve a few arbitrary decisions, but the overall result should be generally valid and useful' (Mintzberg 1973 p 268).

In the main:-

Figurehead	) Present few problems
Disseminator	) though the last
Liaison	) three do overlap to
Spokesman	) some small extent.
Negotiator	)
Entrepreneur	)
Disturbance Handler	) Overlap marginally
Resource Allocator	)
Leader	) Are the roles it is
Monitor	) most difficult to
	) define, independently
	) of the rest, in terms
	) of activities.

Mintzberg does suggest however that the proportion of time spent in contact with subordinates, for interpersonal reasons, is a good relative indicator of involvement in the leader role. The amount of time spent expressly receiving

information will probably give a reasonably accurate measure of involvement in the monitor role.

10.5:22 Considering the reliability of his findings, Mintzberg claims: that the one week periods were representative of each man's work; that the five managers studied showed characteristics of chief executives which compared with findings reported elsewhere (Sayles 1964; Choran 1969) and were in that sense representative; that there were important and basic similarities between the work of these men and managers at other levels. He offers the following evidence to support these assertions:-

- * Comparison of the scheduled work before and during the study showed great similarity.
- * The secretaries of the five men testified to the typical nature of the work carried out (as did the subjects themselves.)
- * Though the period of observation was relatively restricted, there were major similarities in the work activities of the five men despite marked differences in some aspects of the organisations served. In Mintzberg's words 'Not only did the five men do the same kinds of things, but for many of the activities the same general proportions held for all five men' (1973 p 258).
- * There were individual differences (explained by Mintzberg in terms of his contingency theory - section 10.5:17 Fig.9) but these do not appear to detract from common conclusions.

10.5:23 Managerial Myths In an article published in 1975 entitled 'The Managers Job - Folklore and Fact', using as a basis his earlier work, Mintzberg attempts to dispel some of what he regards as the mythology surrounding managerial work. According to Mintzberg, if a manager is asked what he does he will most likely tell you that he plans, organises, co-ordinates, and controls. If what he does is observed, however, it becomes very difficult to relate what is seen to what the manager believes he does. It does appear to be the case that: plan; organise; co-ordinate; and control, words which have been used to describe managerial work since Fayol coined them in 1916, in reality, tell us very little about what managers do. They seem at best to indicate some vague objectives that managers have, or perhaps would like to have, when they carry out their work. Referring to this problem and to the results of recent studies of managerial activity Mintzberg argues 'A synthesis of these findings paints an interesting picture, one as different from Fayol's classical view as a cubist abstract is from a Renaissance painting' (1975 p 51).

10.5:24 In this 1975 paper Mintzberg identifies (p51-54) four basic myths about the Manager and his work. In his view these commonly held theories do not stand up to careful scrutiny.

* The first myth quoted is the notion that 'The manager is a reflective systematic planner.' Mintzberg believes that whilst there is overwhelming evidence on this issue, none of it

supports this statement. On the contrary, 'study after study has shown that managers work at an unrelenting pace, that their activities are characterised by brevity, variety, and discontinuity and that they are strongly oriented to action and dislike reflective activities.'

- * The second myth considered is, 'The effective manager has no regular duties to perform.' Managers are constantly being told to spend less time seeing customers and engaging in negotiations and more time planning and delegating. In fact, 'In addition to handling exceptions, managerial work involves performing a number of regular duties, including ritual and ceremony, negotiations and processing of soft information that links the organisation with its environment.'

- * The third myth is 'The senior manager needs aggregated information, which a formal management system best provides.' In reality, 'Managers strongly favour the verbal media - namely telephone calls and meetings', a characteristic which seems to emerge from every detailed management study.

Mintzberg draws attention to two important points which follow on from this finding:-

- a) 'Verbal information is stored in the brains of people. Only when people write this information down can it be stored in the files of the organisation - whether in metal cabinets or on magnetic tape - and

managers apparently do not write down much of what they hear. Thus the strategic data bank of the organisation is not in the memory of its computers, but in the minds of the managers' (1975 p 53).

b) 'The managers extensive use of verbal media helps to explain why he is reluctant to delegate tasks. When we note that most of the manager's important information comes in verbal form and is stored in his head, we can well appreciate his reluctance. It is not as if he can hand a dossier over. The transmission of data takes time' (1975 p 53).

* The final myth explored is that 'management is, or at least is quickly becoming, a science and a profession.' By almost any definition of science or profession this statement cannot be true. In fact 'managers' programmes - to schedule time, process information, make decisions, and so on - remain locked deep in their brains.' In order to describe these programmes, observers rely on words like judgement and intuition, words which have been used generally to describe areas of activity not understood by the researcher.

10.5:25 Throughout all his work Mintzberg expresses dissatisfaction with the way in which much of the examination of managerial activity has been conducted. He appears to believe that a considerable amount of the published work serves only to obscure the real nature of management and the manager's job. His overall views seem to be neatly summarised as follows:-

'Considering the facts about managerial work, we can see that the manager's job is enormously complicated and difficult. The manager is overburdened with obligations; yet he cannot easily delegate his tasks. As a result he is driven to overwork and is forced to do many tasks superficially. Brevity, fragmentation, and verbal communication characterise his work. Yet these are the very characteristics of managerial work that have impeded scientific attempts to improve it. As a result, the management scientist has concentrated his efforts on the specialised functions of the organisation, where he could more easily analyse the procedures and quantify the relevant information' (Mintzberg 1975 p 61).

10.5:26 Use of Mintzberg's Concept of Managerial Roles to Categorise Managerial Activity In 1980 Shapira and Dunbar published the results of two studies carried out to test Mintzberg's concept of ten managerial roles classified into three areas of activity, ie:-

INTERPERSONAL	INFORMATIONAL	DECISIONAL
Figurehead Header Liaison	Monitor Disseminator Spokesman	Entrepreneur Disturbance Handler Resource Allocation Negotiator

The first study consisted of a simulated exercise using 54 MBA students, most of whom held middle level managerial posts. The students were each provided with an 'in-tray' containing sixteen memos. These were constructed to allow the

managers the opportunity to exercise eight roles (none of the memos were specific to the monitor or disseminator roles.) Subjects were asked to deal with the memos according to their own priorities, etc. Responses were scored in terms of use of managerial role, and the results obtained were statistically analysed.

10.5:27 The second study was arranged to examine the generalisability of the results of the first study to managers in other organisations, and to explore the effect of position in the managerial hierarchy on the types of roles adopted. 112 managers were given simulated 'in-tray' material and were asked to process the memos presented.

10.5:28 According to Shapira and Dunbar, based upon their analysis of the results of the two studies, the ten roles identified by Mintzberg can be more meaningfully divided into two groups as follows:-

INFORMATIONAL ROLES	DECISIONAL ROLES
Liaison	Leader
Disseminator	Monitor
Spokesman	Entrepreneur
Figurehead	Negotiator
	Resource Allocator

The first set corresponds with Mintzberg's idea of the manager as the general organisational centre of his unit (Mintzberg 1975 p 55). Shapira and Dunbar call this group 'Information Roles' and they identify with it the transmission and generation of information. The second set is labelled 'Decisional Roles' and is said to include the remainder of Mintzberg's ten roles. The findings of Shapira and Dunbar with regard to

hierarchical effects support Mintzberg's proposition that the lower the position in the hierarchy the higher the proportion of time spent as a disturbance handler and the less spent in the figurehead role.

10.5:29 The analysis of Shapira and Dunbar emphasises the information processing input - output aspects of managerial work. In his classification, Mintzberg grouped interpersonal roles separately. Such a distinction is seen by Shapira and Dunbar as unnecessary. They feel justified on the basis of their work in allocating the liaison and figurehead roles to information processing and the leader role to decision making. Whilst interpersonal aspects are regarded as important they do not seem to them 'to serve a function different from the present input - output formulation' (1980 p 92). They see the leader role as the most difficult to fit into an input - output model because they regard leadership as implicit in each of the other nine roles. Shapira and Dunbar also contest Mintzberg's argument that the ten managerial roles would form in any individual an integrated whole. They feel that their analysis indicates that subjects chose 'one or other of the information roles rather than adopting a relatively integrated behavioural set' (1980 p 94), thus some roles will be emphasised, some used rarely or even ignored. They identify a difference in role utilisation between their two groups of subjects and suggest that structural organisational variables may affect the extent to which certain role behaviours are exhibited.

10.5:30 Shapira and Dunbar propose substantial amendments to the theoretical constructs developed by Mintzberg, their study does however seem to be

suspect on a number of counts. Firstly, the materials used were simulated by the researchers to represent aspects of the behaviours associated with Mintzberg's roles. If it is assumed that they have been constructed to exactly replicate or prompt appropriate responses, they are still nevertheless simulations offered under artificial conditions. Secondly, the materials contained a small number of limited options. Thirdly, the use of only written memos serves to further emphasize the artificiality of the exercise, particularly bearing in mind the well documented evidence which points to the great importance of verbal media for most managers and the relatively small part normally played by written communications in the management process. The latter is especially true of interpersonal aspects of the manager's job, the very area that this study seeks to reduce in importance. What seems to have happened with this piece of research is that, for the sake perhaps of controllability and ease of analysis, Shapira and Dunbar have moved so far away from the reality of the work situation and have so constrained the scope of their investigation, it is difficult to see how their findings can be generalised to apply outside the conditions imposed by their experimental approach.

10.5:31 Work activities studies have identified many striking similarities between managerial work, not only at all levels from chief executive to first line supervisor, but also in many different organisations, industries and services. Almost all the studies point to the over-riding importance, for the manager, of face-to-face communication. They emphasize as well, the amount of time that is spent in the horizontal and lateral transfer of information in managerial

jobs. Managers at all levels are subject to frequent interruptions and a high degree of fragmentation in their work load. Whilst this does provide variety and lack of repetition, this potential advantage of managerial work is probably offset by the hectic pace at which problems seem to occur. Not all managers fit exactly into this general pattern however and some workers have identified differences: Carlson (1951) points out the long working hours of chief executives, this contrasts with the findings of Horne and Lupton (1965) for middle level managers; Burns (1967) found evidence of greater specialisation of task at lower levels of management, etc. Amongst researchers there has been much discussion about whether managerial jobs are characterised by their similarities or their differences. It seems likely that there are certain vital and basic features common to the jobs of all managers, but because perhaps of the range of task assigned to managers in different organisations, or perhaps because of individual differences in personality, preference, and style, each managerial job has unique elements which can be used to distinguish it from other managerial jobs. The work activity studies seem to have been a valuable move towards acquiring the wide base of hard data necessary to identifying the common features and basic elements of the job of the manager.

11. DEFINING PERSONALITY AND COGNITIVE STYLE

11.1 Introduction Many research projects have been carried out over the years, which have been concerned with: managerial effectiveness; leadership and management styles; managerial tasks and functions. Much of this work has been empirical in nature, concerned with description rather than causality. In relatively few cases has there been anything other than a superficial attempt to link the personal characteristics of a manager with the behaviour he exhibits or the tasks that he undertakes. It is intended in subsequent sections to review the literature linking task preference and 'on the job' behaviour, with the personality and cognitive style of the manager.

Whilst, as mentioned earlier, it is appreciated that concepts such as Personality and Cognitive Style are not necessarily parallel and that to draw distinctions between them is difficult; it is intended to explore the two terms and to attempt some definition of the concepts as they will be applied in this research.

11.2 Defining Personality Personality is one of the most widely used concepts in psychology, the term is moreover a familiar part of everyday vocabulary; nevertheless, there is more than a little difficulty in coming to some common understanding of what is meant by personality. In some respects, the term personality is a convenient shorthand way of referring to an individual's total biography. For the psychologist, however, the concept also

incorporates the notion of predicting behaviour. Personality as studied by the psychologist might be defined as the characteristics and ways of behaving that determine a person's adjustment to the environment. The fact that an individual eats, sleeps and works does not define his personality. Personality is determined by factors such as: what he eats; how he sleeps; and what is distinctive about his work patterns. Hence, individuality and uniqueness are essential to a usable definition. What a man or woman does in a particular environment or context because of who that individual is, over and above the kind of predictions that might be made upon context alone, can be seen as characteristics of personality.

11.3 The Oxford English Dictionary defines 'personality' as 'personal identity', 'distinctive personal character'. This latter is certainly the common (non-technical) meaning; there is also a looser use of the word where a person is described as 'having personality', meaning he makes a powerful impression - is charismatic.

11.4 Neither is the meaning of 'personality' within the literature of psychology clear or agreed. Gordon Allport (1937) found about fifty different usages and many modern authors have avoided the pitfalls of definition by trying to define only the areas of study implied by the term. Hall and Lindzey (1970) argue that the definition of personality must depend upon ones 'theoretical orientation'.

11.5 Personality and Behaviour One of the key assumptions in this work is that individual differences exist. That individuals differ with respect to a number of traits or variables, eg,

intelligence, extraversion, stability, etc. A trait in this context is taken to mean an enduring personality characteristic which influences behaviour. Many variables lie in the area of abilities and thus are largely beyond the scope of the research although some reference to this aspect of individual differences may be necessary to develop an understanding of the outcomes of the work.

11.6 Every aspect of our behaviour is held by some theorists to reflect personality: the things we do and those we choose not to do; when we do them; and how we do them. Since we all differ in the ways we behave, these differences may be said to represent aspects of an individual's personality. How the differences are conceptualised depends upon the theoretical framework within which they are placed. Freudian theory for instance, considers that personality differences reflect the balance achieved between conscious and unconscious motivations; which in turn depends, in part, upon the early relationship between an infant and his parents. For other workers, individual differences are closely connected with differences in our personal experience; how we perceive the world in the light of our problems and conflicts. The factor-analysts, best exemplified perhaps by Cattell and Eysenck, aim to seek out common dimensions, or factors, along which people may be placed; for them, individual differences may be quantified in terms of these dimensions.

11.7 For the purposes of this research it is proposed to adopt the working definition of personality referred to earlier (Section 2.8) that is:-

'Personality represents those characteristics of the person or of people generally that account for consistent patterns of response to situations'

(Pervin 1980 p 6)

With regard to the use of this particular definition, a number of points must be made:-

- 11.7:1 To be practically useful for the study of managerial (or any other) behaviour, personality concepts must be defined in terms that permit the researcher to develop ways to observe and measure behaviour. To study personality in any systematic way requires agreement about what is being observed and how it is to be measured.
- 11.7:2 Personality is characterised by similarities and consistencies within individuals as well as between individuals. Whilst we are each unique in some ways, in other ways we are like some other people and in some ways we are like all other people.
- 11.7:3 Realistically, it must be recognised that personality includes both the more stable and relatively unchanging aspects of the person, as well as more dynamic, fluid aspects that link these more enduring parts together.
- 11.7:4 Within the definition of personality given at 11.7, it is implicit 'that people do not operate within a vacuum but respond to and express themselves in relation to situations and circumstances' (Pervin 1980 p 6).

11.8 In addition to the points made above it is worth stressing that Pervin's definition is based upon certain assumptions about the nature of personality:-

11.8:1 'The human organism has characteristics distinct from those of other species that are particularly important for the study of personality'

- * We are less dependent upon biological influences and more on psychosocial factors.
- * We are less dependent upon primary sources of motivation such as hunger and thirst.
- * We can communicate and transmit learned patterns of behaviour to a unique degree.
- * We have a lengthened perspective of past and future and therefore need not be bound by immediate stimuli.
- * We can experience and reflect on that experience; be ourselves and think about ourselves.

11.8:2 'Human behaviour is complex'

- * There may be many reasons for an individual's behaviour, these can vary from person to person, even though the observed behaviours appear to be the same.
- * The same events may be interpreted differently by different individuals.

- * Complexity exists because behaviour arises not only from personality but also in relation to situations and circumstances.

11.8:3 'Behaviour is not always what it appears to be'

- * There is no fixed relationship between a specific behaviour and its causes.
- * To understand the significance or meaning of an act we must know something about the individual and the context within which the act occurred.

11.8:4 'We are not always aware of, or in control of the factors determining our behaviour'

- * At times people are unable to explain why they act in certain ways, especially where particular behaviours contradict what is being expressed in other ways.

(adapted from Pervin 1980 p 6-7)

11.9 The issues and qualities described above serve only to complicate our attempts to observe, measure, interpret and understand human behaviours. The implications appear to be that, however carefully we construct research designed to explore the root causes of behaviour, we are able to capture only a fraction of what is happening at any one time. It seems with respect to studies of behaviour that the researcher is faced with a range of decisions (and inevitably - compromises) aimed at: maximising the validity of observational data; and producing results that are

meaningful in some useful way.

11.10 Defining Cognitive Style For some years workers have been engaged in research into the relationship between an individual's personality and his cognitive functioning, that is, his perceptual and intellectual activities. A particular focus of interest in this work has been 'characteristic, self consistent ways of functioning a person shows in the cognitive sphere. We call these cognitive styles' (Witkin 1969 p 198). For Anastasi, Cognitive Styles represent 'characteristics that cut across abilities and personality, and are manifested in many activities and media' (Anastasi 1982 p 593). Much of the work on cognitive styles has been directed at learning styles and learning strategies. This does not mean that the findings are restricted to learning in formal teaching contexts but are much broader in scope, being concerned with very general properties and principles applicable to: learning, knowledge and behaviour acquisition and information processing, in all of us. The existence of different ways of thinking and of differing preferences amongst individuals for the way in which information is received and processed must have major implications for the study of, and more particularly, the understanding of, management behaviour and managerial work.

11.11 What has been proposed, is that there may be dimensions along which we can measure individuals' approaches to learning or that there may be ways of thinking which are qualitatively different from each other. Witkin (1969 p 198) found that 'people differ from each other in their characteristic ways of perceiving both the world

and themselves.' He also found 'that a given way of perceiving is related to the personality adjustment the individual has worked out.'

11.12 Cognitive styles are frequently referred to as 'information processing habits', the implication appears to be that a person's characteristic cognitive styles are acquired rather than innate, hence much emphasis in the research has been directed at establishing connections between the subject's cognitive style and his background. In reality, in common with other personal characteristics, it is probably not so much a question of environment v.s. heredity, more of an interaction between the two. As with much of the research into behaviour, however, there has been a heavy concentration upon the final responses or outcomes, rather than upon the way in which the products of thinking are derived.

11.13 Cognitive Styles and Creativity Jackson and Messick in their work on creativity do not stop at outlining measurement criteria for assessing creative products, they go further to suggest 'a relation between personal qualities and properties of creative response (Jackson and Messick 1965 p 379). For each of a set of response properties which they refer to as, 'usualness', 'appropriateness', 'transformation of materials or ideas', and 'condensation'; they identify associated 'pre-disposing cognitive styles'. For Jackson and Messick these styles represent broad personal qualities; 'unusualness' for instance, is linked to the cognitive style described as 'tolerance of incongruity, inconsistency, etc. and the personal quality of originality. Reactions to creative products, eg, surprise, satisfaction, pleasure, can be seen as participating in the

relationship by providing feedback on the desirability or acceptability of the product. Although Jackson and Messick identify personal characteristics associated with creative products they leave open the question of whether specific qualities are necessary for creative output, they do however, summarise their views as follows: 'consistent' production of creative responses cannot occur by chance, and further, that the "cause" of such phenomena entails psychological as well as social and environmental influences' (Jackson and Messick 1965 p 379).

11.14 Within this research, the term Cognitive Styles will be taken to mean:- 'ones preferred and typical modes of perceiving, remembering, thinking and problem solving' (Anastasi 1982 p 293).

11.15 It is now proposed to explore some of the relatively scarce work that examines links between: personality; cognitive styles; task preferences and preferred ways of working.

12. PERSONALITY AND LINKS WITH TASK PREFERENCES

12.1 Historical Perspective A consistent feature of much research into management and managerial work appears to have been an almost studied avoidance of any detailed consideration of the effects of a manager's personality and personal style upon the way in which he carries out his job. Some researchers have dismissed the manager's personal characteristics as irrelevant, attributing differences in job content to everything (or anything) but a manager's conscious and unconscious task preferences. Others have given more or less overt recognition to the impact of factors internal to the individual manager then

have gone on to discard the influence as too complex, or perhaps too difficult for study.

12.2 In his 1973 work, considering the 'nature of managerial work', Henry Mintzberg made brief reference to the influence of personality upon the work carried out by a manager; the tasks he chooses to perform himself, those he chooses to delegate, those he neglects and those he ignores. Whilst undertaking a most extensive search of the literature relating to all aspects of the manager and his job, he was struck by the scarcity of work linking personality (what he calls 'style') with 'on-the-job' performance. He found that 'little evidence had been produced so far. A great number of research studies have been carried out on managerial style; the vast majority of cases simply compared autocratic and participative styles. In most cases there was no attention to the influence of style on work performed; rather, many of the researchers attempted to link style directly with managerial effectiveness' (Mintzberg 1973 p119). The gap identified by Mintzberg; a dearth of work directed at the influence of personality on task selection in managerial jobs, has changed little since 1973.

12.3 Personality and Managerial Work In addition to the work discussed earlier (in the section dealing specifically with the identification of a manager's tasks and functions - section 10), some of which contains references to, and even in rare cases consideration of, the potential influence of personality and personal style on the job of the manager, a limited amount of research has been concerned specifically with personality and management. At this stage, it is perhaps worth stressing once again that distinctions between

personality and cognitive style are difficult to make. The decision, therefore, to include work in this section (Personality and links with task preferences) or in the next section (Cognitive style and links with task preferences) has been made somewhat arbitrarily, based upon the terminology used by the individual researcher to describe his/her theoretical framework. It will become quite evident that there is considerable overlap between the two concepts, indeed certain of the research projects could, with some validity, have been included in either section.

12.4 It is now proposed to consider two radically different studies undertaken by three researchers: R. Meredith Belbin of the Industrial Training Research Unit, investigating management teams - mainly at the Administrative Staff College, Henley; and Henry P. Knowles and Borge O. Saxberg of Washington University, looking at personality and leadership behaviour.

12.5 Management Team Roles Meredith Belbin's work (Belbin 1983) was the product of more than nine years research conducted largely within the Administrative Staff College, Henley under the auspices of the Industrial Training Research Unit. The area of study centred around management teams and the concept of team roles. Belbin and his colleagues were interested in defining the ways in which individual team members' abilities and personalities contribute to the team. His stated intention was that, whilst 'founded in research' - the work should be positively addressed 'not so much to the academic world as to practising managers'. The population studied included men and women from a range of ethnic background. The subjects were largely experienced managers

preparing for more senior managerial positions. Belbin believes that the findings of his research are generalisable 'without regard to race or sex'.

12.6 Methodological Approach Belbin's research was carried out in five stages:-

12.6:1 Psychometric tests were administered and teams assembled by Henley College Staff based largely upon the participant's scores on the 'Watson Glaser Critical Thinking Appraisal'. One team was selected to be 'best' on the basis of the above measure. Belbin terms this team 'The Apollo Company'. All the teams then competed in a series of management games and exercises - results were assessed in terms of the team's financial success (or lack of it).

12.6:2 Teams were re-constructed by Belbin and his co-workers using data from the other psychometric tests (notably 16PF). On an experimental basis teams were composed solely of, say, Introverts or Extraverts - Higher IQ or Lower IQ etc. Belbin calls these teams 'Pure Companies'. Success or otherwise was assessed as above.

12.6:3 A number of hypotheses were propounded and teams designed to test out particular premises. Predictions about relative performance were then checked out in practice, using team results on management games and exercises.

12.6:4 At this stage managers chosen as team leaders or chairmen were allowed to select their own company. Results were assessed as above.

12.6:5 Finally the results and findings from all the earlier phases of the project were used to produce more sophisticated team designs which were once again tested out against performance in practice.

At each stage in the experiments results were carefully recorded and examined. The structure of successful teams and the characteristics of the teams and their members were analysed.

12.7 Apollo Companies Belbin found that in almost all cases Apollo companies performed worse than expected, teams with ostensibly less talented members were consistently more successful. He attributes this relative lack of success to several factors:-

- * Members of Apollo Companies, tended to have similar aspirations - 'that is to apply their critical minds to the most difficult and intellectually enticing parts of the exercise' (Belbin 1983 p13). The implication of this seems to be, that the 'Apollo' teams neglected 'nuts and bolts' areas of management such as:
checking and using available resources;
obtaining and giving information;
recording what had been discovered or decided, co-ordinating plans and actions.
- * There is potentially a conflict between the manager's role as decision maker and the need for a manager to accept that another might be better placed (or even better equipped) to evaluate a problem.
'Managers are probably more concerned with

synthesis than analysis' (Belbin 1983 p18).

- * Groups, companies or teams chosen primarily on the basis of critical thinking ability can frequently become destructively analytical, resulting in under-achievement by the team; 'people with high analytical abilities are not necessarily creative' (Belbin 1983 p18).

Belbin's overall finding from the 'Apollo Company' phase of his research seems to be summed up aptly as follows:- 'A manager needs a fair measure of mental ability but that may not be the most important requirement for the job' (Belbin 1983 p18).

12.8 Pure Companies The rationale for this particular phase of Belbin's work is of some interest especially in view of the obvious relevance of the findings for many industrial concerns. He identified the tendency for management teams (and especially the senior managers) to possess very similar personal characteristics and managerial styles. Belbin sees this as a result of two phenomena:-

- * Firstly, that individuals with particular personalities and preferences tend to be drawn towards particular types of work, particular occupations, and thence to the same types of company. As managers rise to the top tiers of such organisations then, 'members of these management teams are likely to have much in common' (Belbin 1983 p19).

* Secondly, what Belbin calls 'elective homogeneity' - that is, the tendency amongst firms to select for a particular type of person; reinforced by 'the natural tendency of managers to recruit in their own image'.

The evidence for this phenomenon seems to be quite well established, it is clear for instance that behaviours which attract acceptance, promotion and prestige in one organisation have exactly the reverse effect in a different company. This appears to hold good, even where the products are the same and the expressed aims of the firms are similar. As already mentioned, in the light of the reasoning behind stage 2 of Belbin's research, the findings seem especially significant.

12.9 Analysis of the performance of 'Pure Companies' produced one major conclusion:-

* All the 'Pure Companies' had areas of strength 'that gave them advantages under particular circumstances'. Changes in circumstances, the requirement for flexibility in approach; highlighted the fact that these specific strengths often meant that teams were 'also susceptible to particular weaknesses'. Simply because the company workers had so much in common, 'the natural balancing qualities found in groups with diverse members were absent' (Belbin 1983 p27).

For Belbin, one very practical issue raised by these results is; how can companies (bearing in mind the tendency for 'like to select like') retain the strengths of the 'Pure Team' and at the same time minimise or eliminate the weaknesses? Further he emphasises the difficulty and the risks inherent for organisations in selecting staff to

match a specified 'corporate' or occupational profile, rather than carefully matching individual characteristics and preferences to the needs of a particular job.

12.10 Creativity in Teams One very important aspect of team working in management emphasised within Belbin's research, is the Concept of Creativity. Belbin observed teams 'with the right combination of people' functioning such that the 'act of creation seemed effortless'. Pointing to the kind of difficulties encountered with 'Pure Teams' and 'Apollo Companies' Belbin offers word of caution about the design of 'high creativity' teams. He identifies potential major disadvantages inherent in the idea that all a team's members might be encouraged to be creative. For Belbin, the problem seems to be the disposal of a plethora of imaginative options. He advocates a deliberate approach geared to identifying individuals 'gifted with a truly innovative mind'; recognising and harnessing creative talent in this way is one way in which what Belbin calls the 'noise' problem might be avoided.

12.11 Relevant for the author's research, perhaps, is Belbin's use of Raymond Cattell's 16PF. Belbin uses the scores on Cattell's Personality Inventory in several phases of his research, on the basis that it, 'has probably been more researched into, in terms of it bearing on industrial occupation categories, than any other personality measure' (Belbin 1983 p33).

12.12 16PF Scores and Creativity Describing the way in which Cattell explored the implication of scores on the 16PF factors for creativity, Belbin

explains that Cattell persuaded a large number of individuals, considered generally to be creative (in many different fields of achievement), to complete his personality inventory. Cattell then examined the ways in which these 'creative' people differed from the general population in terms of scores on the 16PF. He found that they differed on ten of the sixteen scales with the highest weightings on intelligence, tender mindedness and three of the scales relating to introversion. Creative people were also more dominant, social bold, natural, imaginative and radical. Whilst supporting the usually held view that creativity is in some way linked to general intelligence (as measured by intelligence tests) Cattell's findings seem to establish something more: a creative individual 'has a distinctive set of personal qualities that lie embedded in his character and which do not depend on intelligence' (Belbin 1983 p36). Belbin found that Cattell's concept seemed to fit the creative individuals identified within his teams (what Belbin refers to as Plants and Resource Investigators), he did however set out in a positive way to cross validate Cattell's hypotheses with his own practical findings and predictions.

12.13 Belbin's Findings on Creativity Most of Belbin's findings under the heading of 'Creativity in Teams' relate to the two types of creative individual referred to above, that is:-

- * The 'Plant'

- * The 'Resource Investigator'

In general terms, however, and of especial relevance for the author's own research, is the notion that 'the qualities of the person can over-ride the type of behaviour implied by the title of the job (Belbin 1983 p37). In order to optimise the input and maximise the benefits from the creative individual within a team (especially the 'Plant') it is necessary to find a position 'recognising his potential, giving him scope and a fitting role, not allowing him to pursue unrewarding lines of thought that happen to engage his fancy, and generally keeping him in his place' (Belbin 1983 p38).

12.14 Considering the essential differences between the two types of creative person identified in his study Belbin makes the following distinctions. The 'Plant' was seen to have a distinctive, original mind and way of thinking: he was however, also regarded very much as a loner. The 'Resource Investigator' was by contrast assessed by others as very creative, he usually was prominent because of a close involvement with people and through his use of available resources. He sums the distinctions up as follows: the more the 'Resource Investigator' pursued his team role 'the more he looked like a manager'; the more the 'Plant' fulfilled his functions 'the less he looked like a manager'. In Belbin's words 'a team could benefit from possessing both types of innovator. Their roles are complementary' (1983 p41).

12.15 Commenting specifically on the role of the Plant within the business environment bearing in mind particularly the ways in which the 'Plant' appears to conflict with more traditional views of management and ideas about what constitutes individual potential for senior management posts.

Belbin is somewhat pessemistic. He believes that 'Ironically while many participants in management courses and seminars were striving to appear as Plants, the realities of life in the outside world showed that Plants were faring none too well. Their very skills and abilities tended to shunt them into specialist technical positions from which they could not escape'. 'Less able colleagues would be moved more readily, because they could be spared, and so in time built up a track record which qualified them for senior posts. Most firms have not come to grips with, or are hardly even aware of, this danger' (Belbin 1983 p43).

12.16 Leadership in Management Teams Belbin offers some, almost anecdotal, evidence for the statement that 'the critical role of leadership in determining corporate performance can be taken for granted. Leadership is always vital and team leadership is no exception' (Belbin 1983 p53). Looking specifically at psychometric test data relating to the individuals' elected chairmen of the companies (or teams) taking part in his experiments; these were considered in three categories based upon financial performance in the management games. Belbin and his colleagues came to the conclusion that there were 'sharp differences between the 16PF scores of the successful and unsuccessful Chairmen' (Belbin 1983 p51). Additionally, whilst successful Chairmen were not 'on average' more mentally able or creative than the less successful, those at the two extremes of the skill range, ie, higher than average or lower than average Critical Thinking Ability, tended to be among the least successful.

12.17 With regard to the differences in personality attributes mentioned above Belbin found that successful chairmen were typically:-

- * Trusting but possessing a strong basic dominance - accepting people as they are without jealousy or suspicion.
- * Morally committed to external goals and objectives.
- * Calm and unflappable.
- * Geared to practical realism.
- * Self disciplined.
- * Extravertly enthusiastic and able to motivate others.
- * Prone to detachment and distance in social relations.

Successful chairmen were not especially oriented towards the group, 'It was as if the group selected as their leader a member who was not, as it were, a typical product of the group' (Belbin 1983 p53). Examination of scores on 'group orientation' indicated that high scorers on this factor were 'seldom appointed or elected and chairmen'.

12.18 What Belbin appears to be saying is that the successful chairman should be able to motivate his team, listen to their views and advice but sufficiently strong and independent to reject this advice when appropriate. He should be pragmatic

enough to use all available resources, be flexible in his approach to people, yet firm enough to control a situation exercising his ability to reach judgements based upon practical need. The ideal chairman 'possesses a set of perfectly commonplace characteristics, yet characteristics which were put together in an uncommon way' (Belbin 1983 p56).

One problem for Belbin came when he tried to relate his findings about the characteristics of successful chairmen to the characteristics of known leaders within major business organisations. 'We had developed a leadership formula through painstaking research which we had put to the test by giving it a key position in our forecasting formulae' ... 'a substantial class of known leaders did not accord with the general shape of the profile. They did not even resemble them' (Belbin 1983 p57).

12.19 The first assumptions of the researchers was that data gathered from the results of management games and exercises might not bear any relation to real-life situations. This was checked out by looking at the on-the-job performance of those individuals rated as likely chairman material using Belbin's formula. Belbin reports a good correlation between the two. The explanation offered by Belbin for the two sets of apparently conflicting information is that there are two further types of effective leaders who thrive on and are brought to the fore by particular environments. These two categories of leader he calls:-

* Shapers

* Apollo Chairmen

12.20 The Apollo Chairman is a product of the Apollo team (see 12.7). Typically he, like other chairmen, is slightly cleverer than the rest of the team; unlike other 'classic chairmen' (Belbin's term), however, he shows a number of 'shaper' traits (see next section). The major difference between the Apollo Chairman and the Classic Chairman is that whilst the latter is adept at 'drawing out the potential of the group' the Apollo Chairman is not 'a searcher after talent' much more, he is 'a tough discriminating person who can hold his ground in any company' (Belbin 1983 p63) - without ever dominating the team.

12.21 The category of leader - christened 'Shaper' by Belbin, appears to be somewhat different from either of these two. Their typical characteristics were identified as follows:-

- * They are extraverts full of energy -
'actuated by a need to achieve'.
- * They are not 'Team Men' - they challenge,
argue and disagree.
- * They are impatient and easily frustrated.
- * Their aggression produces aggressive
responses in others - but they seem to
enjoy the battle.

* Winning is the name of the game; learning is relatively unimportant.

* They question the rules or the fairness of umpiring decisions but do not hesitate to break the rules.

Belbin comments on his experiments with 'pure companies' of Shapers - 'whether they did well or poorly they always created uproar' (Belbin 1983 p59). He summed up the Shaper as a 'tough anxious extravert, a man prone to over-react to disappointments or annoyances but resilient, fearless, and unflinching with people' (Belbin 1983 p60).

12.22 Belbin's conclusions about leaders of management teams indicate three types. Firstly, the 'Chairman', suited to the leadership of a balanced team with the potential for solving and managing complex multi-dimensional issues. Secondly, the 'Shaper', a person fitted to leading a team with the capability to succeed but one which faces internal or external constraints. Thirdly, the 'Apollo Chairman' appropriate to high intellectual ability teams of the 'think tank' variety.

12.23 Other Useful Management Team Roles In addition to the team roles described above, Belbin and his co-workers identified six 'primary characters' for successful teams. The eight types are summarised as follows:-

Fig.20 Belbin's Management Team Roles

TYPE	TYPICAL FEATURES	POSITIVE QUALITIES	ALLOWABLE WEAKNESSES
Company Worker	Conservative, dutiful, predictable.	Organising ability, practical common-sense, hard-working self discipline.	Lack of flexibility, unresponsiveness to unproven ideas.
Chairman	Calm, self-confident, controlled.	A capacity for treating and welcoming all potential contributors on their merits and without prejudice. A strong sense of objective.	No more than ordinary in terms of intellect or creative ability
Shaper	Highly strung, outgoing, dynamic.	Drive and a readiness to challenge inertia, ineffectiveness, complacency or self-deception.	Proneness to provocation, irritation and impatience.
Plant	Individualistic, serious-minded, unorthodox.	Genius, imagination, intellect, knowledge.	Up in the clouds, inclined to disregard practical details or protocol.
Resource Investigator	Extroverted, enthusiastic, curious, communicative.	A capacity for contacting people and exploring anything new. An ability to respond to challenge.	Liable to lose interest once the initial fascination has passed.
Monitor Evaluator	Sober, unemotional, prudent.	Judgement, discretion, hard-headedness.	Lacks inspiration or the ability to motivate others.
Team Worker	Socially oriented, rather mild, sensitive.	An ability to respond to people and to situations, and to promote team spirit.	Indecisiveness at moments of crisis.
Completer-Finisher	Painstaking, orderly, conscientious, anxious.	A capacity for follow-through. Perfectionism.	A tendency to worry about small things. A reluctance to 'let go'.

Adapted from Belbin 1983 p78

12.24 Personal Preference Questionnaire Belbin used his findings to create a self perception inventory, allowing people to explore their own task preferences and thence the team roles for which they are likely to be best suited. The inventory produces a score for that individual on each of the eight team roles, the highest score is supposed to indicate the way a person can best make his/her own impact upon a team. The next highest score can denote back-up roles to which the individual could shift if the group has less need for the primary role. Low scores might well indicate areas of personal weakness. Apparently supporting the view expressed earlier in this thesis, that personality and personal preferences, especially in core areas, are resistant to change; Belbin sees the inventory, particularly the identification of deficiencies, as enabling the manager, 'rather than attempting to reform in this area the manager may be better advised to seek a colleague with complementary strengths' (Belbin 1983 p156).

12.25 In the later stages of his project work, Belbin experimented at some length with different combinations of team roles. As well as the mix of team member types, he looked at the effect of factors such as group size upon the team's ability to produce successful results. One finding of this work was the vital need for information about the personal characteristics and preferences of individuals before effective team building can commence. His recommendation to organisations looking for a team approach to effective management problem solving is 'to collect the required information about people at the time of

recruitment' (Belbin 1983 p133). That is, he strongly advocates not only matching the personal strengths and preferences of recruits, established using a range of techniques including psychometric tests, to the needs of particular posts and teams; but also basing subsequent development and promotion upon such information.

12.26 Designing Management Teams Whilst recognising that many management teams comprise a set of individuals who are on the team simply because of the post they happen to hold within the organisation. The team composition is therefore, largely random and any successful mix might be seen to be coincidental. What Belbin establishes in his research is that the structure and composition of a team are vital for its success. He lays down a set of guidelines used by his co-workers and himself in their work of management team design:-

Designing a Team

- * Members of a management team can contribute in two ways to the achievement of team objectives. They can perform well in a functional role in drawing on their professional and technical knowledge as the situation demands. They also have a potentially valuable team-role to perform. A team-role describes a pattern of behaviour characteristic of the way in which one team member interacts with others in facilitating the progress of the team.

- * Each team needs an optimum balance in both

functional roles and team-roles. The ideal blend will depend on the goals and tasks the team faces.

- * The effectiveness of a team will be promoted by the extent to which members correctly recognise and adjust themselves to the relative strengths within the team both in expertise and ability to engage in specific team-roles.
- * Personal qualities fit members for some team-roles while limiting the likelihood that they will succeed in others.
- * A team can deploy its technical resources to best advantage only when it has the requisite range of team-roles to ensure efficient teamwork.

Adapted from Belbin 1983 p132/133

12.27 Benefits of Positive Team Building The work of Belbin appears to assist in providing the answers to a number of potentially thorny problems for organisations:-

- | | |
|------------------------------|--|
| * RECRUITMENT
SELECTION | How does the applicant match the personal specification - is there a person - 'team role' gap? |
| * INTERNAL
REORGANISATION | How do we make the best of our people - how do we best use our staff |

resources?

- | | |
|---|---|
| * MATCHING TEAMS
TO FUNCTION | How do we balance the skills/roles/preferences in teams to match the team's function? |
| * MATCHING INDIVIDUAL
PREFERENCES TO TEAM
NEEDS | Can we maximise effectiveness by recognising that people work better in areas of personal preference and skill? |
| * TEAMS IN
HIERARCHIES | Can teams function better based upon effective mixes of roles and skills rather than hierarchical position? |

12.28 Interestingly Belbin has directed his work expressly at the team - he states that 'For many years the qualities of the individual manager have been a focal point of interest : those of a successful management team are less well understood' (Belbin 1983 pIX). Though many would take issue with Belbin's assertion that the qualities of the individual are well understood, especially the ways in which these qualities influence the content of a manager's job, what he appears to have highlighted is that certain of the qualities required to be the 'complete manager' may be mutually exclusive within one individual. The manager must, evidently, be: intelligent but not too clever; committed and forceful but sensitive to the feelings of others; he must be dynamic but capable of patiently seeing the job

through; he must communicate well whilst gathering all available data; he must be decisive but reflective. These are only a few of the qualities ascribed by management theorists to the effective manager.

12.29 The question raised (and perhaps answered) by Belbin is; can one individual ever be expected to combine all these qualities and abilities? As Anthony Jay puts it in his forward to Belbin's book, if an individual is unlikely to show all these qualities, then 'a team of individuals certainly can - and often does' (Belbin 1983 pVIII). Perhaps crucial for an understanding of his concept of a team is the idea that people may work as a team without ever constituting a working group in any clearly defined way. Conversely individuals can be part of a designated working group without ever functioning as a team. The vital aspect of 'a team' for Belbin is 'that is members form a co-operative association through a division of labour that best reflects the contribution that each can make towards the common objective. The members do not need to be present at the same place and at the same time to enable the team to function' (Belbin 1983 p141).

12.30 Lessons From the Research The lessons for organisations is that whilst an effective team may develop or evolve accidentally, effective organisations pay attention to planning, designing and building teams. What Belbin clearly demonstrates is that for a team to be set-up in an effective way and then to function successfully, much attention must be paid to: the design and construction of the team; the assessment and selection of the individuals who will make up the team, the personalities of the members of the

team, their abilities, skills, preferences and personal styles.

12.31 Personality and Leadership Behaviour In sharp contrast with the rigorous approach of Belbin and other recent management researchers, Knowles and Saxberg produce an unusual, broad ranging, often philosophical, perhaps challenging view of work and leadership at work. In this study they explore: historical; anthropomorphic; sociological; psychological; and systems models of management. Whilst this work appears to fall under the general heading of 'leadership studies' and can be criticised on the grounds that it does concentrate upon what has been perceived by other workers to represent only one aspect of a manager's job, the study does seem relevant here. It provides not only a radically different approach to the other research included but also places a significant emphasis upon the personality of the manager and the importance of personal characteristics for the way in which he/she relates to the job and the organisation.

12.32 The major thrust of Knowles and Saxberg's work is toward 'those facilitating interpersonal processes which arise, not from bureaucratic structures, from procedural rules, from the paper flow across a desk, or from budgets and financial appropriations, but from day in and day out common stuff of human experience' (Knowles and Saxberg 1971 pV). They see the role of the manager as especially vital in areas of strategy. The manager is the organisational shaper, the shaping process determined by the example the manager sets, the judgements and decisions he makes and the values that these represent. Knowles and Saxberg stress the importance of self knowledge

and self awareness for the leader - 'No man can afford in today's world to neglect the opportunity to explore his own personality, to make a serious attempt to understand himself and others, and to apply this information to all his human encounters in constructive ways' (Knowles and Saxberg 1971 pVI and VII).

12.33 Pragmatism vs Theory The two researchers claim to have tested their materials and the results of their work in a whole series of industrial, educational and public service settings. The material has been used to 'complement experiential training activity' involving case studies, role play and 'sensitivity training'. They describe their approach as 'clinical before being theoretical, pragmatic rather than speculative'. Knowles and Saxberg have attempted to look at the issues, for managers and leaders, at the interpersonal level; 'the level which involves man's nature and personality and the quality of the relationships which emerge between men when they work together as organisational members' (Knowles and Saxberg 1971 p3). For them, the kind of person a leader is, the kind of person he perhaps ought to be, is crucially important to both the manager and his organisation.

12.34 Constraints to Effective Management and Leadership Development Knowles and Saxberg express the view that managers in their behaviour as leaders within organisations are conservative, reluctant to experiment or take risks. Leaders are seen to display a set of attitudes and behaviours acquired from those under whom they trained. 'Managerial behaviour and attitudes tend, therefore, to reflect those of a past generation' - a consequence of this situation is

perceived to be, that many managers and leaders are 'permanently out of step with the requirements of the present' (Knowles and Saxberg 1971 p5).

12.35 Relationships Between People and Work Examining the relationship between people and their work Knowles and Saxberg contest the traditional pessimistic picture of man (in the very broadest sense) and work. The hypothesis that people are fundamentally opposed to work, lacking the capacity for self motivation, direction and personal responsibility, is contrasted with the idea of 'man as a creative social being'. A major outcome of this consideration is the proposition by the researchers that, in order to develop as leaders, managers need to know much more about the nature, sources and effects of the assumptions they make about themselves, their staff, and their motivation to work. Using Knowles and Saxberg's own words, 'Concepts of the nature of man and of personality have implications with respect to the whole question of leadership and leadership training, and the skills associated with interpersonal and organisational effectiveness' (1971 p47).

12.36 Exploring personality and interpersonal behaviour the two researchers introduce the concept of what they term 'primary tendency', this is defined as; 'a person's characteristic attitude set towards other persons' (Knowles and Saxberg 1971 p45). They see each person as possessing an individual personal style or distinctive, unique way of relating to and managing other people; for them, the key to this individual style is rooted within the manager's personality.

12.37 Personality and Managerial Role With respect to behaviour in managerial role Knowles and Saxberg suggest, 'The individual brings to his status position a certain set of innate abilities, as well as a set of experiences gained in an environment with certain characteristics' (Knowles and Saxberg 1971 p53). Very importantly for this work, they expand this statement to claim that the way in which the manager fulfils his role will be a composite of his personal characteristics, including preferred ways of working and the requirements imposed by the position he occupies within the organisation. Beyond this; 'The adult person may frequently develop a preference toward one particular position and role, however, and weigh his behaviour in this direction regardless of the situation in which he finds himself' (Knowles and Saxberg 1971 p54). At the extremes of such preference based behaviour an individual may well adopt behaviours and exercise personal choices, knowingly or otherwise, that are incompatible with the role of manager in that organisation. A person 'may be faced with conflicting role pressures in his association with different groups and organisations and in particular situations' ... 'He may suffer internal role conflicts and role strain as he finds role forces confronting his personal value systems' (Knowles and Saxberg 1971 p54).

12.38 Organisational Influence on Personality Having placed some emphasis on the ways in which an individual's personality might affect an organisation, Knowles and Saxberg then look at ways in which the personality of the individual might be influenced by the organisation in which he or she is employed. They put forward the

hypothesis that, because of the proportion of time a person spends exposed to his working environment, its prevailing values, climate and moves; then the culture of that organisation must be reflected in the personalities of the people working within it. Additionally, of course, there is the factor mentioned by Belbin (see Section 12.8) and several other notable researchers, that is; through some 'self selection process the personnel of the organisation will over a period of time, match the prevailing formal and informal leadership climate' (Knowles and Saxberg 1971 p56).

12.39 Interestingly enough, bearing in mind comments made elsewhere in this research about the difficulties inherent in attempts to make fundamental changes to an individual's personality; Knowles and Saxberg assume that 'though a change in an individual's personality is slow and gradual', given sufficient and consistent exposure to a particular working climate and managerial style, people will eventually internalise the organisation's prevailing culture and values. They do infer, however, that the kind of attitudinal and cultural pressures referred to above, can lead for some individuals in conscious or unconscious resistance to change; 'At times, and for some more often than for others the need to avoid unhappy relationships and the need to live up to our own developing standards evokes a system of unconscious protective behaviour which helps us preserve our emerging self concept' (Knowles and Saxberg 1971 p86). Offering what might be a word of warning for those who advocate or aspire to participative management, Knowles and Saxberg point out, perhaps a little cynically, that 'it is not necessarily the mutual interests

of the manager and the managed which elicit co-operative behaviour. It is their individual and separable interests' (Knowles and Saxberg 1971 p89).

12.40 Examination of leadership, the skills of leaders and the requirements for effective leadership in the work place, led Knowles and Saxberg to consider ways for managers to change and to learn new skills. They place much emphasis upon the need for an individual to recognise that change is necessary before changes can occur. Self awareness and self knowledge is perceived to be a critical and necessary requirement for effective management development. More than this, the personality and task preferences of the manager are seen to be of vital importance for the organisation, 'the very strength of the leader may contain the seeds of organisational destruction if changes impinging upon it from outside or the internal organisation are brushed aside by him as consisting of so much poppycock' (Knowles and Saxberg 1971 p153).

13. COGNITIVE STYLES AND LINKS WITH TASK PREFERENCES

13.1 Investigation of cognitive styles (learning styles and learning strategies) has been concentrated in two main areas:-

- * The kinds of strategy an individual adopts in carrying out a task regardless of the degree of success.
- * The kinds of task an individual is able to successfully carry out.

The first approach relies upon attempts to externalise the thinking process. The second depends upon research workers making inferences about the thinking processes from the products of thought.

13.2 Guilford's Model of Intellect The theoretical framework derived by Guilford (1967) has provided a base upon which much subsequent research has been founded. Guilford identifies 'convergent thinking' as a separate process from 'divergent thinking'. Intellect is categorised not only according to thought processes such as these but also according to the sort of information being considered and the type of product resulting from this thinking. Mental abilities, Guilford (1950) suggests, can be classified in three ways:-

INFORMATION subdivided as follows:-

- * figural
- * symbolic
- * semantic
- * behavioural

MENTAL PROCESSES (OPERATIONS) subdivided as follows:-

- * cognition
- * memory
- * divergent production
- * convergent production
- * evaluation

PRODUCTS subdivided as follows:-

- * units
- * classes
- * relations
- * systems
- * transformations
- * implications

13.3 In order to test his model empirically, Guilford and his fellow workers devised a whole range of ingenious tests. Some of these tests have been adopted and developed by other researchers as measures of creative thinking and as means to justify the existence of different information processing preferences. Whilst there are indications that Guilford's model holds good in certain areas, (some 98 of the 120 abilities proposed in his model would appear to have been established) many of the abilities have still to be identified, particularly those using behavioural information. Tests relying upon behavioural information are the least well represented.

13.4 Whilst it is not intended to carry out a detailed critical analysis of each piece of work, largely because most of the effort has been directed at educational issues, it does seem useful, however, to consider the general implications of prior research for the ways in which individuals demonstrate preferences for particular types of task and for information presented in particular forms. It is proposed to consider: firstly, some of the research based upon externalising the thinking process; and secondly, that based upon the products of thinking.

13.5 Externalising the Thinking Process Bruner, Goodnow and Austin (Bruner et al 1956) examined the strategies used in what they call 'concept attainment'. The ways in which people discriminate examples of a class of things from things that are not examples of that class. Individuals were not asked to create classifications or concepts, only to use them correctly. Bruner argues that using categories correctly, or choosing appropriate behaviours in response to sets of stimuli, involves learning which characteristics are critical to classification and which are not relevant. By asking his subjects to complete a range of classification and categorisation tasks Bruner identified two major strategies:-

* Focussing

and

* Scanning

13.6 Focussers and Scanners Using these strategies to distinguish between individuals, he proposed that people could be divided into 'Focussers' and 'Scanners' depending upon the thinking processes used to analyse a problem. The person using a focussing strategy takes the initial example as a focus and all his subsequent actions are dictated by the perceived attributes of this example. In contrast, the scanner can deal with more than one possibility at a time; the typical scanner uses each example together with what he remembers of previous examples to decide what concepts are still possible. Bruner found that some people habitually look for a step by step method of solving problems (whatever the problem) whilst others preferred a much wider ranging style.

Whilst Bruner's subjects showed some tendency to modify their strategy to suit variations in the experimental situation, overall it was concluded that a person's problem solving style was not merely a question of using the most appropriate strategy under a given set of conditions it was much more a question of each individual selecting an approach suited to that individual's preferred way of doing things.

13.7 Another investigation that falls under my general heading of externalising the thinking process has points in common with the work of Bruner and his colleagues. It is, in many ways however, much more ambitious and far reaching than the work of Bruner. It is based upon a series of experiments conducted by Gordon Pask and stems from his very general theory of learning and teaching.

13.8 Two Competencies One aspect of the theory which seems to relate strongly to this research is the identification by Pask of what he refers to as 'two competencies'. For Pask, what these represent are two very different approaches to learning and problem solving, two different modes of intellectual functioning. He labels the 'competencies', 'serialist'; and 'holist'. Pask's ideas sprang from work originally directed at 'adapted instruction', especially for developing keyboard skills in learners. His aim was to devise a learning programme that would adjust the difficulty of problems encountered by the learner, in such a way as to maintain an optimum level of difficulty and challenge. Initially, he was concerned with producing a regime that would sense the appropriate level of difficulty for each student, at any point in the learning process, and match the training to it. Pask began to realise,

however, that this approach was addressing only one individual difference. The next phase of his work was aimed at finding out whether learning performance might be improved by allowing (or encouraging) people to tackle problems in radically different ways, to adopt different strategies.

13.9 Serialists and Holists In order to look at the idea of learning strategy, Pask set up a series of tasks and gave his subjects the freedom to tackle these in whatever ways they chose. Pask and Scott (1972) found that people adopted one of four strategies initially. Two of these were tried and rapidly abandoned as non-effective by the learners who used them. Two major strategies were, however, seen to be effective by learners and ultimately one or other approach was adopted by Pask's subjects as their preferred way of resolving problems. The basic difference between the major strategies appears to be: that some individuals prefer to accept information as discreet ordered components and to keep the data separate during the thinking process; others, whilst beginning with separate bits of information, soon combined them into new forms whose components may become inextricable. The 'serialist' was characterised by a tendency to learn the components of a task individually and retain them as separate units of information. The 'holist' soon lost sight of the individual units, retaining them only as an integrated part of more complex informational structures.

13.10 Looking at the two strategies in terms of managerial behaviour it would not seem to be too difficult to arrive at a description that might be easily recognised as characteristic of certain

managers. The serialist prefers to take a straight line, with no digressions or unnecessary information. The holist moves on a broad front, picking up snippets of information that do not seem logically necessary but do help the recall of important facts. If the serialist is asked to explain a concept he will tend to reproduce the facts in the way they were presented. The holist's understanding of the concept will incorporate a variety of contributions, any one of which or any combination of which might function as some explanation.

- 13.11 Mismatches and Their Effects A further important finding, based upon experiments conducted using tasks and learning materials designed to suit the two categories of 'competence'; was that if a mis-match exists between a person's cognitive style and the way in which data are presented, then there is not only a significant reduction in the amount learned (or task success) but also there is a reduction in the ability of the learner to generalise from the information presented. Results were so clear cut that the least successful learner receiving information matched to his preferences performed better than the most successful mis-matched subject. 'Serialists fall into difficulties if they fail to distinguish the wood from the trees and consequently try to assimilate masses of sparsely-related irrelevant information (Pask and Scott 1972 p 237). Conversely without the 'extraneous' information the holist will be unable to satisfactorily build up his theories and concepts about a problem.

- 13.12 Generalisability of the Concept The early work of Pask and Scott was criticised on the grounds of limited generalisability of their findings. This

was in the main due to the limited nature of the tasks chosen and the small number of subjects studied in their original work. Subsequently, however, the two researchers have made extensive use of the characteristics initially identified. Pask and Scott have demonstrated a high level of repeatability using diverse materials and a range of task. (Pask and Scott 1971) Unlike Bruner and his co-workers, Pask has gone on to devise teaching methods employing extremely complex problems and materials all geared to learner preferences and cognitive styles. Pask and Scott explain the pervasiveness of learning and problem solving strategies by suggesting that learning performance and the preferred strategy is regulated by the level of uncertainty at which the learner is prepared to operate. If personality difference of this kind can determine the strategy adopted, by an individual, for problem solving, information processing and learning; and if these preferences are reflected in the types of task and form of information selected for that person's attention, then these findings have clear implications for the way in which managers work.

- 13.13 It is now proposed to move on to consideration of some of the work directed at the products of thinking. A major difference with this research, compared with the investigations mentioned above, is that it relies very heavily upon the skill of the researcher in devising tasks which will demonstrate individual differences in approach by the production of different outcomes. The work of three researchers will be considered: Liam Hudson in the UK; Witkin and Kagan in the USA.

13.14 The Products of Thinking Liam Hudson began his research in 1957, as a study of 'Arts/Science Specialisation.' As an undergraduate he found that he was 'much better at some parts of intelligence tests than others: good at the diagrammatic questions, and relatively poor at the verbal and numeral ones.' (Hudson 1966 p 31) After what he calls 'a stroke of luck' he gained access to a large quantity of data relating to undergraduates' scores on intelligence tests. Hudson found 'that arts specialists usually had verbal biases of ability while scientists had numerical or diagrammatic ones' (Hudson, L. Arts/Science Specialisation PhD Dissertation, University of Cambridge 1961). Later work, recognising the limitations of his earlier measures concentrated upon developing measures, 'to judge what skills a given line of work required' (Hudson 1966 p 47).

13.15 Hudson decided to build upon the work of Getzels and Jackson (1962) which attempted to establish a clear distinction between 'High IQ' and 'High Creativity' types. Getzels and Jackson found that 'high IQ' individuals were especially good at intelligence tests but tended to be relatively weak when judged by tests of what Getzels and Jackson refer to as 'creativity'. The 'highly creative' people tended to be the reverse, ie, good at 'creativity' tests but relatively poor performers on 'IQ' tests. The 'IQ' tests referred to, were conventional intelligence tests consisting of sets of puzzles to which there is a 'right' answer. The 'creativity' tests referred to were those containing a series of 'open-ended' questions, eg, 'How many uses can you think of for a brick?' Hudson closely examined the questions and tasks used by Getzels and Jackson. Based upon

this exploration he proposed a re-definition of the tests, using a distinction first introduced by Guilford in 1950.

13.16 Convergers and Divergers Hudson saw intelligence tests as a means to determine an individual's ability to 'converge' upon a correct response: tests of creativity were seen as inviting individuals to 'diverge', to think fluently, without examining any one line of reasoning in detail.

13.17 Using a range of tests requiring open-ended responses, together with the more conventional intelligence tests, Hudson set out to make distinctions between 'convergers' and 'divergers' and to examine in detail any differences identified. He envisaged 'a spectrum of individuals, ranging from those who can apply their full energy to any task, to those who can apply themselves only when their special interests are aroused' (Hudson 1966 p 64).

13.18 An interesting finding, related to this piece of work is the suggestion that a barrier exists between thinking imaginatively about practical matters and actually making things work. 'It seems that the arts man is free to use his imagination just because he is not committed to being practical; while the scientist's practical commitment precludes his thinking about any use for an object other than the right, the most conventional one' ... 'But what gives the one his skill and the other his aversion is not so much the ability to think practically as the commitment to (or avoidance of) practical action' (Hudson 1966 p 59). Hudson goes even further, suggesting that an individual's preferences to think about

things in a particular way pre-disposes him or her to certain sorts of activity which presumably meet, in some way, those preferences. Thus, for Hudson, 'Typically the diverger's interests ... are reading, current affairs and the arts, whereas the converger concerns himself with cars, radios, model building, climbing, camping, natural history, canoeing, etc.' (Hudson 1966 p 71).

13.19 Using 'open-ended' tests Hudson identifies a large number of differences between convergers and divergers, as follows:-

Fig. 21 A Summary of Differences Between Convergers and Divergers
(Extracted from Hudson 1966 p181-182)

<u>USES OF OBJECTS</u>	CONVERGERS	DIVERGERS	SIGNIFICANCE P	N
Fluency	LOW	HIGH	.001	285
Usual Responses	LOW	HIGH	.005	285
Rare Responses	LOW	HIGH	.001	285
Specific Uses	LOW	HIGH	.001	285

CONTROVERSIAL STATEMENTS

Vehemence	LOW	HIGH	.001	119
Minority Attitudes	LOW	HIGH	.005	119
Authoritarian Attitudes	HIGH	LOW	.001	119
Detailed Criticism	HIGH	LOW	.05	119

PERSONAL QUALITIES

Rigidity	HIGH	LOW	.001	138
Authoritarianism	HIGH	LOW	.005	138
Social Conformity	HIGH	LOW	.01	138

INTERESTS

Cultural/Technical	Technical	Cultural	.001	138
Broad/Narrow	Narrow	Broad	.001	138

13.20 Hudson goes far beyond these findings to imply many links between creativity (or lack of it) and convergent/divergent thinking. There would be little point in pursuing these discussions here. It seems sufficient, for the purposes of this research to recognise his evidence for the existence of task and informational preferences strongly linked to the personal characteristics of individuals.

13.21 Like Hudson, Wilkin and Kagan take the indirect route to an explanation of cognitive styles. They examine the products of thinking rather than the process itself, from these products they draw inferences about the underlying processes. Witkin and Kagan use scores attained on carefully designed tests as measures of the styles they are investigating. Herman Witkin examined what he refers to as field - dependence/independence; Kagan looks at what he terms reflectivity/impulsivity.

13.22 Field Dependence/Independence Considering firstly, Witkin's concept of field dependence/independence Witkin (1969 p 197) defines cognitive style as 'the characteristic, self consistent ways of functioning a person shows in the cognitive sphere', for him part of an individual's understanding of the world is the interpretation of what he sees, this perception is seen to develop along with intellect. Perception is above all inferential process; for most people, largely dependent upon making sense of complex sets of visual stimuli. More often than not there is more than one way of interpreting this complex visual information, evidenced at a very simple

level, by the variety of 'optical illusions' produced and used both for entertainment and more serious psychological purposes. It seems reasonable to conclude that, as seeing is a process involving 'making sense' of stimuli, there may well be differences in the ways that different people make their interpretations. For instance, it seems possible that some people are more influenced than others by the context in which they see something. Those highly influenced by context are, for instance, more likely to be susceptible to the kind of 'visual illusion' mentioned above because these 'illusions' generally depend upon a person's capacity to be misled by contextual cues.

13.23 Much of the work in the area of differing individual susceptibility to contextual cues has been carried out by Witkin and his colleagues in the USA. For Witkin (1969) the term 'field dependence', describes the tendency to be influenced by context; and 'field independence', the tendency to be relatively free from this kind of influence. Very early in his research Witkin found that 'people differ from each other in their characteristic way of perceiving both the world and themselves. We also found that a given way of perceiving is related to the personality adjustment the individual has worked out in the course of growing up' (Witkin 1969 p 199).

13.24 Witkin was convinced that an individual may be effectively characterised in terms of cognitive style. That cognitive style encompasses both perceptual and intellectual functioning. Much more than this, however, cognitive styles are broad dimensions extending throughout a person's cognitive activity into the domain of personal

functioning or personality. Witkin introduced the concept of 'cognitive mapping' whereby an individual's cognitive make up might be seen as a pattern of characteristics defined in terms of cognitive styles. He does, however, accept that 'a great deal more must be known about cognitive styles than we do now before they can serve in the task of mapping' (Witkin 1969 p 221). Witkin believes that, in the field of education, uni-dimensional assessments like IQ encourage us to think in terms of 'more, or, less' and 'better, or, worse', his cognitive map concept focusses on the ways in which individuals are unique and the multiplicity of ways in which people may be different. The result is 'to emphasise individuality and to de-emphasise labelling along a simple "better-or-worse" continuum' (Witkin 1969 p 223).

13.25 Witkin goes on to consider the effect of differing cognitive styles on relations between people, those who are 'field independent and show an articulated cognitive style will be less conforming and more self directed' (Witkin 1969 p 223) in their behaviour. He establishes very clear links between cognitive styles and occupational choices. 'It has been found that persons with an articulated cognitive style' (field independent) - 'tend to choose occupations which not only draw on their special cognitive skills, but which are unconventional and which do not particularly involve them in relations with other persons' (Witkin 1969 p 224).

13.26 Reflectivity and Impulsivity Another proposed cognitive style that has been extensively investigated is the concept of reflectivity/impulsivity. This concept appears to

have some relevance for the expressed task preference and performance of managers at work. Major workers in this area have been Jerome Kagan and his colleagues. Their term for the tendency to blurt out responses without apparently having given much thought to the response is 'conceptual tempo' and the two extremes of the scale they call 'reflectivity' and 'impulsivity'. Kagan et al (1966 p 583) reported that a series of investigations 'has demonstrated the temporal stability and inter-task generality of a tendency toward fast or slow decision times to problems with a high response uncertainty.'

13.27 In the same work Kagan gives the following descriptions of typical characteristics as follows:-

Reflective Individuals

- * Delay a long time before reporting a solution and are usually correct.
- * Consider the 'differential validity' of alternative answers.
- * Make fewer errors in reading text or recalling serially learned material.
- * Persist for longer with difficult tasks.
- * Try to avoid errors.

Impulsive Individuals

- * Report the first hypothesis that occurs to them, the response is often incorrect.
- * Make decisions quickly and are 'minimally concerned' about errors.

13.28 In relation to reflectivity/impulsivity Kagan et al saw the process of solving problems in terms of two phases:-

a) Selection of a 'solution hypothesis' for action.

b) Evaluation of the quality of the solution.

They set up a whole series of tasks and measured both response time and correctness of responses. Their findings strongly supported the 'assumptions of a general tendency towards reflective or impulsive responding in problems with high response uncertainty' (Kagan et al 1966 p 594).

13.29 Kagan identifies the major finding as the idea that incorrect responses are not necessarily indicative of insufficient knowledge or information. They may be a result of the personal characteristic of impulsivity. He goes further to suggest that, 'it may be profitable to consider training in 'reflection' when facts and rules are introduced to facilitate the general quality of his performance' (Kagan et al 1966 p 594).

13.30 Kagan's work has been criticised on two grounds, both of which are concerned with the validity of using response times to measure the degree to which a person reflects about a problem. Nevertheless, if personal characteristics and cognitive styles exist that affect problem solving, decision making and quality of response, then these seem likely to have a substantial influence on the behaviour of a manager in his/her job.

13.31 Cognitive Styles and Behaviour in Managerial Contexts Moving away from work on cognitive styles that has been directed at behaviour generally, it is now intended to consider some research concerned more specifically with the effects of differences in cognitive style (learning style/strategy) and personality on behaviour in managerial contexts.

13.32 James McKenney and Peter Keen (1974) explored the existence of 'two cultures' - 'managers' and 'management scientists'. They see each culture with its own goals, languages and methods and the amount of co-operation between the two, 'just about minimal'. For them the major issue for management science as a discipline seems to be, to get managers, in 'areas of decision making where the management problems do not lend themselves to explicit formation, where there are ambiguous or overlapping criteria for action, and where the manager operates through intuition,' (McKenney et al 1974 p 79) to make use of 'formal techniques that can clearly be so helpful to them but have not yet been so in practice' (McKenney et al 1974 p 80).

13.33 Manager v.s. Scientist McKenney and Keen identify what they believe is the primary factor in determining the difference between the two cultures. They see this factor as a 'distinctive style of thinking and problem solving' not under the control of either the 'manager' or the 'scientist'. In its own context each is perceived to be highly effective. The differentiation of thinking style makes each successful in his chosen specialisation. The cost of this differentiation, however, is seen to be the difficulty it presents

for integration of the two approaches. The issue for MacKenney and Lewis is how to get the 'scientist' and the 'manager' to communicate 'how to complement each other's strengths with sacrificing too much of ones own' (McKenney et al 1974 p 80).

13.34 The model developed by them, largely using information obtained from a number of MBA students, is reliant upon the idea that consistent modes of thought develop through training and experience, that these modes can be classified along two dimensions:-

A. INFORMATION GATHERING

At the extremes of the information gathering dimension are two types of individual.

* Perceptive: Who bring concepts to bear on the data. They focus on relationships between items and look for deviations from or conformity with their hypothesis. Their precepts act as cues for gathering and cataloguing information.

* Receptive: Who are sensitive to the stimulus itself. They focus on detail rather than relationships and try to derive the attributes of the information from direct consideration rather than comparison with precepts.

Each mode of information gathering is seen to have advantages in specific situations but each also contains the risk of overlooking potential meanings within data. The preceptive person tends to often ignore relevant detail, whereas the

receptive thinker may fail to link details to produce a meaningful picture. The preceptive individual is likely to prefer tasks such as Public Relations, Marketing, or Planning. The receptive person seems likely to be successful in roles such as monitoring or audit.

B. INFORMATION EVALUATION

At the extremes of the information evaluation dimension are two types of individual.

- * Systematic: Who tend to approach problems by structuring them in terms of some method which, if pursued, leads to a likely answer.
- * Intuitive: Who avoid committing themselves in the above way. Their strategy is more one of solution testing and trial and error. They are much more likely to jump from one method to another, to discard data and to be sensitive to cues that are difficult to define verbally.

With regard to Information Evaluation each mode is seen to have potential risks as well as certain advantages for the individual. In tasks such as production management systematic thinkers tend to excel, developing procedures to economise on effort and utilise all their experience. Intuitive thinkers often 're-invent the wheel', they are however equipped to deal with ill-structured problems where: the volume of data; the criteria for solution; or the nature of the task do not allow the use of pre-determined methods. The latter sort of problem will be extremely difficult to resolve using systematic

thought.

13.35 Decision Making and Problem Solving In their model of cognitive style McKenney and Keen concentrate upon problem solving but their central argument is 'that decision making is above all situational and, therefore, includes problem solving' (McKenney et al 1974 p 81). Their theory provides some explanation of the processes affecting the manager's way of dealing with his environment. It includes aspects of behaviour omitted in many decision making theories: problem finding; problem recognition; and problem definition. Generally, many theories assume that the situation has been defined, the manager presented with a neatly packaged problem and instructions on what he should do to solve the problem. Implicit in their approach is the concept that 'particular modes of cognition are better suited to certain contexts than others.' (McKenney et al 1974 p 82)

13.36 McKenney and Keen are adamant that the mode of thinking adopted by each individual owes far more to preference than to ability or applicability to a particular problem. For them, people choose experiences that reinforce their preferences, suggesting that: not only do cognitive styles exist but that these can be matched to types of task; not only will the capable individual look for tasks that are compatible with his/her preferences but he/she will also approach a problem or task using the mode of thinking with which he or she is most comfortable.

13.37 The major characteristics identified for each style are described by McKenney and Keen as follows:-

Systematic Thinkers

- * Look for a method and make a plan for solving a problem.
- * Are very conscious of their approach.
- * Defend the quality of the solution largely in terms of the method.
- * Define the specific constraints of the problem early in the process.
- * Quickly discard alternatives.
- * Utilize a process of increasing refinement of analysis.
- * Conduct an ordered search for additional information.
- * Complete any step in the analysis that they begin.

Intuitive Thinkers

- * Keep the overall problem always in mind.
- * Redefine the problem frequently during the process.
- * Rely upon hunches and non-explicit cues.
- * Defend solutions in terms of fit.
- * Consider several options and alternatives at the same time.
- * Jump from step to step in the analysis, searching and often returning to previous steps.
- * Explore and abandon alternatives very quickly.

Receptive Thinkers

- * Suspend judgement and avoid preconceptions.
- * Are attentive to detail and the exact attributes of data.
- * Insist upon thorough examination of data sets before developing hypotheses or conclusions.

Preceptive Thinkers

- * Look for cues within the data set.
- * Focus on relationships.
- * Leap from one section of data to another, building sets of explanatory precepts.

13.37 Linking their findings on problem solving preferences to task preferences at work, McKenney and Keen identify a number of jobs that they see as compatible with each cognitive style:-

Tasks and Roles Compatible with each Cognitive Style (adapted from McKenney and Keen 1974 p 83)

*PRODUCTION AND LOGISTICS MANAGER *STATISTICIAN *FINANCIAL ANALYST	P R E C E P T I V E	* MARKETING MANAGER * PSYCHOLOGIST * HISTORIAN
SYSTEMATIC * CLINICAL DIAGNOSTICIAN * AUDITOR	R E C E P T I V	INTUITIVE * ARCHITECT * BOND SALESMAN

13.38 An important finding for this work was McKenney and Keen's conclusion that 'there seems little doubt that in these extreme cases at least, the individual maps himself onto the problem, rather than matching his behaviour to the constraints and demands of the particular task' (McKenney and Keen 1974 p 84). That is, the individual's approach bears more relation to personal characteristics of the individual than to characteristics of the task he is asked to perform. This finding has clear implications for the individual who finds him/herself faced with a range of tasks incompatible with his/her own personality and style.

13.39 Personality and Cognitive Style Their work went further, to explore the relationship between personality and cognitives style by comparing their test results with data obtained using the 'Myers Briggs Type Indicator' (described in detail later in this work.) Perhaps the most striking aspect of this part of their work was a strong relationship between the proposed cognitive styles and some of the Myers Briggs scales. More particularly the 'systematic' subjects tended to be 'thinking types' and 'intuitives' tended to be 'feeling types'. They also found a more modest relationship between the 'systematic' style and introversion and similarly between the 'intuitive' style and extraversion.

13.40 McKenney and Keen suggest that general managers committed to the use of management science techniques are likely to be systematic in style, 'The techniques match their own innate approach to problems, they gravitate to occupations suited to their style' (McKenney and Keen 1974 p 85). They stress that the intuitive mode is not 'sloppy or loose' but does seem to have an underlying discipline at least as coherent as the systematic model but one that is rarely made explicit. The intuitive manager is in fact characterised by the ability to act without conscious articulation of his premises. The systematic manager 'aims at a model that is complete and has predictive power which he can then improve and refine.' The intuitive manager focusses on and enjoys playing with unknowns until he gets a feeling for the steps necessary to complete the task. 'Then he is ready to delegate the process of dealing with the problem to some individual in his organisation who can systematically handle it in a more routine fashion' (McKenney and Keen 1974 p 87).

13.41 What stands out in McKenney and Keen's model is the idea that there is no right way of solving managerial problems. Formal logic is generally regarded as the correct approach to reasoning; for the manager, however, thinking is often a compromise between the demands of 'compulsiveness, speed and accuracy'. 'For the manager there is no best way of thinking' (McKenney and Keen 1974 p 90).

13.42 Work and Learning The work of John Dewey (1963) is interesting in this context, exploring in a limited way, links between learning styles and

personality. He argued that work and learning should be integrated, that there is 'An intimate and necessary relation between the processes of actual experience and education.' He maintained that experience could be the 'best' teacher, providing that there are opportunities to learn from action. That it is not enough to 'insist upon the necessity' of experience or even of activity during experience; it is the 'quality' of experience and reflection upon it, that is important. Dewey's views provided the basis for Ralph Lewis and Charles Margerison's study, reported in 1979.

13.43 This study examines the relationship between people's approach to learning and their preferred ways of working. For Lewis and Margerison 'Given that 95% of learning for most employed persons is done in the context of the job, it is important that we discover how different people see learning in the work context' (Lewis and Margerison 1979 p 25). They report emerging evidence that individuals have distinct work preferences and 'will only perform of their best in jobs which match their learning style and work preference' (Lewis and Margerison 1979 p 25). The research of Lewis and Margerison was heavily influenced by Jungian concepts. They are committed to the idea that psychological 'types' are of fundamental importance for the understanding of how people work and relate to others.

13.44 In common with several of the researchers considered here, Lewis and Margerison identify understanding of people's decision making processes as particularly important. The overall model adopted in their study is outlined below and utilises the scales employed in the 'Myers Briggs

Fig.22 Work Preferences

(Adapted from Lewis and Margerison 1979 p26)

<u>EXTRAVERT PREFERENCE</u> E Prefers to live life in contact with others and things.	<u>INTROVERT APPROACH</u> I Prefers to be more self contained and work things out personally.
<u>SENSING PREFERENCE</u> S Puts emphasis on facts, details and concrete knowledge.	<u>INTUITION PREFERENCE</u> N Puts emphasis on possibilities imagination, creativity and seeing things as a whole.
<u>THINKING PREFERENCE</u> T Puts emphasis on analysis, using logic and rationality.	<u>FEELING PREFERENCE</u> F Puts emphasis on human values, establishing personal friendships, decisions made mainly on beliefs and likes.
<u>JUDGING PREFERENCE</u> J Puts emphasis on order, through reaching decisions and resolving issues.	<u>PERCEIVING PREFERENCE</u> P Puts emphasis on gathering information and obtaining as much data as possible.

13.45 They took this model and related it to individuals' expressed views about their preferred ways of learning. To do this, they used the measure developed by David Kolb and his associates, the 'learning style inventory', a self assessment questionnaire that allows people to identify the ways in which they prefer to learn. (Kolb's work is discussed later in this section.)

Lewis and Margerison's findings can be summarised as follows:-

Extravert/Introvert Types

Both extraverts and introverts prefer involvement in learning situations 'which are neither excessively detached nor 'concrete'. There was a 'fair degree of variance' in this area and the major difference stemmed from the extravert's emphasis on a preference for active rather than reflective roles, conversely, the introverts preferred a reflective approach.

Sensing/Intuitive Types

The person who prefers a sensing approach will be more inclined to prefer involvement in learning situations where he can 'have some tangible and concrete task to perform'. The intuitive will be heavily inclined towards an involvement 'where he can conceptualise and juggle with ideas.' These findings were significant at the 0.01 level.

Thinking/Feeling Types

The thinking type tends towards an active learning role, the feeling type falls midway between an active and reflective orientation. Thinking types expressed a liking for work permitting 'conceptualising and calculation', in an 'active decision making way' rather than as a 'supplier of data.' Those with a preference for feeling seek tasks where they can be associated with 'people and things'. These results were significant at the 0.05 level.

Judging/Perceiving Types

The person with a preference for judging, not unlike the thinking types, favours 'the abstract conceptualisation process'. The individual favouring the perceiving approach prefers involvement and contact with people and things, he/she learns 'where he can see things going on.' The perceiving type prefers, if anything, a learning role that is active rather than reflective.

13.46 Lewis and Margerison conclude 'Clearly people with different work preferences do have distinct ways of learning. We need, therefore, not only to match people to a job which fits their work preference but to design training and development situations which are congruent with their personality and ability' (Lewis and Margerison 1979 p 28).

13.47 Whilst the results of this work are less than definitive, they do offer some indications of links between expressed task preferences, cognitive style and personality.

13.48 Experiential Learning Theory In 1967 David Kolb began his involvement with the implications of experiential learning theory and commenced a series of experiments exploring what he calls 'the techniques of learning from experience' (Kolb 1984 pXI). Kolb's model of learning is concerned with an examination of the relationship between education, work and personal development. He sees experiential learning as clearly distinct from 'rationalist and other cognitive theories of learning that give emphasis to the recall of abstract symbols; and from behavioural learning theories that deny any role for consciousness and subjective experience in the learning process' (Kolb 1984 p20).

13.49 Kolb does not attempt to present experiential learning as a third option, instead he proposes an 'holistic integrative perspective on learning that combines experience, perception, cognition and behaviour' (Kolb 1984 p21). It is suggested that experiential learning has certain distinct characteristics:-

- * Learning is best conceived as a process, not in terms of outcomes.
- * Learning is a continuous process grounded in experience.
- * The process of learning requires the resolution of conflicts between 'dialectically opposed modes of adaptations to the world.'

* Learning is an 'holistic' process of adaptation to the world.

* Learning involves transactions between the person and the environment.

* Learning is a process of creating knowledge.

13.50 He offers the following definition of learning:-

'Learning is the process whereby knowledge is created through the transformation of experience'

(Kolb 1984 p38)

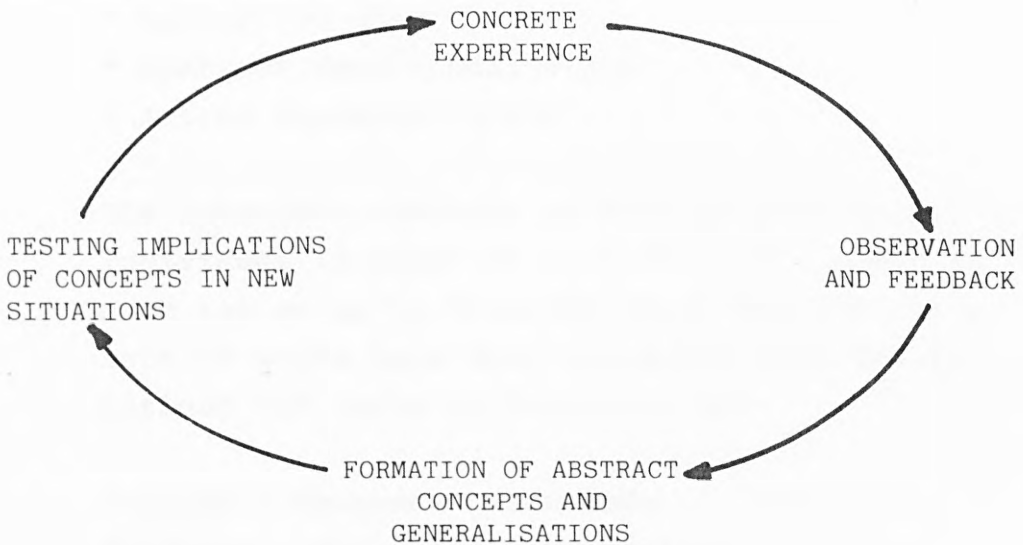
For David Kolb, 'In a world where the rate of change is increasing rapidly every year, in a time where few will end their careers in the same job or the same occupations as they started in, the ability to learn seems an important, if not the most important, skill' (Kolb 1979 p37).

13.51 The 'textbook' view of learning appears to be primarily concerned with abstract ideas and concepts and the process of remembering them. On the other hand, problem solving is apparently seen as active not passive, the problem solver holds the responsibility. The person faced with a problem 'must experiment, take risks and come to grips with the problem. Usually no external sources of evaluation are needed. He knows when the problem is solved' (Kolb 1979 p37). Kolb suggests that a combination of the perceived characteristics of learning and problem solving (he hypothesises that a single process) offers a much closer means of understanding the ways in which people 'generate from their experience concepts, rules and principles to guide their behaviour in new situations, and how they modify

these concepts in order to improve their effectiveness' (Kolb 1979 p37).

13.52 Kolb's Learning Cycle It is proposed that the learning process is: firstly, both active and passive, both abstract and concrete. Kolb sees this as a four stage cycle, continuous and recurring:-

Fig.23 Kolb's Learning Cycle



Secondly, the individual's felt needs and goals determine the direction that learning takes. People are seen to seek experiences, form concepts and test hypotheses related to their own goals. Consequently the process of learning is erratic and may be inefficient, especially when objectives have not been made explicit.

Thirdly, because individual needs and goals direct the process, learning styles are 'highly individual both in direction and process'. We experience and fail to learn from the experience; we produce theories but fail to test them out, thus personal learning styles develop both strengths and weaknesses.

13.53 Learning Styles Inventory Based upon his model of learning Kolb devised a simple self description test designed to help people assess their own strengths and weaknesses in the four stages of the learning process. Kolb's 'Learning Style Inventory' (LSI) is based upon the premise that learners rely upon four different learning modes:-

- * Concrete Experience
- * Reflective Observation
- * Abstract Conceptualisation
- * Active Experimentation

The inventory consists of sets of four words; the individual is asked to rank order the words in each set so as to describe their own abilities. Sets of words have been carefully selected to reflect the modes of learning, eg:-

Feeling - Concrete Experience
Watching - Reflective Observation
Doing - Acting Experimentation
Thinking - Abstract Conceptualisation

13.54 Using data gathered from around 2,000 adults of varying backgrounds, Kolb provides profile norms for comparison. The inventory has been designed ostensibly to permit individuals to judge the relative importance of the various stages of the learning process for them; the learning modes they prefer and use.

13.55 Kolb explains the significance of his data as follows:-

A High Scorer on Concrete Experience

- * Demonstrates a receptive, experience based approach to learning.
- * Relies heavily upon feeling based judgements.
- * Tends to be empathetic and people oriented.
- * Finds a theoretical approach unhelpful - treats each situation as unique.
- * Learns best from specific examples in which he/she can become involved.
- * Is oriented towards peers rather than authority.
- * Benefits most from feedback and discussion.

A High Scorer on Abstract Conceptualisation

- * Adopts an analytical, conceptual approach to learning.
- * Relies upon logic and rational evaluation.
- * Tends to be oriented to symbols and things rather than people.
- * Learns best in directed, impersonal situations where theory and systematic approaches are emphasised.
- * Benefits little from unstructured learning designs, eg, exercises and simulations aimed at 'discovery' learning.

A High Scorer on Active Experimentation

- * Tends to have an active, doing orientation.
- * Relies heavily on experimentation.
- * Dislikes passive learning designs.
- * Prefers projects, group work, exercises.
- * Tends to be extravert.

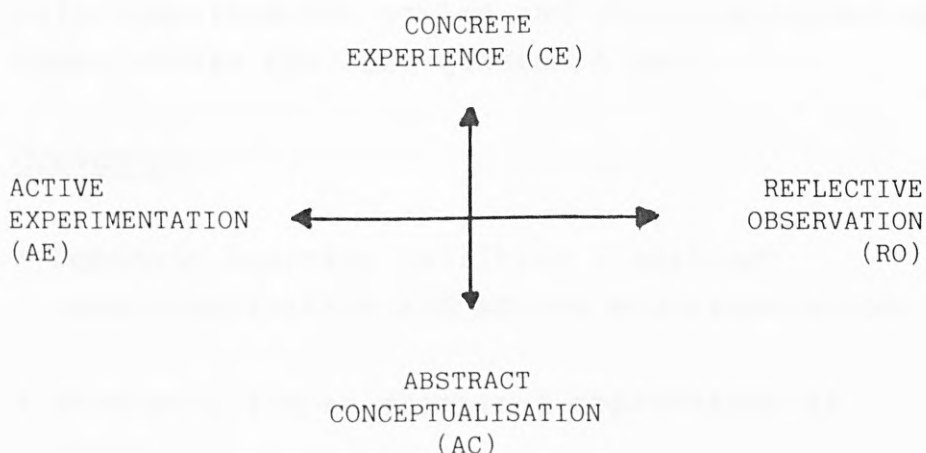
A High Scorer on Reflective Observation

- * Adopts a tentative, impartial, reflective approach to learning.

- * Relies heavily on detailed observation and careful judgements.
- * Prefers formal learning situations such as lectures that permit him/her to take an impartial, objective role.
- * Tends to be an introvert.

13.56 Interestingly, bearing in mind the emphasis of my own work, Kolb is convinced that the LSI does not measure learning style with 100% accuracy. It is only some indication of the way the individual sees himself/herself as a learner. For Kolb, data is required from other sources 'if you wish to pinpoint your learning style more exactly (eg, how you make decisions on the job, how others see you, and what kinds of problems you solve best)' (Kolb 1979 p40).

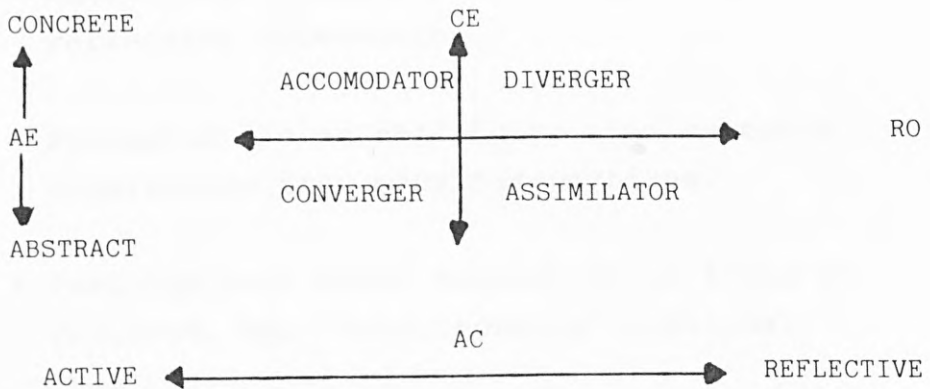
He makes it clear that none of the four categories alone are likely to accurately describe a person's learning style. People have a tendency to demonstrate a style that is not clear cut; a combination of aspects of more than one of the basic learning modes. Kolb's explanation is offered in terms of a two-dimensional approach:-



13.57 An individual's learning style is described using a single point combining all scores on all four categories. The raw scores are marked along the two dimensions and the point of interception is plotted. Depending upon which quadrant the point falls into, an individual is described as:-

- * ACCOMMODATOR
- * DIVERGER
- * CONVERGER
- * ASSIMILATOR

The quadrants are located as follows:-



13.58 Based upon 'research and clinical observation', Kolb describes the styles and characteristics of those within the four quadrants as:-

CONVERGER

- * Dominant learning abilities - abstract conceptualisation and active experimentation.
- * Strengths lie in practical application of ideas.

- * Performs best where there is a single correct answer or solution, eg, conventional intelligence tests.
- * Tends to be relatively unemotional, prefers dealing with things rather than people.
- * Has narrow technical interests - often specialises in physical science, eg, engineers.

DIVERGER

- * Opposite to the converger.
- * Learns best through concrete experience and reflective observation.
- * Strengths lie in ability to view concrete experiences from many perspectives.
- * Performs best where generation of ideas is required, eg, 'Brainstorming' sessions.
- * Tends to be interested in people, imaginative and emotional.
- * Have broad cultural interests tending to specialise in arts, eg, counsellors, development specialists, personnel managers.

ASSIMILATOR

- * Predominantly learns through abstract conceptualisation and reflective observation.
- * Strengths lie in ability to construct and

create theoretical models.

- * Performs best where there is a call for inductive reasoning and the assimilation of disparate ideas into an integrated whole.
- * Tends to be less interested in people, more concerned with theories.
- * It is more important that theories are logical and sound than practically useful.
- * Where the theory does not fit the facts the assimilator is likely to re-examine the facts or even disregard them.
- * Typically interested in basic rather than applied science, eg, Maths - he/she will often specialise in research or planning.

ACCOMMODATOR

- * Opposite to the assimilator.
- * Predominantly, learnings through concrete experience and active experimentation.
- * Strengths lie in doing things, carrying out plans and experiments, revels in new experience.
- * Tends to be a risk taker.
- * Excels where he/she must adapt to immediate specific circumstances.

- * Where the facts do not fit the theory, then a new theory will be developed.
- * Solves problems by trial and error, relies on other people for information rather than on his/her own analytical ability.
- * At ease with people but may be seen as impatient or push.
- * Oriented toward technical and practical work areas and action centred jobs such as marketing or sales.

13.59 Learning Style and Task Preferences Kolb is particularly emphatic about the relationship between learning style and task preference. He sees learning and problem solving as 'activities that emphasize different aspects of a single adaptive process described by the experiential learning cycle. Thus, we might expect some relationship between an individual's learning style and the way that person goes about solving problems in work and personal life' (Kolb 1984 p45). He uses his model of experiential learning to illustrate links with problem solving:-

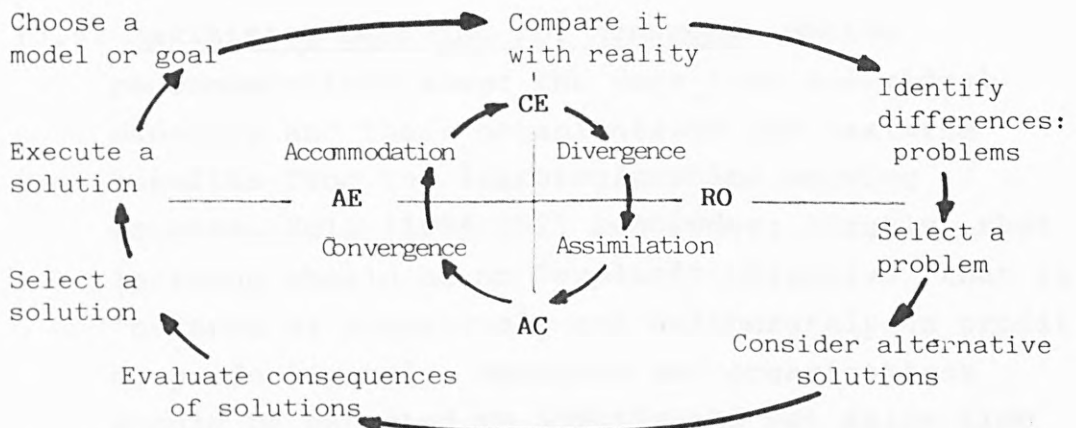


Fig. 24 Relating the Experiential Learning Model to Problem Solving

(Adapted from Kolb 1984 p46)

13.60 Successful managers are not characterised by a single set of skills or particular types of knowledge but predominantly by the ability to respond to and meet an often rapidly changing environment; their ability to experience and learn from the experience. What Kolb set out to do was produce a model of the ways that people learn. Through his model of learning he hoped that managers might be better 'able to enhance their own and their organisation's ability to learn' (Kolb 1984 p49).

13.61 Managers vs Management Scientists One problem he perceives for management development, in common with other workers in the field, is an indication that managers are, on the whole, distinguished by very strong active experimentation skills and are very weak on reflective observation skills. Business school faculty members usually have almost the reverse profile. 'Management education will not be improved by eliminating theoretical analysis or relevant case problems. Improvement will come through integration of the scholarly and practical learning styles' (Kolb 1984 p49).

13.62 Maximising Learning for Managers Making recommendations about the ways that individual managers and their organisations can maximise benefits from the learning/problem solving process, Kolb (1984 p52) concludes: Firstly, that learning should be an 'explicit objective' that is 'pursued as consciously and deliberately as profit or productivity'. Managers and organisations should be expected to specify and set aside time to learn from experience; secondly, for optimal learning, action and reflection, concrete

experience and detached analysis are all essential. 'When one perspective comes to dominate others, learning effectiveness is reduced'. The most effective learning climates are those in which differing perspectives are not only tolerated, but are actively encouraged.

13.63 Ironically perhaps, in view of the precoding sections, the work of Kolb has been criticised on the grounds that its heavily academic approach makes it difficult to understand and restricts the usefulness of the model for managers. There seems little doubt however that Kolb's comprehensive theory of learning, encompassing problem solving and task preference, is of enormous interest and potentially at least, offers great benefit to those managers and management scientists involved in management and organisation development.

13.64 The Physiological Factor? Whilst not strictly concerned with either cognitive styles or personality, the following piece of work is included without apology. No doubt, in some quarters, the content would be regarded as very speculative (even fanciful), it does however move beyond the area of identification and description of cognitive styles and work preferences. What the author attempts to do is offer a suggestive explanation of causality.

13.65 In 1976 Henry Mintzberg produced an unusual and interesting article that might offer some links between cognitive styles, work and task preferences and the physiology of the brain. The discussion considers contemporary scientific research based upon evidence from accident and stroke victims as well as the subjects of various surgical procedures and is concerned with

specialisations within the human brain. Indications were that logical, linear functions occur in the left hemisphere and holistic, relational functions often in the right. Mintzberg saw such specialisation within the individual as having implications for the way that people function. 'Speech, being linear, is a left hemispheric activity, but other forms of communication, such as gesturing, are relational rather than sequential and tend to be associated with the right hemisphere' (Mintzberg 1976 p51).

13.66 Mintzberg cites work indicating that certain common tasks activate only one side of the brain, leaving the other hemisphere at rest. For example, a 'person's learning a mathematical proof might evoke activity in the left hemisphere of the brain whilst his conceiving a piece of sculpture or assessing a political opponent might evoke activity in his right' (Mintzberg 1976 p52). An individual can be 'smart and dull' at the same time, simply because one side of his brain is more developed than the other. Thus lawyers and accountants have better developed left hemispheric thinking processes whilst others; artists, sculptors, etc. have better developed right hemispheric functions. At the extremes 'an artist may be incapable of expressing his feelings in words, while a lawyer may have no facility for painting'.

13.67 The Manager and His/Her Brain What is proposed by Mintzberg in the 1976 article, is a fundamental difference between: formal planning, management science; and the practice of management. He sees the techniques of planning and management theory as 'sequential and systematic', above all articulated. Planners and management scientists

are pictured as proceeding via a series of logical, ordered steps, each one involving explicit analysis; these functions are typical of those ascribed to the left hemisphere of the brain. For Mintzberg the holistic, relational aspects of management, 'the important policy processes of managing an organisation rely to a considerable extent on the faculties identified with the brain's right hemisphere' (Mintzberg 1976 p53).

- 13.68 Interestingly for this research, Mintzberg looks at some of the aspects of senior managers identified in his major work (Mintzberg 1973). He relates the on-the-job behaviour of chief executives to his speculative hypothesis about cerebrally determined preferences.

Forms of Communication

Face to face verbal communication is strongly favoured by managers because it:-

- * Enables the manager to 'read' facial expression, tones of voice and gesture.
- * Enables the manager to engage in 'real time' exchange of information.

Mintzberg draws the conclusion that managers seek relational, simultaneous methods of gathering information, rather than ordered sequential ones.

Communication Content

A great deal of managers' received information is soft and speculative - impressions and feelings about other people, heresay and gossip. Very

analytical inputs - reports, documents and hard data in general seem to be of limited importance.

It is proposed that the soft speculative data is more amenable to synthesis indicating the manager's preference 'to synthesise rather than analyse'. For the manager, 'judgement' refers to thought processes that work but are not explicit.

Delegation

A consequence of the manager's preference for soft, verbal information is a dichotomy. The manager is likely to be the best informed member of his organisation but he has difficulty in disseminating what he knows. He is faced with the dilemma of delegating tasks without the background information or simply doing the job himself. Neither alternative is satisfactory.

Action vs Reflection

Managers seem to revel in ambiguity, in complex, mysterious systems with little perceived order. They actively exhibit a preference for interruption in their work! Clearly the manager is not seen to work in a systematic, orderly, scientific way. He deals with issues in the context of immediate issues and daily activities. The manager is intimately involved in his organisation, he is 'plugged in; his mode of operating is relational, simultaneous, experiential, that is, encompassing all the characteristics of the right hemisphere' (Mintzberg 1976 p55).

Choices

When managers make choices from a range of options, how are they made? Mintzberg suggests three modes of selection:-

- * Analysis
- * Judgement
- * Bargaining

The first involves the systematic evaluation of options in terms of consequences for organisational goals; the second is a process involving characteristics unique to the individual; the third requires more than one person to negotiate.

Strategy

Representing for Mintzberg, 'the mediating force between a dynamic environment and a stable operating system' (Mintzberg 1976 p56). Thus strategy becomes the way in which an organisation seeks to deal with its constantly changing environment. 'No management process is more demanding of holistic, relational, gestalt thinking than the formulation of a creative, integrated system to deal with a complex intertwined environment' (Mintzberg 1976 p57).

13.69 Mintzberg is at great pains to stress the speculative nature of his paper. He maintains that researchers have yet to formally link any management process to the functioning of the brain. In his conclusions, however, he states that 'the important policy level processes required to manage an organisation rely to a

considerable extent on faculties identified with the brain's right hemisphere' (Mintzberg 1976 p57). This does not of course imply that the functions of the left hemisphere are not important for effective management. Successful managers are, without doubt, those who can couple hunches, judgement, synthesis, etc. with; specificity, logic and analysis. What Mintzberg expresses very strongly is the notion that there will be 'little headway' in the understanding of management if managers, management scientists and researchers 'continue to search for the key to managing in the lightness of ordered analysis. Too much will stay unexplained in the darkness of intuition' (Mintzberg 1976 p57).

METHODOLOGY

14. Population to be Studied

14.1 Introduction

14.1:1 A consistently interesting feature of the study of managerial work is the range of different sources and contexts from which the theories and data emerge. Many kinds of researchers have an interest in exploring work behaviour and experience. In addition to those academic investigators concerned with understanding for its own sake, there are: management development specialists concerned with facilitating the personal development and awareness of managers; organisation development consultants concerned with the effectiveness and efficiency of the organisation; Psychologists whose concern is to increase the satisfaction of people in their working life; and management services specialists interested in the methods and systems operating

within the workplace. Each of the specialisations (plus the economists, sociologists, etc.) has generated instruments, tools and methods appropriate to their task.

14.1:2 Methodological Approaches 'Pure Research' has been focussed on: data collection; methods of evaluating the data and the hypotheses, and more particularly experimentation. On the other hand 'Applied Research' has been intent upon the collection of information and the use of this to promote or facilitate change. A problem with the 'academic' approaches to managerial research is the feeling that there is an almost inverse relationship between testability and descriptive power. It is possible to describe behavioural movement in operational terms and a description of behaviour expressed in this way might be fairly readily tested for accuracy or validity. A description limited to recording discreet behavioural actions, however, precludes: experience; ideas; concepts; values; language and verbal communication. In fact such a description appears to exclude most of that which is interesting, relevant, significant and above all, useful, about managerial behaviour. To go beyond direct observation of simple behavioural movements involves the use of hypothetical constructs. Propositions of this type are, regrettably, not easy to test. To conceptualise the most subtle and complex areas of behaviour and experience will almost certainly require constructs definable in terms of other concepts which are not directly relatable to observable behaviour.

14.1:3 Theories of social behaviour vary in the degree to which they emphasise testability or differentiation. This depends largely upon the

context in which the theory has been developed and the methods on which it has been based. Frequently there has been an assumption that experimentally testable theories are more valuable; such judgements (like all others, perhaps) are subjectively rooted in the evaluators. As testability is the fundamental criterion of value for experimentalists, it is hardly surprising that they cast a jaundiced eye on theories that are less testable, whatever the differentiating power.

14.1:4 In the context of management it does seem evident that a theory with a high descriptive power, even at the cost of a strictly rigorous empirical base may well be far more useful than one with detailed experimental support but with findings of limited application. The most significant attributes of a manager, without which no account of complex behaviour and experience can be complete are: concepts; ideas; thoughts; values; attitudes; and feelings. None of these can be precisely defined or quantified in any direct way (and interactions between them are even less susceptible to measurement or definition) they can only be expressed indirectly in terms of symbols and other concepts, eg: scales purporting to measure, personality, cognitive style, values, attitudes, etc.

14.1:5 Data Collection The primary aims of methods for collecting data are sensitivity and measurability. Increased sensitivity to subject matter is, however, not sufficient for the progress of 'scientific' understanding. What is also needed is reliability. Sensitivity is not much help if observations are unreliable. Techniques designed to increase sensitivity to and objective

measurement of, management behaviour and experience are, as yet, fairly rudimentary, although much effort and ingenuity has gone into improving research design. The problem with research into management is not merely the complexity of what is happening (biochemistry, nuclear physics and other sciences are hardly simple), the major difficulties are posed by the subject matter. Managers, unfortunately for the 'scientists', are human.

14.1:6 The kind of issues described in preceding selections seem to have dissuaded researchers from exploring in any depth those factors, especially those characteristics of the individual, that influence managerial behaviour. All too often, it is suspected, promising areas of research have been rejected, or perhaps criticised to destruction, by those who advocate a level of scientific rigour and repeatability that is achievable only under the strictly controlled conditions of a research laboratory. With people as subjects such rigour is rarely achieved even within the most stringently controlled environments. Sadly for those who demand a rigidly scientific approach, managers rarely frequent the cloistered surroundings of the scientific laboratory. It has proved singularly difficult to persuade managers (even management students) - being developed to work 'normally' under laboratory conditions or 'repeatably' under any conditions.

14.1:7 The environment in which the manager operates is, despite the mythology, the reverse of the scientific laboratory. More often than not, the manager works within a dynamic climate and culture; a climate that necessitates reactive

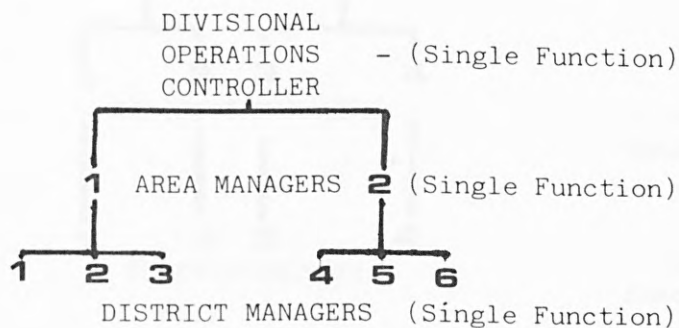
responses, frequent changes of activity and direction resulting from a variety of competing influences. In realistic terms these are the materials with which the researcher must work. All that he can do, is attempt to derive some means of capturing, interpreting or representing as much as possible of what is happening within the manager's natural habitat; the workplace. Inevitably the result of this pot-pourri of factors is compromise.

14.2 Evolution of the Design

This section of the thesis is included without apology, it serves to illustrate not only some of the points made above but also, and more especially, the difficulty of constructing scientifically rigorous work within developing organisations.

14.2:1 Initially it was intended to study six managers at the same level of accountability in one, single function operating unit of Anglian Water, as follows:-

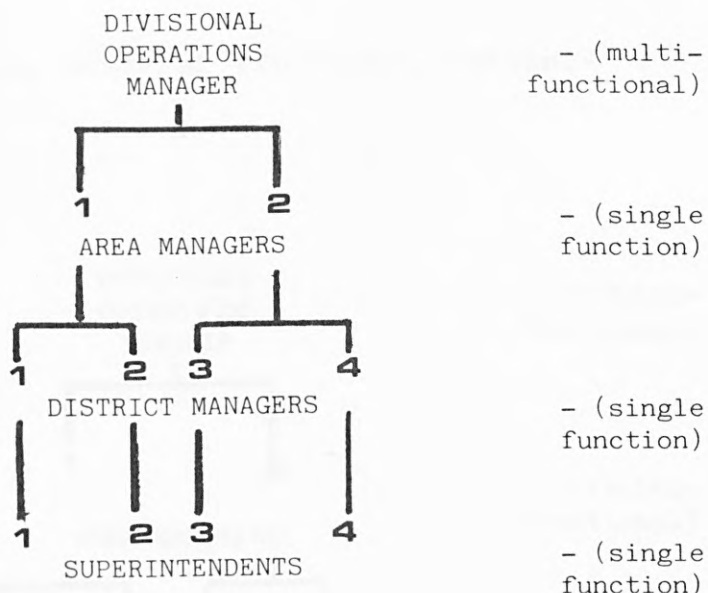
Mk I



The subjects were to be the District Managers

14.2:2 This proposal was overtaken in 1982 by a reorganisation of the Division from three areas to two. What followed rendered these changes insignificant. The Authority reorganised in April 1983 reducing from 19 single function Divisions down to five very large multi-functional Divisions. (In the water industry the 'functions' are: Potable water, supply and treatment; Sewerage and sewage treatment; and Rivers, pollution control, navigation and fisheries). One major result of this reorganisation was the production of a 'multi-functional' Divisional Operations Manager with, below him a tier of single function Area Managers. The Operations Manager was extremely enthusiastic about the research and suggested a new extended design, as follows:-

Mk II



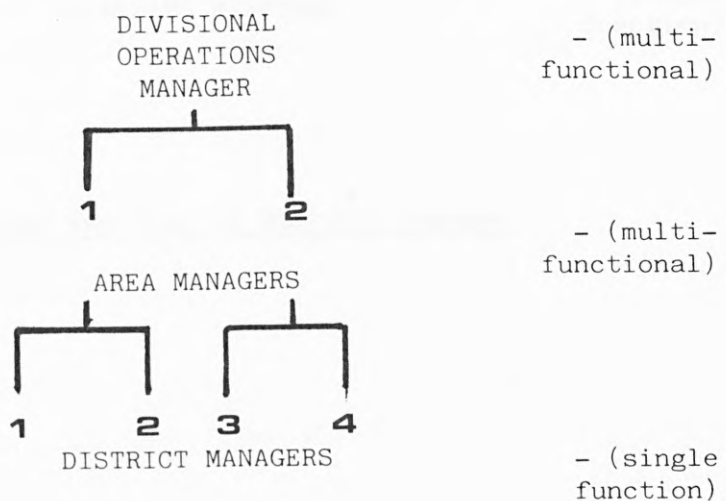
Subjects were all those within the above family tree.

14.2:3 Once again the research was overtaken by re-organisation (not only managers operate in a dynamic environment!) Six months later, the number of Area Managers in the Division was halved, each of the survivors became responsible for an are incorporating all three functions. At this point in time not only the managers' but also the author's workload reached the level at which the research design had to be once more reviewed. The outcome of the increased operational pressures, together with two additional factors:-

- * A much reduced enthusiasm amongst senior managers for any research in the management field;
- * The need to take account of the disturbed work patterns throughout the organisation

produced a new, somewhat truncated, design:-

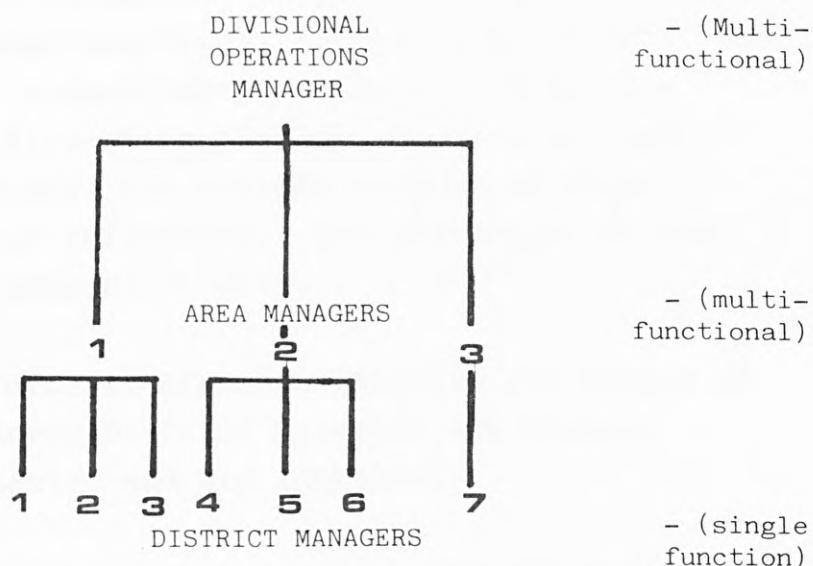
Mk III



Subjects to include all except the Divisional Operations Manager

14.2:4 Suddenly, almost overnight, stability, management development and succession planning was the vogue; enthusiasm grew within the senior managers and the final stage of evolution began. Extensive discussions and not a little frustration on the part of the author, produced the final research design; or at least finally identified the population of managers to be studied:-

Mk IV



The level to be studied was that of District Manager.

Whilst the design upon which data collection commenced, late in 1985, bears a striking similarity to the one initially proposed in 1981, the nature of the organisation had changed radically during that period.

14.3 Advantages of the Agreed Design It is appreciated that many variables could affect the choice of a manager to carry out one task rather than another. This study is concerned with personal characteristics of the manager and the influences these might exert upon the choices he makes; it is however, recognised that factors external to the individual are likely to have some effect. The finally agreed design appears to offer the possibility of controlling for (or at least identifying) the effects of some of these potential influences. The advantages of the design seem to be that:-

- * The formally stated objectives and duties of the seven District Managers are clearly delineated and are identical.
- * The formally stated objectives and duties of the three Area Managers are clearly delineated and are identical.
- * The formal reporting lines of the seven District Managers are identical.
- * The three Area Managers are directly accountable to the same manager, the Divisional Operations Manager.

- * The formal structures of the districts are identical; although some have more staff than others and the geographical sizes of the districts are different.
- * The design allows some assessment of the possible influence of different Area Managers on their District Managers' choices.
- * Each District Manager was selected, using the same procedure: a 'leadership' assessment event; informal interview with the Divisional General Manager and Divisional Operations Manager; followed by a formal interview with the same individuals.
- * Each District Manager, once appointed, went through the same management and leadership development process: an external management programme at Ashridge Management College; and an internal programme designed and mounted within the Division.
- * All the District Managers had been in post for longer than 12 months therefore, work patterns were well established.
- * The researcher, in his role of Technical/ Managerial Consultant within the Division, was already known to all the subjects.

14.4 Subjects The following is a brief summary of biographical information obtained before and during the research. (More detailed information is given in Appendix I) For the purposes of the study, in order to preserve the anonymity of those studied, each manager has been allocated a number, this was used throughout the research and

subsequent analysis.

Fig. 25 Summary of Biographical Information Relating to Subjects

**

MANAGER NUMBER	GRADUATE OR HNC	PROFFESIONAL QUALI- FICATION	SPECIAL- ISATION	AGE	TOTAL NUMBER OF JOBS	YEARS AS A MANAGER
1	✓	✓	ENGINEER	32	5	12
2	✓		ENGINEER	33	3	2
3				35	3	3
4	✓		ENGINEER	39	7	11
5	✓		CHEMIST	34	4	2½
6	✓	✓	CHEMIST	35	5	6
7	✓	✓	CHEMIST	32	4	5

** This column represents the manager's view of the management content of his previous jobs.

14.5 Each of the managers studied were highly rated within the Division, each was judged by Divisional Personnel Specialists to have the potential and ability to move into senior management posts in due course. It was felt that the information relating to each manager should be fed back on an individual basis at the end of the data collection phase. This would be used, in conjunction with personal counselling, as the basis of individual management development programmes.

It is now proposed to consider the sort of factors taken into account in the selection of the data collection techniques employed in this project.

15. Assessment of Task Preferences

15.1 In his very comprehensive work, Mintzberg (1973) examines at considerable length the advantages and drawbacks of the various research methodologies that have been used to study managerial work. It is not intended to reproduce the detail of his work, nor to duplicate his efforts by covering the same ground it seems sufficient to summarise his major conclusions and look at the implication of these for the proposed data collection and data analysis in this research. Mintzberg's literature search can be summarised as follows:-

Fig 26 Seven Methods to Study Managerial Work

(adapted from Mintzberg 1973 p229)

	Method	Major Advantage(s)	Major Dis-advantage(s)	Appropriate Use
1	Secondary Sources	Convenient: draws on analyses of others	Data frequently unavailable, inappropriate or incomplete	To study job of inaccessible manager.
2	Questionnaire and interview	Convenient	Data of questionable reliability	To study manager's preception of his job.
3	Critical Incident & Sequence of Episodes	Allows for intense probing	Parts of job not covered by data	To study certain aspects of job in depth (eg, decision-making)
4	Diary	Efficient (ie, large sample possible relative to researcher's time investment	No help in developing understanding of new dimensions; some problems with interpretation, consistency and reliability	To study characteristics of large sample of differing managerial jobs
5	Activity Sampling	Efficient: recording by researcher	Little help in developing understanding of new dimensions, noncontinuous, hence, interpretation is difficult	To study observational aspects of different jobs in one location
6	Unstructured Observation	Enables researcher to understand new dimensions and to probe	Nonsystematic (may lose important data: cannot replicate inefficient	To study the most complex, less understood aspects of manager's job (content)
7	Structured Observation	Enables researcher to understand new dimensions, to probe, to be systematic.	Inefficient (consumes much researcher time) difficult to interpret some activities	To study at same time content and characteristics of small sample of manager's jobs

15.2 At first glance it would appear that observation offers definite advantages as a method for obtaining behavioural data relating to the population of managers selected. The technique provides a means of acquiring behavioural information under conditions free from the constraints of the laboratory or the interview room. It is also possible for data to be collected in situations where methods employing verbal or written communication between the subjects and the researcher are unsuitable; in this way it provides a means of studying the most complex, least understood aspects of a manager's work, the content.

15.3 Problems of 'Self Report' Direct observation overcomes to a large extent, the problem of deliberate deception by the subject; which may occur with both self report and interview techniques. Although it may be possible for the manager to tailor verbal and written responses; it is extremely difficult to modify reactions and responses which have been internalised into his repertoire over perhaps many years and are part of his/her consistent way of dealing with staff, colleagues, customers, etc. Quite aside from deliberate deception, however, a subject may omit from his account relevant actions, feelings, etc. for many reasons varying from: the idea that certain things are not significant or irrelevant and not worth mentioning; through the simple lack of time to record certain events; to the unconscious selectivity which may be deeply rooted in the manager's psychological make-up. Additionally, self report behaviour categories, devised in advance by the researcher, may be interpreted differently by different subjects.

The inconsistent use of categories leads to unreliability of results. Rosemary Stewart (1976 p2) recognises the limitations of her early diary work, 'Its methodology which relies heavily on specially designed diaries, and involved no personal contact with the managers, greatly restricted the aspects of managerial work that could be studied'. She later attempted to remedy this deficiency by combining diary studies with detailed follow-up work, on a one to one basis, with a proportion of the subjects of her diary studies.

15.4 Observer Influence on Behaviour Observation, when carried out by a trained person allows accurate recording of what is happening, at the time it is happening. One drawback with 'participant' or 'fly on the wall' observation is the possibility of influencing results merely by being there. A further feature of this type of observation is that, unless observations are noted there and then, it becomes difficult; firstly, to retain information long enough to write up; and secondly, to avoid losing objectivity during the period of retention of data. A solution to this approach appears to be what W.F.Whyte (1943) calls a 'semi-detached' approach, ie, an open study carried out over a sufficient length of time to ensure that observational activities become an accepted background to the behaviour under study.

15.5 Use of Data Generated by Observation A technical criticism which has been levelled at observation methods, is that the basically uncontrollable and unstructured nature of studies tends to preclude generalisations from the data. It is possible however, to overcome this drawback by using analytical systems that limit the interpretative

range of the observer. Behaviour categories have also been employed to overcome 'comparability' difficulties created by subjectivity on the part of the observer.

15.6 Observer Subjectivity Any description provided by an observer will relate to his/her perception of the events that occurred. There will almost certainly be some variation in the way that a particular piece of activity is interpreted by different people. Thus, any results will be an expression of a 'construct' composed of an interaction between the events that occurred and the observer's interpretation of those events, as Bruner (1957 p124) puts it, 'all perceptual experience is necessarily the end product of a categorisation process'.

15.7 Criticisms of Observation It is apparent that criticisms of observational techniques as research tools can be divided into two distinct levels. Firstly, criticisms aimed at the observations themselves. Most of these problems, for instance, subject awareness, observer influence; can be overcome by methodological care and the use of trained observers. Secondly, criticisms which can be directed at the interpretation placed upon the results of observational studies. It is possible to assess the reliability of categorisations of recorded behaviours by getting a number of people to interpret those activities using the same analytical system. Comparison of the resultant analyses produced by the different judges, will indicate how reliably the categories can be applied. Whilst observational techniques offer many advantages to the management researcher, care must be taken to adopt a methodological approach which suits particular circumstances. For the

information to be of value, the observer must be experienced and, as far as possible, objective. Even under these circumstances, the event which has occurred and the event reported may not, as a result of interpretation, selectivity or subjective categorisation, be the same.

15.8 At this stage it may be helpful to draw a distinction between observational procedures of the sort being considered for use in the data collection phase of this research and the rating procedures that have been used elsewhere. When collecting observations, the observer is intended to function as what Thorndike and Hagen (1977 p507) refer to as 'an objective mechanical recording instrument'. On the other hand, the 'rater' is expected to synthesise and integrate the evidence being collected. The observer serves merely as a flexible recording machine, the rater, much more than this, is expected to judge, weigh and interpret. In designing a structure for the data collection phase of this study it seemed essential to find an approach which would allow both recording of all the important data and facilitate analysis, whilst retaining sufficient flexibility to develop some understanding of 'unknowns'.

15.9 Examination of the perceived strengths and weaknesses of systematic direct observation as a means to study managers at work, has highlighted the areas requiring attention within the project design.

Pros. and Cons. of Direct Observation

15.9:1 Advantages

- * When we observe directly we obtain a record of what the manager actually does, we are not dealing with his rationalisations. The record should be free from what he think he does or is.
- * Careful attention to the preparation of the observer(s) can ensure that the record obtained is largely free from idiosyncrasy and bias.
- * Where concern is with what an individual does, 'observation of his behaviour is the most direct and in many ways the most satisfying, way of getting the relevant information' (Thorndike and Hagen 1977 p518).
- * Observational techniques can be applied in all the normal everyday settings for managerial work.
- * Observation is not restricted to experimental situations but may be an important aspect of such research.
- * The observer is able to gather behavioural data when immediate self recording is not possible for the manager.
- * Through careful preparation, the observer may function unobtrusively such that subjects ignore him/her, accepting him/her as part of

the surroundings.

15.9:2 Disadvantages

- * The approach is costly in terms of trained observer time and is limited, therefore, to projects where the time commitment can be made.
- * The large amount of relatively complex data produced means that analysis is likely to be time consuming.
- * There is always the possibility that the presence of an observer in any setting will change what happens. In managerial situations it is impossible for the observer to be invisible.
- * It is necessary to ensure that subjectivity and bias are kept out of observations.
- * If observations are to be treated quantitatively they must be classified, grouped and counted. Any categorisation system is a somewhat arbitrary framework imposed upon a set of varied, perhaps complex, events. The significance or meaning of scores based upon observations of behaviour is dependent upon the categories used to analyse that behaviour.
- * Because of the need to achieve reliability and objectivity there may be a tendency to focus observation on small, discreet actions or break up the analysis into small and

discreet portions. Inherent in this approach is the real danger that the meaning of the behaviour, its true significance, will be lost.

- * Observations are 'a view from the outside', the problem of determining the meaning of the behaviour remains. It must be recognised that what is being observed is what the manager does, not what it signifies.

15.10 Other Considerations Field experience by the author in case study work, and by many other researchers has highlighted a number of critical disadvantages with diaries, questionnaires and interviews. The researcher's categories, questions, etc. inevitably represent an over-simplified pre-judgement, from where he or she is, about managerial work, using concepts which may or may not be salient for the manager. Managerial work is hectic, complex and usually there is a requirement for short and intense bursts of activity. The manager is far too busy to accurately record or recall his behaviour. Beyond this, the inability of managers to make an accurate assessment of what they do is reiterated again and again in published research. It was felt quite strongly that indirect methods of collecting data; diaries, questionnaires, interviews, etc. were destined to yield data of doubtful reliability. Additionally, because of the 'second-hand' nature of the process and the amount of pre-determination involved it was believed that such indirect methods would do little to assist the author's understanding.

15.11 Selection of a Preferred Approach Workers such as Mintzberg found that there were a number of 'Hawthorne Effects' in his study, but that they had little influence upon the data he was seeking. Whilst those being observed did, at times, 'no doubt perform differently', if only by including the observer in conversations, etc., providing that one is not concerned with studying managerial style but with content, the results obtained should be little affected. 'In general the basic activities of any manager's week do not change because of an observer. Scheduled meetings are set up well in advance, and incoming telephone calls and mail are not influenced by the presence of an observer. Perhaps it could be argued that fewer unscheduled meetings and originated calls would take place, but given the kinds of information I was exposed to at various times, there was no reason to believe that events were delayed to avoid my being exposed to them' (Mintzberg 1970 p103). On balance, it was decided to adopt a relatively structured means of collecting data, using direct observation. (Details of data collection are given in Section 19).

15.12 Data Analysis Before settling upon the detail of ways to structure data collection it was necessary to consider the basis upon which the information gathered would be used to identify each manager's task preferences. It would have been possible of course, for the author to devise his own system of classification. As well as creating problems of comparability with prior research, however, this approach seemed fraught with the dangers inherent in diary studies, that is, imposing an arbitrary order to the data, based purely upon the

researcher's own pre-conceptions about managerial work. It was decided, therefore, to examine the categorisations produced by two recent, major studies of managerial work, that of Rosemary Stewart and of Henry Mintzberg.

15.13 Rosemary Stewart's Managerial Types The classification resulting from Stewart's work is based upon types of managerial job:-

- * Emissaries who spend much time away from their firms, dealing with and entertaining others; typically they are sales managers, senior managers who act as public figures.
- * Writers who spend time writing, reading, dictating and figure work; typically they are staff specialists, computer managers, engineers, etc.
- * Discussers 'Average' managerial types who spend much time with others, usually colleagues, activities are diverse.
- * Trouble Shooters who spend time coping with crises. Work is fragmented, much time is spent with subordinates and largely on inspection; typically, they are production managers.
- * Committee Men Most of their time is spent in committee meetings. Contacts are vertical and horizontal within the company; typically, they are managers within large, bureaucratic organisations.

15.14 This categorisation was used to classify data produced by a pilot study of two District Managers who were not involved in the study proper. Firstly, it was felt that five categories were hardly adequate to encapsulate the content of the District Manager's job. The condensation involved in reducing the range behaviours observed into five managerial types necessitated what seemed to be a massive, costly and unnecessary loss of information. Secondly, in order to allocate the observed activities to the five categories, in any consistent way, it was necessary to arrive at a set of behaviours clearly identifiable with each managerial type. This proved to be singularly difficult, ultimately requiring a large number of arbitrary decisions by the author. Analysis of the pilot study data, based upon Stewart's categories produced a description of the behaviour of the two managers which not only offered little differentiation between subjects but also left the researcher feeling that the results were unsatisfying and unconvincing.

15.15 Henry Mintzberg's Managerial Roles

15.15:1 In the book 'The Nature of Managerial Work' published in 1973, Mintzberg proposes what he describes as 'a categorising process, a somewhat arbitrary partitioning of a manager's activities into affinity groups' (Mintzberg 1973 p55). He makes it plain that this classification is not the only one possible, 'There can be no correct or incorrect categorisation of roles, just tighter or looser, more or less useful ones. The pragmatist will judge the usefulness of a theory by attempting to use it, the scientist, by the validity of the approach used to arrive at it' (Mintzberg 1973 p266). Mintzberg's theory of roles was based upon information derived through an exhaustive process investigation during which subjects were questioned at length about the purpose of observed activities. It was decided to adopt the pragmatic approach described by Mintzberg and explore the usefulness of his roles for the analysis of data obtained from structured observations carried out during the pilot study mentioned above.

15.15:2 All the activities recorded during the pilot work were subjected to a process of classification in terms of the ten managerial roles identified by Mintzberg. These roles and the associated activities are summarised as follows:-

	<u>Description</u>	<u>Associated Activities</u>
<u>INTERPERSONAL ROLES</u>		
Figurehead	Symbolic head; obliged to perform a number of routine duties of a legal or social nature.	Ceremony, status, requests, solicitations.
Leader	Responsible for the motivation and activation of subordinates; Responsible for staffing, training, and associated duties.	Virtually all managerial activities involving subordinates.
Liaison	Maintains self-developed network of outside contacts and informers who provide favours and information.	Acknowledgements of mail; external board work; other activities involving outsiders.

INFORMATIONAL ROLES

Monitor	Seeks & receives	Handling all
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wide variety of special infor- mation (much of it current) to develop thorough understanding of organisation and environment; emerges as nerve centre of internal and external information of the organisation.	mail and contacts categorised as concerned primarily with receiving information (eg periodical news, observational tours)
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Disseminator	Transmits infor- mation received from outsiders or from other subordinates to members of the organisation; some information factual, some involving inter- pretation and integration of diverse value positions of organisational influences.	Forwarding mail into organisation for informational purposes, verbal contacts involving information flow to subordinates (eg review sessions, instant communication flows)
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Spokesman	Transmits information to outsiders on organisation's	Board meetings; handling mail and contacts involving
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plans, policies, transmission
actions, results, of information
etc., serves as to outsiders.
expert on
organisation's
industry.

DECISIONAL
ROLES

Entrepreneur	Searches organisation and its environment for opportunities and initiates "improvement projects" to bring about change; supervises design of certain projects as well.	Strategy and review sessions involving initiation or design of improvement projects.
Disturbance Handler	Responsible for corrective action when organisation faces important, unexpected disturbance.	Strategy and review sessions involving disturbances and crises.
Resource Allocator	Responsible for the allocation of organisational	Scheduling; requests for authorisation,

resources of all kinds - in effect the making or approval of all significant organisational decisions. any activity involving budgeting and the programming of subordinates' work.

Negotiator	Responsible for representing the organisation of major negotiations.	Negotiation.
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Adapted from Mintzberg 1973 p92

15.15.3 Disadvantages of Ten Roles

- * Even using ten categories, as against five proposed by Stewart, there may be some loss of information through condensation of large quantities of data.
- * Using Mintzberg's definitions, which he admits are not fully operational, a small number of activities could reasonably have been placed in more than one category. In order to overcome this difficulty it proved necessary to make some arbitrary decisions regarding allocation; fortunately relatively few activities were affected. (This problem will be considered in more detail in the section relating to analysis of results.)
- * Despite Mintzberg's assertion that every manager's job comprises a gestalt composed of all ten roles, one of the ten roles, that of

'figurehead', did not appear to be displayed by either of the subjects. This may be attributable to the restricted nature and timescale of the pilot study or even the hierarchical position of the managers studied. (Mintzberg's study was based upon the activities of chief executives).

15.15:4 Advantages of Ten Roles

- * Each role description relates to a set of behavioural activities that were used to derive that role. Therefore, each role is observable.
- * All the activities of the two managers could be readily, and justifiably, accommodated within the ten roles. This avoids some of the omissions evident in other studies when it has proved impossible to allocate certain activities to categories.
- * The analysis resulted in a clear description of the work of the two District Managers in generally understandable terms.
- * The analysis provided a well differentiated account of behavioural activities within a framework that appeared to facilitate comparison with independently assessed personal characteristics.

15.15:5 Conclusions about the Ten Roles It was evident from analysis of the 'pilot' data that categorisation based upon Mintzberg's ten managerial roles that the disadvantages were more than outweighed by the perceived advantages. Moreover the resultant description, for the observer, was a convincing representation of the managerial behaviour displayed by the two subjects

of the pilot study. Based upon these considerations it was decided to subject the data resulting from the structured observations in the research paper, to analysis using the ten managerial roles identified by Mintzberg. Allocation of individual activities to these roles was to be carried out using his definitions, operationalised as necessary, to permit consistent and reliable classification.

16. Assessment of Personality Characteristics

16.1 Introduction

16.1:1 General Difficulties Much could be written about the use and mis-use of psychological tests in work contexts. Tests have been devised to measure a whole range of human characteristics: abilities; attitudes; values; interests; motivation; personality; etc. As a further complication the tests come in different forms, more or less useful for the situations in which they are employed, eg, selection, assessment, training needs diagnosis, etc.. The measurement of personality characteristics involves special problems.

16.1:2 Difficulties with Personality Testing The most obvious difficulty, compared with for instance, measurement of abilities, is that the approach involving placement of an individual in standard, controlled, conditions and obtaining a sample of his/her behaviour; is not feasible. It is practically impossible to set up in the laboratory standard situations in which typical personality traits are likely to be manifest. Most of the important aspects of personality are social in nature and are demonstrated , therefore, only in

social situations. For ability testing, the use of samples and standard sets of conditions is more feasible; problems posed in the laboratory can be similar in most essential respects of the problems a person encounters in reality. In testing personality, and predicting subsequent behaviour, it is difficult and in many cases has proved impossible to reproduce, under controlled conditions, the social interactions in which the characteristics of personality are likely to become observable. Personality theorists have adopted two types of strategy to help them get round this problem.

16.1:3 Approaches to Personality Measurement The first strategy involves the use of reported behaviour or reported response to a set of test situations. This has given rise to the many questionnaires and inventories presently available. The second approach is to present the subject with ambiguous stimuli such as ink blots or pictures and ask for his/her reaction to them. It is assumed that the responses reflect personal style and orientation. To complicate the matter further personality research has been dogged by the kind of ideological issue referred to earlier, the question of 'scientific acceptability'.

16.1:4 Idiographic and Nomothetic Techniques Some psychologists have advocated the adoption of what has been called the 'nomothetic approach', others have argued that the most useful approach is 'ideographic'. For the purposes of this work, the term idiographic will be taken to refer to the theoretical orientation which concentrates on the intensive study of the individual, the collection of data covering many aspects of his/her personality; the orientation is typified by the

work of Sigmund Freud. Nomothetic will be taken to refer to the methods adopted by factor analysts such as Cattell, Eysenck, etc.; the approach attempts to derive rules and generalisations from the study of large numbers of people, thus group norms are established with which individuals can be compared.

16.1:5 Differences in Data Collection Between the Approaches

The major difference between the ideographic and nomothetic approaches can be seen in the type of data upon which proponents base their work. The nomothetic theorists rely upon standardised techniques using questionnaires and inventories. Subjects' responses are objectively scored, recorded and compared with norms established using representative, large samples of people; the approach has a strongly comparative orientation. Idiographic workers like Freud rely upon: interviews using techniques such as free association and dream analysis; social and personal histories; and subjective interpretation of appearance and mannerism on an individual basis. The approach has an individualistic, historical orientation.

16.1:6 Differences in Application of Information

Between the Approaches As well as a radical difference in the type of data used, there have also been disagreements, often heated disputes, about the application of the information derived by the two approaches. The methodology of the nomothetic approach is essentially inductive, hypotheses are developed through a search for patterns within the data. Eysenck, Cattell and others of the nomothetic school predicted outcomes on the basis of objective, analytical procedures that leave little room for judgement or inference

once the test construction stage has been completed. Freud and the idiographic school drew conclusions and made decisions based upon: inference, interpretation; opinion; experience; and intuition. The results of such analyses cannot realistically be used to make generalisations, they may however generate hypotheses and theories that can be tested on others. Thus the methodology of idiographic workers is largely deductive; data are collected and analysed to confirm or refute existing theories. More generally, idiographic techniques are highly individualised and personal; each subject is unique. Nomothetic methods tend to be collective and essentially impersonal, using large scale, often group testing in order to provide the normative data required for comparative purposes.

- 16.1:7 Relevance for the Research The discussion above represents a polarised view of the methodological, perhaps ideological, differences between the basic approaches to the study of personality. At one end of the spectrum lies psycho-analytical theory, rich in ideas and offering intricate explanations; a theory which does however suffer from methodological shortcomings which leave the whole approach open to question. At the other end of the scale are the factor analysts; their approach lays emphasis on scientific rigour and testability, offering descriptions and definitions of generalised patterns of behaviour. The factor analytic methodology has been criticised both for its parsimony and for its heavy reliance upon complex and technical statistical methods for its proof. In the real world, 'usefulness' is the prime factor in judging any approach. Contextually it is perhaps worth considering the words of Leona Tyler (1973 p92), psychological

tests and measurements 'are human tools designed for human purposes. By themselves they settle no theoretical arguments, treat no patients, educate no children, solve no social problems. But in the hands of skilled workers who understand them they can help us in all these undertakings.' In the context of this research, it was felt quite strongly that if the results are to be 'useful' then any personality measures employed should be widely accepted by practitioners.

16.1:8 General Considerations Certain issues should perhaps be considered, at this stage, in relation to the tests chosen for use in this project.

* Standardisation Which implies: Uniformity of procedures for scoring tests; and normalisation of tests against a range of populations comparable with the subjects under study.

'Psychological tests have no pre-determined standards of passing or failing; performance on each test is evaluated on the basis of empirical data. For most purposes, an individual's test score is interpreted by comparing it with scores obtained by others on the same tests. As the name implies, a norm is the normal or average performance' (Anastasi 1982 p24). All the tests proposed for use in this work have standardised administration and scoring procedures, all have been normalised against large representative populations.

* Reliability and Validity Questions of reliability and validity are, unfortunately, not so readily dealt with. The view of what

constitutes reliable data or valid findings appears to be substantially affected by the researcher's theoretical orientation and the statistical methods employed. 'How good is a test, does it really work? These questions could - and occasionally do - result in long hours of futile discussion. Subjective opinions, hunches and personal biases may lead on the one hand to extravagant claims regarding what a particular test can accomplish and on the other hand to stubborn rejection. The only way questions such as these can be conclusively answered is by empirical trial'

(Anastasi 1982 p26).

16.1:9 This project is not concerned with the highly technical and often highly contentious task of establishing the reliability or validity of particular tests in any general way. It is, however, concerned with examining the usefulness (or otherwise) of factors on a number of widely used and accepted measures for predicting particular managerial behaviours in work situations. In opting out of the discussions of the relative technical merits and drawbacks of the tests under consideration, the author is conscious of the comments made by Anne Anastasi in her authoritative work on psychological testing, 'The objective evaluation of psychological tests involves primarily the determination of the reliability and the validity of the test in specified situations' (Anastasi 1982 p26).

16.1:10 Proposed Measures After extensive discussions with a range of test users, and taking into account the considerations above, it was decided to carry out the personality assessment phase of this project using two widely administered and

broadly accepted personality tests. The first is a prime example of the nomothetic approach:-

* Cattell's 16 PF (Form A);

the second is based in psychoanalytical theory:-

* Myers Briggs Type Indicator (Form F)

Both these measures have been normalised against large populations of British adults. The reliability and validity of the measures have been the subject of much discussion, but proponents of the instruments claim they are reliable and give rise to valid information. As one or other of the two tests provide the psychological underpinning for several of the more recent research projects described earlier in the Thesis, it seemed even more appropriate that they should be used. The common test base may allow parallels to be drawn between the studies.

16.2 Cattell's Personality Factors

16.2:1 According to a theory of traits, personality can be described by its position on a number of scales or dimensions, each of which represents a trait. A person may be rated on a scale of intelligence as indicating one personality trait, on a scale of emotional sensitivity as another, etc. A list of this sort is not, however, sufficient to provide a coherent theory of personality. Some sort of order must be established out of the many and varied ways in which a person can be described. Researchers have attempted to produce a structured trait profile that does not rely upon subjective or arbitrary decisions. The work of Raymond Cattell is notable both for the enormous quantity of data collected and for the depth and rigour of his analytical procedures. His preferred analytical technique is that of factor analysis.

16.2:2 Data Collection In gathering his data, Cattell used: behaviour observations and ratings; laboratory studies; and inventories. His subjects came from many different populations and age groups. Allport and Odbert (1936) listed almost 18,000 English words used to distinguish one person from another. Cattell began his work using this list, of what he called 'trait elements', adding a number of terms coined by psychologists during their work. By eliminating the measures that appeared to overlap, he reduced the list of 171 variables describing what he called 'The Personality Sphere' (Cattell 1946). Although traits such as ability can be seen as having positions along a scale from zero to a value

higher than 3000, most personality variables are amenable to expression in terms of opposites with a zero point somewhere in the middle, eg, Cheerful ... Gloomy. Cattell uses such a convention.

16.2:3 Surface Traits When many variables of the sort mentioned above are used to describe the same group of people (and Cattell intensively studied small groups of individuals for a six month period using specially trained personnel who rated each subject for all the trait elements), the variables can be correlated to discover which are related and which are not. Correlations between the elements were computed and analysed using cluster analysis. Fifty clusters emerged, these were called 'surface traits' because similarities were evident without further analysis. The 'surface traits' were subsequently subjected to factor analysis. The resulting factors Cattell called 'source traits'.

16.2:4 Source Traits The source traits identified by Cattell have since been intensively investigated. Different methods of measurement have been used, different groups of subjects studied and the correlations of each have been analysed. Thus, source traits or 'primary factors' account for the correlations between surface traits, which are clusters of trait elements correlating together. Since trait elements represent every word in the language which describes behaviour, Cattell reasons that the source traits account for the whole of personality. Whilst many criticisms have been levelled at Cattell's work over the years, there has been a steady development of his tests, and a massive extension of sampling into many different age groups, occupations, nationalities, etc.

16.2:5 Cattell's 16 PF There seems little doubt that Cattell's factors may be observed in a wide variety of individuals. A fundamental difference between psychoanalytic theory and factor analysts is that the factor analytic approach demands replicable, observable and quantifiable data. Each major factor within Cattell's theory can be operationally defined. Based upon his source traits, Cattell has developed a range of measures designed to identify an individual's personal orientation with respect to these factors. One of the most widely used and commonly accepted is referred to as the 16 PF - the Sixteen Personality Factor. The following are Cattell's Sixteen Personality Factors:-

* asterisked words are neologisms of Cattell's, they will not be found in an ordinary English dictionary.

- A affectia* v sirzia*: warm-hearted, out-going, sociable, contrasted with stiff, cool, critical;
- B intelligence;
- C ego strength v dissatisfied emotionality; stable, mature, calm, contrasted with emotional, immature, unstable;
- E dominance v submissiveness: competitive, independent, aggressive, contrasted with submissive, models, compaisant;
- F surgency v desurgency: unworrying, cheerful, enthusiastic, contrasted with pessimistic, subdued, cautious;
- G super-ego strength: persevering, conscientious, rule-bound, contrasted with undependable, by-passing obligations, a law to oneself;
- H parmia* v threctia*: adventurous, gregarious, uninhibited, contrasted with shy, diffident, restrained;
- I premsia* v harria*: tender-minded, clinging, sensitive, contrasted with self-reliant, tough, practical;
- L protension* v alaxia*: suspicious, jealous, self-opinionated, contrasted with trustful, understanding, adaptable;
- M autia* v praxernia*: unconventional, imaginative, strong subjective life, contrasted with conforming, regulated by external realities;
- N shrewdness v naivety: sophisticated, calculating, insightful regarding self and others, contrasted with simple, artless, lacking insight;
- O guilt-proneness: insecure, worrying, easily discouraged, contrasted with self-confident, accepting, spirited.

These twelve factors in the Sixteen Personality Factor test have also been found in observations. Four other factors, however, have been identified in the questionnaire realm only; they are probably difficult to observe in the rating situation.

- Q.1 radicalism v conservatism;
- Q.2 self sufficiency v group dependence;
- Q.3 self-sentiment strength, ie, self respect and care of social image.
- Q.4 ergic tension, ie, tension resulting from frustrated instinctual drives (called ergs by Cattell).

16.2:6 Secondary Factors Cattell went beyond these primary factors in later studies. By correlating the source traits and subjecting the correlations to factor analysis he obtained a number of second order factors. The first two appear to be the most important.

* Anxiety: Concerned with anxiety in the generally accepted sense - worry over problems and difficulties, feelings of guilt and tenseness.

* Exvia: A high score indicates an outgoing, uninhibited person, a good mixer. (The 'Inviant' is on the other hand shy and self contained.)

The remainder are perhaps less so:-

* Radicalism: A high scorer is aggressive, independent and self directing.

* Tender Mindedness: High scores indicate sensitivity, liability to frustration and emotionally controlled conduct.

* Super Ego: This factor loads along on Factor G (Super-Ego).

16.2:7 General Applicability of Trait Theory The question for this research is: can trait theory contribute to a concise and, more especially, useful and meaningful description of personality within a managerial context? Three characteristics of Cattell's work seem relevant for the answer to this question:-

- * Firstly, the trait theory approach is a straight-forward one, providing a basis for later experimental testing. The consistencies and generalities of personality are broken down into manageable areas which, in themselves, are subject to study.
- * Secondly, the very independence of traits ensures that a structure of some sort is needed to describe their organisation and interaction within the individual. The profile that emerges from a set of rated traits may not be an adequate description of personality, even characteristics of the individual described by those traits. When behaviour is divided into traits we have no way of knowing how relatively important the traits are, or how they fit together in the 'jigsaw' of a person's goal related behaviour.
- * Finally, there have been objections to the mapping of traits onto a person as if they assert something fundamental about the way he/she is; to the extent of causing particular behaviours. Assuming that to infer causality, on the basis of trait measures, is unwise' it does however seem reasonable to consider trait as some indication of an individual's potential to behave in a particular way under certain circumstances.

16.2:8 Conclusions Whilst 'pure' trait theory has certain drawbacks in relation to the study of work behaviour, some sort of interactive theory may help to provide an explanation of what is happening. Thus the effects of an individual's trait set might be appraised under a range of

different circumstances; this would permit assessment of the ways in which behavioural effects of traits are demonstrated in response to these circumstances. Combining a comprehensive observational study of the way managers behave in response to their environment with measurement of aspects of personality, may shed light, not only on the ways a manager's choices are affected by personal characteristics but also upon the ways such relationships vary in response to different stimuli.

16.2:9 The Sixteen PF In preceding sections a distinction has been made between source traits and surface traits. Cattell hoped that by taking a very large number of trait ratings and measurements, processing them using factor analysis, he could produce a representation of personality as a whole. An individual would be characterised by his orientation toward certain fundamental source traits. Cattell's 16 PF scales illustrate this approach. The questionnaire he constructed represents a prodigious amount of research, directed at: pinpointing the major source traits; selecting test items designed to best represent them; and building these items into a compact, usable measure. The measure Cattell devised was called the 16 PF (Cattell, Eber and Tatsuoka 1970). The 16 PF yields scores on sixteen relatively independent personality characteristics (source traits), described earlier. In principle the test demonstrates advantages over its most obvious competitor, the 'Minnesota Multi-phasic Inventory', which concentrates upon distinctions between clinical conditions and 'normality'. The data for the MMPI was generated by comparison of information from groups suffering personality disorders; the 16 PF

represents a wide search for the most significant aspects of all personality. A criticism levelled at the 16 PF is that the individual scales (as opposed to the full profile), as sub-tests, sample too little information. It is claimed that this calls into doubt the reliability of the test. If, therefore, test data are used in isolation, this might not be a very useful description of a simple subject's personality. Nevertheless, it is believed that, used in conjunction with other measures, the 16 PF provides access to generally acceptable, quantified, personal data derived from a rigorously researched, well validated base, normalised for a directly relevant population.

16.3 Myers-Briggs Personality Types

16.3:1 General Background Theories of personality are ancient in origin, they do however still persist despite repeated assaults by many researchers. The prevalence for and the reasoning behind such theories is not difficult to understand. A fundamental of all sciences appears to be the need to classify and order the objects of study. The perception, by some, of psychology as a science, may well have generated in theorists the need to split concepts such as personality into distinct types. Type theories depend upon the popular notion that the personalities of some people appear to centre around a particular dominant characteristic, such as, aggression, greed, pride, need for comfort, etc. It follows from this argument that it might be possible to derive a short list of the central styles or themes that characterise some individuals. Most objections to type theory oppose the kind of stereotyping which made the types distinct and independent. Claims have been repeatedly made that a viable type

theory necessitated a bi-modal or multi-modal distribution of traits with peaks representing the separate types. Modern theories do not take the view that types are so distinct. Most maintain that a limited number of components can be found along dimensions that vary continuously in common with other psychological characteristics. Supporters of such theories proposed that combinations of these components, at specified values, differentiate the major types. Many type theories, including Isabel Briggs-Myers' work, are founded in the ideas of Carl J. Jung, originally a disciple of Freud, later he developed his own system of 'analytic psychology'.

16.3:2 Jung's Type Theory Jung wrote widely about psychology. His work on psychological types has been seen by some psychologists as of fundamental importance in understanding how people relate to others and express themselves through work. Whilst his theory is general in nature, it is very much concerned with people's decision-making processes. At the centre of Jung's concept of personality is the idea that each of us possess certain types which can be identified against a number of definable criteria. Jung proposed that we all engage in:-

* Acquiring Information

* Using Information

and that there are characteristic ways in which people involve themselves in the two forms of behaviour. He believed that we have preferred ways of behaving and that given choice we will always move to the activities most congruent with our personality type. Fundamental to this

hypothesis is the concept of personal choice.

16.3:3 Jungian theory identifies the factors which influence the way in which people do things:-

* Acquiring Information

Sensing Intuition

Sensing The individual who prefers a sensing approach emphasises a practical approach and likes dealing with tangible things and ideas. The sensing person relies on the five senses to gather data, prefers factual information presented systematically.

Intuition The individual who prefers and intuitive approach will be less concerned about facts or day-to-day material matters. The intuitive person will prefer ideas and concepts. He will often construct insightful responses based upon apparently small amounts of data. These responses will often demonstrate creativity even if perceived as unrealistic by others. Intuitives rely on personal insight rather than system and are enthusiastic about possibilities.

* Using Information

ThinkingFeeling

Thinking People who prefer this approach emphasise a logical rational orientation. He/she subjects information to calculations and assessments. The thinking individual will make decisions based upon the line of action which seems most logical given a set of objectives.

Feeling Individuals preferring a feeling approach will rely far more on personal beliefs and values when making a decision. People who are strongly oriented to feeling tend to interpret collected data in terms of his/her beliefs and base decisions upon these beliefs and values rather than cool, calculating analysis.

16.3:4 Interaction of Types Jung would maintain that no-one can be characterised as having a type of personality which excludes any of the above factors. An individual may prefer to gather factual information systematically, using whatever methods are expedient, such an approach would clearly demonstrate sensing. The decision making process might then be based upon the person's feelings about which options are right or wrong or, alternatively, techniques such as cost benefit analysis - a thinking approach. For Jung, preferences for feeling or thinking will be demonstrated at the decision stage. There are patently a number of permutations which might emerge as people make their decisions. One may be sensing in acquiring information and feeling in its use. Another might be intuitive in acquiring data and emphasise thinking in the way the data are used. Other possible combinations are: obtaining information by sensing, and using it in a thinking way; gathering data intuitively and applying it in a feeling way.

16.3:5 Other Factors Affecting Work Preferences Carl Jung identified two other major factors: firstly, the direction of the individual's 'life energy'; secondly, the relative emphasis placed upon data acquisition or data usage. Jung proposed two types associated with each of the key factors:-

* Life Energy

Extravert..... Introvert

The Extravert will typically direct his/her energy outwards. He/she enjoys meetings, shares his views and reasons, making sure he is known and known by others.

The Introvert directs his/her energy internally preferring to think things out for him/herself before sharing with others.

* Acquisition vs Usage

Judging..... Perceiving

Judging Types are concerned to make sure that matters are resolved and decisions are made. He/she prefers things to be organised and will only gather the minimum information needed to make a decision.

Perceptive Types are happy gathering lots of data, not necessarily all relevant to the matter in hand. He/she will be concerned to listen and hear rather than to decide or not.

16.3:6 It seems clear that if Types exist, and if they have an effect on the preferences that an individual demonstrates in situations where choice exists; then such Types must have major implications for managerial behaviour. The Types hypothesised by Jung have been incorporated, either as a whole or in part, as major dimensions in many later Type theories.

16.3:7 Eysenck Personality Inventory Eysenck (1960) incorporated the terms Introversion and Extraversion into his personality inventory (Eysenck and Eysenck 1979). In relation to this project however, Eysenck's inventory seemed at least on the surface, restricted in scope limited as it is to two main personality dimensions; Extraversion/Introversion and Neuroticism/Stability. It was felt that such restrictions might well impose undue constraint upon the differentiation between subjects in this study.

16.3:8 Myers-Briggs Type Indicator The author had previous experience with the use of another major personality measure based upon psychological type, the Myers-Briggs Type Indicator. This particular test instrument had been used in self development groups made up of practising managers and with participants on management development events. The Myers-Briggs questionnaire, like the Eysenck Inventory is rooted deep in the personality type theory of Jung. Most appropriately for this research, the test concentrates upon the ways that individuals make decisions. In common with Jung and Eysenck, Isabel Briggs-Myers would assert that we all possess elements of each personality type. There is some evidence from her research that, under conditions of choice, people are inclined to demonstrate behaviours associated with particular Types and that these preferences are likely to be exercised in a consistent way.

16.3:9 Characteristics of the Myers-Briggs Questionnaire The questionnaire produces a continuous score, or a four letter code (type) incorporating four separate, bipolar, scales each

describing an aspect of personal disposition and interest. Although most people are seen by Briggs-Myers to approach decision-making through a process which can be simplistically described in terms of three stages:-

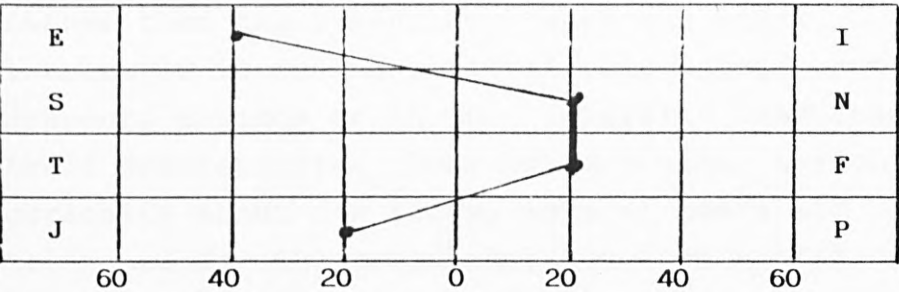
- * Gathering Data;
- * Analysing the Data;
- * Making the Decision;

the Type Indicator profiles 'Gathering Data' into two separate phases, hence the four scales. The Briggs-Myers type theory suggests that an individual will have a preferred position on each of the four scales. In isolation, the scales are not specially useful. Drawn together, however, they can be used to explain a person's individual orientation towards particular situations and environmental contexts, including work preferences.

16.3:10 Type Indicator Scores The scales incorporated within the 'Type Indicator' are as follows:-

* Extraversion (E)	Introversion (I)
* Sensing (S)	Intuition (I)
* Thinking (J)	Feeling (F)
* Judging (J)	Perceiving (P)

A detailed description of these types is given earlier in the Thesis (Section 13.44 to 13.46). The completed questionnaire results in a type defined in terms of expressed preferences along each of the four scales above. Thus, depending upon the subject's scores and their relation to sets of normalised scores each individual can be located on a profile:-



There are eight extreme positions and sixteen possible combinations, therefore there are sixteen possible 'types'. The type illustrated above, for instance, would be coded ENFJ. The whole range of type codes is given as follows:-

		SENSING TYPES		INTUITIVE TYPES	
I N T R O V E R T S	P E R C E I V E S	THINKING	FEELING	FEELING	THINKING
		ISTJ	ISFJ	INFJ	INTJ
		ISTP	ISFP	INFP	INTP
		ESTP	ESFP	ENFP	ENTP
E X T R A V E R T S	J U D G I N G	ESTJ	ESFJ	ENFJ	ENTJ

(Adapted from Myers-Briggs) 1981 p8

Fig. 27 Myers-Briggs Personality Types

16.3:11 Interpretation of Results For each code, Isabel Briggs-Myers (Myers-Briggs 1981 p11) produces a detailed description of the way in which the preferences interact. For instance, the ENJF type referred to in the example above, is described as follows:-

* ENJF's look at things with their intuition rather than their sensing, hence are mainly interested in seeing possibilities beyond what is present, obvious or known. Intuition heightens their understanding, long range vision, insight, curiosity about new ideas, love of books and tolerance for theory. Likely to have a gift of expression, but may use it in speaking to audiences rather than in writing. Interest in possibilities for people attracts them to counselling in the fields of career choice or personal development.

(Myers-Briggs 1981 p11)

Of more specific relevance to this research, perhaps, are what Briggs-Myers refers to as the 'effects of preferences on work situations' (Myers-Briggs 1981 p17-17).

Extraverts

Like variety and some distraction.
Are faster, dislike complicated procedures.
Are good at greeting people.
Are often impatient with

Introverts

Like quiet for concentration.
Are more careful with details.
Have trouble remembering names and faces.

long slow jobs.	Don't mind working on
Often enjoy telephoning.	one project for a
Usually act quickly,	long time
sometimes without	uninterruptedly.
thinking	Dislike telephone
Are interested in how	interruptions.
other people do the job.	Like to think before
Communicate freely.	they act.
Like people around.	Are interested in the
	idea behind their job.
	Work well along.
	May well have
	communications
	problems.

Sensing Types

Dislike problems unless there are standard ways to solve them.

Don't mind routine.

Enjoy using skills already acquired.

Work more steadily, to realistic deadlines.

Are impatient when there are too complicated details to remember.

Are patient with routine details.

Don't usually get inspired.

Seldom make factual errors.

Tend to be precise.

Intuitives

Like solving new problems.

Dislike doing the same things over and over again.

Enjoy learning a new skill more than using it.

Work in bursts of energy powered by enthusiasm.

Are patient with complicated situations.

Are impatient with routine details.

Follow their inspirations, good or bad.

Often make factual

errors.

Dislike taking time for
precision.

Thinking Types

Are not very interested
in people's feelings.
Relatively unemotional.
May hurt people's
feelings without
knowing it.
Like analysis - enjoy
putting things into
logical order.
Make decisions
impersonally, sometimes
ignoring people's
wishes.
Need to be treated
fairly.
Are able to reprimand
people or fire them if
necessary.
Tend to be firm minded.
Analytically oriented
responding to others
ideas.

Judging Types

Like to plan their work
and be able to get it
finished on schedule.
Like to get things
settled and wrapped up.

Feeling Types

Are very aware of other
people and their
feelings.
Like to please people
or help them.
Like harmony -
efficiency may be
badly disturbed by
office fueds.
Have decisions
influenced by personal
likes and wishes.
Need occasional praise.
Dislike telling people
unpleasant things.
Are more people-
oriented - respond to
others' valuesies.
Tend to be sympathetic.

Perceptives

Like to adopt to
changing situations.
Like to leave things
free for alterations.
May have trouble making

May decide things too	decisions.
quickly.	May start too many
May not like to interrupt	projects and finish
one project for a more	too few.
urgent one.	May postpone unpleasant
May not notice new things	jobs.
which need to be done.	Want to know all about a
Want only the essentials	new job.
needed to begin their	Tend to be curious,
work.	welcoming new light on
Tend to be satisfied once	situations and people.
they reach a judgement.	

16.3:12 Drawbacks with Type Theories It is arguable and has been argued that a satisfactory type theory of personality is impossible. Present theories have not, in the main, produced sufficient evidence to justify widespread support. Even if more satisfactory evidence were available however, there appear to be two dangers inherent in type theory. Firstly, type descriptions tend to assert too much about the person. As soon as an individual is labelled according to type theory, it is apparently assumed that a number of assertions can be safely made about that individual. He is expected to demonstrate all the characteristics ascribed to that type. It seems, intuitively, that the constituents of each personality are not only too numerous, but also too distinctively combined, too richly interactive to be described by a single general term. Within type theory there seems to be the in-built danger of stereotyping, of ignoring important individual differences. Another major problem is concerned with the assumptions that underlie type theories. In general, theories have been propounded by protagonists of the 'nature' school; those who

maintain that personal characteristics are genetically determined. Such a view ignores the idea that personality and its expression in behaviour is also dependent upon relationships with other people. Consciousness of the vitality, variety, uniqueness and pervasiveness of personal and cultural environments, lead one to believe that type theories founded on genetic determination can provide, at best, an incomplete description of personality.

16.3:13 Conclusions about the Type Indicator Whilst type theories have their drawbacks, as indeed do trait theories, most of the problems seem to be closely connected with the idea that measures of type cannot alone provide a sufficient description of an individual's personal characteristics.

Selection of the personality measures for use in this research is made with the knowledge that the results will be interpreted only in the light of directly observed behaviours, overtly demonstrated task preferences.

17. Assessment of Cognitive Styles

17.1 Introduction

Despite comments made in earlier sections about using well validated and widely accepted measures, instruments measuring cognitive styles are still largely exploratory. As such they have not been extensively validated and normalised compared with personality measures. Nevertheless the use of such measures does not seem inappropriate in research concerned with the influence of aspects of personality on managerial task selection. The existence of individual differences and preferences in the way that people process information, the way they learn and solve problems, seems well established (see sections 11 to 13). Recognition of such differences does however create a dilemma for the more traditional trainers and teachers. The 'jug' and 'mug' approach takes little account of the preferences of the individual being 'trained'. Unfortunately, until very recently, the only widely available measure of cognitive styles, in particular learning preference or style was Kolb's Learning Style Inventory (Kolb 1970); described in some detail in section 13 of this Thesis.

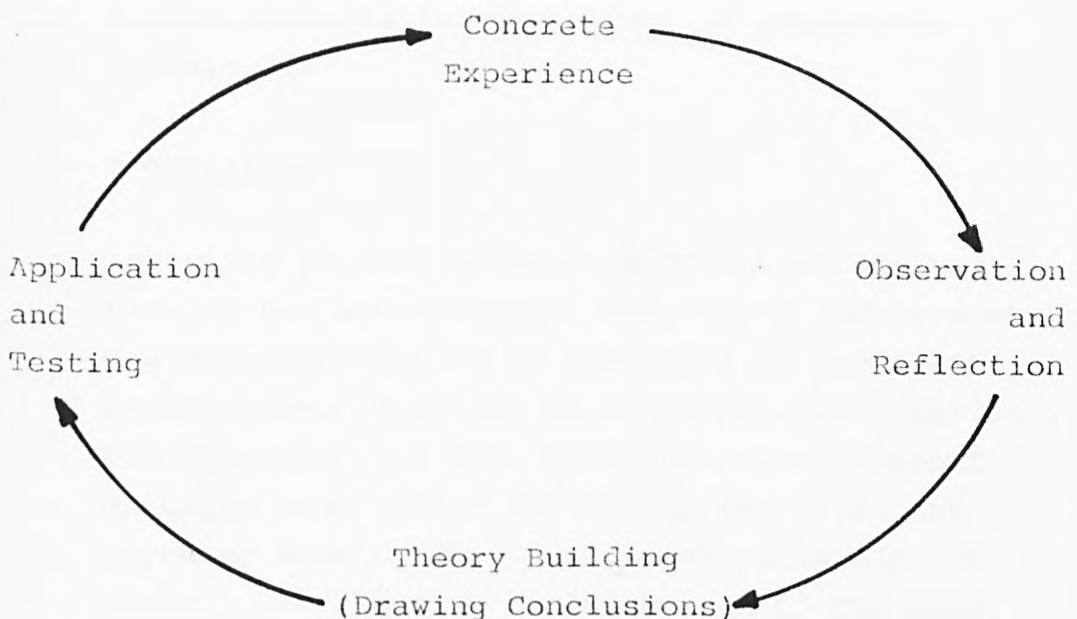
17.2 Kolb's Learning Styles

As mentioned earlier, Kolb's work has been criticised for its heavily academic approach and technical language. Neither the behavioural definitions used to describe learning styles, nor the Learning Styles Inventory's (LSI) way of measuring them, appear to have been especially

persuasive or meaningful to managers and management development specialists, despite a wide acceptance amongst theorists of the usefulness of the underlying model. Honey and Mumford (1982) have produced a relatively new instrument, along very similar theoretical lines to those adopted by Kolb, which they call the Learning Styles Questionnaire.

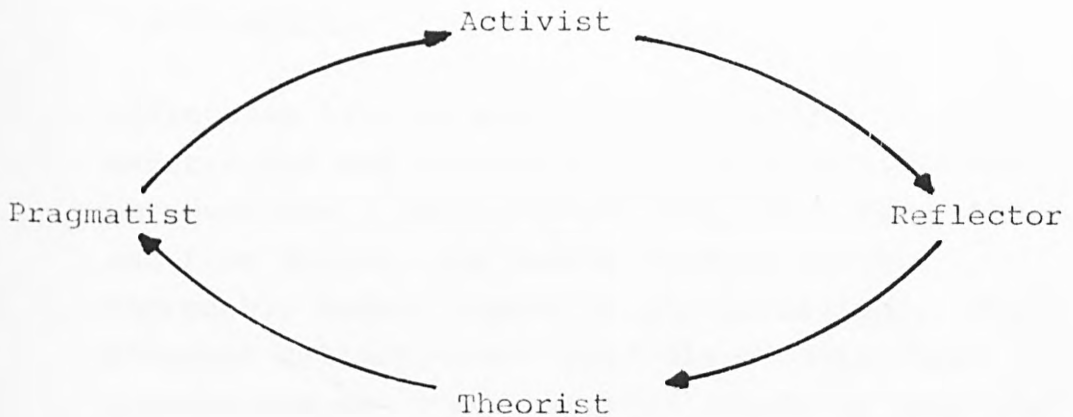
17.3 Learning Styles Questionnaire (LSQ)

Whilst Honey and Mumford produce a new set of names for the cognitive styles involved, they propose a four stage learning process in line with Kolb. They suggest that people learn in the same way as experimental researchers:-



It is suggested that individual styles differ depending upon the area of the learning cycle which they prefer. A complicating factor is Honey and Mumford's idea that preferences do not always match ability, therefore an individual's 'best' learning mode may not be the one they prefer.

17.4 The four styles associated with the stages of the learning cycle are proffered as an integrated process, as follows:-



The detailed descriptions of behaviour assigned to these styles appear to be both recognisable and distinguishable in the context of managerial behaviour:-

* Activists

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical, and this tends to make them enthusiastic about anything new. Their philosophy is: 'I'll try anything once'. They dash in where angels fear to tread. They tend to throw caution to the wind. Their days are filled with activity. They revel in short term crisis fire fighting. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people

constantly involving themselves with others but, in doing so, they hog the limelight. They are the life and soul of the party and seek to centre all activities around themselves.

* Refellectors

Refellectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others, and prefer to chew it over thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definite conclusions for as long as possible. Their philosophy is to be cautious, to leave no stone unturned. 'Look before you leap'; 'Sleep on it'. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant, unruffled air about them. When they act it is as part of a wide picture which includes the past as well as the present and others' observations as well as their own.

* Theorists

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step by step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists

who won't rest easy until things are tidy and fit into their rational scheme. They like to analyse and synthesise. They are keen on basic assumptions, principles, theories models and systems thinking. Their philosophy prizes rationality and logic. 'If it's logical it's good'. Questions they frequently ask are: "Does it make sense?"; "How does this fit with that?"; "What are the basic assumptions?" They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximise certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

* Pragmatists

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They don't like 'beating around the bush' and tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to earth people who like making practical decisions and solving problems. They respond to problems and opportunities 'as a challenge'. Their philosophy is: 'There is always a better way' and 'If it works it's good'.

17.5 Contents of the LSQ

Honey and Mumford's questionnaire asks the manager to simply agree or disagree with the eighty items. The items included feel to be relevant to managerial work and are readily understandable. They have developed a set of norms and statistical data based upon a population of thirteen hundred managers of both sexes, from a range of ethnic backgrounds and seven occupational groups in the U.K. The groups represented are:-

- * Salesmen
- * Trainers
- * Marketing Managers
- * Engineering/Science Graduates
- * Research and Development Managers
- * Production Managers
- * Finance Managers

and normalised data are available for each of these groups. A number of data comparisons are offered, eg,

Men - Women
UK Managers - USA Managers

17.6 Applications of LSQ

The two researchers suggest a number of potential applications for their learning styles questionnaire:-

- * Choosing and discriminating between learning activities.

- * Self development activities.
- * Development needs diagnosis amongst staff.
- * Helping trainers and development advisers in programme design and operation.
- * Providing material to provoke thought and discussion.

17.7 Advantages of LSQ

Honey and Mumford's ideas seem to have a number of strengths directly related to managers and their work.

Firstly, they present a concise and clear account of the ways in which people differ in their cognitive/learning styles.

Secondly, they offer a range of creative ideas and strategies to assist management development.

Thirdly, they emphasise not only the use of preferred/'best' modes, but also means to develop skills in less favoured ones. They do in fact propose activities which they claim will strengthen areas of weakness.

Fourthly, the authors do not ascribe to the measure the kind of scientific/technical mystique surrounding other measures. They encourage the wide use of the LSQ by inviting people to copy the questionnaire, score sheets and interpretative materials; 'as often as they wish'.

17.8 Problems with LSQ

Whilst high reliability (test/re-test) is claimed, the LSQ has been criticised on the grounds of dubious validity. More especially, it has been argued that the items contained within the instrument include value statements and other statements which do not apply specifically to learning situations. The authors of the LSQ, it is suggested, have assumed that 'behaviour can be deduced from values and beliefs, and that learning behaviour can be deduced from behaviour in other than learning situations' (Knight 1983 p148). Knight feels that the assumption may hold good for those in stable situations, he believes however, that this is likely to be less valid for people in rapidly changing circumstances 'where values and behaviour can easily get out of step'. The authors of the LSQ dismiss such claims about lack of validity on 'empirical, pragmatic grounds'. 'It has been rare for us to encounter anyone who disputes the accuracy of their LSQ results' (Honey and Mumford 1982 p74). Despite such re-assurances, they have set up a feedback system for users of the test. The intention of this process is to allow users to obtain objective data about the validity of the measure in practical applications.

17.9 Conclusions on the Use of LSQ

The decision to use Honey and Mumford's LSQ did not rest upon established reliability or validity, the data relating to this is not especially convincing. The measure is however widely available, well normalised and is apparently well used as a measure in the management development

forum. The behavioural descriptions appear to be especially relevant and meaningful for managers and the results obtained correlate broadly with Kolb's LSI data, the other major learning styles instrument.

17.10 Function of Psychometric Tests Within This Research

For this research the validity of the findings will relate to correlations between scores on each of the three instruments and the observed behaviour of the population of managers under study. 'No psychological test can do more than measure behaviour. Whether such behaviour can serve as an effective index of other behaviour can be established only by empirical try out' (Anastasi 1982 p24). More especially the project will be concerned with the usefulness of the scores on such measures for the prediction of individual on-the-job behaviour in the context of managerial work.

18. Data Collection

18.1 Introduction It seemed essential to have a very clear idea of how the data were to be analysed, prior to collection. Such an approach, it was felt, would enable the researcher to ensure that it would be possible to process the data obtained, in the way proposed. It was evident from earlier studies, by the researcher and other workers, that the observation phase would generate a large quantity of information. This information would consume much time, both for collection and for analysis. Time constraints had implications for the number of managers that could be included in the sample. Moreover, in addition to the difficulties mentioned in the section relating to project design, it proved necessary to negotiate the amount of time committed to data collection.

18.2 Data Collection Period It was originally intended to study five managers for one week each, in line with Mintzberg's research. The various changes in design, together with the idea that more than one period of observation was necessary in order to establish the reliability of the data being collected, led to a proposal to study the seven managers for two periods of at least two days. Whilst this did not prove to be possible (the author had a full time job within the same organisation), a compromise was agreed with senior managers in the Division. The managers would be studied (with their agreement) for an initial period of two days, followed by a third day at a different time. It was felt that this would permit at least some assessment of the reliability and consistency of the work patterns being observed. The intention was to extend the period

of observation in individual cases if results obtained were inconsistent.

18.3 Implications of Proposed Analytical Methods, for Data Collection

18.3:1 As mentioned in earlier sections (15.12 and 19.1), since managerial behaviour 'is more or less a continuous matrix of actions and interactions,' (Plutchik 1974 p18), only through some kind of analytical process is it likely to be possible to interpret and understand what is happening. Bruner et al (1956) summarised the advantages of categories:-

- * They make the environment less complex;
- * They enable us to label parts of our environment so they seem more familiar;
- * They reduce the need to learn new things each time we encounter a new situation, since there are usually some relations between the new event and our older experiences.
- * They help us determine what is appropriate or inappropriate action in new situations.
- * They enable us to relate different classes of events.
- * They provide a basis for new research.

18.3:2 Criteria for Useful Categories Plutchnik disapproves of the tendency for investigators to make up their own sets of categories. He elucidates criteria which, in his view, would ensure maximum value for category systems:-

- * There should be a relatively small number of categories.
- * They should be based upon theoretical (rather than practical) considerations.
- * They should have a wide range of possible applications.
- * They should be exhaustive, ie, able to incorporate all existing data into the system.
- * They should be reliable.
- * They should be sensitive to experimental operations.

(Plutchik 1974 p21)

It is believed that, with the possible exception of the last, the observational data classification proposed for this study (Mintzberg's ten managerial roles - defined 15.15:2) complies fully with each of the criteria.

18.3:3 Observer Effects Field studies are usually concerned with an accurate description of an individual's behaviour, as it occurs, in the natural situation. They are concerned with relationships between the individual and the environment as well as relations between individuals. Ideally, the observer should, therefore, interfere as little as possible with the behaviours being exhibited. It was firmly believed, based upon previous work by the researcher, pilot studies for this research, and the findings of other researchers, that providing certain conditions were fulfilled, it should be

possible to minimise the impact of the observer on a manager's behaviour:-

- * Understanding by the subject of the function of the research and the ultimate use to which the results would be put, ie, that the manager's performance/effectiveness was not being evaluated.
- * Confidence by the subject that the results would be published in an anonymous form.
- * Results on all the tests and the categorised observations would be fed back to the subjects to assist them with their own development. (Upon completion of the project).

On this basis the researcher met with each of the subjects, prior to commencement of the observation period, to discuss the above aspects of the work and to select the periods of observation. The meeting also served to establish personal contact and to allow the subjects to share apprehensions and mis-apprehensions with the author.

18.3:4 Reliability of Observational Data In addition to the kinds of factors mentioned earlier (section 15.11): the pre-arranged nature of many of the District Managers' commitments; the recently recognised predominantly reactive nature of the managers' job. The proposal that such reactive responses are likely to be determined by personal characteristics, leads the author to feel that, in the context of managerial work, the observer's presence probably has very little major impact on the content of the activities undertaken. Moreover, the common basis for behaviour categorisation will allow: comparison of each day

of the study with every other day (for each manager); and comparison between managers to identify any major variations which might indicate significant 'Lawthorne Effects' in particular cases. It is believed that the instruments used should extend the range of events observed, to enable reliable recording and provide a permanent record.

18.3:5 Reliability of Categorisation Process

Categories based upon Mintzberg's managerial roles will be used to ensure that the continuous flow of behaviour is analytically manageable. the observer will use the type of report form given in Appendix II to record each activity. A written description is to be made of each event, and the duration of that event recorded where there is any doubt about what is happening, eg, incoming telephone calls; items of mail being dealt with; or confidential meetings, the manager will be questioned about the event as soon as possible after the cessation of the activity. The descriptions will be categorised using the definitions given in Section 15.15:2 and the total time in each role, established. Bearing in mind comments made by Mintzberg and the author's own experience in pilot work, there seemed to be a need for a few simple rules to keep categorisation consistent in 'borderline' areas where more than one category might appear to be applicable:-

* The overt reasons for a meeting will be used for coding unless covert reasons become obvious.

* Where meetings have more than one function,

with no distinct changes of activity, the function which appears to be being given most emphasis will be used.

- * Where during the course of a meeting there is a clear switch from one function to another, this will be recorded as a change of activity.

The results of the pilot study were analysed by several different people using the definitions in section 15.15:2 together with the rules and, whilst there was some variation in the way individual activities were judged, the total time spent in each role showed very little variation between judges. It was considered therefore, that as the results of the project proper would be categorised using the same criteria, and additionally, would be applied by one experienced individual, categorisation in to the managerial roles could be carried out in a consistent and reliable way.

18.4 Correlational Studies

18.4:1 Studies have been carried out using what are known as correlational methods: the researcher attempts to measure the relationship between two or more phenomena that have been observed or measured. Experimental studies on the other hand, involve manipulation of or changes to behavioural conditions. Correlational studies can be distinguished as follows:-

- * They do not attempt to manipulate or change conditions.

- * In such studies, the sequence of administration of measures and observation has no particular relevance.
- * They do not imply direct causality, usually a number of hypotheses are possible to explain correlations.
- * If correlation between two variables is high and reliable, then this can be used for prediction.

18.4:2 The distinctions between experimental and correlational studies do not mean that correlational studies are of little value, 'on the contrary, in some areas of research they represent the only way of getting reliable information. This is particularly true in clinical, educational and industrial psychology' (Plutchik 1974 p30).

18.5 Statistical Analysis of Results

18.5:1 An experimental approach seemed to be entirely inappropriate for research into managerial work (with the state of knowledge as it exists). It was decided that a correlational study would provide a useful means of exploring the data produced within the project also, perhaps, the basis for later more experimental work. The information produced by the project, because of the limited number of subjects, implies depth rather than breadth. The number of subjects also exercises a major influence upon the statistical methods available for data analysis.

18.5:2 After consideration investigation leading to extensive discussions with an experienced senior, practicing statistician, it was decided that a

straightforward, statistically acceptable and relevant method of exploring correlations between the data, would be the Spearman Rank Order Correlation Co-efficient. It must however, be accepted that the value of the rank order co-efficient is less stable than the value of the product movement co-efficient obtained from unranked data. (Any ranking procedure degrading the data and throwing away information about differences between scores.) Bearing in mind, however, the limitations imposed by population size, it seemed reasonable to settle for a simple, valid method of examining statistical relationships within the data.

RESULTS

19. Introduction

19.1 Whilst a great deal of data was collected relating to individual managers it is believed that there is little merit, in the context of this research, in extended interpretation of discussion of the personalities, styles of behaviour of individuals. The value of the information lies only in the way the various factors relate generally to managerial work behaviour. It is intended, therefore, to consider in depth only those personal characteristics which correlate highly across the group with behaviours defined within the managerial role model used to categorise the data.

19.2 Relationships Between Variables John Stuart Mill, the philosophical founder of the notion of correlation, stated the principle that 'whatever phenomenon varies in any manner, whenever another phenomenon varies in a particular manner, is

either a cause or an effect of that phenomenon, or else is connected with it through some fact of causation'. Evidence of what Mill called 'concomitant variation', what we call correlation, thus gives us a basis for inferring causality under certain circumstances. Mill's principle serves to highlight the differences between experimental and survey type studies. In an experiment we can make a phenomenon vary in a 'particular manner' by controlling it. In a study of managerial work this opportunity is not open to us. Instead we have to decide which variable is 'particular' and which variable is contingent upon it on the basis of what amounts to guesswork, albeit informed, 'scientific' guesswork. In other words, causal inferences or explanations of phenomena in such research can only be based upon correlational evidence.

19.3 Correlation Co-efficients The main requirement of any investigation of relationship between variables is that we should have observations arising from the same source. Once this requirement has been fulfilled a means is required to assess the extent of relationship between the scores obtained. Where each score is perfectly predictable from every other score because any change in one variable is accompanied by a proportional change in the other variable is accompanied by a proportional change in the other variable this is known as a 'perfect correlation'. Where the changes are in the same direction, ie, an increase in one variable leads to an increase in the other, this is known as a 'positive correlation'. Where an increase in one variable leads to a decrease in the other this is known as a 'negative correlation'. Perfect linear relationships are known as 'perfect positive

correlation'. Where the relationship that exists is not perfect, ie, two variables are not related in a perfectly linear way - a situation that is virtually impossible for variables associated with human characteristics and behaviour, some means is necessary to assess the strength of the association between two variables. The index used to indicate the strength of relationship between variables is known as the 'correlation co-efficient'.

19.4 There are a number of different co-efficients which can be calculated to express the strength of the relationship between two variables. The interpretation of each one rests on the assumptions made about the data we are dealing with. Some circumstances do not allow the meaningful use of particular correlation co-efficients, as indicated earlier) Section 18.5:2). All correlation co-efficients, however, share the property that they have limits within the range -1 to +1. A correlation co-efficient of -1 indicates that high values of one variable are perfectly correlated with low values of the other. A correlation coefficient of +1 indicates that high values of one variable are perfectly correlated with high values of the other. Absence of any relationship between two variables, 'linear independence', is signified by a correlation of zero. In between zero and +1 or -1 the size of the correlation indicates the varying degrees of relationship which two variables can hold to one another.

19.5 The Spearman Rank Order Correlation Co-efficient

19.5:1 The main value of this co-efficient lies in the analysis of data obtained from small samples. It is quick to calculate and produces a co-efficient more stable than some forms of Correlation Co-efficient (notably the phi co-efficient). The Spearman Rank Order Correlation Co-efficient operates on the data in the form of ranks. Equal scores providing 'tied ranks' are converted to the average rank for a particular score, eg,

<u>Ranking</u>	<u>Score</u>
1	20
2	18
3.5	17
3.5	17
5	14

etc.

19.5:2 The value for the rank order correlation co-efficient can be obtained using the following formula:-

$$P = 1 - \frac{6 \sum D^2}{N(N^2 - 1)}$$

where P = rank order correlation co-efficient.

$\sum D^2$ = sum of the difference between pairs of ranks.

N = number of subjects in sample

19.5:3 Interpretation of the Rank Order Correlation Co-efficient The size of the value for the co-efficient gives information about the strength of the relationship between two variables; care needs to be taken, however about interpreting this

strength in any absolute sense. It is not possible to state, for instance, that a correlation of .70 is twice as strong as a correlation of .35. Merely that the correlation of .70 suggests a stronger relationship than one of .35. A further difficulty with correlations of this type is that even with strongly correlated measures, a substantial amount of variation in the dependent variable may be unaccounted for, reinforcing the idea that correlations do not necessarily imply causality. The rank order correlation can however provide a convenient method to make inferences about other people and behaviours that are not part of the group originally studied. The fundamental idea is that any group of people constitutes a sample of a larger population. Using tables available for all standard statistical tests it is possible to explore the significance of results for the relation between the sample and the larger population.

19.5:4 Statistical Significance This value represents the percentage probability that an event has occurred by chance. A 5 percent significance level means that there are 5 chances in 100 that a particular finding is accounted for by chance fluctuations. The conventional way of expressing a 5% significance level is:-

- * significant at the 5% level
- * P is less than .05
- or * $P < .05$

It is not customary to consider results that give probabilities larger than .05 to be statistically significant.

20. Findings on General Activity Patterns

20.1 Each subject was analysed for between 20 and 25 hours, a total for the seven subjects of about 150 hours of managerial work. During that time the following pattern of behaviour was identified:-

Fig.28 Average Time Spent By Managers on Each Activity

MANAGER	TIME OBSERVED (mins)	NO.OF ACTIVITIES	TIME PER ACTIVITY (mins)
1	1654	223	7.4
2	966	181	5.3
3	1243	329	3.8
4	1334	182	7.3
5	1284	292	4.4
6	1380	278	5.0
7	1341	282	4.8
TOTALS	9202	1767	38.0
		MEAN TIME PER ACTIVITY	5.4 mins

20.2 It can be seen that a striking feature of the overall activity pattern of the seven managers, in common with the findings of other recent researchers, was the consistent and rapid changes of activity. Short bursts of intensive work punctuated by frequent interruptions, telephone calls, visits to others or by others. As a group throughout an observation period of 150 hours or more, the average duration of each event observed was 5.4 minutes.

20.3 Manager's Estimates of How They Spend Their Time

An additional general observation, supporting current views of the manager and his work, is that the managers were very poor assessors of the way in which they managed. Far less than being able to accurately estimate the amount of time spent in each role, using the same categories action system and role definitions as the author, in only one case was the manager even able to identify the role in which he spent most time. A comparison of the manager's estimates and the actual average time spent in each role is given overleaf:-

Fig. 29 Comparison of the Manager's Estimate with Actual Time Spent in Each Role

MANAGER	1		2		3		4		5		6		7	
ROLE	%		%		%		%		%		%		%	
	EST	ACT	EST	ACT	EST	ACT	EST	ACT	EST	ACT	EST	ACT	EST	ACT
FIGURE-HEAD	0	0	2	0	3	2.5	2	.3	1	0	1	.5	2	0
LEADER	20	5.6	5	18.6	10	14.5	10	3.1	18	20.4	30	19.5	23	30.3
LIAISON	10	14.4	25	15.1	10	5.6	15	8.0	15	8.2	10	16.8	5	6.7
MONITOR	5	7.7	20	23.8	10	10.2	16	27.6	10	25.5	15.0	19.0	20	19.9
DISSEMIN-ATOR	5	10.6	15	8.2	15	10.3	20	1.2	14	4.3	20	3.6	18	7.6
SPOKESMAN	10	23.7	5	4.8	10	9.7	18	29.0	7	9.9	6	14.0	5	8.9
ENTREPRE-NEUR	5	17.0	5	8.8	10	17.2	5	24.6	10	17.9	6	10.1	20	14.0
DISTURBANCE HANDLER	20	4.5	2	7.8	15	21.1	7	5.2	5	5.7	3	10.8	5	9.1
RESOURCE ALLOCATOR	20	13.7	20	12.4	15	8.7	7	.9	18	6.6	8	5.5	1	3.1
NEGOTIATOR	5	2.9	5	.4	2	0	0	0	2	0	1	0	1	.4

21. Observational Data General

- 21.1 Examples are given in Appendix II of the paperwork used in data collection.
- 21.2 Appendix III contains examples of the type of behaviour recorded, with some indicate of the way that the behaviour categorisation was applied to that data.
- 21.3 Appendix IV gives the percentage number of activities within each role; and the percentage time spent by the managers within each role.

22. Psychometric Test Data General

- 22.1 Raw scores on: the 16PF; Myers Briggs Type Indicator; and the Learning Styles Questionnaire are given in Appendix V.

23. Correlations Between Personality Factors/Cognitive Styles and Time Spent in the Ten Managerial Roles

Appendix VI contains, in tabulated form, correlational data relating managerial activities to the psychometric test results obtained during the data collection phase of this research.

- 23.2 In order to provide a basis for discussion it was decided to select correlations in three bands of statistical significance. The data are considered as follows:-

* Correlations with $P < .05$, ie, those significant at the 5% level.

* Correlations approaching $P = .05$, ie, correlations where P is just greater than 0.5; results approaching significance at the 5% level.

The table below summarises the information obtained in this way:-

Fig. 30 CORRELATIONS BETWEEN VARIOUS PERSONALITY FACTORS/TYPES/COGNITIVE STYLES AND TIME SPENT IN THE TEN MANAGERIAL ROLES

ROLE	CORRELATING FACTOR	SIGNIFICANCE
FIGUREHEAD	* High score on Factor M (16PF) (practical - imaginative)	$P < .05$
	* High score on Factor N (16PF) (forthright - astute)	$P < .05$
	* High score on Factor I (16PF) (tough minded - tender minded)	$P \text{ just } > .05$
LEADER	* Low score on Factor C (16PF) (affected by feelings - emotionally stable)	$P < .05$
	* High score on Factor Q4 (16PF) (relaxed - tense)	$P < .05$
	* Low score on Extraversion (Myers-Briggs)	$P \text{ just } > .05$
	* High score on Introversion (Myers-Briggs)	$P \text{ just } > .05$
	* Low score on Thinking (Myers-Briggs)	$P \text{ just } > .05$
	* High score on Feeling (Myers-Briggs)	$P \text{ just } > .05$
	* High score on Factor G (16PF) (expedient - conscientious)	$P \text{ just } > .05$
	* High score on Factor O (16PF) (self assured - apprehensive)	$P \text{ just } > .05$
LIAISON	* Low score on Reflector (LSQ)	$P < .01$
	* Low score on Factor N (16PF) (forthright - astute)	$P \text{ just } > .05$

ROLE	CORRELATING FACTOR	SIGNIFICANCE
MONITOR	* Low score on Factor G (16PF) (expedient - conscientious)	$P < .05$
	* High score on Factor N (16PF) (forthright - astute)	$P < .05$
	* Low score on Factor Q3 (16PF) (undisciplined - controlled)	$P \text{ just } > .05$
	* Low score on Theorist (LSQ)	$P \text{ just } > .05$
DISSEMINATOR	* High score on Sensing (Myers-Briggs)	$P < .05$
	* Low score on Intuitive (Myers-Briggs)	$P < .05$
	* High score on Theorist (LSQ)	$P < .05$
	* High score on Pragmatist (LSQ)	$P < .05$
	* High score on Factor Q3 (16PF) (undisciplined - controlled)	$P < .05$
	* Low score on Activist (LSQ)	$P < .05$
	* High score on Feeling (Myers-Briggs)	$P \text{ just } > .05$
	* High score on Judging (Myers-Briggs)	$P \text{ just } > .05$
	* Low score on Perceptive (Myers-Briggs)	$P \text{ just } > .05$
	* Low score on Factor M (16PF) (practical - imaginative)	$P \text{ just } > .05$
SPOKESMAN	* Low score on Introversion (Myers-Briggs)	$P < .01$
	* High score on Factor C (16PF) (affected by feelings - emotionally stable)	$P < .01$
	* Low score on Factor O (16PF) (self assured - apprehensive)	$P < .01$
	* High score on Factor Q1 (16PF sec) (introversion - extraversion)	$P < .05$
	* High score on Thinking (Myers-Briggs)	$P < .05$
	* Low score on Feeling (Myers-Briggs)	$P < .05$
	* Low score on Factor QII (16PF sec) (low anxiety - high anxiety)	$P < .05$
	* High score on Factor A (16PF) (reserved - outgoing)	$P < .05$
	* High score on Factor B (16PF) (dull - bright)	$P < .05$
	* High score on Factor QIV (16PF sec) (dependence - independence)	$P < .05$
	* High score on Factor H (16PF) (shy - venturesome)	$P < .05$

ROLE	CORRELATING FACTOR	SIGNIFICANCE
SPOKESMAN continued	* High score on Perceptive (Myers-Briggs) * High score on Factor F (16PF) (sober - happy-go-lucky)	- P just > .05 - P just > .05
ENTREPRENEUR	* High score on Factor B (16PF) (dull - bright) * High score on Factor M (16PF) (practical - imaginative) * High score on Factor N (16PF) (forthright - astute) * Low score on Factor O (16PF) (self assured - apprehensive) * High score on Factor H (16PF) (shy - venturesome)	- P < .05 - P < .05 - P < .05 - P just > .05 - P just > .05
DISTURBANCE HANDLER	* Low score on Factor QIV (16PF sec) (sensitivity - tough poise) * Low score on Extraversion (Myers-Briggs) * High score on Factor QII (16PF sec) (low anxiety - high anxiety) * High score on Factor I (16PF) (tough minded - tender minded) * Low score on Factor O (16PF) (self assured - apprehensive)	- P < .01 - P < .05 - P < .05 - P just > .05 - P just > .05
RESOURCE ALLOCATOR	* High score on Pragmatist (LSQ) * High score on Sensing (Myers-Briggs) * Low score on Intuitive (Myers-Briggs) * Low score on Factor M (16PF) (practical - imaginative)	- P < .05 - P < .05 - P < .05 - P just > .05
NEGOTIATOR	* High score on Sensing (Myers-Briggs) * High score on Judging (Myers-Briggs) * Low score in Intuitive (Myers-Briggs) * Low score on Perceptive (Myers-Briggs) * Low score on Factor I (16PF) (tough minded - tender minded) * Low score on Factor M (16PF) (practical - imaginative) * High score on Pragmatist (LSQ)	- P < .01 - P < .05 - P just > .05 - P just > .05 - P just > .05 - P just > .05 - P just > .05

DISCUSSION OF RESULTS

24. A detailed analysis of the correlations given in 23.2 is provided in Appendix VII, what follows is an amalgamation of information obtained from the detailed analysis. What the researcher will attempt to do, based upon data derived during this study, is provide a 'thumb-nail' sketch (perhaps a 'cartoon') of the personality and cognitive styles of managers who choose to spend time in particular roles.

24.1 Figurehead

24.1:1 Only three of the seven managers spent time in this symbolic head, ceremonial, role. Those who did choose to allocate time to the role spent only a small proportion of their time (range 0 to 2.5%). There were, however, some apparently significant correlations between time spent in the role and a number of factors on the measures employed in this research. These correlations are given in Fig.30 and described in detail in Appendix Vii.

24.1:2 The manager who chooses to spend time in this role would seem to be: more imaginative than practical; more calculating and shrewd than forthright and naive ($p < .05$). At a lower level of significance (p approach .05): tender minded rather than tough minded. Those demonstrating a preference for this role also appear to enjoy the activities associated with the entrepreneurial role ($p < .05$). It must be borne in mind that the significance levels of these correlations are likely to be unreliable because of the number of zero values amongst the results.

24.1 :3 Influence of Senior Managers? Exploring

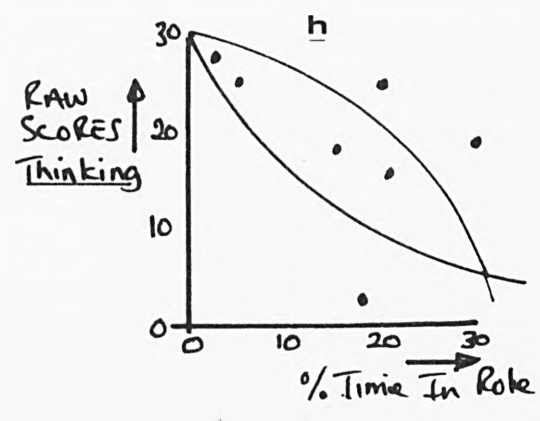
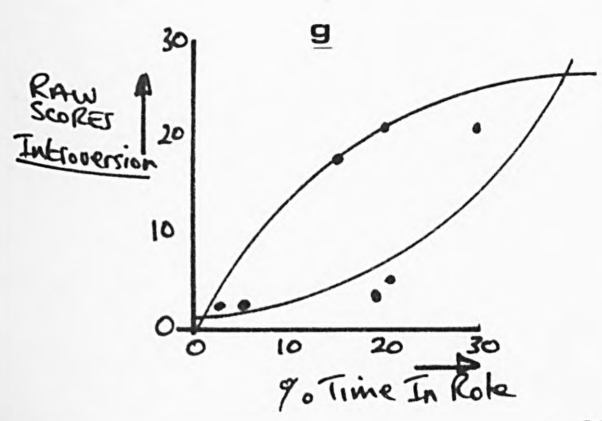
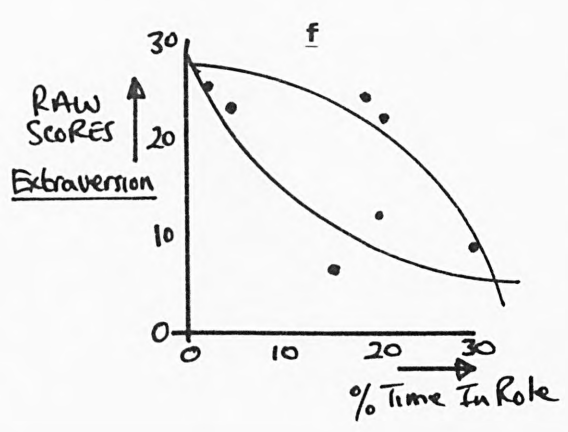
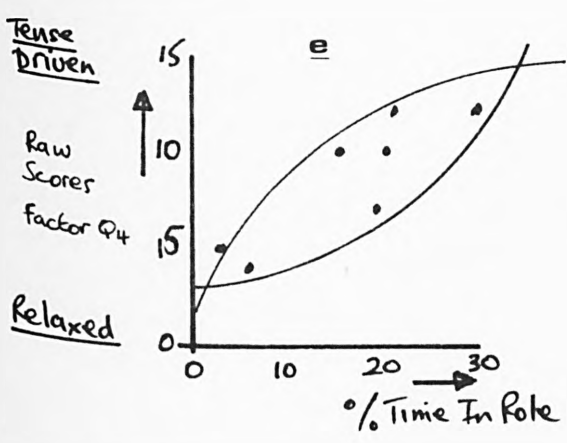
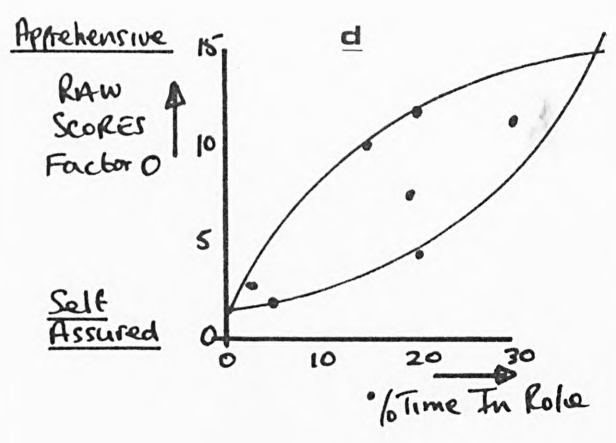
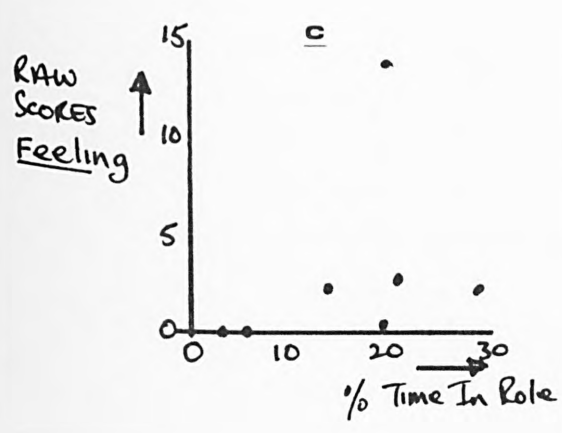
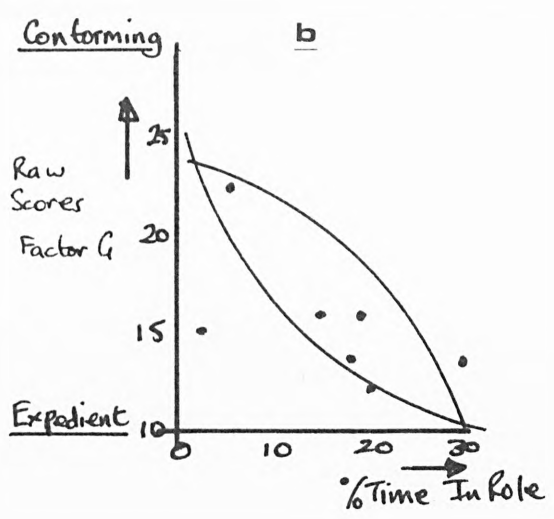
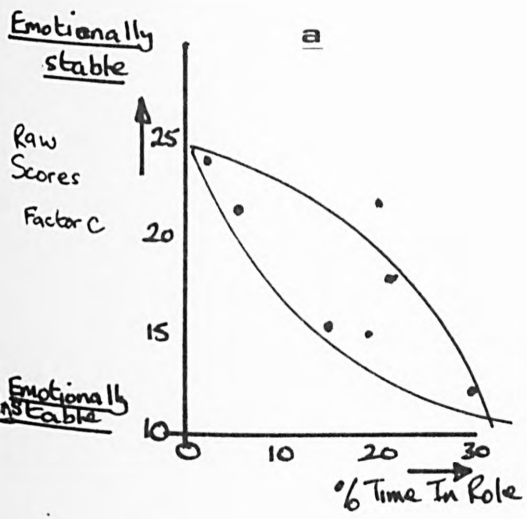
possible reasons for the apparently low emphasis placed upon the Figurehead role by this group of managers. As already mentioned, one possibility is that, unlike the Chief Executives studied by Mintzberg, these managers were not at the top of their hierarchy. Whilst each manager was accountable for all activity within his District, each reported to an Area Manager. A look at the distribution of District Managers between Areas is revealing.

AREA MANAGER	1		2			3	4
DISTRICT MANAGER	1	5	3	4	6	2	7
Average Time Spent In Figurehead Role %	0	0	2.5	0.3	0.5	0	0

24.1:4 It seems evident that, whilst there are relationships of varying strength between the choices made by the District Managers and the personalities of those managers, there is a clear indication that the choices made by the Area Managers have a significant impact upon the behaviours demonstrated by their more junior managers.

Fig 31

LEADER ROLE



24.2 Leader

- 24.2:1 As one would expect with a role which encompasses virtually all managerial activities involving subordinates, all seven District Managers spent time in the role. The range was however very (surprisingly?) wide (3.1 to 30.3%). There were a number of interesting correlations between time spent in the Leader role and scores on measures used in this research, these are given in Fig.30 and discussed in detail in Appendix VII.
- 24.2:2 Based upon the evidence gathered during the research, the individual who chooses to spend time in this role is likely to be: emotionally unstable rather than stable ($p < .05$); and tense driven rather than relaxed ($p < .05$). At a lower level of significance (p approaching .05) the manager is likely to be conscientious rather than expedient; apprehensive rather than self assured; introverted rather than extroverted; and liable to make decisions based upon feeling rather than thinking. Scores on time spent in the Leader role correlate negatively ($p < .05$) with scores on the Spokesman role.
- 24.2:3 Organisational Philosophy The organisation, as already discussed briefly, placed great emphasis upon 'leadership'. They employed external consultants (led by an ex S.A.S. Colonel) to conduct Services style, 'leadership assessment' events. These events were mounted over several days, outdoors. Whilst leading a team carrying out an unfamiliar, complex, difficult task, under conditions of physical stress, each manager's performance was judged in relation to other

managers. Every manager subsequent to his selection was exposed to a succession of leadership and management development activities ranging from five week courses at Ashridge Management College to a wide variety of shorter events directed at the development of leadership skills and behaviours.

24.2:4 The impact of this approach across the Division seems well demonstrated by the spread of Leader activity across Area and District:

AREA	1		2			3	4
DISTRICT	1	5	3	4	6	2	7
Average Time Spent in the Leader Role %	5.6	20.4	14.5	3.1	19.5	18.6	30.3

24.2:5 A very distinctive feature of this group of managers is the sharp contrast between the personal characteristics of those spending time in the Leader role and the personalities of those identified as effective leaders by other workers.

24.2:5 District Managers c.f. 'Effective Leaders'

After measuring the personality characteristics of a hundred groups of ten men (students and service men) 'measured in groups in competition in varied performances over several days' (Cattell et al 1970 p245) Cattell plotted the profiles of three 'leader types': 'elected leaders'; 'effective leaders' and 'technical leaders'. The 'effective leaders' were those individuals who were not only elected as leader by the group, but also 'rated as especially effective'.

24.2:7 'Leaders' and Emotional Stability Exploring the results of this project in the light of Cattell's findings, he found that 'effective leaders' scored slightly above average on Factor C (emotionally unstable - emotionally stable) (Sten 6.2), i.e. there was a tendency for effective leaders to be slightly more emotionally stable than average. For the District Managers studied in this research, those spending most time in the leader role were those obtaining the lower scores on Factor C. To be objective, however, the overall distribution of scores for the District Managers was:-

STEN	1	2	3	4	5	6	7	8	9	10
Number of Subjects at That Score	0	0	0	0	3	1	0	1	0	2

What is perhaps really striking about this result is that, in an organisation which places such a strongly overt emphasis upon 'leadership', the more emotionally stable managers spend dramatically less time in the activities associated with the Leader Role (see graph A Fig.31).

24.2:8 Tension and the Leadership Role A further strong correlation was established between time spent in the Leader role and scores on Factor Q4 (relaxed - tense), (graph E Fig.31). Cattell found that 'effective leaders' scored, on average, a sten of 3.8. The District Managers studied here were, in the main, more tense than those rated as effective by Cattell's groups.

Once again, what appears to be being demonstrated amongst the population in this project, is that the most relaxed, least tense, managers were those who spent least time in the organisationally valued Leader role. The relatively more tense individuals tended to spend much more time within this role.

24.2:9 At lower levels of significance (approaching the 5% level), amongst the District Managers, those who spent most time in the Leader role scored high on Factor G (expedient - conscientious). The population studied here was generally conscientious rather than expedient (STEN range 5 - 8) and the more conscientious (conforming), the more time was spent in the Leader role. Cattell's effective leaders demonstrated an average Factor G STEN score of 6.1 (see graph b Fig.31).

24.2:10 Self Assurance and Leadership Activity A more surprising finding perhaps, bearing in mind the ideas of other researchers based upon research conducted elsewhere; is, that the time spent in the Leader role was positively correlated ($p < .05$) with scores on Factor 0 (self assured - apprehensive). The more apprehensive the manager, the more time he spent in the Leader role. (see graph d fig.31). Cattell found that effective leaders typically scored a STEN of 5 on Factor 0. Whilst the group of managers studied here were clearly more self assured, on the whole, than Cattell's subjects, it seems notable that the most apprehensive amongst the group spent most time in the Leader role and the most self assured spent least.

24.2:11 Extraversion/Introversion and the 'Leader'

Correlations between scores on Myers Briggs Type Indicator and time spent in the Leader role provide further interesting contrasts between the District Managers and 'Effective Leaders'. Cattell's research, admittedly, based upon 16PF scores, indicates that effective leaders tend to be more extraverted than average (STEN 5.8). For the group of managers studied here, the more introverted the individual, the more time was spent in the Leader role; the more extraverted, the less time was spent in the role. (see graphs G and F Fig.31)

24.2:12 Thoughts About the District Managers and

Leadership Within this research, the findings about the Leader role appear to contradict much of the previous work relating to the personal characteristics of 'effective leaders'. There does, however, seem to be a consistent pattern to these findings. The pattern appears to be reinforced by the remaining correlations to be considered here. Time spent in the Leader role correlates negatively with 'Thinking' and positively with 'Feeling'. Whilst it is indisputable that, overall, this group of subjects were low on 'Feeling', amongst the District Managers those who most preferred 'Feeling' spent most time in leadership activities. Briggs Myers work has shown that the effects of a 'Feeling' preference on task selection at work are likely to be demonstrated through concern for such matters as: enjoying harmony; pleasing others; tendency to be aware of others' feelings to the extent that decisions are likely to be influenced.

24.2:13 The typical characteristics of those managers who chose to spend most time in the Leader role, were:-

- * more emotionally unstable
- * more tense drive
- * more conscientious
- * more apprehensive
- * more introverted
- * more feeling

That is, a profile varying markedly from that one might expect from individuals expressing a preference for the leader role, moreover a profile which contrasts sharply with other findings about people rated as 'Effective Leaders'. Such findings lead one to believe that something other than personal preference was influencing the task selection of at least some members of this group of managers. One might also be led to question the effectiveness of some of the behaviours being demonstrated.

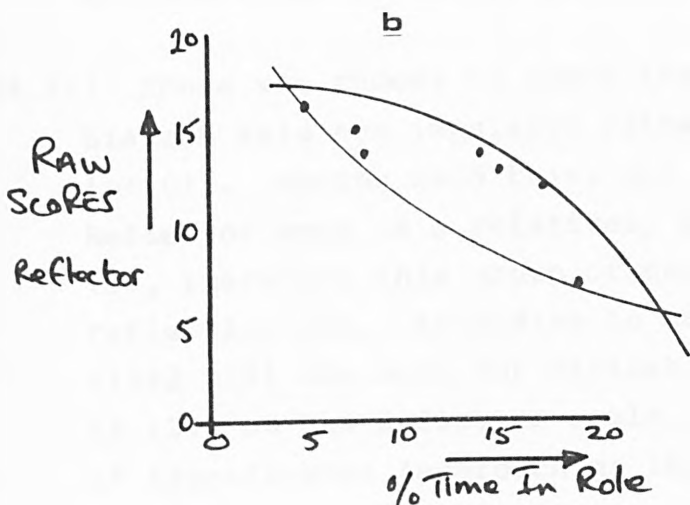
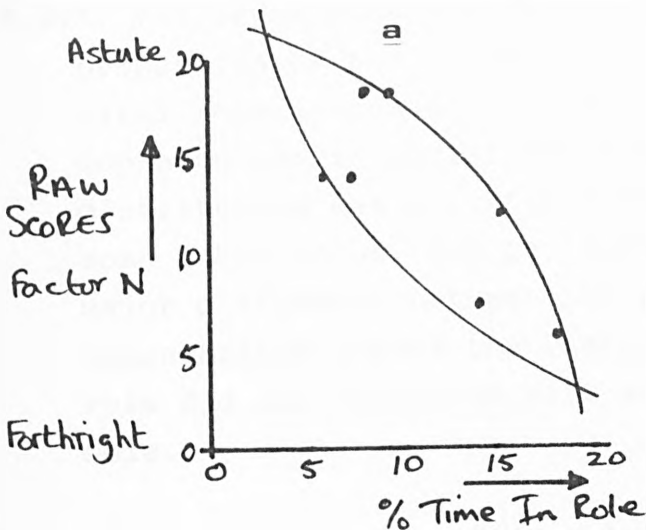
24.2:14 The Impact of Organisational Philosophy The negative correlation between time spent in the Leader and the Spokesman roles, strongly supports the view that factors other than personal preference were affecting the choices made by the District Managers, especially in relation to the leader role.

It does not seem to be too much a 'flight of fancy' to conjecture that the organisation's positively overt (some said, aggressive), certainly heavily marketted, view on leadership has influenced the amount of time spent by some managers on activities associated with this role. It seems especially significant that those

managers apparently most influenced by the organisational philosophy seemed to be identifiable in terms of particular sets of personal characteristics. Bearing in mind the sharp contrast between the portrait of a 'Leader' painted by this research and other findings about 'effective leaders', one might be led to question whether the level of Leader behaviours demonstrated by some of the District Managers (and encouraged by the organisation) was actually an effective use of managerial time.

Fig 32

LIAISON ROLE



24.3 Liaison

24.3:1 All seven managers chose to spend a substantial proportion of their time in this organisationally vital role concerned with maintenance of outside contacts providing information and favours. The distribution was a little tighter than that of some other roles (5.6 to 18.6%) and there was no major difference between the preferences demonstrated across the Districts. Scores on the role did not correlate with scores on any other role.

24.3:2 There were correlations between time spent in the role and factors on two of the measures used in this research. These are given in Fig.30 and are described in detail in Appendix VII.

24.3:3 Those who choose to spend their time in the Liaison role are impulsive rather than reflective ($p < .01$). Having said this, all the scores on Reflector were in a relatively tight band (12 - 19), therefore this group of managers was a pretty reflective one. According to Honey and Mumford (1982 p79) the norm for British Managers ($N = 126$) is 12.9 on the Reflector scale. At a lower level of significance (approaching the 5% level) those who spend most time in Liaison activities tend to be forthright and naive rather than shrewd and calculating. The correlations are presented graphically in Fig.32.

24.4 Monitor

24.4:1 For five of the seven managers this role, concerned with collecting information to develop an understanding of the organisation and its

environment, represented around 20% of their work activity. The overall range was, however, 7.7 to 27.6%. Use of the role was spread evenly across the Division and time spent in the role correlates: negatively with time spent in the Disseminator role ($p < .05$); and positively with Resource Allocator (p approaching .05).

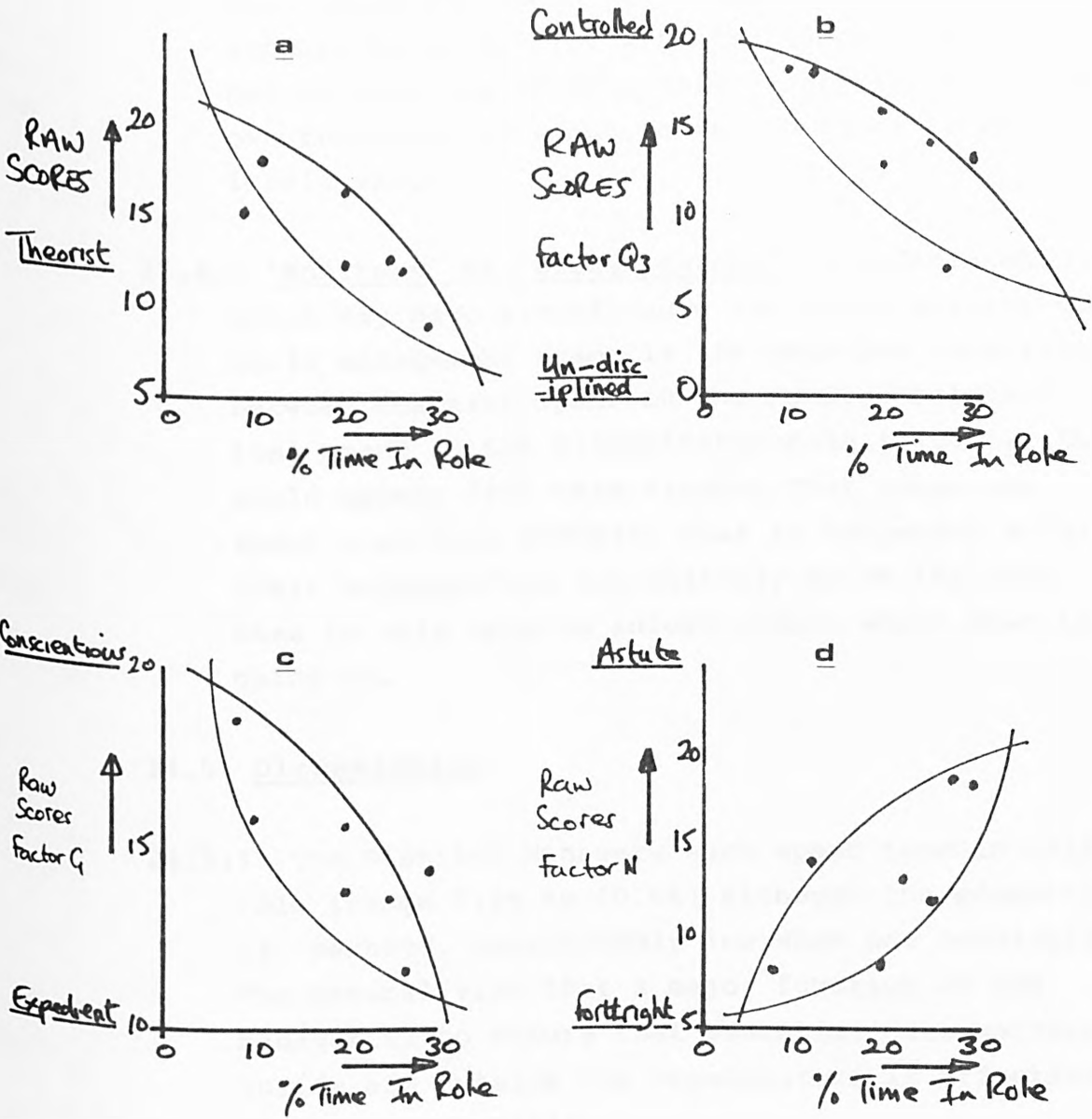
24.4:2 Expediency and the Monitor Role Individuals expressing a preference for tasks and activities within the Monitor role appear to be expedient rather than conscientious ($p < .05$). It must be said that overall, the managers in this group were more conscientious than the population of British males upon which the norms were based. The relationship between the scores on Factor G, for the District Managers and time spent in the Monitor role are shown in Graph C Fig.33. Despite this latter observation, one might hypothesise that the less conscientious managers (the most expedient) are the ones who feel that they need to concentrate upon monitoring the activities of others. Interestingly in the light of this comment, those managers preferring the Monitor role tend to be shrewd and calculating rather than forthright and naive ($p < .05$). These results have been plotted graphically (Graph D Fig.33).

24.4:3 'Monitoring' and Self Control At a lower level of significance (p approaching .05) those District Managers selecting Monitor activities were undisciplined rather than controlled. Once again, it must be recognised that, generally speaking, this group of managers were relatively self controlled (see Graph B Fig.33). In line with the comments made at 24.4:2, perhaps the less controlled managers feel more need than those with greater self discipline, to monitor the

performance of others.

Fig 33

MONITOR ROLE



24.4:4 Those who spent most time in the Monitor role would also seem to have a lower preference for the Theorist learning style (p approaching 5%) than those who spend less time in the role. This appears to be in line with the Theorist's tendency not to make use of data which conflicts with their own theories, or which seems (to them) to be irrelevant.

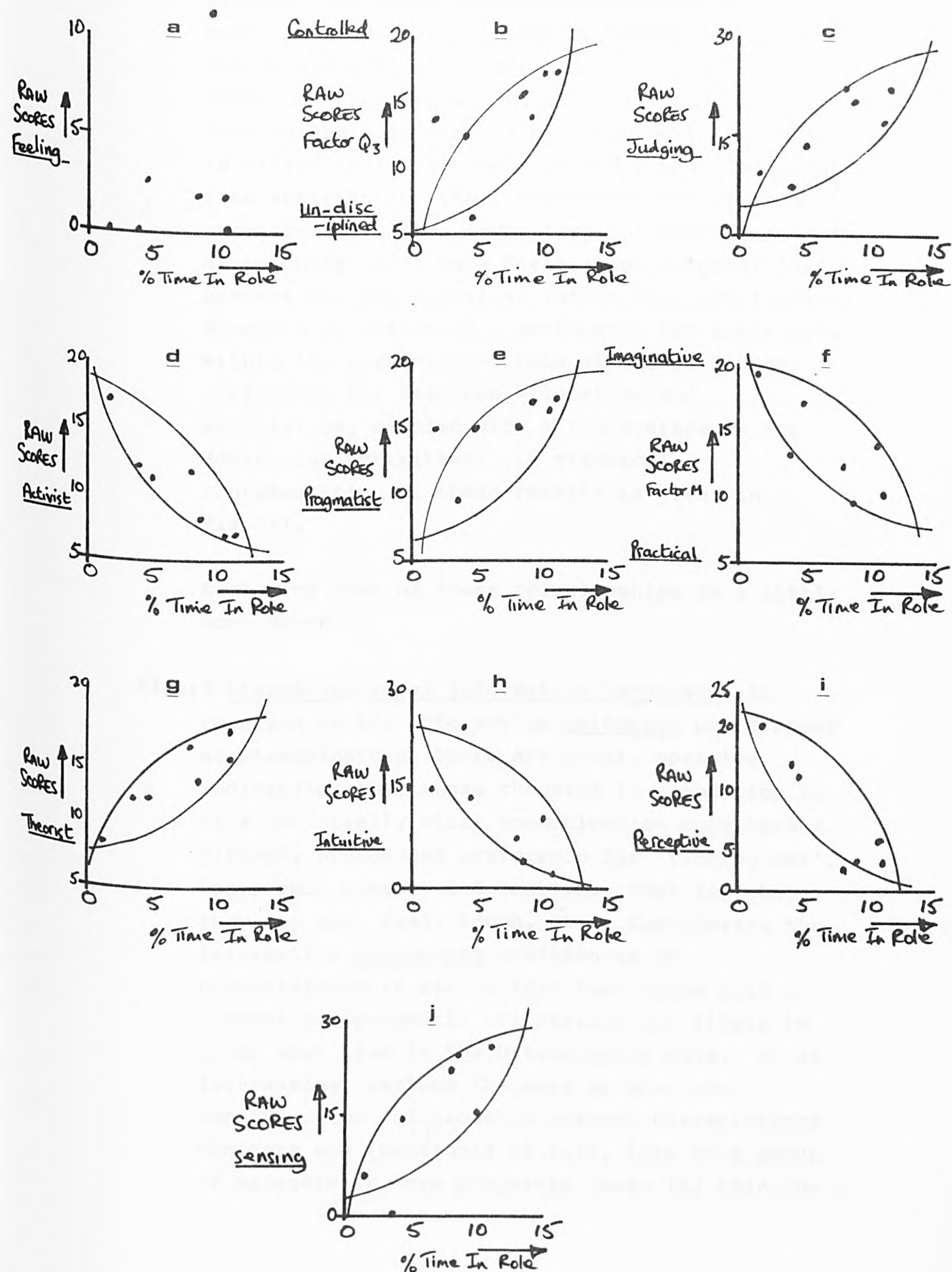
24.4:5 'Monitors' vs 'Disseminators' A relationship which may have significance for those wishing to build management teams is the negative correlation between the time spent in the Monitor role and time spent in the Disseminator role ($p < .05$). It would appear from this finding that those who spend most time checking what is happening within their organisation are unlikely to be the best ones to rely upon to inform others about what is going on.

24.5 Disseminator

24.5:1 The District Managers each spend time in this role (range 1.2% to 10.6%) although the proportion is, perhaps, surprisingly low when one considers the general view that a major function of the manager is to ensure that essential data gathered inside and outside the organisation is effectively communicated within.

Fig 34

DISSEMINATOR ROLE



24.5:2 There were a number of strong correlations between time spent in the role and scores on measures used in this research, these are given in Fig.30 and are described in detail in Appendix VIII. On the face of it, managers spending most time in the role tend to be: sensing rather than intuitive ($p < .05$); theories and pragmatist rather than activist ($p < .05$); controlled rather than uncontrolled. At a lower level of significance (p approaching .05): more feeling and judging; less perceptive; and practical rather than imaginative. Managers demonstrated a preference for activities within the Disseminator role also show a high preference for Resource Allocation and Negotiation, coupled with a low preference for Monitoring activities. (A graphical representation of these results is given in Fig.34).

Exploring some of these relationships in a little more depth:-

24.5:3 Disseminators as Information Gatherers In relation to the information gathering preferences of Disseminators, there are clear, positive indications that those choosing to spend time in this potentially vital communication role have a strongly pronounced preference for 'finding out', based upon sensory information. That is, what they can see, feel, touch, etc. Considering the information processing preferences of Disseminators it can be seen that those with a theoretical/pragmatic orientation are likely to spend most time in the Disseminator role. It is interesting, perhaps the more so when one considers the relationship between Disseminators - Monitors etc (mentioned 24.5:2), that this group of managers is more pragmatic (mean 15) than the

general population of British Managers (mean 14.5). Indeed if it were not for an 'outlier' who scored 10, the group would have matched the mean for American Managers (mean 15.7) who on the whole tend to be more theoretical and more pragmatic than their UK counterparts.

24.5:4 Dissemination of Information and Self Control

Another facet of the Disseminator illuminated by these findings is the idea that the more controlled managers chose to spend more time disseminating information to their colleagues and subordinates. The managers whose personalities dispose them to self control are the ones who keep others informed. Strikingly and, one might venture, not coincidentally, it has been found (Cattell et al 1970), that the more controlled managers not only tend to be chosen as leader by their team but, more than this, they tend to be rated as 'effective' as well as 'popular' leaders.

24.5:5 The view of the Disseminator which is emerging from this research seems to be further supported by the scores obtained on 'Activist'. This is more effectively demonstrated by the graphical representation Fig.34D. Those who score highly on Activist spend noticeably less time in the Disseminator role (and vice versa). The implication that may be drawn from this result is that the gregarious, 'life and soul of the party', is not the one to rely upon to keep the organisation well informed.

24.5:6 To complete the picture of the manager who spends most time collecting and giving information to the organisation. He is likely to be: more feeling and more judging than average; less perceptive than average; and practical rather than

imaginative. Additionally, the disseminator will spend allocating resources and comparatively little time monitoring what is happening within the organisation.

24.5:7 Managerial Effectiveness and the Disseminator

Role It seems evident that organisations seeking to maximise the effectiveness of their manager should not ignore the links between: what are apparently clearly predictable personal preferences amongst those managers, such as whether or not to spend time disseminating information to others; and well established findings about managerial behaviour in the context of organisational and individual leader 'effectiveness'.

24.6 Spokesman

24.6:1 Essentially this role is concerned with an individual acting as an expert on the organisation; a contact point for information about the organisation; the supply of information to outsiders. All the District Managers spent a relatively high proportion of their time in the role (4.8 - 29%), two of the managers made this their most important area of activity. Time spent in the role correlated strongly with a large number of factors on the measures used in the research, and also with time spent in the Leader role (negatively $p < .05$) and the Entrepreneur role (positively p approaching .05). Correlations are given in Fig.30 and are discussed in detail in Appendix VII.

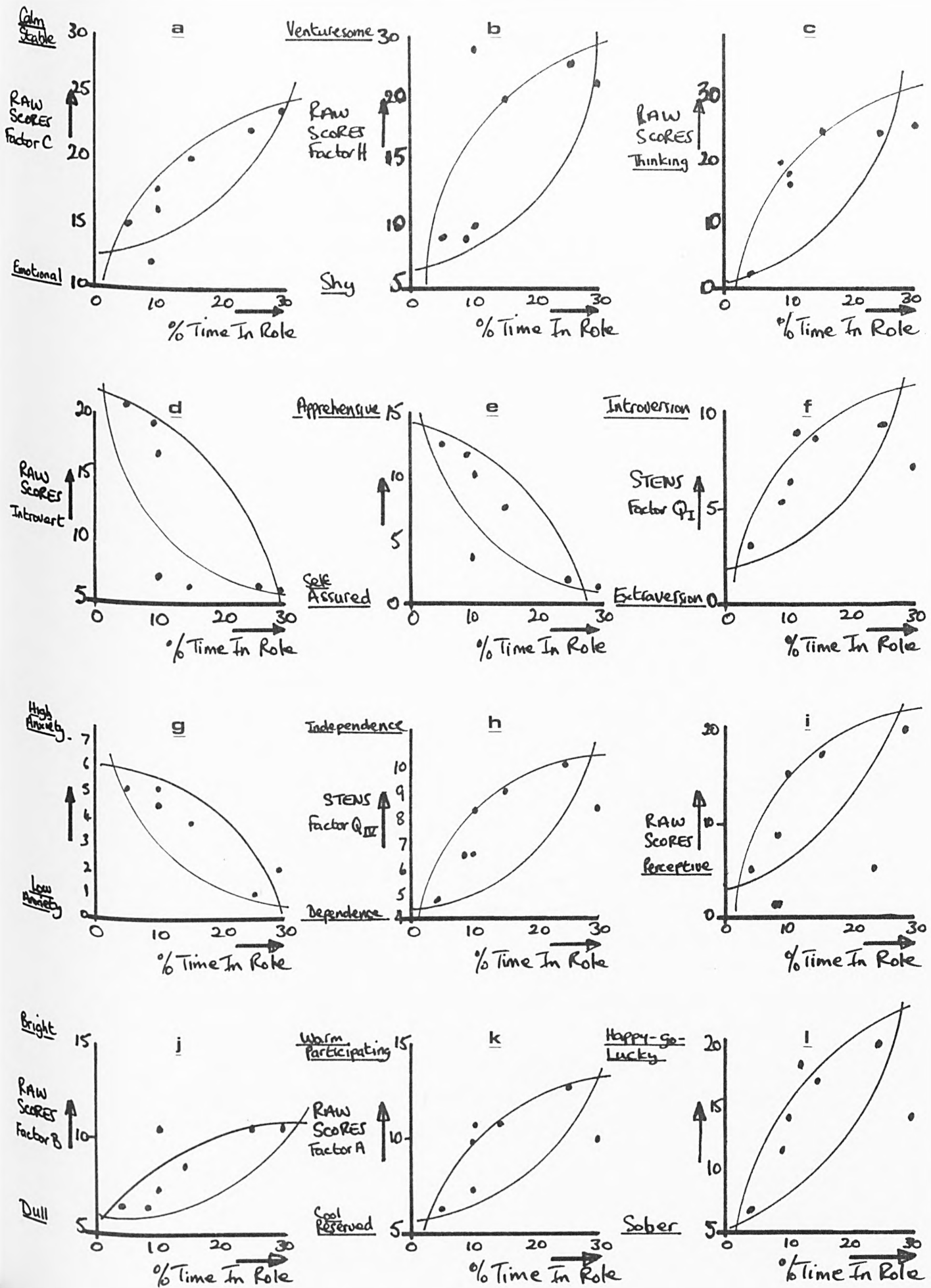
24.6:2 The Typical 'Spokesman' Amongst the District Managers, the spokesmen were typically: outgoing, stable, self-assured, intelligent, independent,

thinking, perceptive, and happy-go-lucky.

Graphical representations of the results (Fig.35) illustrates clearly the extent of these relationships.

Fig 35

SPOKESMAN ROLE



24.6:3 The 'Spokesman' and the 'Effective Leader'

It seems clear that the personalities and styles of the managers who chose to spend time in this role match what is generally agreed about those people likely to make effective communicators and organisational representatives. In fact, the 'Spokesman' profile derived in the course of this research very closely resembles the profiles of an 'effective Leader' identified in other studies. What makes this more interesting, perhaps, is the strong negative correlation between scores on the Spokesman role and scores on the Leader role. Some suggestions and ideas about this have been considered in section 24:2 (Leader Role).

24.7 Entrepreneur

24.7:1 This 'opportunity seeking' role, concerned with innovation and improvement was another role valued and encouraged by the organisation. Importantly however, for any discussion of the findings from this research, what appeared to be being communicated by the organisation was that less was expected of the District Managers with respect to activities within this role. Specifically, the more senior managers were seen to be 'the entrepreneurs'. Despite this, and perhaps not surprisingly, all the managers spent some time in entrepreneurial activity (range 8.8 to 24.6%) with six out of the seven spending more than 10% of their day in activities associated with the role.

24.7:2 The 'Entrepreneurs' Characteristically, those spending most time in the role were: intelligent; imaginative rather than practical; astute; self assured and venturesome. These correlations are represented graphically in Fig.36.

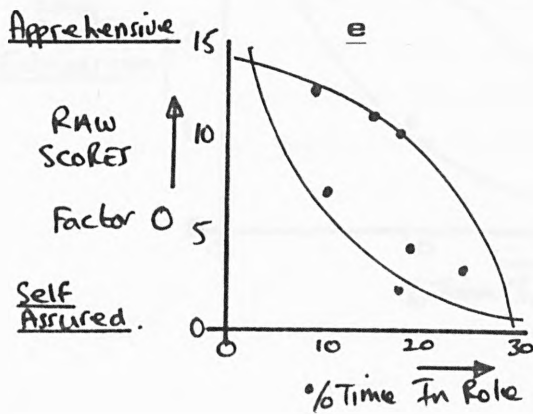
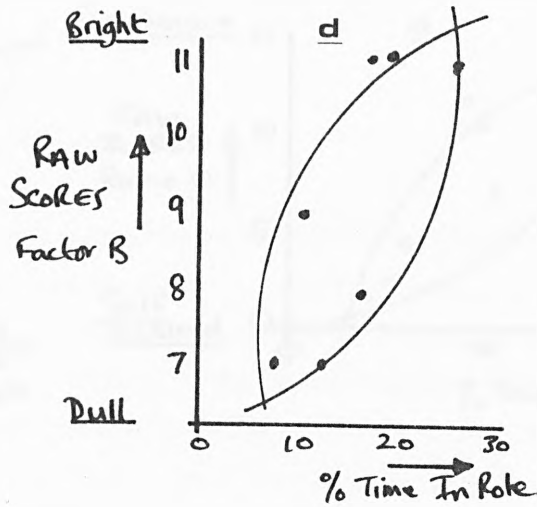
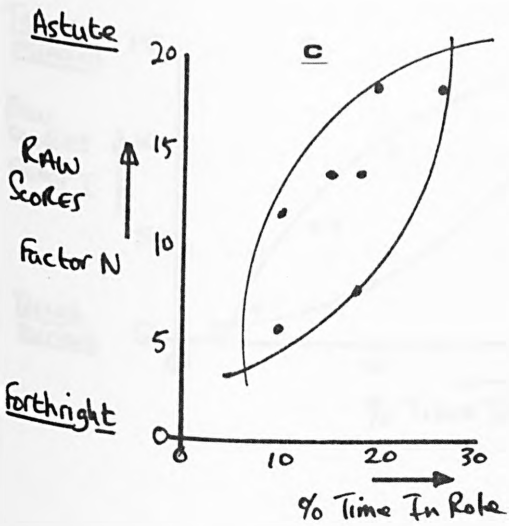
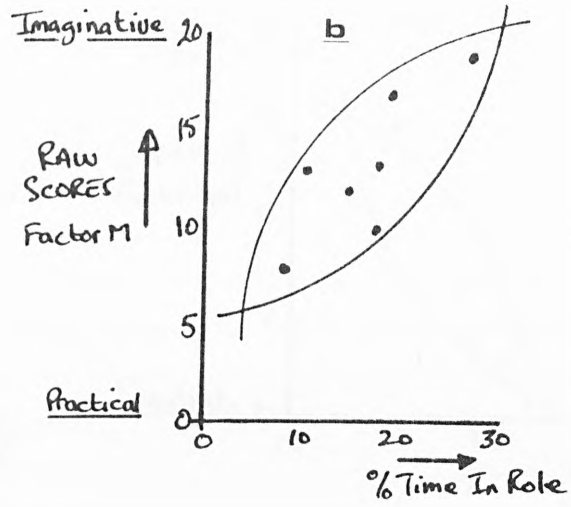
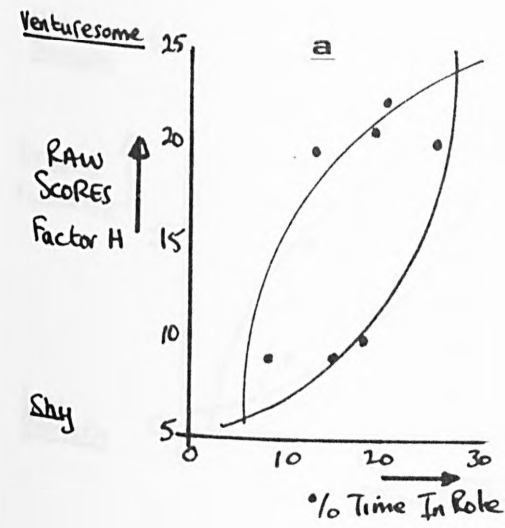
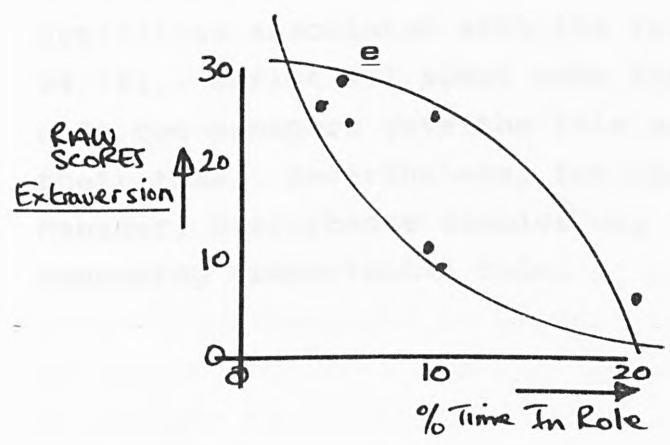
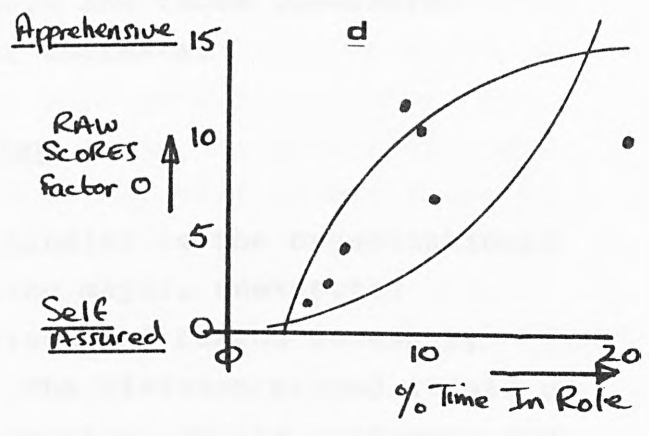
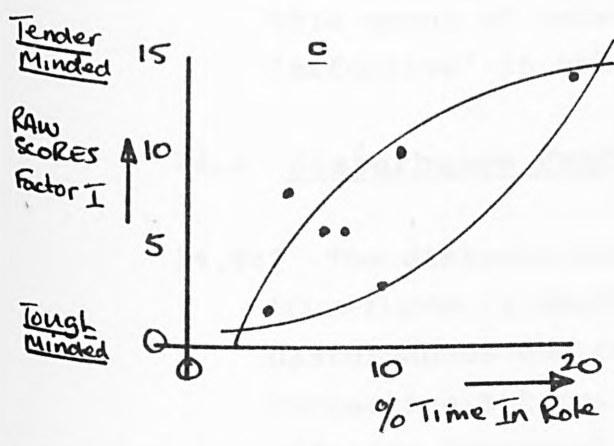
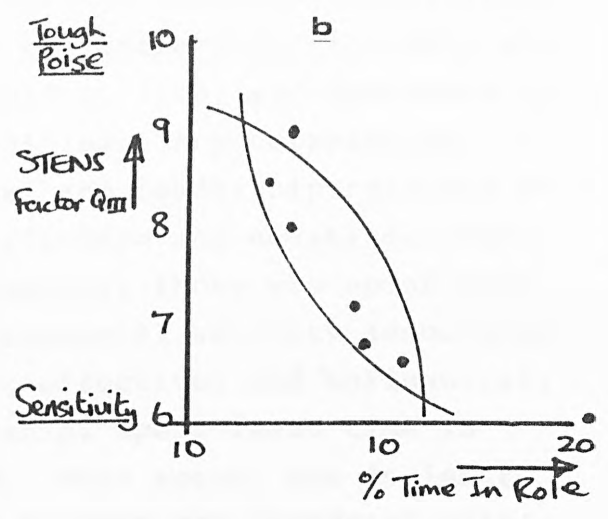
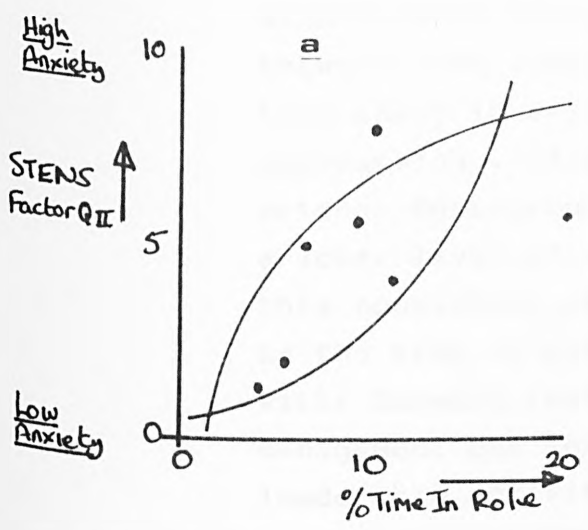


Fig 37 DISTURBANCE HANDLER ROLE



24.7:3 Entrepreneurs as Leaders Of some significance perhaps are the positive correlations between time spent in the Entrepreneurial role and time spent in Figurehead ($p < .05$) and Spokesman (p approaching .05) activities. Any correlation between Entrepreneurial and Leadership role was at a lower level of significance and negative. For this population of managers, those who spent time in the kind of entrepreneurial activity associated with: forward feeling; effective; and influential, management and leadership, spent least time in leadership activities. Once again, one is led to consider the contrast between the 'Leaders' within this group of managers and those considered 'effective' in other contexts.

24.8 Disturbance Handler

24.8:1 The disturbance handler is the organisational 'fire-fighter', handling major, unexpected disturbances and crises and taking necessary corrective action. The Division prided itself on offering 'Personal Service' to its customers and advertised this widely. Not surprisingly, therefore, all the District Managers spent time in activities associated with the role (range 4.5 to 24.1%). Whilst all spent some time in the role, only two managers gave the role more than 10% of their time. Nevertheless, for one District Manager, Disturbance Handler was the most time consuming (important?) role.

24.8:2 Who Were The 'Disturbance Handlers'?

Considering the personality/style profile of the 'Disturbance Handler', managers who concentrate upon activities within the role seem to demonstrate: sensitivity rather than toughness ($p < .01$); introversion rather than extraversion ($p < .05$); high anxiety ($p < .05$). At a lower level of significance (p approaching .05): tender minded rather than tough minded; and self assured rather than apprehensive. These relationships are clearly shown in the graphs Fig.37.

24.8:3 Disturbance Handling and 'Leadership' There were no strongly significant correlations between time spent in this role and other roles explored in this work. There were however, a number of indicative correlations below the acceptable level of significance. These may well be pertinent to the conclusions emerging from the research. Positive correlations were found between time spent handling disturbances and time spent in the Leader role; and negative correlations with time spent in Spokesman and Entrepreneurial activities.

24.8:4 The dichotomy between results such as these and the researcher's expectations led to the idea that there was a division within the research population. On the one hand: managers with a particular set of personal characteristics who need to be seen to be responding to organisational pressures and consumer demands; perhaps enjoying personal involvement in crises; perhaps ignoring or delegating other equally important activities; or perhaps living with personal stress and internal conflict about the amount of time devoted to 'emergencies' and how this might be seen by others. On the other hand a set of individuals with quite different personalities who, whilst

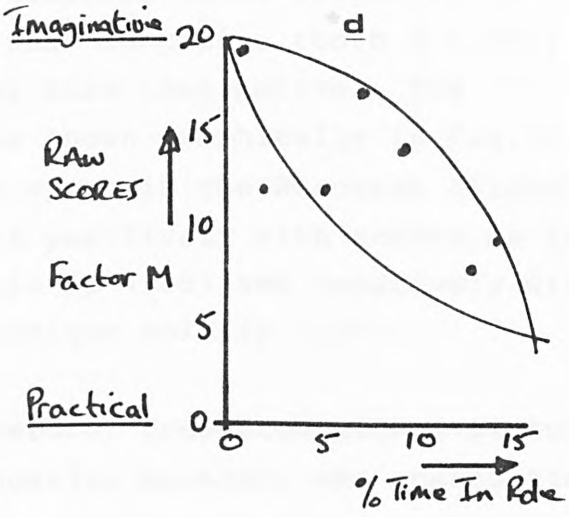
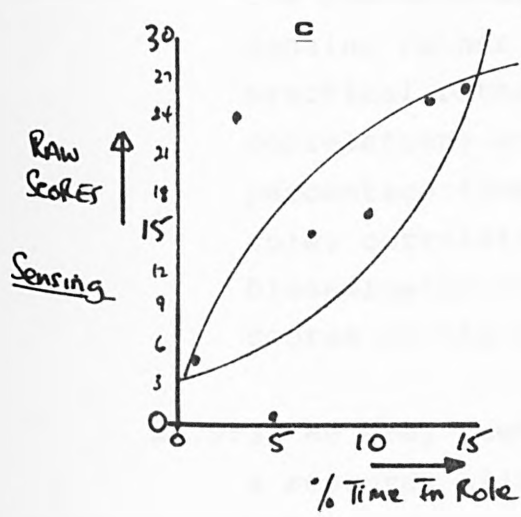
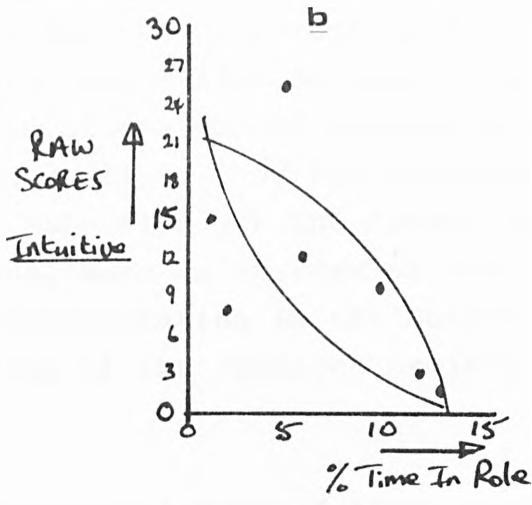
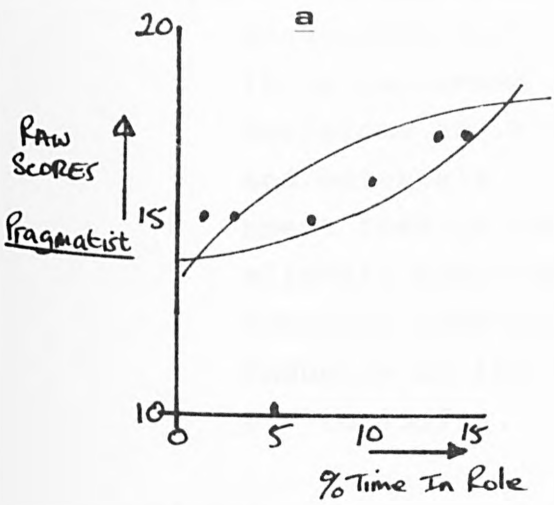
Fig 3.6

spending part of their day dealing with disturbances in some way limit the time spent in the role. Perhaps by spending time on other, more effective, activities they avoid running into 'crises' or perhaps they delegate some of the crisis management to others, allowing time for other activity.

If such an hypothesis has any basis then the implications of the findings about the Leader role may have importance for the matching of people to organisationally determined managerial styles.

Fig 38

RESOURCE ALLOCATOR ROLE



24.9 Resource Allocator

24.9:1 The Resource Allocator role and the activities associated with it feel to be almost self evident, it is concerned with the making or approving decisions about the allocation of people, money and materials. Naturally all of the managers spent time in the role although the spread was slightly surprising, more so in view of the resource constraints operating in the Water Industry at the time of the research project (rang 0.9 to 13.7%).

24.9:2 The personal characteristics of those managers spending most time in the role were less surprising. Typically, amongst this population, the resource allocators were: Pragmatic ($p < .05$); Sensing rather than Intuitive (both $p < .05$); and practical rather than imaginative. The correlations are shown graphically in Fig.38. The percentage time spent in the Resource Allocator role, correlates positively with scores on the Disseminator role ($p < .05$) and negatively with scores on the Monitor role ($p < .05$).

24.9:3 We are, therefore, presented with a picture of a resource allocating manager: who spends time on making decisions about resource usage and programmes the work of others; who also spends time telling people what is going on within the organisation and its environment. Those managers who choose to spend least time allocating resources spend most time in monitoring the activities of others.

24.10 Negotiator

24.10:1 This is another unambiguous role, involving representing the organisation in negotiations of all kinds, financial, industrial relations, contracts, etc. As with the Figurehead role, only a few of the managers engaged in activities associated with the role, use of the role seemed to be infrequent and, overall, little time was allocated to Negotiator activities. Looking at the distribution of Negotiator activity between Areas:-

AREA MANAGER	1		2			2	4
DISTRICT MANAGER	1	5	3	4	6	2	7
Average Time Spent in the Negotiator Role	2.9	0	0	0	0	0.4	0.4

24.10:2 It is possible, once more, that the District Managers were not sufficiently senior to participate in negotiating activities. It is also quite possible that the nature of the organisation made relatively infrequent calls upon negotiators. It seems evident however that, as with the Figurehead activities, the choices made by individual Area Managers may well be influencing the choices available to the District Managers. That is, certain of the Area Managers (1, 3 and 4) are delegating at least some negotiating duties, whereas Area Manager 2 is not. Strangely, and perhaps anachronistically, Area Manager 2 appeared to be the only one delegating Figurehead duties to his more junior managers.

24.10:3 Because four out of the seven managers spent no time in this role, the correlations obtained are somewhat unreliable. The following do however

seem to be the personality attributes of those managers in this sample spending most time in Negotiating activities. Negotiators tend to be: Sensing rather than Intuitive; Judging rather than Perceptive; Tough Minded; practical and pragmatic.

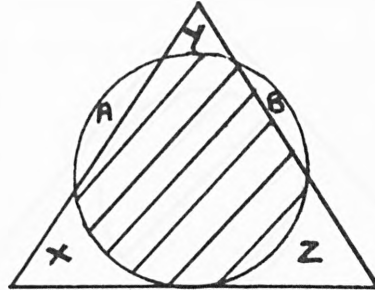


CONCLUSIONS

25. General

25.1 The author, struggling for a meaningful way to bring together the mass of detailed information resulting from this project is indebted to Ellen Noonan (Head of the Counselling Section, University of London) for her kind permission to employ a model which seems to illustrate many of the difficulties surrounding managers and their jobs. The model is a simple one:-

25.1:1



Where the triangle represents the person, the circle the job, the shaded portion represents the match between the person and the job. The areas A and B are the parts of the job that the person is not equipped to deal with, the areas X, Y and Z are parts of the person not fulfilled or utilised by the job.

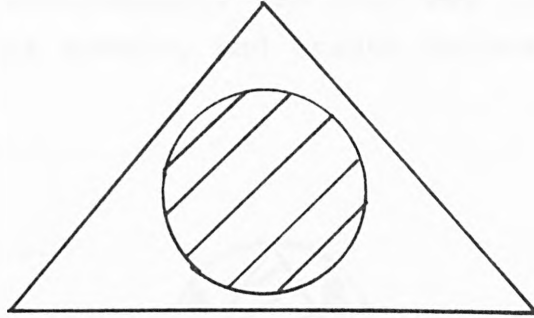
25.2 It seems plain that a selection system that fails can produce severe mismatches:-

21.2:1



Where the job is much too big for the individual.
At best, others may be overloaded or major elements of the job remain undone, with potentially disastrous consequences for the organisation.

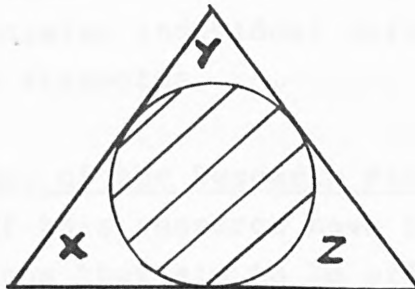
25.2:2



Where the person is underutilised within the job
The organisation might get good value because the job is completely covered by the person. The individual is however likely to feel frustrated, undervalued and have little regard for the job.

25.3 More commonly perhaps, the situation is likely to be:-

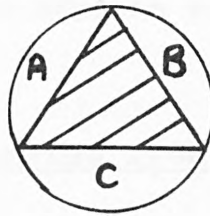
25.3:1



Where ideally, the effective organisation might be looking to identify and better utilise the individual's talents not fully occupied by the job. Less ideally for the organisation, but possible satisfactorily (perhaps frustratedly) for the person, those talents are occupied outside the organisation - in interests and hobbies, say. Much more unpredictably, sometimes productively, sometimes destructively the 'left over' talents may be occupied informally within the organisation and its environment. In this way informal structures develop and trades unions flourish.

or

25.3:2



Where the effective organisation might seek to develop the individual or assist him/her to develop, to better fit the job. Perhaps a solution might be to assemble a team of people able to minimise individual deficiencies by using collective strengths.

25.4 Implications of the Research Findings The findings of this research have implications for organisations that aim to be effective. Not only in helping better identify those areas where the

job and the person might match but, more importantly perhaps, providing a positive means to identify some of the areas where the person and the job do not match. Those areas likely to create problems for the organisation and for the individuals within it. The author's thoughts about the findings seem to fit readily into four areas:-

- * Conclusions emerging from the research approach.
- * Conclusions emanating directly from data obtained during the study.
- * Conclusions concerning the need for further research.
- * Conclusions relating to the hypothesis.

It is proposed to explore each of these areas in some detail:-

26. Conclusions Emerging from the Research Approach

26.1 Arguments have bounced back and forth for years concerning the advantages and disadvantages of observation as a means to study managerial work, when compared with approaches such as diaries, questionnaires, etc. Most of the arguments have related to three fundamental issues:-

26.1:1 The problems of an 'outsider' understanding and describing in an unambiguous, meaningful way, what is happening.

26.1:2 The problem of gaining access to the more 'delicate' and confidential areas of the manager's job.

26.1:3 The constraints imposed by observation, especially with regard to sample size.

26.2 Recording and Consistently Categorising Managerial Behaviour

Based not only upon the author's own experience as a manager and researcher, but also upon the reported conclusions of many other workers; it is difficult to see how any research into managerial work can be all embracing to the extent that the results may, with absolute confidence, be generalised to the whole population of managers. There are too many kinds of managers, too many kinds of organisations, too many operating environments and too many other variables affecting the manager's job.

Nevertheless it does seem possible using: systematic, detailed and continuous observation; careful briefing of the manager to ensure that personal threat is reduced; a tested system of categorisation which permits all managerial behaviour to be incorporated within it and which includes well defined categories that can be validated using different 'codes'; experienced, trained observers familiar with the sort of tasks that are being observed, all this must come together to produce data that are not only comprehensive but also satisfying and meaningful to the observer and to the managers involved. Unlike some of the earlier research projects using behaviour categorisation, in this project there was no difficulty in allocating activity to role. Successful elimination of this potentially troublesome area was probably a result of the pilot work (described in 18.3:2) which allowed

categories and definitions to be clarified, simplified to some extent and then 'test driven'.

26.3 'Confidential' Activities

26.3:1 There was no difficulty at all in getting access to 'confidential' discussions. This may have been a function of the researcher's own role in the organisation or it may be, in fact, that the problem exists mainly in the minds of anxious research designers. Whilst, based upon the author's own fears of potential problems, contingency plans were drawn up - allowing managers to produce immediate resumé's of any meetings or discussions from which the researcher was excluded, this eventuality did not arise. The only activity not personally observed during the whole study was one evening meeting that the observer was unable to attend for reasons nothing to do with the manager involved.

26.3:2 What was most surprising at times, was the very sensitive nature and content of discussions and meetings to which the observer was freely given access by both the manager and the other parties to the discussions. This despite often strenuous efforts to make it clear that the option to exclude the observer was readily available.

26.3:3 Telephone Conversations Telephone calls did prove slightly more difficult, for obvious reasons the observer had direct access to only one end of the conversation. The managers very soon realised, however, what information I required and after each call I was told who called and why the call was made. A similar procedure was adopted to deal with the evening meeting mentioned above.

26:4 Limitations of Sample Size

26.4:1 With regard to the limitations imposed upon the generalisability of research findings by the sample size, crucially and somewhat obviously, it was not envisaged that this research would (or could) produce a set of universal rules linking managerial behaviour and personality. The purpose of the work was to carry out an in depth study of a handleable number of practicing managers in their 'natural environment', in a way which would produce a manageable quantity of valid information relating to those managers and their behaviour. It was believed that the information obtained ought to be presentable in ways that could be: easily explained; understandable and usable, by managers and management scientists alike.

26.4:1 The identification and use of a comprehensive and consistent system to record and code managerial behaviour seemed to be almost a sufficient aim in itself. The scope to compare the behaviours identified in this way, with measurable personal characteristics of the individuals producing those behaviours, was a major and positive gain.

26.4:2 What became very clear during the course of this study is that, even with comparatively short periods of observation and relatively small sample size, it is possible, using carefully planned and executed research methods, to produce reliable and consistent results which seem to be of significance both statistically and intuitively. Whether it is ultimately possible to generalise beyond this group of managers is something that can only be judged by others in the light of their

own experience and confirmed or denied by further, careful research.

26.5 Observer Effects on Findings

26.5:1 As a general comment upon the effects of the observer on the behaviour of the managers being studied, it would be naive to believe that there were no 'Hawthorne Effects'. The author was convinced however, that whilst the presence of an observer might have influenced, in some cases, the way in which certain activities were carried out (i.e. the style of the behaviour), what was carried out (i.e. the content of the behaviour) was not greatly affected by the presence of the observer.

26.5:2 Style vs Content The basic activities of the manager did not change because of the study - most meetings were arranged in advance, those that were not, were frequently initiated by the other party. Incoming mail and telephone calls were certainly not influenced by the research. Overall, the pattern of activity observed was extremely consistent both for pre-arranged work and for instantaneous responses. What must be remembered about this research project is that the task related element of the study was concerned with what was being done - not the way it was being done.

Conclusions Emanating Directly From Data Obtained During the Study

27.1 'Internal' Influences in Managerial Choice At the commencement of this work, a number of assumptions were made, these can be summarised, as follows:-

27.1:1 There are characteristics of individual managers which, under conditions of choice, predispose them to perform one task rather than another.

27.1:2 That differences in personal characteristics and cognitive styles can be measured.

27.1:3 That expression of preferences can be identified through observation of the tasks performed.

It is believed that the results of the research both confirm the appropriateness of these assumptions and also demonstrate that it may well be possible, using readily available and widely used measures, to predict the sort of choices an individual manager will make.

27.2 External Influences on Managerial Choice Implicit within the study was the conviction that in addition to those influences 'internal' to the individual, there are factors external to the manager that will also influence his behaviour. Thus it was felt that the exercise of individual preference might be affected by such factors as:-

27.2:1 The preferences and choices of more senior managers.

27.2:2 Corporate pressures and organisational priorities and goals.

27.2:3 The environment within which the organisation functions, etc.

The results of the research leave little doubt in the mind of the author that within this particular group of managers not only were there clear differences in the way that individuals responded to 'external' factors of this type but also, using data derived from the sort of psychometric tests in common use, these differences could, to some extent, be predicted.

27.3 Oversimplifying, there seemed to be two distinct ways of reacting to 'external' pressures, identifiable both by the pattern of managerial activity displayed and the personal characteristics of the manager.

27.3:1 The 'Hard-Nosed' Managers On the one hand there were extravert, stable, self assured, thinking, independent individuals who seemed to determine the balance of their own activities by exercising their own preferences despite external pressures. For such managers the roles of Entrepreneur, Spokesman were given substantial importance along with balanced use of the Leader role. These managers spent relatively little time handling disturbances.

27.3:2 The 'Compliant' Managers On the other hand, there were the sensitive, introvert, anxious, emotional, feeling, group dependent and

conscientious individuals who seemed to over-react to pressure from the organisation. Such managers tended to emphasise the organisations overtly valued managerial roles, in particular activities associated with the Leader role. For these individuals much time was spent in the Leader role to the exclusion of other managerial activities such as Entrepreneur, Spokesman, etc. In sharp contrast with the 'Hard Noses' this group of managers spent much more time in the Disturbance Handler Role.

27.4 What Does It Mean For Organisations?

There are clear lessons here for those organisations with extremely positive or directive management philosophies. Plainly, the fact that a manager is seen to spend a large proportion of his time in a limited number of organisationally valued activities does not make that manager effective. There may be equally important, if less overtly valued, managerial roles that are reflected. Organisations may therefore be faced with yet another dilemma (to add to the many).

27.4:1 They can select managers who may listen to the stated priorities but have personal qualities that will make them likely to exercise their own judgement about how much weight to give to those priorities; managers who may take risks (such as delegating disturbance handling to others?) and may give insufficient weight to the company policy.

27.4:2 They can select managers who are likely to 'toe the party line'. If however, the line is not carefully presented and does not recognise the personalities of the managers in post, then the

organisation's own philosophy and style might be the constraint that determines the manager's and therefore the organisation's effectiveness.

27.5 The Effects of the Preferences of Senior Managers

27.5:1 In addition to the kind of organisational influence discussed above, there is good evidence within the results to support the idea, often mooted but seldom tested, that the personality, style, preferences and choices of more senior managers influence and limit the task choices of their subordinates. There were specific areas of activity notably Figurehead and Negotiator not carried out by the District Managers. As it is inconceivable that these roles would have been delegated below District Manager it seems clear that some of the Area Managers were holding certain activities to themselves.

Once more, there seem to be a number of clear messages for organisations and their managers.

27.5:2 Senior managers may not be aware of the task preferences they are expressing, the choices they are making. The chances are even higher that senior managers are not aware of the impact of such choices upon: their own and their subordinates' work load and effectiveness; and perhaps more importantly, upon the development opportunities available to more junior managers.

27.5:3 Generally speaking organisations do not seem to recognise the personal preferences that are exercised by their managers (at all levels); they do not, therefore, take account of this in: their structures and philosophies; their action plans;

their recruitment and development strategies; or in their day to day management initiatives. Nor do they recognise that they are throwing away much potentially useful data; derived during selection, training, etc. which might help predict the choices that individuals will make.

27.5:4 Effectiveness of Delegation Those roles which are an essential part of each manager's job are being retained at senior levels or delegated down the hierarchy. The basis for retention or delegation seems to be more closely linked with personal preference, conscious or unconscious choice, than to any rationale based upon achieving organisational or managerial effectiveness. Managers, much less making best use of available skills (their own and others), may be merely 'retaining hobbies' - those bits of the job that are: most comfortable; least threatening; most familiar; most enjoyable; or perceived to be the most prestigious.

27.6 How Important is Organisational Knowledge About Managerial Activity?

27.6:1 It is believed that the weight of evidence produced by this research indicates that organisations need access to much more - and much more objective, information about the activity of their managers. In particular the ways in which managerial activity links with organisational effectiveness. (Recognising that the criteria for effective performance will vary from organisation to organisation and probably from work-place to work-place.)

27.6:2 Data about what managers do, especially if this data can be related to each manager's unique personal characteristics, will provide basic information for the organisation to use in: work planning and delegation; reorganisation and re-structuring; selection and recruitment; team building; individual performance review; management and organisation development.

27.6:3 Only with greater understanding of his own behaviour can the manager alter his working habits to cope with the constantly changing demands made upon him. Only with a greater understanding of the choices made by individual managers can organisations match the person to the job, through selection and development.

27.6:4 Managerial Activity and Managerial Effectiveness What the manager does and the way his activities influence outcomes is crucial to the organisation. Such vitally important aspects of any organisation's function have, for far too long, been based upon the manager's own view of what he does, whether that is effective (in any sense); or upon some other person's equally subjective feelings about what the manager does and whether it is effective. What is demonstrated by this research is a relatively simple, easily applied, method for gathering meaningful, objective and usable data about managerial activity. Whilst the data, for the purposes of this research, were analysed in relation to personal characteristics of managers, it would seem possible that activity data could be related to other information such as measures of outcomes. In this way one might identify links, possibly direct links, between managerial behaviours and

areas of managerial effectiveness or ineffectiveness, within particular organisational settings. After all, Work Study and Method Study practitioners have applied similar techniques to other work areas and other grades of workers for many years.

28. Conclusions Concerning the Need for Further Research

28.1 In constructing a 'useful' model, the author was told, there are three essentials. The model should be:-

- * Simple
- * General
- * Accurate

Sadly, attempts to apply such criteria to theories about managers and managerial work fall victim to immediate problems. Designs that are simple, rigorous and accurate have tended to produce little that is insightful or meaningful to managers (or even to the management scientists who demand the rigour). Findings of general interest to managers (and some management scientists) and of broad, general applicability are rarely simple and almost always involve questions of inaccuracy or lack of rigour. Whatever conclusions are reached here concerning the need for further research should be viewed in the light of these comments.

28.2 Personality and Managerial Task Preference If findings relating to correlations between measurable personal characteristics and task selection amongst managers are ever to be applied generally, then the population of managers would

need to be increased to include a wide range of managerial and organisational types. Although, as already mentioned, this may not be the daunting task it first appears, as many organisations already possess a mass of psychometric data relating to their managers. What appears to be lacking is the detailed study of what those managers actually do when in post. One product of this research is a tried and tested, operational system to consistently identify and categorise managerial activity.

28.3 Organisational Influence on Task Selection

Considering the question of organisational influence on managerial behaviour, the problems of drawing comparisons between organisations have already been discussed at various points in the thesis. Nevertheless it does not seem inconceivable that parallel projects of similar design to that employed in this research, could be pursued in two (or more) different organisations. Such a piece of work would, it is believed, necessitate a considerable amount of background study to identify the stated philosophy and aims, the predominant management culture of the organisations involved in the project. In the case of managerial posts below Chief Executive, care would also need to be taken to control for, or at least identify, the influence of individual more senior managers.

28.4 Influences of Senior Managers on Managerial Task Selection

Continuing the topic of the influence of senior managers upon the task selection and available choices and their juniors. This could be further investigated by adopting a similar research design to the one employed in this project, in an organisation with larger numbers of

junior managers reporting to the senior management level.

29. Conclusions Relating to the Hypotheses

29.1 This research was conducted to investigate the following hypotheses:-

29.1:1 That there will be a significant correlation between the types of task a manager chooses to perform and some measurable aspects of the personality of that manager.

29.1:2 That there will be a significant correlation between the types of task a manager chooses to perform and some identifiable aspects of the cognitive style of that manager.

29.2 It is believed that both of these hypotheses have been confirmed. The research has clearly established that relationships exist between the tasks actually carried out by managers and measurable aspects of the personality and cognitive styles of those individuals.

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APPENDIX I

BIOGRAPHICAL INFORMATION

District Managers : Biography (1)

QUALIFICATIONS

'O' LEVELS	<u>2</u>
'A' LEVELS	<u></u>
DEGREE	<u></u>
PROF. QUALIFICATIONS	<u>ONC ; HNC.</u>
FIELD	<u>Civil Eng.</u>

WORK HISTORY

NO. OF JOBS	<u>5</u>
TIME SPENT PER JOB	<u>3 yrs.</u>
YEARS AS MANAGER	<u>12 yrs.</u>

QUALIFICATIONS

'O' LEVELS	<u>4</u>
'A' LEVELS	<u></u>
DEGREE	<u></u>
PROF. QUALIFICATIONS	<u>HNC.</u>
FIELD	<u>Civil Eng.</u>

WORK HISTORY

NO. OF JOBS	<u>3</u>
TIME SPENT PER JOB	<u>3.5 yrs.</u>
YEARS AS MANAGER	<u>2 yrs.</u>

District Managers : Biography (3)

QUALIFICATIONS

'O' LEVELS 5

'A' LEVELS

DEGREE

PROF. QUALIFICATIONS

FIELD

WORK HISTORY

NO. OF JOBS 3

TIME SPENT PER JOB 6.5 yrs.

YEARS AS MANAGER 3 yrs.

QUALIFICATIONS

'O' LEVELS	<u>9</u>
'A' LEVELS	<u>1</u>
DEGREE	<u></u>
PROF. QUALIFICATIONS	<u>ONC ; HNC .</u>
FIELD	<u>Civil Eng.</u>

WORK HISTORY

NO. OF JOBS	<u>7</u>
TIME SPENT PER JOB	<u>3yrs.</u>
YEARS AS MANAGER	<u>11 yrs.</u>

District Managers : Biography (5)

QUALIFICATIONS

'O' LEVELS	<u>9</u>
'A' LEVELS	<u>4</u>
DEGREE	<u>Hons. (III)</u>
PROF. QUALIFICATIONS	<u></u>
FIELD	<u>Chemistry</u>

WORK HISTORY

NO. OF JOBS	<u>4</u>
TIME SPENT PER JOB	<u>3yrs.</u>
YEARS AS MANAGER	<u>2.5 yrs</u>

District Managers : Biography (6)

QUALIFICATIONS

'O' LEVELS	<u>6</u>
'A' LEVELS	<u></u>
DEGREE	<u>ONC ; HNC :</u>
PROF. QUALIFICATIONS	<u>LRIC ; MIWEM :</u>
FIELD	<u>Chemistry</u>

WORK HISTORY

NO. OF JOBS	<u>5</u>
TIME SPENT PER JOB	<u>3 - 5 yrs.</u>
YEARS AS MANAGER	<u>6 yrs.</u>

QUALIFICATIONS

'O' LEVELS	<u>8</u>
'A' LEVELS	<u>ONC</u>
DEGREE	<u>HNC;GRIC :</u>
PROF.QUALIFICATIONS	<u>MRSC ;MIWEM :</u>
FIELD	<u>Chemistry</u>

WORK HISTORY

NO. OF JOBS	<u>4</u>
TIME SPENT PER JOB	<u>4yrs.</u>
YEARS AS MANAGER	<u>5yrs.</u>

APPENDIX II

Examples of Paperwork Used in Data Collection and Analysis

SUBJECT :

ceased : hrs

- 374 -

Subject : MANAGER I

Form 2

TASKS CATEGORISED INTO MANAGERIAL ROLES (TIME SPENT)

	INTERPERSONAL ROLES				INFORMATION ROLES				DECISION ROLES			
	Figurehead	Leader	Liaison	Monitor	Disseminator	Spokesman	Entrepreneur	Disturbance Handler	Resource Allocator	Negotiator		
TIME	C	24	1675	70	1135	207	15	13	67	0		
% OF DAY TOTAL	C	3.5	24.7	10.3	16.8	30.6	2.2	1.9	9.9	0		
TIME	C	48	19	29	32	895	775	56	1375	115		
% OF DAY TOTAL	C	9.6	3.8	5.8	6.4	17.9	15.5	11.2	27.5	2.3		
TIME	C	20	51	29	30	96	187	5	22	37		
% OF DAY TOTAL	C	4.2	10.7	6.1	6.3	20.1	39.2	1.0	4.6	7.7		
TIME	C	92	2375	128	1755	3925	2795	74	2265	485		
% OF DAY TOTAL	C	56	144	7.7	10.6	23.7	17	4.5	13.7	2.9		

TOTAL 1654

APPENDIX III

Examples of Activity Record Used in Data Collection and Analysis

9:50	9:55	1	...	
9:55	9:59	5	...	
10:00	10:01	7	...	
10:05	10:08	3	...	
10:10	10:15	3	...	
10:16	10:18	2	...	
10:17	10:30	2	...	
10:12	10:28	9	...	
10:23	10:25	3	...	
10:29	10:30	1	...	
10:30	10:31	1	...	
10:32	10:33	1	...	
10:33	10:35	5	...	
10:38	10:39	1	...	

ACTIVITY STARTED	ACTIVITY CEASED	DURATION	DESCRIPTION	CATEGORY
9:50	9:53	3	Instructions for walking dog - club about meetings etc.	LEADER
9:53	9:55	2	Location - club house - 1st floor	LEADER
9:55	9:59	4	Rings back to school Mike Henson - 8 starting - Sailing Club	MONITOR
10:00	10:07	7	Writes note Termination Documents for pt. staff	RESOURCE ALLOCATOR
10:10	10:12	2	Ring Call from 'Wolverhampton Regs'	RESOURCE ALLOCATOR
10:12	10:15	3	Rings: Commodore - Sailing - new number needed Club	ABORTIVE (SPOKEMAN)
10:16	10:18	2	Rings Sailing Club to get new number	SPOKEMAN
10:18	10:20	2	Rings Commodore Sailing Club Leave message to rings	SPOKEMAN
10:20	10:29	9	Rings HQ - Mike Henson following up complaint	DISTURBANCE HANDLER
10:22	10:25	3	Writes Requestion	RESOURCE ALLOCATOR
10:29	10:30	1	Reads Report - regis. sent, on	DISSEMINATE
10:30	10:31	1	Reads Report - checks with person with file	MONITOR
10:32	10:33	1	Checks 'Action' list	MONITOR SELF
10:33	10:38	5	Identify requests assistance	LEADER
10:38	10:39	1	Checks map. / Plans re (45)	LEADER

(46)

APPENDIX IV

Activity Data

a) Percentage of Activities Within Each Role.

b) Percentage of Time Spent Within Each Role.

Activity	Percentage of Activities Within Each Role									
	1	2	3	4	5	6	7	8	9	10
1	100	0	0	0	0	0	0	0	0	0
2	0	100	0	0	0	0	0	0	0	0
3	0	0	100	0	0	0	0	0	0	0
4	0	0	0	100	0	0	0	0	0	0
5	0	0	0	0	100	0	0	0	0	0
6	0	0	0	0	0	100	0	0	0	0
7	0	0	0	0	0	0	100	0	0	0
8	0	0	0	0	0	0	0	100	0	0
9	0	0	0	0	0	0	0	0	100	0
10	0	0	0	0	0	0	0	0	0	100
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0	0	0	0
64	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
71	0	0	0	0	0	0	0	0	0	0
72	0	0	0	0	0	0	0	0	0	0
73	0	0	0	0	0	0	0	0	0	0
74	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0	0
77	0	0	0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0	0	0	0
79	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
81	0	0	0	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0	0	0	0
83	0	0	0	0	0	0	0	0	0	0
84	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0

a) % NUMBER OF ACTIVITIES IN EACH MANAGERIAL ROLE

ROLE MANAGER		FIGURE- HEAD	LEADER	LIAISON	MONITOR	DISSEN- INATOR	SPOKESMAN	ENTRE- PRENEUR	DISTURBANCE HANDLER	RESOURCE ALLOCATOR	NEGOTIATOR
1	DAY 1	0	11.8	22.4	19.7	11.8	19.7	3.9	3.9	6.6	0
	2	0	14.3	13.3	12.4	15.2	12.4	5.7	11.4	12.4	2.8
	3	0	11.9	23.8	23.8	9.5	7.1	14.3	2.4	4.8	2.4
	M	0	13.0	18.4	17.0	13.0	13.9	6.7	7.2	9.0	1.8
2	DAY 1	0	17.7	12.7	21.5	12.7	6.3	11.4	7.6	10.1	0
	2	0	26.1	17.4	17.4	4.3	8.7	13.0	10.9	0	2.1
	3	0	14.3	12.5	25.0	14.3	1.8	3.6	7.1	17.8	1.8
	M	0	18.8	13.8	21.5	11.0	5.5	9.4	8.3	9.9	1.1
3	DAY 1	1.8	22.2	6.5	16.7	18.5	9.3	9.3	9.3	6.5	0
	2	1.8	17.4	5.5	22.0	19.3	7.3	5.5	11.9	9.2	0
	3	1.8	20.5	5.4	20.5	18.8	8.0	6.3	10.7	8.0	0
	M	1.8	20.1	5.8	19.8	18.8	8.2	7.0	10.6	7.9	0
4	DAY 1	3.0	8.9	19.4	32.8	7.5	13.4	3.0	6.0	6.0	0
	2	0	8.5	18.6	28.8	6.8	18.6	5.1	11.9	1.7	0
	3	1.8	7.1	16.1	32.1	7.1	17.9	3.6	10.7	3.6	0
	M	1.6	8.2	18.1	31.3	7.1	16.5	3.8	9.3	3.8	0
5	DAY 1	0	19.3	13.8	25.7	9.2	7.3	9.2	9.2	6.4	0
	2	0	20.7	12.0	26.1	8.7	13.0	8.7	7.6	3.3	0
	3	0	18.8	13.9	27.7	7.9	8.9	6.9	8.9	6.9	0
	M	0	16.8	13.7	26.5	8.9	9.9	8.6	8.9	5.8	0
6	DAY 1	0	20.0	16.7	23.3	6.7	13.3	1.7	10.0	6.7	0
	2	0.9	22.4	10.3	24.0	2.6	12.1	7.8	13.8	6.0	0
	3	0	13.7	15.7	22.5	12.7	9.8	8.8	9.8	6.9	0
	M	0.3	18.7	13.7	23.4	7.2	11.5	6.8	11.5	6.5	0
7	DAY 1	0	22.2	3.9	20.3	16.5	13.6	7.8	11.6	3.9	0
	2	0	21.7	3.3	18.5	15.2	13.0	9.8	11.9	4.3	2.2
	3	0	18.4	5.7	25.3	19.5	10.3	10.3	6.9	3.4	0
	M	0	20.9	4.2	21.3	17.0	12.4	9.2	10.3	3.9	0.7

b) PERCENTAGE OF TIME SPENT IN MANAGERIAL ROLES

MANAGER	ROLE	FIGURE- HEAD	LEADER	LIAISON	MONITOR	DISSEM- INATOR	SPOKESMAN	ENTRE- PRENEUR	DISTURBANCE HANDLER	RESOURCE ALLOCATOR	NEGOTIATOR
1	DAY 1	0	3.5	24.7	10.3	16.8	30.6	2.2	1.9	9.9	0
	2	0	9.6	3.8	5.8	6.4	17.9	15.5	11.2	27.5	2.3
	3	0	4.2	10.7	6.1	6.3	20.1	39.2	1.0	4.6	7.7
	$\bar{M}$	0	5,6	14.4	7.7	10.6	23.7	17.0	4.5	13.7	2.9
2	DAY 1	0	15.8	10.9	15.8	14.0	8.4	10.0	9.1	15.8	0
	2	0	21.9	19.0	32.9	2.8	3.9	9.6	9.3	0	0.8
	3	0	18.6	16.3	24.0	6.6	0.8	6.1	4.2	22.8	0.4
	$\bar{M}$	0	18,6	15.1	23.8	8.2	4.8	8.8	7.8	12.4	0
3	DAY 1	2.7	15.4	6.6	8.5	11.8	10.6	20.4	17.3	6.7	0
	2	2.4	13.3	4.4	12.1	8.1	8.9	13.8	25.1	11.8	0
	3	2.5	14.9	5.8	10.1	10.9	9.6	17.5	21.0	7.7	0
	$\bar{M}$	2.5	14.5	5.6	10.2	10.3	9.7	17.2	21.1	8.7	0
4	DAY 1	0.8	3.2	9.9	34.1	1.8	15.4	32.4	1.0	1.3	0
	2	0	2.9	7.3	22.2	0.7	38.5	20.3	7.7	0.4	0
	3	0.3	3.2	7.1	27.7	1.3	30.4	22.6	6.2	1.1	0
	$\bar{M}$	0.3	3.1	8.0	27.6	1.2	29.0	24.6	5.2	0.9	0
5	DAY 1	0	22.6	10.8	22.2	5.2	5.7	20.4	7.7	5.4	0
	2	0	20.9	6.6	27.3	2.6	13.8	15.9	4.3	8.7	0
	3	0	17.9	9.3	27.5	4.7	10.9	17.0	6.5	6.1	0
	$\bar{M}$	0	20.4	8.2	25.5	4.3	9.9	17.9	5.7	6.6	0
6	DAY 1	0	18.8	14.2	24.6	1.2	23.4	1.8	10.5	5.5	0
	2	1.6	20.7	19.1	16.0	3.5	11.0	8.7	13.2	6.0	0
	3	0	19.1	17.6	15.5	6.6	5.7	22.4	8.5	4.8	0
	$\bar{M}$	0.5	19.5	16.8	19.0	3.6	14.0	10.1	10.8	5.5	0
7	DAY 1	0	28.9	6.5	16.7	9.1	9.2	14.5	12.0	2.9	0
	2	0	30.0	6.8	21.2	7.8	9.0	14.3	6.3	3.5	0.2
	3	0	32.0	6.6	21.9	5.9	8.6	13.0	8.9	2.8	0
	$\bar{M}$	0	30.3	6.7	19.9	7.6	8.9	14.0	9.1	3.1	0.4

APPENDIX V

Psychometric Test Data

a) 16PF Raw Scores.

b) Myers-Briggs Type Indicator Raw Scores.

c) Scores on the Learning Styles Questionnaire.

a) RAW SCORES ON SIXTEEN PERSONALITY FACTORS

MANAGER			1	2	3	4	5	6	7
FACTOR	LO	HI							
A	Cool Reserved	Warm Participating	12	6	10	10	11	11	7
B	Concrete Thinking	Abstract Thinking	11	7	8	11	11	9	7
C	Emotional	Calm Stable	22	15	16	24	18	21	12
E	Passive Mild	Assertive	22	13	16	14	19	24	15
F	Serious	Enthusiastic	20	7	14	14	19	18	11
G	Expedient	Conforming	18	14	16	15	12	16	14
H	Shy Timid	Venturesome	22	9	10	21	24	20	9
I	Tough Minded	Tender Minded	2	6	14	8	6	10	3
L	Easy Going	Sceptical	6	2	6	5	6	5	12
M	Practical	Imaginative	10	8	14	19	18	13	12
N	Forthright	Calculating	8	12	14	18	18	6	14
O	Self Assured	Apprehensive	2	12	10	3	4	7	11
Q1	Conservative	Experimenting	14	4	10	5	12	12	9
Q2	Group Dependent	Self Sufficient	8	13	8	9	8	9	10
Q3	Un-disciplined	Controlled	18	14	18	14	7	13	16
Q4	Relaxed	Tense Driven	4	7	10	5	12	10	12

b) RAW SCORES ON THE MYERS-BRIGGS TYPE INDICATOR

MANAGER TYPE	1	2	3	4	5	6	7
EXTRAVERT	25	10	6	27	23	24	9
INTROVERT	2	21	18	2	4	2	20
SENSING	27	26	16	6	15	0	20
INTUITIVE	3	4	10	15	12	25	7
THINKING	25	2	18	27	17	25	20
FEELING	0	14	2	0	3	0	2
JUDGING	24	24	20	9	14	8	26
PERCEPTIVE	4	4	8	21	14	16	1

c) RAW SCORES ON THE LEARNING STYLES QUESTIONNAIRE

MANAGER STYLE	1	2	3	4	5	6	7
ACTIVIST	7	8	7	17	11	12	12
REFLECTOR	14	13	16	15	14	12	19
THEORIST	15	13	17	9	12	12	16
PRAGMATIST	17	17	16	15	15	10	15

APPENDIX VI

Correlational Data

a) Correlation Between Roles.

b) Correlation between Psychometric
Test Data and Managerial Role.

a) CORRELATION BETWEEN ROLES

ROLE	CORRELATING ROLE	SIGNIFICANCE
FIGUREHEAD	ENTREPRENEUR	$P < .05$
LEADER	SPOKESMAN	$P < .05$
LIAISON	-	-
MONITOR	DISSEMINATOR RESOURCE ALLOCATOR	$P < .05$ $P \text{ just } > .05$
DISSEMINATOR	RESOURCE ALLOCATOR MONITOR NEGOTIATOR	$P < .01$ $P < .05$ $P \text{ just } > .05$
SPOKESMAN	LEADER ENTREPRENEUR	$P < .05$ $P \text{ just } > .05$
ENTREPRENEUR	FIGUREHEAD SPOKESMAN	$P < .05$ $P \text{ just } > .05$
DISTURBANCE HANDLER	-	-
RESOURCE ALLOCATOR	DISSEMINATOR MONITOR	$P < .01$ $P < .05$
NEGOTIATOR	DISSEMINATOR	$P \text{ just } > .05$

b1

Correlations Between 16PF Factors and Managerial Roles

16 PF FACTORS Lo High			ROLE		FIGUREHEAD	LEADER	LIAISON	MONITOR	DISSEMINATOR	SPOKESMAN	ENTREPRENEUR	DISTURBANCE HANDLER	RESOURCE ALLOCATOR	NEGOTIATOR
Reserved	-	Outgoing	A		.196	-.339	.286	-.375	.089	.714	.339	-.339	.250	.063
Dull	-	Bright	B		.036	-.491	.152	-.170	-.188	.884	.723	-.580	.009	-.071
Affected by feelings	-	Emotionally stable	C		.196	-.821	.250	-.071	-.321	.964	-.536	-.571	-.107	-.116
Humble	-	Assertive	E		.036	-.071	.321	-.571	.071	.429	0	.071	.179	-.009
Sober	-	Happy-go-Lucky	F		.223	-.313	.223	-.330	.098	.688	.402	-.402	.259	.054
Expedient	-	Conscientious	G		.027	-.679	.125	-.732	.393	.500	-.036	.018	.339	.277
Shy	-	Venturesome	H		.402	-.348	.152	.098	.152	.741	.652	-.580	.080	-.107
Tough minded	-	Tender minded	I		.607	-.259	-.134	-.098	.348	.063	.170	.670	-.277	-.643
Trusting	-	Suspicious	L		.286	.384	-.546	-.277	.348	-.027	.313	.116	-.027	.304
Practical	-	Imaginative	M		.768	-.286	-.429	.500	-.643	.536	.857	0	-.643	-.652
Forthright	-	Astute	N		.723	.071	-.625	.714	-.339	.089	.786	-.179	-.446	-.259
Self assured	-	Apprehensive	O		-.054	.643	-.071	.071	.107	-.929	-.643	-.679	0	.152
Conservative	-	Experimenting	Q1		.107	-.098	.205	-.580	.277	.455	.152	-.152	.348	.161
Group dependent	-	Self sufficient	Q2		-.393	.384	.295	.402	-.223	-.420	-.545	.188	-.241	.357
Undisciplined	-	Controlled	Q3		.089	-.321	-.464	-.643	.750	-.036	0	.054	.393	.571
Relaxed	-	Tense	Q4		.321	.839	-.268	.214	-.214	-.482	-.018	.571	-.339	-.205
Introversion	-	Extraversion	QI		.179	.179	.250	-.250	0	.750	.429	-.500	.179	.045
Low anxiety	-	High anxiety	QII		.232	.429	-.500	.036	.143	-.857	-.286	.714	-.143	.045
Sensitivity	-	Tough poise	QIII		.071	-.107	.214	.393	-.071	.357	.393	-.893	.143	.313
Dependence	-	Independence	QIV		.107	.214	.277	-.205	-.027	.741	.402	-.527	.134	.107

Correlations Between Personality Types and Managerial Role

- 388 -

Correlations Between Cognitive Styles and Managerial Role

- 389 -

APPENDIX VII

Detailed Analysis of Correlation Data

Figurehead Role

Description of Role

Symbolic head, obliged to perform a number of routine duties of legal or social nature.

Activities

Ceremony, status requests and solicitations.

(adapted from Mintzberg 1973 p 92-93)

Whilst only three of the seven managers spent any of their time in this role, and those three spent only a small proportion of that time (range 0 - 2.5%), there appears to be a strong correlation between time spent in the role and the following factors on Cattell's 16PF.

High scores on time spent in the Figurehead role correlate with:-

a) High scores on Factor M (Practical - Imaginative), significant at the 5% level and characterised at the extreme, as follows:-

* Unconventional, absorbed in ideas.

* Interested in art, theory, basic beliefs.

- * Imaginatively enthralled by inner creations.
- * Fanciful, easily seduced from practical judgement.
- * Generally enthused, but occasionally subject to hysterical swings of 'giving up'.

(adapted from Cattell 1970 p 98 et al)

b) High scores on Factor N (Forthright/naive - Calculating/shrewd). Significant at the 5% level and characterised at the extremes as follows:-

- * Polished, socially aware.
- * Has an exact, calculating mind.
- * Emotionally detached and disciplined.
- * Artful.
- * Aesthetically fastidious.
- * Insightful regarding self and others.
- * Ambitious, possibly insecure.
- * Smart, may 'cut corners'.

(adapted from Cattell et al 1970 p 99)

c) High scores on Factor I (Tough minded - Tender Minded). Significant at approaching the 5% level and characterised at the extreme, as follows:-

- * Fidgety, expecting affection and attention.
- * Clinging, insecure, seeking help and sympathy.
- * Kindly, gentle, indulgent to self and others.
- * Artistically fastidious, affected and theatrical.
- * Imaginative in inner life and conversation.
- * Acts on sensitive intuition.
- * Attention seeking - flighty.
- * May be hypochondriacal and anxious about self.

adapted from Cattell et al 1970 p 93)

Results on time spent in the Figurehead role correlate strongly with the time spent in the Entrepreneurial role.

Leader Role

Description of Role

Motivation and activation of subordinates; responsible for staffing, training and associated duties.

Activities

Virtually all managerial activities involving subordinates.

(adapted from Mintzberg 1973 p 92-93)

All seven managers spent time in this role (range 3.1% to 30.3%). Bearing in mind the emphasis placed by the organisation upon 'Leadership' development and assessment, the personal characteristics of those spending most time in the role are intriguing. This aspect of the findings will be considered in more depth in the main body of the text.

The following represent strong correlations between time spent in the Leader role and factors on Cattell's 16PF.

High scores on the Leader role correlate with:-

a) Low scores on Factor C (Emotional Instability/Ego weakness - Emotionally stable/high ego strengths), Significant at the 5% level and characterised at the extreme as follows:-

- * Gets emotional when frustrated.
- * Changeable attitudes and interests.
- * Easily perturbed, worrier.
- * Evasive of responsibilities, tends to give up.
- * Gets into fights and problem situations.

(adapted from Cattell et al 1970 p 83)

Cattell's research indicates that high C individuals are far more frequently leaders than are low C individuals. 'Business executives' are, however, seen to have a wide range on C, often running quite low, perhaps showing a fatigue - worry response to the situational stresses, such as would not appear in pre-selection testing.

(Cattell et al 1970 p 84)

b) High scores on Factor Q4 (Low ergic tension, relaxed - high ergic tension, tense driven). Significant at the 5% level, characterised at the extreme, as follows:-

- * Signs of tension and irritability in behaviour.
- * Frustration with position of self and others.
- * Demonstrations of anxiety and often irrational worry.
- * Appears to be fretful and in turmoil.

(adapted from Cattell et al 1970 p 107-108)

Group dynamics experiments indicate (at $p < .05$ level) that high Q4's rarely achieve leadership. They have a tendency to frequently criticise 'group unity, its orderliness, and the quality of existing leadership' (Cattell et al 1970 p 103).

c) High scores on Factor G (Low super-ego strength, expedient - High super-ego strength, conscientious).

Significant at approaching the 5% level and characterised at the extreme, as follows:-

- * Persevering, determined.
- * Responsible and emotionally disciplined.
- * Consistently ordered.

* Conscientious, dominated by sense of duty.

* Concerned about moral standards and rules.

(adapted from Cattell et al 1970 p 88-89)

Exploring criteria with which Factor G correlates
Cattell found 'it significantly distinguishes leaders
(*of all three types) from followers' (Cattell et al
1970 p 90).

* Cattell identified 'Elected', 'Effective' and
'Technical' Leaders.

d) High scores on Factor 0 (untroubled adequacy, self
assured - guilt proneness, apprehensive).
Significant at approaching the 5% level and
characterised at the extremes as follows:-

* Worrying, anxious, depressed, cries easily.

* Easily troubled, overcome by moods.

* Strong sense of obligation, sensitive to people's
approval and disapproval.

* Scrupulous and fussy.

* Hypochondriacal and inadequate.

* May show phobic symptoms.

* Lonely and brooding.

(adapted from Cattell et al p 102)

In group situations high O individuals are seen not to feel accepted or free to participate; they are considered shy, poor presenters; and as hindering group processes. They tend to be task oriented, select few peers as friends and try to get the group to conform to rules and regulations. 'High Factor O is strongly weighted against successful leadership in face to face situations, against success in tasks with sudden emergencies' (Cattell et al 1970 p 102).

The following represent strong correlations between time spent in the Leader role and personality types as measured by the Myers Briggs Type Indicator.

- e) Time spent in the Leader role correlates positively with scores on Introversion and Feeling; and negatively with scores on Extraversion and Thinking. These correlations are significant at approaching the 5% level.

According to Briggs-Myers, 'Thinking and Feeling are opposite ways of deciding. Thinking predicts the logical results of any particular action' (Briggs-Myers 1980 p 2); decisions are made impersonally, on the basis of cause and effect. Feeling 'takes into account anything that matters or is important to you or other people (without requiring that it be logical)' (Briggs-Myers 1980 p 2); decisions are made on the basis of personal values. Those who prefer Feeling to Thinking are seen to be sympathetic, appreciative and tactful, giving weight to one's own and other people's values.

Referring to Extraversion (E) and Introversion (I), what she calls 'outer world' and 'inner world': Briggs-Myers maintains that, whilst an individual's main fields of interest are liable to be related directly to the kind of perception and judgement

preferred (Sensing - intuition: Thinking - Feeling); the sort of work a person will enjoy most may depend upon E - I preferences. 'The individual may be seen to use his/her favourite process extravertedly (E) in the outer world of people and things, or introvertly (I) in the inner world of concepts and ideas' (Briggs Myers 1980 p 6).

Briggs Myers describes the interaction of Introversion and Feeling as follows. Such individuals:-

- * Have a wealth of warmth and enthusiasm, but may not show it until trust has been established.
- * Judge things on the basis of personal values; these values are established without reference to others.
- * Protect at all costs, that which they see as important.
- * Govern their lives through loyalties and ideals.
- * Seldom express deep feelings because of their reserve.
- * Work best at jobs they believe in.
- * Measure success against inner ideal standards rather than what is actually possible. May therefore become frustrated.
- * If they are not able to work to an ideal, they may become vulnerable.
- * They have little wish to impress or dominate.

In the work situation, the effects of the two preferences are perceived to be:-

Introverts

- * Enjoy quiet concentration.
- * Are careful with detail, dislike sweeping statements.
- * Have trouble with names and faces.
- * Do not mind concentrating on one project for a long period.
- * Are interested in the aims behind the job.
- * Do not like intrusions and interruptions.
- * Think a lot before acting.
- * Are happy working alone.
- * Have some difficulty communicating.

Feeling Types

- * Tend to be aware of others and their feelings.
- * Enjoy pleasing others even in small things.
- * Like harmony, dislike conflict.
- * Often let decisions be influenced by own or others' likes and wishes.

* Need praise.

* Dislike telling people unpleasant things.

* Are people oriented, responding to others' values.

* Tend to be sympathetic.

Liaison Role

Description of Role

Maintains self developed network of outside contacts and informers who provide favours and information.

Activities

Acknowledgements of correspondence, external management work, other activities involving outsiders.

(adapted from Mintzberg 1973 p 92-93)

All seven managers spent a substantial proportion of their time in this role (range 5.6% to 16.8%). The percentage of time spent in the role did however correlate with only two factors on the measures used in this research.

Time spent in the Liaison role correlates negatively with scores on the Reflector learning style as measured by the Learning Styles Questionnaire

The correlation was significant at the 1% level. As the correlation was negative, those spending least time in the Liaison role are likely to be the most reflective. A Reflector may be characterised at the extreme as follows:-

Reflectors

- * Like to stand back, ponder experiences and observe them from many different perspectives.
- * Collect data first and second hand chewing it over thoroughly before reaching conclusions.

- * The collection and analysis of data is more important than the conclusions, these will be delayed as long as possible.
- * Philosophy is: 'look before you leap', 'let's sleep on it'.
- * Prefer to take a back seat at meetings and enjoy watching the action.
- * Listen to get the drift of the discussion before making their point.

(adapted from Honey and Mumford 1982)

High scores on time spent in the Liaison role correlate with low scores on Factor N (Forthright - Shrewd/Calculating) of Cattell's 16PF.

The correlation is significant at approaching the 5% level. Those spending most time in the Liaison role can be characterised, at the extreme, as follows:-

- * Genuine but socially clumsy.
- * Vague and injudicious mind.
- * Gregarious, getting warmly emotionally involved.
- * Spontaneous and natural with a lack of self insight.
- * Has simple tastes.
- * Unskilled in analysing motives.
- * Content with what comes.

* Blind trust in human nature.

(adapted from Cattell et al 1970 p 99)

Monitor Role

Description of Role

Seeks and receives a wide variety of special information (much of it current) to develop thorough understanding of organisation and environment: emerges as nerve centre of internal and external information of the organisation.

Activities

Handling all mail and contacts categorised as concerned primarily with receiving information.

(adapted from Mintzberg 1973 p 92-93)

All the seven managers spent time in this role, five of them spending around a fifth of their working day in activities associated with the role (range 7.7% to 27.6%).

The following represent strong correlations between time spent in the Monitor role and personality factors measured by Cattell's 16PF.

High scores on time spent in the Monitor role correlate with:-

- a) Low scores on Factor G (low super ego strength/expedient - high super ego

strength/conscientious), significant at the 5% level and characterised at the extreme as follows:-

- * Quitting, fickle.
- * Frivolous and self indulgent.
- * Slack, indolent and undependable.
- * Disregarding of obligations to people.

(adapted from Cattell 1970 p88)

- b) High scores on Factor N (naive/forthright - shrewd/calculating), significant at the 5% level and characterised at the extreme as described under Figurehead (b) earlier in this appendix.
- c) Low scores on Factor Q3 (low self sentiment integration/uncontrolled - high strength of self sentiment/controlled), significant at approaching the 5% level, and characterised at the extreme, as follows:-

- * Uncontrolled
- * Lax
- * Follows own urges
- * Careless of social rules.

For Cattell, scores on this factor represent the strength of an individual's concern about his self concept and social image. In group situations, a high Q3 score picks out persons who will be chosen as leaders, but even more so, those who are routinely

effective rather than merely popular leaders.

(adapted from Cattell et al 1970 p106)

There is one strong correlation between time spent in the Monitor role and a score on the Learning Styles Questionnaire.

- d) The percentage of time spent in the Monitor role correlates negatively with scores on Theorist.
The correlation is significant at approaching the 5% level, therefore those who spent least time in the Monitor role are the most Theorist. Such people can be characterised as follows:-

Theorists

- * Adapt and integrate observations into complex and logically sound theories.
- * Tend to be perfectionist, demanding tidiness and rationality.
- * Analyse and synthesise.
- * Are keen on assumptions, principles, theories, models and systems thinking.
- * Prize consistency, logic, rationality.
- * Reject things that do not fit their models.
- * Maximise certainty and are uneasy with subjective judgements, lateral thought and flippancy.

(adapted from Honey and Mumford, 1982)

Disseminator Role

Description of Role

Transmits information received from outsiders or from other subordinates to members of the organisation; some information factual, some involving interpretation and integration of diverse value positions of organisational influences.

Activities

Forwarding mail into the organisation for informational purposes, verbal contacts involving information flow to subordinates.

(adapted from Mintzberg 1973 p92-97)

The seven managers each spent some time in this role (range 1.2% to 10.6%) with a fairly even spread across the range.

The following represent strong correlations between time spent in the Disseminator role and Personality Types as measure by the Myers-Briggs Type Indicator.

- a) Time spent in the Disseminator role correlates positively with scores on Sensing (at the 5% level); Feeling and Judging (at approaching the 5% level)

Time spent in the Disseminator role correlates negatively with scores on Intuitive (at the 5% level) and Perceptive (at approaching the 5% level).

Just as Thinking/Feeling (described in detail under the Leader role (e) earlier in this appendix) are, according to Briggs Myers, opposite bases for decision making, so Sensing/Intuition are seen to be opposite ways of finding things out.

One way to find out is through Sensing (S); eyes, ears, touch, etc. tell you what is actually there and what is happening. Sensing is particularly suited to gathering the facts of a situation. Intuition (N) on the other hand implies meaning, relationships and possibilities beyond the reach of senses. It is especially useful for thinking ahead, predicting outcomes, constructing scenarios. People use both Sensing and Intuition but rarely together; preference will determine which is dominant within an individual. Those with a Sensing preference tend to become realistic, practical, observant, fun loving and good at remembering a great number of facts and working with them (Briggs Myers 1980 p2). Those who prefer intuition, 'make more use of intuition, get to be more skilful with it and grow expert at seeing a new possibility or solution' .. 'tend to value imagination and inspirations, and to become good at new ideas, projects and problem solving' (Briggs Myers 1980 p2)

Briggs Myers describes the interaction of Sensing and Feeling as follows.

Such people:-

- * Are interested in facts but make their decisions with personal warmth.
- * Judge with feeling, weighing how much things matter to themselves and others.

People with a Judging (J) attitude rely mainly upon a judging process in dealing with the outer world, they exercise this using Thinking and Feeling. They live in a planned, decided, orderly way, wanting to control life.

In the work situation, the effects of the three type preferences are perceived to be (adapted from Briggs-Myers 1980 p17-18):-

Sensing Types

- * Dislike new problems unless there are standard ways to solve them.
- * Like an established way of doing things.
- * Enjoy using existing skills rather than learning new ones.
- * Work more steadily, with a realistic idea of how long it will take.
- * Usually reach a conclusion step by step.
- * Are impatient with routine detail or over-complexity.
- * Are not inspired and mistrust inspiration.
- * Seldom make factual errors.
- * Tend to be good at precise work.

Judging Types

- * Work best when they can plan their work and follow the plan.
- * Like to get things settled and finished.
- * May dislike to interrupt the project in hand for a more urgent one.
- * May not notice new things needing to be done.
- * Want only the essentials needed to begin their work.
- * Tend to be satisfied once they reach a judgement on a thing, situation or person.

The following represent strong correlations between time spent in the Disseminator Role and Learning Styles as measured by the Learning Styles Questionnaire.

The percentage of time spent in the Disseminator role is positively correlated with scores on Theorist and Pragmatist at the 5% level.

The percentage of time spent in the Disseminator role is negatively correlated with scores on Activist also at the 5% level.

- b) Thus, those who spend most time in the Disseminator role express a high preference for the Theorist and Pragmatist styles and a low preference for the Activist style. Those who score highly on Theorist have been described under Monitor role (d). Pragmatists may be characterised at the extreme, as follows:-

Pragmatists

- * Are keen to try out ideas, theories and techniques in practical applications.
- * Seek out new ideas and opportunities to experiment.
- * Return from management courses full of new ideas that attract them.
- * Hate 'beating around the bush' and 'naval gazing'.
- * Are practical down to earth people.
- * Enjoy practical decision making and problem solving.
- * For them PROBLEM = CHALLENGE.
- * Philosophy is - 'There's always a better way' and 'If it works it's good'.

(adapted from Honey and Mumford 1982)

- c) Those spending most time in the Disseminator role express a low preference for the Activist style. Thus those spending least time in the role can be characterised at the extreme, as follows:-

Activists

- * Involve themselves fully and without bias in new experiences.

- * Enjoy the here and now, are happy when dominated by immediate experiences.
- * Are open minded, not sceptical, therefore are enthusiastic about things new.
- * Their philosophy - 'I'll try anything once'.
- * Dash in where angels fear to tread.
- * Revel in short term crises and fire fighting.
- * Tackle problems by brainstorming.
- * As excitement dies down from one event they look for another.
- * Thrive on challenge and new experience but get bored by implementation and long term consolidation.
- * Are gregarious, involve themselves with others, hog the limelight.
- * Are the life and soul of the party, seek to centre all activity around themselves.

(adapted from Honey and Mumford 1982)

The following represent strong correlations between time spent in the Disseminator role and factors on Cattell's 16PF.

High scores on time spent in the Disseminator role correlate with:-

d) High scores on Factor Q3 (low self sentiment

integration/undisciplined - high strength of self sentiment/controlled). This correlation is significant at the 5% level, characterised at the extreme, as follows:-

- * Exacting with power.
- * Socially precise.
- * Compulsive, tending to follow self image.

(adapted from Cattell et al 1970 p106)

In group situations high Q3 scores pick out people likely to be chosen as leaders. More than this, they are effective rather than simply popular leaders. They contribute freely especially in problem solving and solution seeking. They are highly rated by other group members.

e) Low scores on Factor M (Practical - Imaginative), significant at approaching the 5% level and characterised at the extreme, as follows:-

- * Conventional, alert to practical needs.
- * Concerned with immediate interests and issues.
- * Prosaic, avoids the far fetched.
- * Guided by objective realities, dependable in practical judgement.
- * Earnest, concerned and worried but steady.

(adapted from Cattell et al 1970 p98)

Spokesman Role

Description of Role

Transmits information to outsiders on organisation's plans, policies, actions, results, etc; serve as experts on organisations.

Activities

Management team meetings, handling mail and contacts involving transmission of information to outsiders.

(adapted from Mintzberg 1973 p92-3)

All seven managers spent a good deal of their time in this role (range 4.8% to 29%). For two of them, the role, judging by the time spent on tasks within the role definition, was the most important of the ten managerial roles.

The following represent strong correlations between time spent in the Spokesman Role and Personality Factors as measured by Cattell's 16PF.

High scores on the time spent in the Spokesman role correlate with:-

- a) High scores on Factor C (Emotional instability/ego weakness - Emotionally stable/high ego strength), significant at the 1% level and characterised at the extreme, as follows:-

* Emotionally mature.

* Stable, calm, constant interests.

* Does not let emotional needs obscure realities of a situation, adjusts to facts.

* Unruffled, shows restraint in avoiding difficulties.

High C individuals are more frequently leaders than low C and maintain better group morale. Individuals who have to adjust to difficulties 'thrown upon them from outside' .. 'appear to be selected for above average ego strength'. (Cattell et al 1970 p84)

b) Low scores on Factor O (untroubled adequacy/self assured - guilt proneness/apprehensive), significant at the 1% level and characterised at the extreme, as follows:-

* Self confident, cheerful and resilient.

* Impenitent , placid.

* Expedient, insensitive to people's approval or disapproval.

* Does not care, has no fears.

* Rudely vigorous preferring simple direct action.

(adapted from Cattell et al 1970 p101-102)

Low O individuals tend to feel accepted, free to participate; are confident effective speakers and facilitators. They are likely to prove successful leaders in face to face situations and cope well with sudden crises.

c) High scores on Factor Q1 (Introversion - Extraversion), significant at the 5% level. This second order factor is 'significantly loaded by', or affected by, the following primaries. High scores (extraversion) are affected by:-

- * High scores on Factor A (outgoing)
- * High scores on Factor E (assertive)
- * High scores on Factor F (happy-go-lucky)
- * High scores on Factor H (venturesome)
- * Low scores on Factor Q2 (self sufficient)

According to Cattell (1970 p117) 'one can accept most text book descriptions as covering its essentials, though one should be careful to distinguish more subjective elaborations from those qualities and criterion relations which can be strictly experimentally substantiated'.

d) Low scores on Factor QII (Adjustment - Anxiety), significant at the 5% level. This second order factor is affected by the following primary factors. Low scores (adjustment) are affected by:-

- * High scores on Factor C (emotionally stable).
- * High scores on Factor H (venturesome).
- * Low scores on Factor L (trusting).
- * Low scores on Factor O (self assured).

* High scores on Factor Q3 (controlled).

* Low scores on Factor Q4 (relaxed).

e) High scores on Factor A (Reserved - Outgoing), significant at the 5% level and characterised at the extreme as follows:-

* Good natured, easy going, co-operative.

* Attentive to people, participative.

* Soft hearted, trustful.

* Adaptable, careless, casual, 'goes along'.

* Warm hearted, laughs readily.

(adapted from Catttelli 1970 p80)

High A people prefer occupations dealing with people and enjoy social recognition. They are seen as natural 'joiners' readily forming active groups; are generous in personal relationships; less afraid of criticism; able to remember names and people. High scorers are not dependent upon precision in their work and they may be casual in meeting obligations.

f) High scores on Factor B (Dull - Bright), significant at the 5% level and characterised at the extreme as follows:-

* High general mental capacity.

* Insightful, fast learning, intellectually adaptable.

and at lower levels of correlation:-

- * Inclined to have more intellectual interests.

- * Show better judgement.

- * Demonstrate higher morale.

- * Perseverance.

(adapted from Cattell et al 1970 p82)

g) High scores on Factor QIV (Subdued - Independent), significant at the 5% level. This second order factor is affected by the following primary factors. High scores (Independence) are affected by:-

- * High scores on Factor E (assertive).

- * High scores on Factor L (suspicious).

- * High scores on Factor M (imaginative).

- * High scores on Factor Q1 (experimenting).

- * High score son Factor Q2 (self sufficient).

Whilst field independence identified by Witkin (1962) appears to be an expression of the factor 'However, it is not only perceptual independence, but a general temperamental independence in the broadest sense' (Cattell et al 1970 p119).

h) High scores on Factor H (Shy - venturesome), significant at the 5% level and characterised at

the extreme as follows:-

- * Adventurous, likes meeting people.
- * Active, overt, interest in the opposite sex.
- * Responsive, genial , friendly.
- * Emotional and artistic interests.
- * Impulsive, carefree, tends to miss danger signals.

In groups high H individuals feel free to participate, tend to be 'long winded' speakers, make social/emotional rather than task oriented remarks. They have 'a history of being more frequently involved in organising clubs or teams' (Cattell 1970 p92). Cattell sees the high H person's toughness and sociability as increasing the likelihood of the individual being chosen as leader. He attributes this suitability to an 'ability to face wear and tear in dealing with people and grueling emotional situations' (Cattell et al 1970 p92).

- i) High scores on Factor F (Sober - Happy-go-lucky), significant at approaching the 5% level and characterised at the extreme, as follows:-

- * Talkative, cheerful, happy-go-lucky.
- * Frank, expressive, reflecting the group.
- * Quick and alert.

(adapted from Cattell 1970 p87)

In group situations high F people make group favourable remarks, are approved of for their social abilities, are widely accepted and are high rated as effective speakers. Whilst elected leaders tend to be high F they are not usually very effective (Cattell et al 1970 p88).

The following represent strong correlations between time spent in the Spokesman role and Personality Types as measured by the Myers Briggs Type Indicator.

- j) Time spent in the Spokesman role correlates positively with scores on Thinking with significance at the 5% level; and Perceptive with significance at approaching the 5% level.
- k) Time spent in the Spokesman role correlates negatively with scores on Introversion, at the 1% level; and Feeling at the 5% level.

As described earlier in this appendix, according to Briggs Myers (1980 p2), Thinking and Feeling are opposite ways of deciding. Those who prefer Thinking use it more, grow skillful in dealing with the logical world where decisions can be taken impersonally on the basis of cause and effect.

Perceptive types are seen to rely mainly upon perceptive processes in dealing with the outer world. They 'live in a flexible, spontaneous way, wanting to understand life and adapt to it' (Briggs-Myers 1980 p6).

Extraversion and Introversion are described in the section in this appendix dealing with the Leader role. Briggs Myers outlines the interaction between Extraversion and thinking as follows. Such

individuals:-

- * Use thinking to run as much of the world as they can.
- * Organise facts and operations in advance.
- * Define objectives systematically and try to achieve them on schedule.
- * Through thinking become; logical, analytical, and often critical, impersonal and unconvinced by anything but reason.
- * Enjoy power and its exercise.
- * Have little patience with confusion, inefficiency, lack of commitment and lack of effectiveness.
- * They can be tough when necessary.
- * They think behaviour should be governed by logic.
- * They live to a formula incorporating their basic judgements about the world - changes necessitate rethinking that formula.
- * They often neglect perception.
- * They may judge too hastily with too few facts or too little regard for what others feel or think.

(adapted from Briggs-Myers 1980 p9)

In the work situation, the effects of the three preferences are perceived to be (Briggs-Myers 1908 p17-18).

Extraverts

- * Like variety and action.
- * Tend to dislike complicated procedures and prefer pace.
- * Are good at greeting people.
- * Become impatient with long slow jobs.
- * Are interested in results, achieving them, and finding out how others do it.
- * Do not mind interruptions.
- * May act quickly with no obvious thought.
- * Enjoy company, usually communicating freely.

Thinking Types

- * Do not show emotion readily and are often uncomfortable dealing with other people's feelings.
- * May hurt feelings unknowingly.
- * Enjoy analysis and putting things in order but can get along without harmony.
- * Tend to decide impersonally, often without paying sufficient attention to others' wishes.

- * Need to feel fairly treated.
- * Are able to reprimand people and fire them as necessary.
- * Are analytically oriented, responding to other people's thoughts.
- * Tend to be firm minded.

Perceptive Types

- * Adapt well to changing situations.
- * Do not mind leaving things open for change.
- * May have trouble making decisions.
- * May take on too much, and have difficulty with completion of tasks.
- * May postpone unpleasant jobs.
- * Want to know all about any new job.
- * Are curious, welcome new perspectives on things, people and situations.

Entrepreneur Role

Description of Role

Searches the organisation and its environment for opportunities and initiates improvement projects to bring about change. Supervises the design of certain projects.

Activities

Strategy and review sessions involving initiation of design, improvement or change projects. Contacts aimed at providing opportunities for these.

(adapted from Mintzberg 1973 p92-93)

This was another role valued by the organisation, all seven managers spent time in the role, range 8.8% to 24.6% with the majority spending between 15% and 20% of their time in activity associated with the role.

The following represent strong correlations between time spent in the Entrepreneur role and Factors on Cattell's 16PF.

High scores on the Entrepreneurial role correlate with:-

- a) High scores on Factor B (Dull - Bright), significant at the 5% level and characterised at the extreme as described earlier in this Appendix, Spokesman role (f).
- b) High scores on Factor N (Forthright/naive - calculating/shrewd), significant at the 5% level and characterised at the extreme as described earlier in this Appendix, Figurehead role (b).
- c) Low scores on Factor I (self assured - apprehensive), significant at the 5% level and characterised at the extreme as described earlier in this Appendix, Spokesman role (b).

- d) High scores on Factor H (Shy - venturesome), significant at approaching the 5% level and characterised at the extreme as described earlier in this Appendix, Spokesman role (h).

Disturbance Handler Role

Description of Role

Responsible for corrective action when the organisation faces important and unexpected disturbances.

Activities

Strategy and review sessions involving disturbances and crises.

(adapted from Mintzberg 1973 p93)

Responding to customer needs and pressure was seen to be a prime function of District Managers. All spent some time in the role although only two spent more than 10% of their time in activities associated with this role.

The following represent strong correlations between time spent in the Disturbance Handler role and Factors on Cattell's 16PF.

High scores on Disturbance Handler correlate with:-

- a) Low scores on Factor QIII (Sensitivity - tough poise), significant at the 1% level. Their second order Factor is significantly loaded by, that is affected by, the following primary Factors. Low scores (sensitivity) are affected by:-

* High scores on Factor A (outgoing).

* High scores on Factor I (tough minded).

* High scores on Factor M (practical).

There are, for Factor QIII, differences of pattern between men and women. In addition to the above loadings, shared with men, women show the following primary factors affecting low scores on Factor QIII:-

* Low scores on Factor E (humble).

* Low scores on Factor L (trusting).

High scores on Factor QII (adjustment - anxiety), significant at the 5% level.

This second order factor is affected by the following primaries. High scores (anxiety) are affected by:-

* Low scores on Factor C (affected by feelings).

* Low scores on Factor H (shy).

* High scores on Factor L (suspicious).

* High scores on Factor O (apprehensive).

* Low scores on Factor Q3 (undisciplined).

* High scores on Factor Q4 (tense).

(adapted from Cattell 1970 p116)

c) High scores on Factor I (tough minded - tender minded), significant at approaching the 5% level and characterised at the extreme by:-

- * Fidgety, expecting affection and attention.
- * Clinging, insecure, seeking help and sympathy.
- * Kindly, gentle, indulgent to self and others.
- * Artistically fastidious, affected, theatrical.
- * Imaginative in inner life and in conversation.
- * Acts on sensitive intuition.
- * Attention seeking, flighty.
- * Hypochondriacal, anxious about self.

(adapted from Cattell 1970 p93)

d) Low scores on Factor O (self assured - apprehensive), significant at approaching the 5% level, characterised at the extreme by:-

- * Self confident, cheerful, resilient.
- * Impenitent , placid.
- * Expedient, insensitive to people's approval and disapproval.
- * Does not care, rudely vigorous.
- * No fears, given to simple action.

(adapted from Cattell 1970 p101)

The following represent strong correlations between time spent in the Disturbance Handler Role and Personality Types as measured by the Myers Briggs Type Indicator.

Scores on time spent in the Disturbance Handler Role correlate negatively with scores on Extraversion at the 5% level.

Briggs-Myers concept of Extraversion - Introversion is described earlier in this appendix, Leader Role (e) and the work characteristics of those who score at the low end of the Extravert scale are given in the same section.

It is perhaps of some benefit to consider the characteristics of those who spent least time handling disturbances:-

- * Liking variety and action.
- * Tendency to be faster, disliking complex procedures.
- * Are often impatient with long, slow jobs.
- * Are interested in the results of their jobs, in getting it done, in how other people do the same job.
- * Often do not mind the interruption of answering the phone.
- * Often act quickly, sometimes without thinking.

* Like to have people around.

* Usually communicate freely.

(Briggs-Myers 1980 p17)

Resource Allocator Role

Description of Role

Responsible for allocation of organisational resources of all kinds, in effect the making or approving all significant organisational decisions.

Activities

Scheduling, requests for authority, any activity involving budgeting and programming subordinates' work.

(adapted from Mintzberg 1973 p93)

All seven managers spent some time in this role although the percentage varied widely, from 0.9% to 13.7%.

The following represents a strong correlation between time spent in the Resource Allocator Role and scores on the Learning Styles Questionnaire.

- a) The amount of time spent in the Resource Allocator Role correlates positively with scores on the Pragmatic style.

The result is significant at the 5% level and those spending most time in the role can be characterised at the extreme, as described earlier in this appendix, Disseminator (b).

The following represents a strong correlation between time spent in the Resource Allocator Role and Personality Types as measured by the Myers-Briggs Type Indicator.

- b) Time spent in the Resource Allocator Role correlates positively with scores on Sensing.
- c) Time spent in the Resource Allocator Role correlates negatively with scores on Intuitive.

Both correlations are significant at the 5% level and the characteristics of the two types are described earlier in the appendix; Sensing under Disseminator role (a); and Intuitive under Disseminator role (a).

The following represent strong correlations between time spent in the Resource Allocator Role and Factors on Cattell's 16PF.

- d) Time spent in the Resource Allocator Role correlates negatively with scores on Factor M (Practical - Imaginative).

The correlation is significant at approaching the 5% level. Those spending most time in the role obtain low scores on Factor M and such managers can be characterised as described earlier in this appendix under Disseminator Role (e).

Negotiator Role

Description of Role

Responsible for representing the organisation in major negotiations.

Activities

Negotiation

(adapted from Mintzberg 1973 p93)

Like Figurehead, this was another role engaged in by only a few of the managers. Three of the seven employed the Negotiator Role (range 0.4% to 2.9%) and only one of these engaged in activities associated with role with any degree of consistency. Nevertheless there were strong correlations between time spent in the role and a number of items on the measures.

The following represent strong correlations between time spent in the Negotiator Role and Personality Types as measured by the Myers-Briggs Type Indicator.

- a) High scores on time spent in the Negotiator role correlate with; High scores on Sensing, at the 1% level; High scores on Judging, at the 5% level; Low scores on Intuitive and Perceptive, at approaching the 5% level.

The characteristics of individuals who demonstrate these preferences have been described earlier in this appendix under Disseminator role (a).

The following represent strong correlations between time spent in the Negotiator Role and Factors on Cattell's 16PF.

- b) Time spent in the Negotiator Role correlates negatively with scores on Factor I (Tough minded - Tender minded) and Factor M (Practical -

Imaginative), both at approaching the 5% level of significance.

The characteristics of people who score low on Factor M are given earlier in this appendix under the Disseminator role (e).

Those who score low on Factor I can be characterised at the extreme as follows:-

- * Unsentimental, expects little.
- * Self reliant, takes responsibility.
- * Hard to the point of cynicism.
- * Few artistic responses - but not lacking in taste.
- * Unaffected by 'fancies'.
- * Acts on practical, logical evidence.
- * Keeps to the point.
- * Does not dwell on physical disability.

(adapted from Cattell et al 1970 p93)

The following represents a strong correlation between time spent in the Negotiator Role and Learning Styles preference as measured by the Learning Styles Questionnaire.

- c) Time spent in the negotiator role correlates positively with scores on Pragmatist.

The correlation is significant at approaching the 5% level and those spending most time in the role can be characterised at the extreme as described earlier in this appendix under Disseminator role (b).