

City Research Online

City St George's, University of London

Citation: Bennett, R. D. (1975). Orientation to work, wage payment systems, and their organisational context. (Unpublished Doctoral thesis, The City University)

This is the accepted version of the paper.

This version of the publication may differ from the final published version. To cite this item please consult the publisher's version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/38091/

Copyright and Reuse: Copyright and Moral Rights remain with the author(s) and/or copyright holders. Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge, unless otherwise indicated, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way. For full details of reuse please refer to City Research Online policy.

City Research Online: http://openaccess.city.ac.uk/ publications@citystgeorges.ac.uk

ORIENTATION TO WORK, WAGE PAYMENT SYSTEMS, AND THEIR ORGANISATIONAL CONTEXT

by R.D. Bennett, B.Sc., M.Sc., AMBIM

A thesis

submitted for

The Degree of Doctor of Philosophy

The Graduate Business Centre,
The City University, London

June 1975

LIST OF CONTENTS

	Page
Introduction - The Research Problem	
Chapter One - Aims, Scope and Justification	1
Part One - Theoretical Considerations	
Chapter Two - The Nature of Human Behaviour?	21
Chapter Three - The Organisational Context of Orientation to Work	54
Chapter Four - Further Thoughts - and some Hypotheses: A summary	102
Part Two - Methodological Considerations	
Chapter Five - Research Design	123
Part Three - A reconsideration	
Chapter Six - Research Data and Discussion: Orientation to Work (Projects 1 & 2)	157
Chapter Seven - Research Data and Discussion: Organisational Variables (Projects 3 & 4)	241
Chapter Eight - Review and Conclusion	292
Appendices	310
Bibliography	
Addendum	

ABSTRACT

The effect of wage payment systems on employee satisfaction is examined (chapter one) and a general research area mapped out. It is argued that 'pragmatic research is required, both theoretical and practical in nature'.

To facilitate the formulation of research issues and hypotheses (chapter four) conceptual frameworks are developed from the literature, concerning the notion of orientation to work (chapter two) and behaviour in organisations (chapter three). Orientations are considered to be formed and influenced by background factors (such as size of family, occupation of father, education received) and situational factors (such as marital status, occupation, level of income), and mediated by factors such as intelligence, ability, emotional make-up.

Behaviour in organisations is considered to be influenced by variables such as management, structure, technology, tasks, payment systems - as well as orientation. It is postulated that certain orientations will be developed by particular background and situational factors; that payment systems will 'attract' employees with certain orientations; and that behaviour will be a function of the interaction between organisational variables and orientations.

Four projects (chapter five) were designed to assist in exploring hypotheses (chapter four). Project 1 was concerned with gaining data to validate the model of orientation; Project 2 tested various measures of orientation; Project 3 assessed the model of behaviour in organisations; and Project 4 sought to investigate the relationship between orientations and payment systems but was abandoned due to political, economic and industrial upheavals. An additional small project (Addendum) further tested the measures of orientation developed.

The results (chapters six and seven, and Addendum) lend support to the model of orientation and indicate that one of the measures developed is a useful research tool and that a second may have potential application. Some support is shown for the model of behaviour in organisations, and a need indicated for more adequate measures of organisational variables (a basis is given).

It is concluded (chapter eight) that payment systems do not play a prominent role in determining behaviour; that managers have little influence on orientations; that the manager's role must change; and that much more integrated research is required. It is also argued that solutions to problems of behaviour in organisations may be simpler than envisaged.

ACKNOWLEDGEMENTS

A great many people have made contributions in a number of ways to the development of this thesis and I would wish to thank them all for the part they have played in stimulating and reinforcing the idas and effort required to complete it.

Grateful thanks go to:

Dr. Allan Williams, my supervisor, for his guidance and help over nearly five years;

The President ([redacted]), Vice-President ([redacted]), and Head of Management Studies ([redacted]) of Portsmouth Polytechnic - where the thesis was completed - for their support and facilities;

My colleagues in the School of Management Studies at Portsmouth Polytechnic for their support and critical comments;

[redacted] (Social Studies) and [redacted] (Maths) also of Portsmouth Polytechnic, for help with computer programming;

[redacted] SRC Atlas Computing Laboratory, Abbingdon, for her patience;

Colleagues in other academic institutions for their support, criticism, or disagreement with some of my work and ideas;

The many people who helped arrange surveys and interviews, and those who took part in the projects;

Several secretaries who have typed drafts of the thesis and questionnaires;

My wife [redacted], for typing the final thesis and putting up with a part-time husband for five years; and all those others I have not mentioned but whose involvement has been much appreciated.

It is to be hoped that the outcome does justice to their efforts.

PREFACE

According to William James (1943) philosophising is everyone's business. Whether it be the man in the street or the professor in the university, each has a way of viewing and questioning life which develops into his own 'philosophy'. But each are at different ends of a continuum - the novice at one end and the highly skilled professional at the other. One may use limited intellectual powers and narrow perceptions of the world - the other may develop concepts as aids to analysis and obtain systematic data to help justify his philosophical framework of the world about him. One philosophy is based on subjective views of life - the other on an intellectual framework which may none-the-less be subjective unless tested against many real-life situations. It is at this stage, where intellectually based views of life are tested against life's situations, that philosophy becomes science.

The pages of this thesis represent the process through which a relative novice has attempted to progress some way towards the other end of the continuum to take on some of the characteristics of the 'professional philosopher'. They contain, therefore, one man's view of behaviour in work organisations and its relevance to managers: his philosophy of organisational life. To the extent that the author has attempted to justify, or seek the relevance of, his philosophy by testing his concepts against life's situations where possible and against the ideas of others, this thesis may also be described as 'scientific'. Whatever may be the extent to which the philosophy has become scientific, is not important. What is important, as Adler (1965) points out, is that questions have been asked and answers looked for.

That the answers are not always the author's is immaterial - the purpose of asking questions is to gain answers, not necessarily to have the questioner supply his own. Indeed, a major task is to better understand the questions, for only then can answers be gained.

Such, then, is the nature of this thesis. It asks questions, seeks to understand them, and seeks answers. It develops a personal viewpoint and yet is eclectic. But this is the way of life!

LIST OF TABLES

		Page
	CHAPTER THREE	
3.1	Comparitive Analysis of Authors' Views of Influences on Behaviour in Organisations	72
	CHAPTER FOUR	
4.1	Hypothesised Relations of 'Attraction' between type of Orientation to Work and Payment System	107
4.2	Postulated Characteristics of Major Organisational Forms	115
4.3	Possible Behaviours Resulting from Interaction of Orientation with Specific Organisational Variables	116/117
4.4	Summary of Likely Behaviour of Persons Expressing Particular Orientations in Certain Forms of Organisation	118
4.5	Likely 'fit' between Organisational Form and Type of Payment System	118
	CHAPTER FIVE	
5.1	Research Design - Project 1	135
5.2	General Research Design - Project 4	152
5.3	Research Paradigm for Illustrating Moderating Effects of Different Organisational Context on the Relationship between Pay System and Orientation	152
5.4	Research Paradigm for Assessing Relative Attraction of People with Differing Orientations to an Organisation	153
	CHAPTER SIX	
6.1	Survey Variables - Project 1	159
6.2	List of Industrial Classifications	162
6.3	Range of Organisational Types Covered	163
6.4	Survey Returns	164
6.5(a&b)	Analysis of Respondents	165
6.6	Significance Levels of Data - Project 1 Questionnaire Survey	167/168
6.7	Comparison of Responses to Job Description and Paired Comparison Measures of Orientation	192
6.8	Analysis of Variations in Orientations according to Respondents' Readiness to be Interviewed	195
6.9	Analysis of Variations in Orientations according to Respondents' Interest in Receiving a Summary of Results	196

LIST OF TABLES (continued)

		Page
6.10	Number of Respondents Making Validity Judgements of Job Description Measure - Project 2	199
6.11	Number of Respondents Making Validity Judgements of Paired Comparison Measure	201
6.12	Raw Data for Split-Half Reliability Tests - Paired Comparison Measure (Ref. p.202)	Appendix 8
6.13 - 6.24	Internal Consistency of Rating Scales - 'D' Component Only (Ref. p.203)	Appendix 8
6.25	List of Adjectives used to Describe Three Concepts of Man	205
6.26	Adjective Pairs used for Original Semantic Differential Form	206
6.27	Adjective Pairs used in Final Semantic Differential Form	207
6.28	Adjective Descriptions of Concepts of Man	208
6.29	Frequency with which Orientations are Ranked Similarly on Different Tests	215
6.30	Frequency with which Choices on Job Description Measure are Rated Similarly on Other Measures	216
6.31	Test Results Compared with Subjective Criterion Variable	217
6.32 - 6.36	Values of Spearman Rank Correlation Coefficient for Orientation Measures Compared with Each Other	219-221
6.37 - 6.38	Values of Spearman Rank Correlation Coefficient for Orientation compared with Relevant Personal Values	225
6.39	Values of Spearman Rank Correlation Coefficient for Orientation compared with other Personal Values	226
6.40 - 6.42	Values of Spearman Rank Correlation Coefficient for Orientation Compared with respondents D.M.S. Examination Results	229-230
6.43	Values of Spearman Rank Correlation Coefficient for Relevant Personal Values compared with Stage 1 D.M.S. Results	231
6.44	Common Descriptions of Three Concepts of Man	232
6.45	Values of Spearman Rank Correlation Coefficient for Orientations Compared with Each Other	234
6.46	Test Statistics (Wilcoxon) for Changes in Orientation Resulting from Three Different Forms of Management Course Structure	237
6.47	Summary of Movements of Means ($\bar{X}$) and Standard Deviations (s) of Measures Given at the Beginning and End of Stage 1 of D.M.S.	239

LIST OF TABLES (continued)

		Page
	CHAPTER SEVEN	
7.1	List of Factors used in Regression Analysis	242
7.1.1 - 7.1.3	Frequencies with which Organisational Factors are Related to Type of Payment System (Ref. p.244)	Appendix 8
7.2	Perceived Ranked Effect of Nine Factors on Behaviour in Organisations - By Stage of D.M.S. Course	254
7.3	" " - By Type of Job	254
7.4	" " . By Nature of Role	255
7.5	Comparison of Organisational Factors as Ranked by Academics and General Sample	258
7.6	Factors Likely to Receive Increasing or Decreasing Attention	262
7.7 - 7.23	Coefficients, MRSQ, and Correlation Values Relating to Regression Analysis (Ref. pp. 265-270)	Appendix 8
7.24	Major % Contributions of Independent Variables to Explanation of Variation in Behaviour	273
7.25	Summary of Principal Component Analysis - By Nature of Role	276
7.26	" " - By Type of Job	277

LIST OF FIGURES

		Page
	CHAPTER TWO	
2.1	The "Conventional" Process of Scientific Development	23
2.2	The "Modified" Process of Scientific Development	24
2.3 - 2.7	Stages in a Hypothetical Example of the Development of Orientations	36 - 41
2.8	Proposed Set of Relations for Defining Orientation and Justifying its use as a Reflective Concept in Measurement	51
	CHAPTER THREE	
3.1	General Contextual Framework (of behaviour in organisations)	72a
3.2	The Basic Model	95
3.3	Theoretical Model of Relations between Behaviour and Organisation Variables	97
3.4	Theoretical Model of Complex Relations between Behaviour and Organisation Variables	98
	CHAPTER FOUR	
4.1	Relationship between Organisational Form, type of Orientation, and Behaviour	110
	CHAPTER FIVE	
5.1	Types of Research and their Application	127
5.2	Simplified form of Relationships between major Variables	132
5.3	Network of Total Programme	157
	CHAPTER SIX	
6.1	Dominant Orientations Related to Age	172
6.2	Dominant Orientations Related to Current Job	173
6.3	" " " " Previous Job	175
6.4	" " " " Income	176
6.5	" " " " Marital Status	178
6.6	" " " " Kind of School Attended	180
6.7	" " " " School Qualifications	181

LIST OF FIGURES (continued)

		Page
6.8	Dominant Orientations Related to Type of Study Since School	182
6.9	" " " " Highest Qualification Possessed	184
6.10	" " " " Mother Worked	186
6.11	" " " " to Clubs attended as Boy	187
6.12 - 6.17	Dominant Orientations Related to other, potentially significant, variables (Ref. p.188)	Appendix 8
6.18	Schema of Longitudinal Study of Effects of a Management Programme on Orientations	236

CHAPTER SEVEN

7.1	Relationship of Incentive and Reward Systems to other Organisational Variables	245
7.2	Ideal Employee Profile	288
7.3	Current Employee Profile	289

CHAPTER EIGHT

8.1	Framework for Considering Future Work in field of Orientation to Work and Organisational Analysis	309

LIST OF APPENDICES

Appendix 1 - Comparison of Different Conceptions of Organisational Form.

Appendix 2 - Original Research Proposals.

Appendix 3 - Project One: Questionnaire and Punching Codes.

Appendix 4 - Project Two: Questionnaire and Validity Checking Devices.

Appendix 5 - Project Three: Questionnaires.

Appendix 6 - Project Four: Proposed Questionnaire.

Appendix 7 - Project Four: Complementary Questionnaire.

Appendix 8 - Ancilliary Data Related to Projects 1, 2 and 3.

Appendix 9 - Proposals for Extending Measures of Organisational Variables and Developing a Compound Index of Behaviour in Organisations.

INTRODUCTION

THE RESEARCH PROBLEM

"It is not always possible for a researcher to formulate his problem simply, clearly and completely. He may often have only a rather general, diffuse, even confused notion of the problem. This is in the nature of the complexity of scientific research."

(Kerlinger: 1964 - p.18)

CHAPTER ONE

AIMS, SCOPE AND JUSTIFICATION

This thesis is, by virtue of its title, concerned with wage payment systems - a topic that appears to have been debated ad nauseam not only this century but for several thousand years, as will be demonstrated later in this chapter. The debate has ranged over many aspects including the effects on output and managerial control yet perhaps the biggest emphasis of these discussions has been concerned with the mechanics of wage payment systems (e.g. James &Rzasa - 1968) leading to statements about which one is best. (See, e.g. Evans (1970) McKersie (1963) Pym (1964)).

It may, therefore, seem strange that yet another piece of literature is entering the debate. However, a review of the existing literature does show certain weaknesses in both coverage and penetration on a research basis, and the research programme presented in this thesis is very much concerned with these areas. Marriot (1961) p. 24, confirms this view by saying:

> "In view of the great amount of material published on this subject it may well be doubted whether further research in this field is necessary. The fact is that only a small portion is based on actual research in industry or in the laboratory on the fundamental aspects of this problem."

This chapter attempts to make clear the aims of the research programme, its scope compared with other work, and to justify the need to look at the psycho-social aspects of wage payment systems in relation to other organisation variables by reviewing some of the literature available, sampled on an historical basis.

It is hoped this will answer the question, 'why research into a field already well probed?'

As such, the chapter puts some perspective on the research problem and reduces unnecessary generality, diffusion and confusion.

AIMS

The main aim of the work described in this thesis is to investigate the relationship between orientation to work, pay systems and other organisational variables - but;

> "Before analysing his problem, the researcher needs to consider carefully the purpose or purposes to be served by the research, for they will provide him with some guide lines not only for the formulation of his problem but also for the overall research design ... Stating the purpose sets the stage and probably the tone of the research design."

This statement by Rigby (1965 - pp 91/92) indicates the major problem that the research worker faces. How does he (the research worker) structure his research programme? On what evidence does he base his hypotheses? What is the main aim of the work, and will this change as data becomes available? Does he pull a few ideas from the top of his head or is there another starting point?

According to Likert,

> "the first task of a research staff is to diagnose the situation and prepare a clear statement of objectives for the research." (Likert & Hayes, 1957 p.40)

This is confirmed by Selltiz, etal (1965 - p.30) who state that,

> "the selection of a topic for research does not immediately put the investigator in a position to start considering what data he will collect, by what methods, and how he will analyse them. Before he

takes these steps, he needs to formulate a specific problem which can be investigated by scientific procedures."

This rings very true of the research topic for this thesis. The topic was chosen because of the researcher's experience with wage payment systems and his concern that many systems were installed more from a 'band-wagon effect' (e.g. as a package sold by a consultancy company) rather than as a result of serious consideration of the purpose, function and implications of such systems. Such personal involvement does not, however, give rise to a fact-finding, data collection situation - it has to be translated into objectives for the research which will define the problems to be investigated.

But personal involvement alone is not a sufficient base for formulating research aims and objectives. Some weight must be attached to the views of other investigators and writers in the field in an attempt to determine the most fruitful aims of enquiry. The aims of this research programme evolve then, from:

(a) the researcher's own experience of wage payment systems, and

(b) the views of other workers in the same field (see Selltiz etal p. 28 etc.); and are primarily concerned with investigating employee's orientations.

This does not stem directly from Likert's demand for diagnosing the situation because he is more concerned with the research worker who is called into an organisation (i.e. to analyse a specific situation): rather it stems indirectly from it inasmuch as the present researcher's experience includes an investigation into the effects of wage payment systems on employee attitudes (Bennett, 1970). This work was carried

out as part-fulfillment of an M.Sc. degree course and involved one company in one situation (Bennett 1968).

The personal experience of the research worker has led to a view of wage payment systems which extends along a continuim. At one end are systems designed on the principle that it is impossible to suit the requirements of every employee or potential employee so there is little merit in attempting to use any system other than one which treats everybody in a similar fashion. The other end involves designs based upon an exactly opposite principle, i.e. that people are so varied in their outlook on life and requirements at work that tailor-made systems are required. Few systems contain either principle but there is reason to suspect that more attention be paid to them. For example, correspondence in the Financial Times during April and May of 1971 demonstrates the widely differing views still held of payment systems. Such views appear to revolve around different perceptions of man's motivation, and this provides a major aim of the programme - to consider the factors which affect differential motivation among human beings. If it could be established that different wage payment systems are more effective in relation to certain groups of factors than are others, then employment selection processes could be designed to support and complement natural selection mechanisms which people like Goldthorpe suggest exist anyway. More importantly, the question of generality or specificity in the design of wage payment systems would be capable of resolution at least with respect to selection for employment.

The importance of understanding human motivation in relation to the effects of wage payment systems is underlined by Marriott (1961 - p.27)

who writes that -

> "it is almost a truism that fundamental knowledge of incentives whether financial or otherwise will not be forthcoming until more is known about the motives which underlie human behaviour. The pursuit of such knowledge is, after all, the main purpose of psychology in all its branches, and industrial psychology is no exception."

Such a statement would appear to substantiate an aim concerned with studying the factors which affect the way people view life and work (their orientation) - but why a psycho-social approach?

It is almost self-evident that people are not motivated in isolation from one another. Much human behaviour is of an interdependent nature and therefore involves social analysis. On the other hand it is also self-evident that motivation is essentially intrinsic in nature, although it may be aroused and conditioned by external factors. The way a person feels, thinks and perceives is in the final instant a very personal and individual process. A study of motivation is, therefore, also one of psychological analysis. This thesis does not, however, attempt to rigidly separate out these two aspects because it is believed that a 'Gestalt-type' approach - of considering the pattern of factors as a whole rather than taking a reductionist approach - is more relevant to the problem at hand; that of considering the effects of wage payment systems and other organisational variables in determining employee satisfaction.

It may well be argued that 'satisfaction' is purely a psychological phenomenon and indeed 'felt satisfaction' is of a psychological nature. But surely many of the determinants of felt satisfaction are social in nature. For example, consider 'ego needs': for many people ego

satisfaction can come as a result of praise from other people, whereas for others it may only be necessary to meet internalised criteria of say, a job well done, for satisfaction to be achieved.

So the aims of this thesis have to do with analysing factors affecting human motivation, as made manifest through the individuals orientation to work, using a psycho-social analytical framework with a view to establishing the importance of wage payment systems in determining employee satisfaction, in relation to other organisational variables. In addition, it may be necessary to consider the development of measures of orientation as a fundamental aim.

Such aims appear to find sympathy in much of the literature concerning wage payment systems. For example, Shimmin (1968) suggests, in the NBPI Report No. 65 Supplement, that social factors may be as important as any others, whilst Wootton (1955) considers many theorists to view motivation in a singular fashion rather than as a 'complexity' -

> "This fairyland is indeed only a first approximation, the artificial nature of which is constantly emphasized..." (p.12)

Haire, Ghiselli and Porter (1963) say that -

> "the basic assumption - that it (i.e. pay) motivates people to work - is a psychological one ... In addition to the fact that a host of everyday decisions have to be made about pay, it has a special social relevance that justifies the research."

De Bal (1969) takes a psycho-social split when he considers bonus systems to be one of two types - stimulation bonuses, or participation bonuses - the split being obvious. He concludes by saying that it is impossible to dissociate wage incentives from pay policy and pay policy

from personnel policy: the success of any pay system depends fundamentally on the general climate of the firm. A psychological problem is thus enveloped by wider social and organisational issues.

Richardson (1971 - p.9) puts the problem rather neatly when he says -

> "pay, perhaps more than any other single variable in the work setting, remains largely a 'motivational mystery'"

and continues (p.14)

> " ... it (motivation) is the outcome of one's total social experience both in the work setting and in society in general, the latter expressed in the unconscious knowledge of equitable payment norms."

Although saying this, he proceeds to almost totally ignore it in his research. Curle (1949) and Marriott (1961) confirm the need for a psycho-social approach.

But what of the opposite view point? Do the traditional theorists disagree? It would appear that, whilst many give undue emphasis to the mechanics of payment systems (e.g. Dickinson - 1937; Cole - 1918; Currie - 1963) they all, to a greater or lesser extent, make mention of the importance of 'human needs', 'social climate', 'right managerial philosophy', even though some proceed to ignore such aspects. Even Taylor himself is not guilty of all the sins he has been accused of.

It is possible to summarise the preceding discussion by stating five major aims for the research:-

1. to investigate the psycho-social effects of wage payment systems in relation to other organisational variables;
2. to construct and test a general predictive model of the factors influencing an individual's orientation to work (expressed motivation);

3. to determine whether or not a relationship exists between orientation to work and type of wage payment system;

4. to establish criteria of attraction and maintenance of employees for different wage payment systems;

5. to suggest a means of determining potentially suitable organisational members in terms of reaction to the method of payment adopted, and the organisation in general.

These aims, which may change as the research develops, define both the nature of the research and the limitations (potential) of scope. Since the scope of any research programme must be controlled - if for no other reason than limitations of resources - a discussion concerned with the scope of this programme is not irrelevant at this stage.

SCOPE

The following analysis aims to show why this research must be primarily pragmatic in outlook, for although the scope of any research activity must be described by the nature of the problem it is focusing upon, there are several other factors which help define it.

One obvious factor is the nature of the research itself. The subject under research may be of a natural or life science type and each of these has its own peculiarities. Of particular importance is the extent to which items of interest can be isolated, for research purposes, from their wider context. This problem is difficult enough in the natural sciences where, for example, the ambient conditions of an experiment may not always be under the control of the research worker. But it is, none-the-less, very much easier to control variables than in the life sciences where a lot of the variables cannot even be measured adequately, let alone controlled, because of their

hidden nature. The variable 'motivation' is one such, and since it is an inference from something else it is very difficult to control. The complexity of relationships between variables in and across life situations adds to the dimensions of the problem, rendering the scope of any research as wide as one cares to consider. None-the-less, limitations have to be placed on most research programmes, and other factors will then become important.

An example is the so-called split of research into 'pure' and 'applied', i.e. the pursuit of knowledge and understanding (for it's own sake!) as contrasted with the desire for knowledge and understanding in order to do something with it. The scope of any research programme will depend upon the extent to which either or both of these aims are being sought, for as Selltiz (1965) makes clear, general scientific enterprise must be concerned with both.

> "This does not mean, however, that every study must have both goals." (p.5)

However, it is considered that a sufficient body of knowledge already exists on the topic of motivation and pay that the concern of this research must be with both goals. An attempt will be made to expand existing knowledge and concepts in discreet areas and to consider the wider practical implications of current knowledge.

As indicated earlier one of the aims of the research is to consider the relationship between method of wage payment and the selection of organisational members. According to Lawler (1971 - p.67) this offers interesting possibilities. The scope of the current research will be geared towards this end, but not to the exclusion of other possibilities since it is considered that 'scope' should not dictate 'flexibility'.

This is of particular importance in view of Viteles' (1954) comments:

> "The scope of investigation in the area of motivation and morale is almost unlimited. It calls for an intensive study of the influence of hours of work, methods of wage payment, plant physical conditions, personnel policies and practices, structural organisation of the company, labour-management relations, and also the effects of age, schooling, marital status, socio-economic status, etc., upon employee attitude and performance."

Although the focus of this research is upon only a few of the factors mentioned by Viteles, the scope must allow for interpretation with respect to others. The end results would be tainted if this were not the case.

The extent to which an individual leans more to the pure or applied emphasis is very much dependent on his personal philosophy. It may be fairly stated that the present writer is influenced by the so-called 'pragmatism' expressed in the writings of contemporary philosophers such as Dewey (1956), James (1943), Nagel (1954) and Weiner (1949). If philosophy is to contribute to theory and practice it must at some point transcend the metaphysical barrier and be tested in the realities of everyday life. The question asked by James was 'what is the point of theorising?' and he attempted an answer in terms of its 'cash-value'. The whole purpose of our intellectual activity and theorising is, according to the pragmatic view, to resolve problems and difficulties associated with our experiences of life and the world about us. If, therefore, a theory or principle has no cash value it is of little significance to anyone, least of all the philosopher.

One might, therefore, be tempted to think of the scope of this research in terms of its cash-value or 'pay-off', not in financial terms nor even in social terms, but with respect to helping some of the problems associated with experiences at work to be better understood and capable of solution. This, of course, is very much dependent upon the state of the science related to the research topic. Behavioural science has most certainly passed the stages of observation and classification but it's development in terms of explanation and prediction is still truly being tested and it is because of this that a rather more pragmatic outlook is required. This will serve the purpose of developing theories which are relatively more adequate in terms of precision and scope as required by Pepper (1961) and enable the research worker to make a better contribution to those theories.

The pragmatic approach is preferred to the 'logical atomism' of other contemporary philosophers such as Russell or even the logical positivism of Ayer (1946) and others (who tend to reject logical atomism because of its closeness to traditional metaphysics). The reason is that scientific endeavour can take place successfully without necessarily having recourse to formal and mathematical logic. Perhaps the classic example of this is the concept of 'love': in many cases it is impossible to subject the statements made by a person 'in love' to the form of analysis required by either Russell or Ayer, yet its cash-value can often be tested by considering the actions of that person (of the person who commits crime because of 'love' for another). An analogy can be drawn with the concept of motivation: it is very often difficult to reduce it to a form susceptible to any other approach than a pragmatic one, i.e. determining whether our 'theory' about motivation pays-off in particular situations. That this is not always the case is

pointed out by Davis (1971) when he concludes that:

> "no longer will the cosy notion hold that organisation members are objects waiting to be researched, who in the name of science can be manipulated, so that we can learn something about them. We must recognise that we have to learn through developments which are in the interests of the researched with those of the researcher following."

It is clear from this that the cash value must not just be demonstrated to exist but must also be seen to be relevant to the interests of those people affected by it. Although this is often a problem created by the practitioner himself, it is not always so.

> "Those who have to contend with the practical problems of meeting the demands of competitive industrial life find them sufficiently complicated, and little time is left to study ... the subtler factors in the total situation. In any case management and trade unionists are not all sufficiently convinced of some of the views put forward by the social scientists; some often appear to be impractical and others are, as yet, sources of controversy among their originators."

Thus wrote Marriott (1961 - p.256) demonstrating again the need for the research worker to be at least partially concerned with cash value.

The scope of this research, then, allows for the aims previously described to be fulfilled but within the context of flexibility, relevance and the pragmatic outlook. It is hoped the result will be fruitful in both theoretical and practical terms. But so what! Is it necessary? Is there sufficient need for research in this field?

JUSTIFICATION

The use of wage incentives and different forms of payment systems

as means of securing commitment and motivation of employees is not new by any means. As George (1968) points out, a variety of methods of payment have been used ever since the time of Nebuchadnezzar around 600 B.C. who paid

> "women engaged in spinning and weaving operations in the form of food, the amount depending on the individual production of each worker." (p.11)

Some 200 years later, Xenophon (one of Socrates' disciples) suggested that workers should be allowed to share in the success of the enterprise and thereby be more eager to improve efficiency. Continuously throughout history people of such note as Malthus, and Mill among many others have been concerned about the problems of motivation and incentives, culminating in the much maligned work of Taylor in the early years of this century. (See Richardson, (1971) chapter 2 for a brief but apposite survey).

With some 2,000 years of philosophising, theorising and experimentation in the field it is a little surprising that we are still looking at the problems of wage payment. Yet Marriott (1961) is fairly clearly of the opinion that more research is needed, even though he concedes that

> "in spite of the lack of evidence on the value of different incentive schemes, much experience on a trial and error basis has been gained over the last fifty years." (p.48)

(One might question this statement since we still use ideas put forward by Nebuchadnezzar). None-the-less, Marriott does admit that

> "the search for published evidence on the effectiveness of incentive payment systems in the form of controlled experiments is not very rewarding ..." (p.163)

Shimmin (1968) in the NBPI supplement to report No. 65 considers that Marriott's general view of the situation is still very true and, as will be seen later, Lawler (1971) seems to think very much the same way.

The point is further underlined in the writings of many twentieth century 'experts' on payment and motivation. Taylor (1911) p.p. 129 - 130, for example, recognised the need for scientific study of "the motives which influence man" although some people may suspect Taylor's own motives in making such statements. The concept of needs/motives is taken up by Cole (1928) in his preliminary chapter when he analyses the (then) future change requirements in productive systems. He suggests that

> "the conditions of production shall be made consistent with the human needs of the producer."

Unfortunately the rest of his treatise on 'The Payment of Wages' tends often to forget that point. Yet again Dickinson (1937) comes out in favour of looking at the motivational aspect of compensating industrial effort when he writes

> "it may surprise some readers to learn that economists also, from Adam Smith's day to the present, have recognised that we cannot thoroughly investigate the causes of wage levels without taking into consideration other attractions and repelents connected with work. Doubtless most people, on occasion and for part of the day at least, enjoy the activities of their work, apart from the earnings it brings them." (p.7)

The question still remains as to what aspects of those activities they enjoy, and why?

Hall and Locke (1938) look at the same problem from a different view point as a result of their investigations at the Cocoa Works, York,

of the Rowntree Company. They are of the opinion that an employee's attitude is influenced considerably by the system of wage payment used and the earnings received. If, as many studies suggest (see, for example, Lawler, 1971, chapter 3) pay is a consistently and highly ranked factor affecting satisfaction in the work situation, it is not difficult to appreciate its effect on attitude development. However, is it not possible that extra-work factors are also important? This question will form part of the theoretical considerations of this thesis.

Charles Madge, considered as one of the pioneers of 'Mass Observation', also makes a heart-felt plea for more research on the question of Payment and Incentives (1948) when he made the following comments to a meeting of sections F & J of the British Association for the Advancement of Science.

> "I wish I could come to you with the results of up-to-date research on this subject, but it is regrettably true that there has been very little quantitative work on it since the First World War and the period that immediately followed it ... There seems ... to have been something of a moratorium in this field during and after the Second World War."

This lack of attention given to research is partly due to the reluctance, particularly in British Industry, of companies to fund research programmes. This is the view of Lynton (1949 - p. 179) who says that

> "British Industry is not reknowned for its allocation of resources for research of any kind; but expenditure on research into human problems has come far and away last on the list."

It would be unfair to suggest that such an extreme position obtains today yet perhaps an even more invidious reluctance is creeping in -

a reluctance to be seen opposing such research, often resulting in facilities being made available but lip service only paid to the results of the research activity. Perhaps the behavioural scientist himself is the cause of much of the problem by too frequently taking an over-academic approach, as believed by Bennett, et al (1972). A pragmatic orientation is what is often lacking in much research. Lynton is not alone, however, in his call for more research, for Russon (1950) makes a similar plea.

Since the early 1950's the number of reported studies in the field appears to have increased and many general texts on management and certain aspects of industrial/organisational life quote a variety of studies in the behavioural field. Viteles (1954) is no exception when it comes to the field of motivation but even he is forced to state that

> "motivational theory ... provides a frame of reference for research directed toward the identification and evaluation of significant motives, attitudes and incentives in industry. Progress toward the maximum utilisation of human resources in increasing productivity and in raising the levels of job satisfaction and morale calls for fact-finding investigations conducted in industrial plants and through associated laboratory studies. The prime object of such investigations will be that of determining how the worker reacts to factors in and outside of the plant which may influence his feelings, sentiments, attitudes and behaviour in the plant."

The significance of the last sentence will be seen on reading later chapters of this thesis. More importantly, however, is the middle sentence which gives a 'future tense' orientation to the research

problem indicating that Viteles believes there to have been a dearth of such investigatory activities. It is interesting to note that the statement quoted preceded five chapters describing studies of many varieties, the implication being, perhaps, that such studies are isolated in scope and impact. As Viteles himself points out

> "a major problem in research bearing upon motivation in industry is that of determining the extent to which various incentives and other conditions contribute toward the stimulation and continuation of behaviour oriented toward a goal which both satisfies the needs of the workers and the necessities of the industrial situation".

Perhaps, then, research should be aimed at producing models concerned with goal-oriented behaviour and its influences! Whether specific forms of payment systems will achieve the desired effect on goal orientation is very much still a matter for debate. As Currie (1963) says

> "inevitably there are good schemes and bad ones and a man's opinion of them, whether on moral, technical or economic grounds, must be largely tempered by his personal knowledge and experience."

One would suggest, however, that the range of an individual's experience is likely to be small and that more research data on payment systems would broaden out this experience, provided it is promulgated in a manner oriented toward the practitioner rather than the philosopher.

Perhaps the most significant statement on the state of research into pay and payment systems was that made by Haire, Ghiselli and Porter (1963) who were at that time with the Institute of Industrial Relations, Berkeley. In their article entitled "Psychological Research on Pay :

An Overview", they commence by saying

> "It is a strange thing that there is so little psychological research on pay,"

and continue to suggest why research in this area is important. In this discussion they demonstrate that social aspects of pay are as important as psychological ones and must form part of the general methodology of the research. They conclude with the following statement:

> "Few other areas of industrial practice have the layers upon layers of traditional thinking that characterise wage and salary administration. We are in danger of being trapped in a kind of institutionalised way of dealing with the problem simply because we have done so for so long. We have made the same assumptions and not tested or questioned them. Practices have developed and become fixed simply by past practice. If only for these reasons, we badly need the fresh air and light let into the field by new lines of empirical research and by other facets of theory.* When one adds to the problem the tremendous role that is given to pay as an organiser and motivator of much of society, it becomes doubly important to review again and question our habitual modes of thought about compensation."

Although the programme of research on pay at the Institute has now finished and no member is currently working in that area, it is still considered an important topic as made clear by the associate director Raymond Miles (1972). This is despite the fact that some very good reporting of studies has taken place in recent years. (See, for

---

*Hence the attention in this thesis to the development of a theoretical framework.

example, Hickson (1963); deBal (1969); Lupton (1968); Bowey and Lupton (1970 - parts I and II); Soboleva (1970); Trahair (1970); Gowler (1971); Richardson (1971); Scheflen, etal (1971): Brown (1972)). The fact that Professor Lupton's team at Manchester Business School is currently carrying out studies into payment systems and productivity is evidence of the need for continuing systematic investigation in this field.

Probably the most conclusive evidence comes from Lawler (1971) in what must be - and will no doubt continue to be for some years - the most comprehensive review of literature and research in the topic of pay. He is of the view that the scene is changing; more and better research programmes are getting under way -

> "In fact, a growing amount of pay research - significant research - has been done in the last few years. Pay research seems to have become respectable. The climate for this kind of research is getting better, and it is very likely that much more will be done."

None-the-less, he clearly demonstrates the need for more research in chapter 4 by defining the nature of studies carried out. Most appear to have asked the question "is pay important?" - Lawler now suggests that since the answer is "yes", we should be looking at why this should be so.

> "It is unfortunate that research methodology problems make it impossible to say that when people are choosing a job, pay is, for example, twice as important as working conditions. Or that as an influence on how hard an individual will work, pay is only half as important as peer group attitude. This is, of course, exactly the kind of information a practitioner could use. It could tell him what factors have the most influence in a job situation and thus suggest what changes are likely to have the biggest pay-off.

> To date, the research that has been done is just not the type from which this kind of information can be derived."

Whilst it is not suggested that the present study is an answer to Lawler's prayer it is considered to be an important contribution to the lack of data and knowledge he so clearly defines. Throughout the book he frequently points to the lack of research data on various aspects of pay (see, for example, page 230) and one is led firmly to believe that the nature of the research described in this thesis fits in many ways the requirements of the current state of knowledge. As Corina (1970) points out -

> "managers have come to appreciate that the basic problem in industrial society is one of discovering why men work,"

and perhaps his earlier comment suggests how:

> "enterprises must have an adequate pool of research information on the working of incentive and non-incentive systems, and on new ideas and techniques in remuneration methods."

None-the-less, it must be clearly borne in mind that the wage payment system is but one of many organisational features that may affect an individual's orientation to, and satisfaction at, work.

PART ONE

THEORETICAL CONSIDERATIONS

"The basic aim of science is theory."

(Kerlinger: 1964 - p.10)

"A proper scientific approach to any subject requires a happy marriage of theory and observation. The dangers of armchair speculation unsupported by empirical test are widely recognised; the perhaps more insidious dangers of the obsessive collection of 'facts' without the guide of significant hypotheses are less widely realised. What is certain is that neither observation nor theorising can take place with any depth or precision until the necessary concepts - the necessary tools of thought - have been developed."

(Newman & Rowbottom - 1968)

The major purpose of this part of the thesis is to examine the theoretical issues surrounding the individual in his organisational environment. It deals with the nature of human behaviour (Chapter 2) culminating in a model which will provide an analytical and conceptual framework for the research described later. This model will also be used to generate theoretical considerations of the system within which behaviour takes place (Chapter 3) and to provide a means of discussing the relevant relationships between the individual and various organisational features.

CHAPTER TWO

THE NATURE OF HUMAN BEHAVIOUR?

Human behaviour is, at the same time, both simple and complex. It is simple in-as-much as overt behaviour is not only observable but also amenable to classification - at least at a purely personal and subjective level. Every individual can generate his own classes of behaviour which he may then use to control his relations with others. For example, he may use only two classes - behaviour which is liked and that which is disliked - and may control his own behaviour (e.g. in terms of approach or avoidance) by fitting each new acquaintance into one or other class.

On the other hand, the interaction of different types of behaviour, their causes, and the processes which mediate and control them, are undoubtedly of a complex nature. This is certainly the view of many writers on the subject of human behaviour. For example, a recent writer has stated that

> "Today, man has opened the vastness of space and the minuteness of the atom for exploration; yet the excitement of the universe is no greater than the excitement of our own thinking and feeling and behaving, nor is the solar system more complex than a single human being ... the realisation comes that understanding the behaviour of others, or of ourselves, is not so simple as it may seem."
>
> (Kalish, 1970 - p.3)

The simplistic view of behaviour descussed earlier in terms of 'prediction' and 'control' thus tends to fall down when the problem of 'understanding' is faced, and this makes for great difficulty in

developing any scientifically acceptable theory of human behaviour. The normal process of classification, explanation, prediction and control would appear to have been stood on its head. Such are the complexities involved in understanding or explaining human behaviour that this stage of the process is often by-passed in favour of pragmatic and subjective means of prediction and control. This view is supported by Vernon (1969) who argues that

> "by virtue of its nature and complexity, it (human behaviour)* is difficult to investigate fully and systematically in laboratory experiments. Consequently ... our knowledge of it is partial and incomplete, and depends to a considerable extent on unsystematic observation and experience in everyday life." (p.2)

Vernon is not alone in adopting this view. Hilgard and Atkinson (1967 - p.2) declare that psychology, as a science, is very much in an early stage of development and that many of its theoretical interpretations are controversial, a view shared by Tiffin and McCormick (1965). However, the latter do not believe the state of development to offer little hope for advancement. Admitting that

> "many of the variables that are associated with human behaviour have not been traced down." (p.12)

they continue to point out that

> "it is the objective of psychological research to obtain information that will make it possible to determine underlying reasons for the behaviour of people ... We are a long way from having very many solid final answers to this problem, but at the same time significant studies have been made in this direction."

---

*Brackets and content not in original.

Whilst hope that a move toward a theory of human behaviour may thus exist, the state of the science is still very much in flux. The Behavioural Scientist must continually question whether his work is proceeding equally along theoretical and research lines; whether the 'unknowns' of human behaviour would, if they were known, change his research methods and concepts; and whether those things he is measuring are relevant to the task of developing a meaningful theory of human behaviour. Faced with so many complexities and imponderables, he may feel that he can do no better than to take the advice of Kolasa (1969) who suggests that

> " ... behavioural scientists must concentrate on what can be studied, namely, behaviour. Activity of humans (and animals) that qualifies under this term shows great variety ... Whatever is observable or measurable may be studied." (p.7)

This does, however, create problems for the research worker wishing to pursue what might be called the conventional pattern of scientific development, and which is shown in Fig. 2.1.

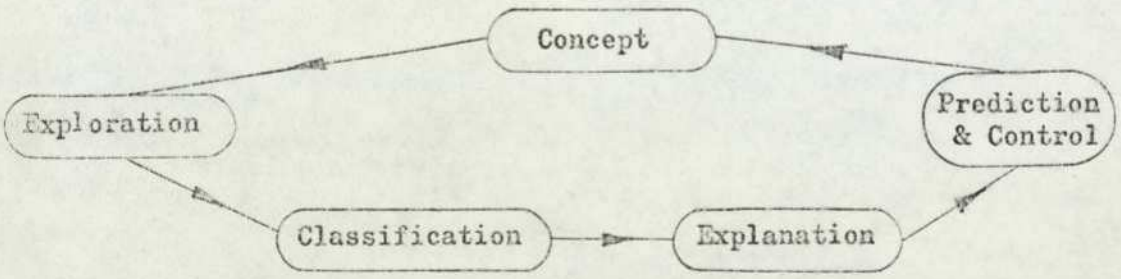


Fig. 2.1 The 'Conventional' Process of Scientific Development

According to this pattern, a concept (i.e. hypothetical construct) is developed. Exploratory studies are made to determine the extent to which this concept occurs in its natural (i.e. real) setting, and attempts made to categorise it for further reference and comparative study. Experiments are designed to gain insight into the cause-effect relationship of the concept and other variables which, if successful, may lead to predictions being made about its operation and attempts made to control it. At each stage the concept may be challenged or refined as greater light is shed on it.

Many sciences (or disciplines within a science) have found it necessary to modify this approach. Electronics is an example. The major modification adopted results from the inability to research adequately the concept under consideration. This does not mean that the concept is not of theoretical value - it does mean, however, that its utility in the real world is limited. Fig. 2.2 demonstrates the effect on the process of scientific development.

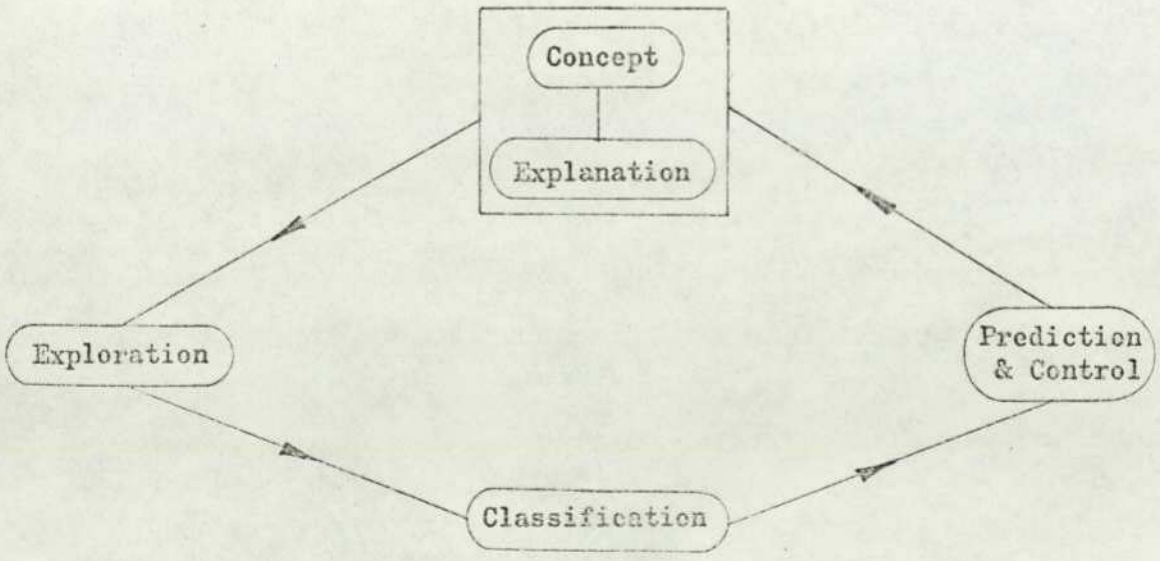


Fig. 2.2 The 'Modified' Process of Scientific Development

Here, the concept also embodies its own understanding or, in other words, insight can only be gained from philosophical speculation, not totally or adequately through research. This approach results often in the 'black-box' method of analysis being used, and it would seem appropriate to develop such an analytical method when considering human behaviour.

This chapter will, therefore, be more concerned with concepts and variables which can be measured as opposed to those which lend themselves only to the tools of philosophical analysis, since it is in the latter area that most of the real complexities and unknowns of human behaviour rest. It is hoped that a model of behaviour will be developed that can help the research worker pursue more meaningfully the modified process depicted in Fig. 2.2 with the least interference from concepts which are nebulous and controversial.

This is not to say that all the unknowns of human behaviour are nebulous and controversial. It is an inescapable truth that the study of behaviour will increasingly depend upon advances made in related fields. As Hilgard and Atkinson (1967) point out

> "Psychology, as a behavioural science, touches and overlaps the other behavioural sciences. But psychology leans also towards physiology and the physical sciences. The affiliation between psychology and physiology has always been very close ... Within medicine, psychology finds its closest affiliation with psychiatry." (p.8)

A complete understanding of human behaviour is thus difficult if not impossible without help from other areas of study. In addition to physiology and psychiatry it is self-evident that advances made in, for example, neurology, chemistry and even in the engineering sciences

will accelerate the pace of that understanding. But unfortunately this is not yet the case, and any approach to the study of human behaviour must in the meantime be based upon some other framework whilst accepting that some results may only be explained through some other set of concepts. The approach adopted here will be of this nature i.e. whilst making every attempt to use concepts that do not embrace their own explanation but rather are amenable to pragmatic research it may be necessary to utilize the 'modified' process of scientific development to explain certain data. As insight develops, so the 'modified' and 'conventional' processes become one.

BASIC CONCEPTS OF HUMAN BEHAVIOUR

Before attempting to develop a framework for looking at human behaviour along the lines suggested, it is important to consider some of the major concepts developed as aids to understanding behaviour. It is important because hopefully an awareness will grow of the extent to which these concepts are helpful to the research worker and, therefore, might be plagiarized by him in developing a more useful framework within his field of research.

There are a vast number of such concepts, as a review of the host of textbooks and journals will testify.* Most, if not all, however can be related to one or more of the following elements of human behaviour:

Cognitive Elements - those having to do with reasoning, thinking, logical analysis, and the processing of sensory data. The concepts of

---

*It is not intended to review this literature here. Whilst the exercise would be interesting the benefit for this thesis is considered to be marginal. But see Seiler (1967 - chapter 3) for a deeper analysis along the same lines.

cognitive dissonance, intelligence, and sensory perception rely heavily on these elements. 'Attitude' is also related to cognitive processes, but it spans other elements as well.

Affective Elements - those having to do with feelings, emotions, and the processes of involvement and commitment. The concepts of 'need' and 'satisfaction' may well be considered to be based on these elements. Perception, expectation, value and attitude also draw heavily upon them.

Motor Elements - those having to do with structure and function of the body e.g. muscular activity. The concepts of performance, skill, response and kinaethesis are based upon such elements. It is well known, however, that certain motor behaviours are influenced by affective elements and are, of course, initiated through cognitive processes of one form or another.

Although each type of element affects human behaviour it is likely that concepts related to cognitive and motor elements will be more susceptible to study because they tend to relate the individual to his environment. For example, the receipt of a stimulus from the environment will be subjected to cognitive processes and converted into some form of output response. The form of this response is, however, a function of the affective elements and will be moderated by them. It is thus clear that some form of system operates to produce behaviour as a result of the interaction of these three system elements, and that the many and varied concepts of human behaviour can be thought of as describing one or more of them. Parker et al (1967) demonstrate (chapter 13) the difficulty in describing behaviour using the existing plethora of concepts. In order that behaviour can be described and

analysed without continual reference to such a host of concepts, a general conceptual framework will be developed.

As a result it is hoped the way to scientific development described by Newman and Rowbottom (1968) will be taken, viz:

> "The development of any science rests not so much on the discovery of new facts as on the development of fresh insights, framed in new conceptual terms ... and at some further stage on the formulation and testing of relationships between these concepts."

A GENERAL CONCEPTUAL BASIS FOR CONSIDERING HUMAN BEHAVIOUR

The previous analysis demonstrates perhaps the major problem facing the behavioural scientist or the manager when attempting to understand human behaviour in conceptual terms. So many concepts exist, and often in so many variants and with so many interpretations, that the manager is confused in his attempts to explain certain situations. "Do I analyse these behaviours in terms of attitudes, motives, perceptions, or previous learned behaviours?" he asks with genuine concern to understand his people and use their skills and abilities to the full. Instead of an answer, he receives conflicting viewpoints from the academic and theoreticians who cannot agree amongst themselves as to what, for example, 'motivation' really means and which theory best explains and predicts behaviour. He reads highly researched accounts of the utility of 'expectancy' theory as opposed to 'drive' theory, (e.g. Porter and Lawler 1968) but at the end of his study is still left with the question "what is motivation, and how is a knowledge of it useful to me as a manager?" It is submitted that this question is still unanswered, as are similar questions about other concepts.

No apology is given for the superficial level of analysis of existing concepts, since this first level analysis demonstrates so clearly the need for a conceptual framework which will allow decisions about human behaviour to be based on information a little more substantial than theoretical inferences. Many of the widely adopted concepts seem to be of this latter form - particularly theories of motivation and to a certain extent the concept of 'attitude'. Each of these concepts are concerned with human behaviour, for example, an attitude is said to possess a behavioural component (Kretch et al, 1962) whilst motivation is said to be the major process for determining behaviour (Kolasa, 1969). Yet both are based on theoretical inferences; on the one hand concerned with the formation and clustering of attitudes and their causal effects on behaviour; on the other assuming that certain 'needs', 'drives', 'motives' or whatever, are the cause of particular actions. We cannot actually see and dissect an attitude or a need, and must rely heavily upon the individual's expressions concerning them. No doubt some such expressions are relevant but it is doubtful if any individual really knows what a need is let alone whether he is experiencing one. None-the-less, such concepts are important for at least two reasons: (a) that they are both related (theoretically) to behaviour and (b) that they have some relationship with each other. What is required is a conceptual basis which will reflect the effects of these concepts on behaviour. Schwab and Cummings (1970), in a very useful and reasonably broad ranging discussion on theories of performance and satisfaction, point out that

> "whether the theoretician chooses to work with needs or with attitudes, he must still identify the need types

> or attitude referents about which the individual feels satisfied or dissatisfied."

The difficulty in doing this must not be underestimated. The many reports in journals such as 'The Journal of Applied Psychology' and 'Organisational Behaviour and Human Performance' concerning the tests of different theories of motivation testify to this difficulty.

Yet the difficulty could be removed - indeed obviated - if a different form of concept were used. Such a concept is, I believe, that of 'orientation to work' or more generally - orientation. It is this which will be the subject of discussion for the remainder of this chapter.

THE CONCEPT OF ORIENTATION

This is not a new concept. It has been used explicitly by people such as Goldthorpe (1968), and Brown (1971) in analysing the effects of work situations and external influences on employee behaviour, and implicitly by Trahair (1970) and has been debated with considerable emotion in the 'Journal of Management Studies'. But, as has been pointed out elsewhere (Bennett - 1974), this concept has received little attention as far as theoretical development and application are concerned. The debate has centred on research data and issues which assume a state of theoretical development which has not been achieved. That debate and interaction between theory and research is needed is not disputed - but it is disputed as to whether it has taken place in the right way at the right time. The quote opening this chapter suggests that the aim of scientific (and, therefore, research) endeavour is theory, yet the debate concerning orientation to work has contributed little or nothing to its theoretical basis, and is therefore not scientific. The aim in this chapter is to provide a wider theoretical base for the concept and

bring the research effort much closer to the scientific process (modified or not) which should be adopted.

A DEFINITION OF ORIENTATION

One major indication of the lack of theoretical development of this concept is the startling fact that, despite a debate in the Journal of Management Studies and other journals spanning nearly ten years and including both within and without this central debate at least a half dozen writers, (for example, Goldthorpe, Daniel, Wedderburn and Crompton, Fox, Sheldrake) no clear general or operational definition is offered. Certainly a definition can be inferred from some of the writings, and one author (Daniel, 1969) has put into words what might be considered by some as a definition. According to Daniel orientation to work is

> "the actor's definition of the work situation in terms of the expectations and needs he brings to it as a result of his socialisation outside the working environment." (P.366)

Whilst one could not dispute this as representing some form of a definition, it is not particularly acceptable because it states both what the concept is and how it is caused - the very worst form of the modified scientific process in which the concept carries with it its own explanation. Another reason for doubting the acceptability of this 'definition' is a statement made by Daniel only a line or two from his definition, namely,

> "There is, however, room for profound reservations about the work of the action school in industrial research. These reservations centre on problems of operational definition and of measurement."

Unfortunately, he offers little advancement upon his own definition,

and leaves the research worker floundering in the dark in an attempt to understand his attacks on the action school of research.

What is more disturbing is that Goldthorpe - the researcher and writer most instrumental in introducing the concept of orientation to work into the literature of industrial psychology and sociology - has himself been guilty of not adequately defining it. He talks vaguely, for example, about "an ordering of wants and expectations relative to work" (1966: p.240) but does not define either clearly or operationally how such wants and expectations form into orientations, and indeed it is sometimes difficult to determine whether he is discussing orientation to work (as semi-defined) or job attitudes. Even in a fuller discussion (1968) Goldthorpe and his colleagues still refrain from explicitly defining the concept they use. The term has also been used as synonym for 'attitude' - for example, Parker et al (1967) state that

> "Work attitudes describe the general approach that people take to their work as a result of having certain values. In this context the term 'orientation' means much the same as attitude, that is, a readiness to respond to aspects of work in terms of the values held."* (p.150).

But surely a 'response' has a motivational basis as well as being attitudinal!

Therefore orientation should mean something greater than an attitude, since the 'readiness to respond' component is but one of three (Kretch et al, 1962).

Parker et al (1967) demonstrate the difficulty of using existing concepts when, in discussing work values, they write of professionals

---

*The authors offer no references to justify this statement.

and technicians wanting different things from work and viewing work in different ways. Differences in attitudes and motivation can also be said to lead to such differences in views.

Later writers seem to adopt a similar mystical approach in handling this concept. Fox (1971) devotes the whole of his first chapter - some twenty five pages - to discussing 'Orientations to Work' and yet still fails to produce an explicit definition. In the first paragraph he asks a number of questions about man and work - one such question being "How does he himself regard work - what does he expect and want from it?" One is to assume, perhaps, that in some magical way the reader is to associate the words 'expect' and 'want' with orientation for although Fox admirably discusses all kinds of orientation to work (from procedural to intrinsic) he does not describe what an orientation is.

Some hope of definition was seen to exist in a paper by Sheldrake (1971) when he introduced his subject by writing

"This paper examines the varying orientations towards work[2] ..." and one eagerly sought the footnote for an explanation, only to be referred to Goldthorpe's works as 'a similar approach'.

More recently Wedderburn and Crompton (1972) have discussed the idea of orientation to work but again with much confusion as to what is actually meant by this term. They quote Goldthorpe's sentence mentioning wants and expectations, but discuss the terms 'expectations', 'orientations' and 'attitudes' in a way which leaves the reader wondering if they are different terms used for the same thing, or different terms for different concepts (see for example, p.96).

The nearest approach to an adequate definition is that offered by

Child (1969) who considers orientation to work to be

> " ... the ordered expectations and goals an individual has regarding the work situation ... " (p.61)

This, too, is the kind of approach taken by Brown (1973) in an excellent review of the concept of orientation to work although use is also made of Goldthorpe's original statement referring to wants and expectations.

Not to be deterred by such an unrewarding search of the literature, consultation was made with Drever's 'A Dictionary of Psychology' to find orientation defined in <u>two</u> psychological senses -

> (i) awareness of one's spatial, temporal, practical or circumstantial situation, with reference particularly to 'mental orientation' in various connections;
>
> (ii) assuming a position in space, with reference to an external stimulation having direction, or an 'orienting response', as shown in the <u>tropism</u> and <u>taxis</u> of lower organisms."

It would thus appear that some form of definition is beginning to emerge from all the vague words and terms used so freely by writers in industrial sociology, and the form is suggested by the first 'sense' of Drever's definition. 'Orientation' should infer some reflection of an individual's total causated state at a particular point in time or with reference to particular circumstances and situations, thus portraying the effects (in a particular context) of needs, values, attitudes, abilities and other behavioural aspects. If the writings previously analysed are to have any impact on a definition, it must be to include the ideas of 'wants' and 'expectations'.

Orientation will be defined as follows:-

> 'Orientation is a measure of reflection of how an individual views a particular situation in terms of what he desires from it and the extent to which he expects these desires to be achieved in it.'

It will be noted that the definition says nothing about how particular orientations are generated nor about the form they take. This leaves considerable room for the research worker to reject certain data without rejecting the concept - since the concept does not totally provide its own explanation. (For an interesting, if brief, discussion of the problems associated with defining concepts see Newman and Rowbottom, 1968: chapter 1).

A MODEL OF ORIENTATION

The discussion so far has attempted to justify the use of the concept of orientation on the grounds that other concepts tend to be inferential and therefore of little positive value in analysing human behaviour. In deriving a model of orientation it is hoped that further justification may be obtained by considering a hypothetical process of behaviour development.

Imagine a situation where a person, P, exists in a 'vacuum', that is, there are no pressures or influences being exerted upon him, and he has no history. P has suddenly materialised from nowhere as a fully-fledged human being and finds himself in a place with which he is unfamiliar. He begins to feel hungry, but not knowing what hunger is, has no way of dealing with his problem. With no previous experience to guide his behaviour, and no other person to seek advice from, P's actions are rambling and non-directed, as indicated in Fig. 2.3.

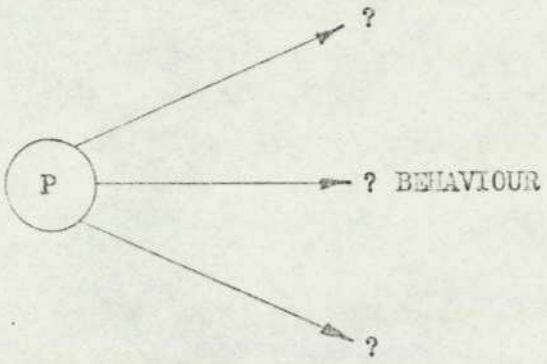


Fig. 2.3

In his ramblings (i.e. random behaviour) P chances across another being, O, and whilst initially cautious, they begin to 'explore' one another and find that they utter noises of a similar nature and which are comprehensible. P asks O if he has ever felt pains in his body, and what he has done about them. O explains that P must eat food and that this will cause the pains to cease - for a while at least. They wander off together to obtain food for P, who now has some history, i.e. his encounter with O. Having eaten and reduced his hunger pains, the set of relationships involving P are as follows:-

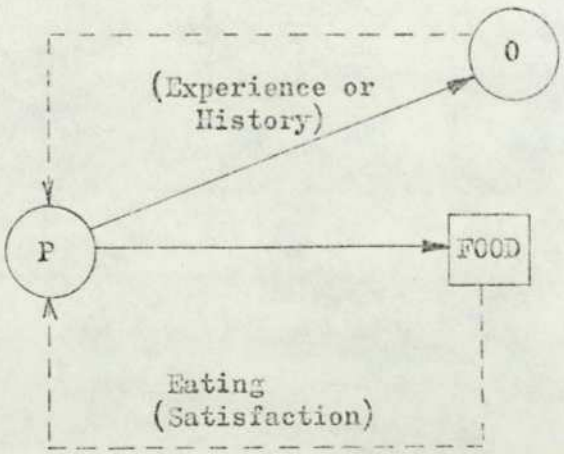


Fig. 2.4

The two now go off and join some other people to whom P is introduced by O. He is welcomed and asked to become one of them, but if he does he must help them obtain food for the whole group, or offer his labour in other ways in exchange for food. This P accepts, and finds that their society and companionship is valued by him. He joins in their discussions and activities, and in each new situation finds himself relating current behaviour to previous activities - what was it he had to do yesterday in order to get food? What was it those other people told him about hunting and fishing? Which type of food/people did he like best? P is beginning to learn. Furthermore, he finds that in order to hunt and fish he is required to make the appropriate utensils - with help from his friends. In so doing he finds a degree of 'pleasure'; somehow he feels just as much at peace doing this as he did when eating the food or communicating with the other people (OP). In looking at these new relationships, it is possible to separate out his initial experiences with O and their eating food together, by labelling these 'history'.

In these new relationships between P and different aspects of his environment, satisfaction and learning act as important reinforcers for his previous experiences i.e. his history makes sense.

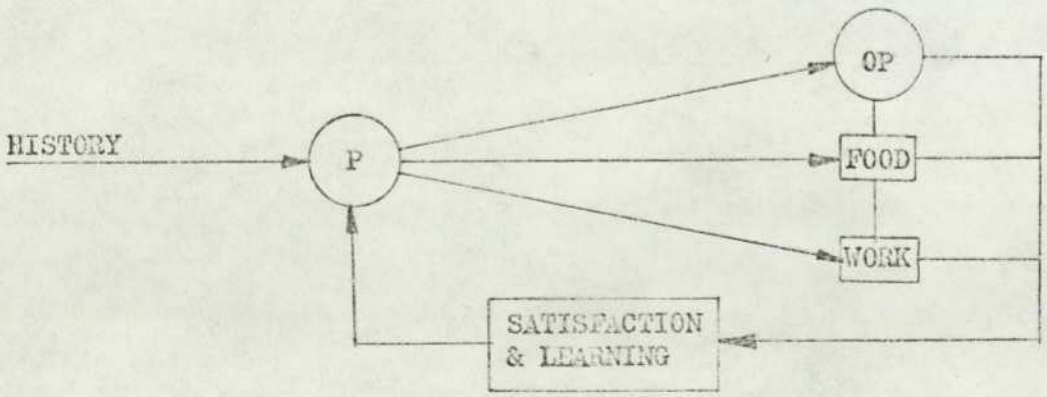


Fig. 2.5

As time passes, P acquires new experiences and relationships; he gets 'married' and has children; he possesses his own hut; and sometimes hunts with others, or spends his time building a boat from which he can fish for the better fish further out to sea. But his life has also become more complex; instead of being able to judge current situations on yesterday's actions, he finds that a variety of 'things' attract his attention. He finds that the pleasure he once obtained from a single source or goal appears now to be obtainable from a number of sources - he now has to make decisions e.g. between obtaining food that is not strictly essential and spending more time perfecting his boat, or between continuing his boat building activities and joining the other people at their council round the fire. The satisfaction or pleasure to be obtained from some of these different goals are very similar, and his view of the situation is being affected by their 'pull' as well as by the 'push' of his previous experiences.

Faced with a 'choice' situation, he finds it difficult to detach himself from his previous experiences. The dominant pleasures of the past still cling in his mind, as does the fear of the returning body pains if he gets so hungry again. But these past experiences do not seem to help him in his new complexities. The pressure of the situation demands he joins the other people around the fire because he has come to recognise this as something that everyone must do, but his own inclination is to finish the boat and try fishing further out to sea. His decision making is made yet more difficult by the demands of his wife and family that he feed their domestic animals. So P not only has a choice between different goals but must take into account other situational factors - that of maintaining his wife and family.

The basic relationships between these various factors are shown in the following form:-

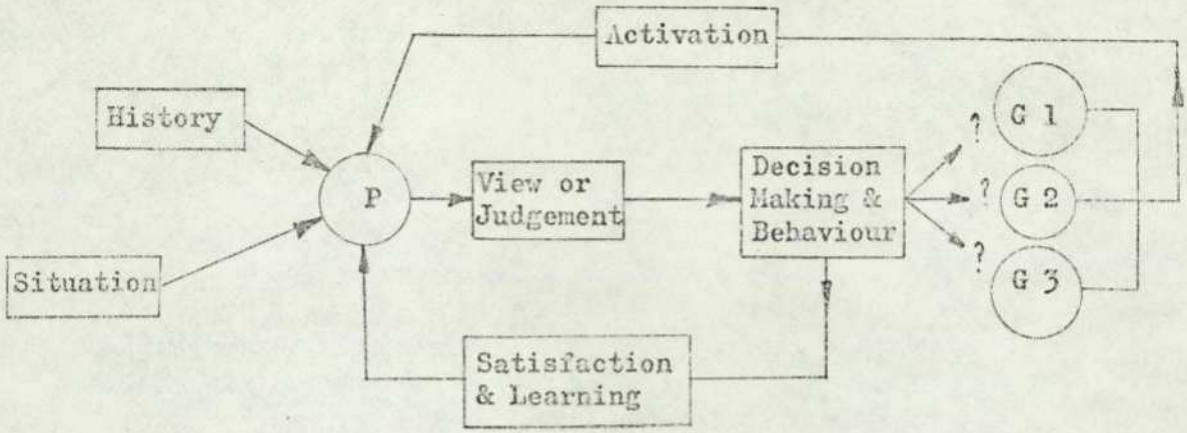


Fig. 2.6

Poor P is really not quite sure what he should do. He would like to join the council, but knows it would be a waste of time since they would never make up their minds about whatever it was they discussed. On the other hand, he is not too keen to feed the animals, but at least his wife will be appreciative of it. Even worse, he would dearly love to slip away and finish his boat - and he knows he would be happy doing it - but is fearful of being rebuked by the council and his wife. His desires and expectations are affecting his view of the situation and prejudicing his decisions, but these (i.e. desires and expectations) are themselves being influenced by his past experiences and the pressures placed upon him by a number of situational factors.

As P progresses through life he finds a continual requirement to balance the influences of situational demands with those of his past experiences, and it is this balance which colours his view of a

particular situation, event or object - i.e. his 'orientation' with respect to that situation, event or object aids and supports the decisions he makes and the behaviour that results.

In viewing behavioural development in this way it is evident that two further concepts emerge: one is that man is essentially an information processing unit - implying a systems approach to behaviour - whilst the other is that this information processing unit is subject to the many forces of the environment which supplies the information being processed. Indeed, both ideas may be integrated into one basic approach - the systems view - since the forces to which the individual is subjected (both externally and internally) eventually result in data transmission within the human unit (e.g. the excitement of nerve cells). It is this idea which forms the major plank of the model.

There is, however, another supporting reason for adopting a systems approach in putting forward a model of orientation, and is concerned with the extensive utility of this concept in many disciplines and sciences. It is a way of viewing life and the world around us in a comparative manner since all forms of life and much of non-life matter can be described in system terms (see Hall & Fagan: 1956; von Bertallanfy: 1956; Boulding: 1956; and Miller and Rice: 1967). Of particular importance in the development of a model of orientation is the notion of an 'open system' which may be defined as

> "a set of objects together with relations between the objects and between their attributes ... which are influenced by, or influence, the enviornment within which they exist." (see Hutton, 1969).

The 'objects' in the model so far derived are aspects such as the person*, the situation, and the goals the individual is striving toward, whilst different characteristics of the situation and various past experiences may be classified as 'attributes' of those objects. The relationships are, of course, the ties that bind the objects and attributes in some meaningful pattern. But this could be a static system - and systems of behaviour are by no means static. It is here that the interaction with the environment provides a basis for understanding some of the dynamics of behaviour for, although any person may be considered (theoretically) as a closed system, it is evident from the hypothetical example discussed earlier concerning the development of P that forces in the environment act as attractions or repellents of behaviour in a manner suggested by Lewin (1951) in his notion of 'field theory', and provide the goals which the individual may be seeking.

In simplest terms then, the model may be illustrated as follows:

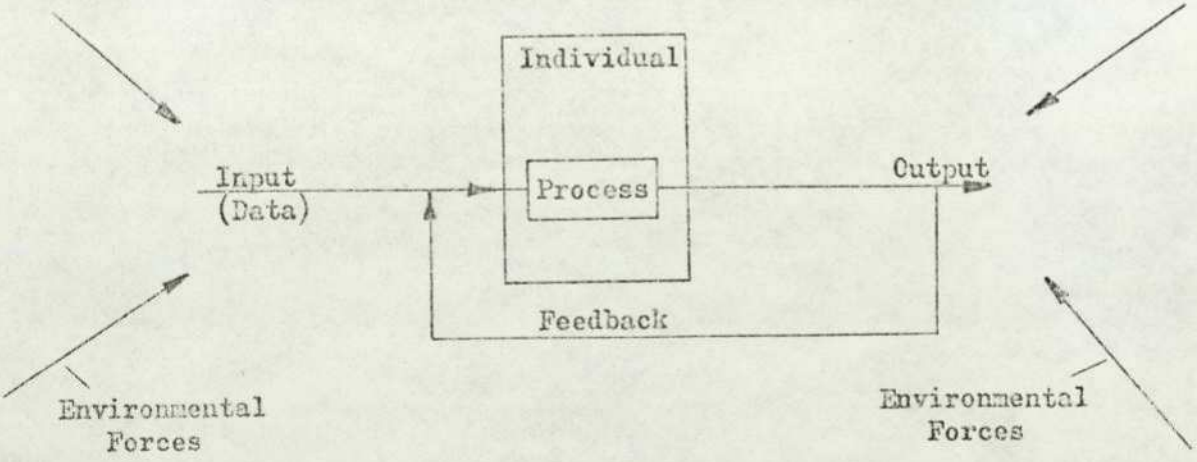


Fig. 2.7

*This, too, is a system in its own right.

But such a view of human behaviour is neither novel nor earth-shattering. Indeed several writers, such as Herbst (1947), Lafitte (1958), Randell (1966), Kreitler & Kreitler (1972) and Wernimont (1972) either use or imply a systems approach in analysing human behaviour. Lafitte, for example, implies an approach based on 'Stimulus-organism-response' theory (classified as the situation (s), internal aspects of the individual (o) and what he does (r)). Under the stimulus or situational heading he includes the task, wage payment system, superiors, variations in work-mates, and the organisation as a whole; under 'organism' are included perceptions and intentions, class, life phase etc., while the output/action/response stage involves action determined by his boss's expectations, the group norms, and what his own personal goals and values dictate.

In an interesting paper entitled 'A Systems View of Job Satisfaction', Wernimont (1972) presents a useful if brief discussion of some of the issues surrounding the analysis of human behaviour. Again, like Lafitte he considers situation variables such as salary, design of job, and working conditions as inputs to the individual. These inputs are moderated by certain internal, intervening variables such as feelings of achievement and fairness, which result in the output variables of absenteeism, turnover, and the like. That is, Hertzberg's two-factor theory of motivation put into a systems framework - a framework more readily useable, perhaps.

Thus, whilst a systems approach is often used the main difficulty in using it is to decide what constitutes the input and the output. Admittedly, an even bigger problem is concerned with what the 'process' or 'conversion' element comprises, but this can be overcome to some

extent by adopting the 'black-box' view advocated earlier in this chapter - i.e. to concentrate on determining how the outputs change as inputs are changed without reference to the means whereby changes in inputs are translated into changed outputs.

The difficulty associated with input determination is illustrated by Lafitte (1958) when he writes

> "The cause of action is not the situation but the person's evaluation of the situation. This evaluation is itself caused in the sense that the historical chain from action to changes in the situation, to fresh evaluations, to further action, is unbroken in either direction. It would therefore be appropriate ... to include the situations, evaluations, and action ... in the person's history. This is hardly a practical possibility both because what happened in the past can be ascertained only from the person's present report and because including even this much information in detail would make an investigation unmanageable. The most that is possible in practice is to include some report of the person's upbringing and occupational history but, beyond that, to concentrate on the analysis of present or systematic causes rather than historical causes". (p.10)

Whilst accepting Lafitte's warning about the effects of including historical causes on the research process itself, it is surely none-the-less desirable that such causes be included in any model of human behaviour alongside situational causes. The inadequacies of research method and data analysis in the behavioural sciences is no excuse for ignoring them.

But Lafitte is not alone with his opinion (see Ronan, 1970, for a critique of work in this field). Most writers and researchers agree that situational variables contribute an important set of input, ~~but~~

but argument continues as to whether differences in individual backgrounds should be accepted. Ronan seems skeptical of relying on what he calls 'a semi-Freudian hypothetical construct' as the basis for behaviour but none-the-less concedes that "many studies have shown that individual differences contribute some variance to job satisfaction". Hulin and Blood (1968) conclude that plant location and cultural backgrounds of workers are important factors in determining job satisfaction and that the theories based on job enlargement must be modified to take such factors into account. Sheppard (1967) suggests that 'urban-rural' background might be important in affecting job satisfaction. A relationship between family backgrounds and work values was found by Paine, et al (1967) but their work needs further support in this area. They admit that further exploration of the relationship was the aim of their research but the numbers and types (155 male under-graduates) in their sample do not fully meet the requirement. The effect of biographical data in accounting for variances in job performance are noted by Harding and Bottenberg (1961). Iris & Barrett (1972) used measures of background factors in their study. But, as Ronan has pointed out, background factors may act more as moderators than causes of satisfaction and performance - but they may, too, be useful as predictors. Thus, although considering them as an input, they must be treated differently from situational factors.* That background factors are important as some form of input is obvious by reference to psychoanalytic theory (despite its criticisms), the nature of the learning process, development of attitudes and group norms, and the models of motivation suggested by some writers; all these concepts suggest that situational variables may still be operative even when the situation has passed, i.e. today's

*A sophisticated treatment of background and situational factors is to be found in Kendall (1963).

situational variables become tomorrow's background factors.

The 'process' element lf the model is often referred to as 'conversion' in systems language. It is, in effect, a process whereby incoming sensory data are acted upon in a variety of ways (e.g. no behaviour now but store for future reference; act now in direct response to the stimulus: behave in a modified way which is more relevant to the current situation with reference to past experiences). It is still to a considerable extent an unknown process although many concepts exist which help us think about what might be the effect of the process on behavioural data. This is in some respects the line adopted by Trahair (1969). The list of people connected with such concepts either directly or indirectly, antagonistically or favourably, is far too long to refer to in this thesis. Instead the major aspects only of the process will be discussed and without reference to their originators. These can be checked in most texts on psychology.

One aspect (apart from past influences which have already been discussed) of general influences on stimuli (or inputs) is the genetic/physiological/chemical make-up of the brain activity in general and are far too complex - and uncertain (see Vernon, 1969) - to be discussed here. Hence the need for the semi-'black-box' approach. Another, and perhaps more specific, aspect is that concerned with motivation. Among the many models which exist of the motivational process the most appealing and widely adopted is that associated with drive theory.* This model has been extended to include values, attitudes, expectations and abilities which are rather more expressable on the part of the individual. Each of

---

*But see Cofer & Appley (1964) for a critique.

these contribute to a total expression of the motivational or causated state - what is referred to as the individual's 'orientation'. It is, therefore, what might be called a 'general reflective measure' and is used as such in this research. The 'process' part of the model agrees to some extent with Hilgendorf and Irving (1969).

The output from this model is the resulting view or judgement of the current situation - namely, orientation. That is, the resultant effect of the inputs, modified by process elements, on the individual's disposition at a particular point in time with respect to the choices or decisions he is faced with. Naturally, his orientations will take differing forms - it might be for example in terms of people or things or both. Many writers have discussed ways in which orientation or similar conceptual forms of 'output' might be classified (see, e.g. Brown, 1973) and a range of choices from a simple two-dimensional split (intrinsic-extrinsic) to a multi-graded scale such as Maslow's (1954) hierarchy of needs would appear possible. Some of the literature points toward a middle-of-the-road classification being pertinent. Hyman (1970) builds on the Goldthorpe studies in suggesting that "while some (i.e. employees) seek intrinsic satisfaction from the job itself, or satisfying social relationships, others are primarily concerned with economic rewards" (cf. Goldthorpe's notion of 'instrumental orientation'.) The Cornell research on The Job Description Index (Smith, et al, 1969) suggests five sub-components of satisfaction - among them work, pay and co-workers. The other two components - promotion and supervision - can be placed alongside work and co-workers respectively. This yields three classifications: economic/security, social, and 'self' (for want of a better name).

Indeed, the intrinsic-extrinsic split can be considered as being three dimensional in nature since some overlap between the two is inevitable. For example, Saleh & Hyde (1969), define an intrinsic orientation as relating to Maslow's highest order need or self-actualisation and growth whereas extrinsic orientation relates to the lower-level needs of survival, security and love. They exclude for some unknown reason the esteem needs, but one would suggest these as being of an intrinsic nature, since to 'feel good' is essentially an internal state. But it is possible that other people make us 'feel good' - by way of praise, conferred status - i.e. social elements which Saleh and Hyde define as extrinsic. A three-way classification avoids this problem, and will be adopted in this research as was by Alderfer (1969)*, and implied by Carruthers (1968). The classes or categories employed by Alderfer are, however, related to a theory of needs put forward as an alternative to Maslow's hierarchy, and not specifically concerned with the concept of orientation. He names the categories as: existence needs (material or physiological desires), relatedness needs (social or friendship desires), and growth needs (desire to utilize capacities or skills) and suggests that they are not hierarchical in form. Thus, the argument put forward earlier in this chapter concerning the nebulous nature of motivational concepts again appears to be justified. What is a 'need' - and is it the same thing as a 'desire'? Is a 'desire' more closely related to the idea of 'wants' than to 'needs'? Whilst accepting the classification, it is difficult to accept that it is 'needs'

---

*An excellent review and critique of 'need theories' in motivation.

that are being classified. It might just as well be values (see Rosenberg,(1957), and the report of his work given in Parker et al (1967 - p.149) where the same classes were found amongst students.) A person can well be orientated towards people, things, or himself - or all three - but any or all of his 'needs' might be involved in one such orientation, as argued earlier. Further Alderfer seems to miss the point that whilst a need may be dominant, the individual's expectation of it being satisfied* may be low - thus reducing its motivational effect.

The classes used here are, in fact, based on the views of man as discussed by Schein (1965) and Langer (1937), and the motives of man as per Brown (1954 - p.206). (According to Alderfer, these ideas "bear considerable similarity" to his E.R.G. theory!). Schein suggests that man has been viewed in different ways by different schools of thought: as a 'rational-economic' animal, seeking to maximise material gain; as a 'social' animal, seeking to develop meaningful and satisfying relations with other people; or as a 'self-actualising' animal, seeking to develop and use all his skills and potential. But as Schein and the model of orientation suggest, man is complex; he may be any or all of these things. What he is depends upon various influences - the inputs to the model.

The classes or categories of orientation adopted in this thesis are defined as:

instrumental - an orientation towards material gain and those material objects necessary to maintain life and enhance the comfort and security of living.

---

*As opposed to actual satisfaction or fulfilment - concepts used by Alderfer.

relational* - an orientation towards interaction with other people and establishing meaningful relationships with them.

personal+ - an orientation towards self-engaging, self-absorbing and self-developing activities.

These categories are not mutually exclusive in the sense that if one orientation holds good, another cannot, but an ordering of priorities may well occur at a given instant or in a particular situation. Whilst agreeing with Alderfer that a rigid hierarchical form probably does not occur, it is preferred to go along with Daniel (1972) - another anti-hierarchist - who states that

> "It is, of course, true that some people will consistently attach a higher priority than others to job interest or, alternatively, earnings in all contexts. But the critical point is that the mass of workers seek both extrinsic and intrinsic rewards from their work, with differing levels of priority at different times and in different situations."
> (My underlining)

There is one further aspect of the model's output that must be considered and this is concerned with the effects on the individual of making a behavioural (goal related) decision based on one or more orientations. Behaviour may lead to the orientation being reinforced i.e. the experience is a satisfying one. But, unlike Hilgendorf and Irving (1969) and Katzell, et al (1961) satisfaction is not considered as an output but rather as an important feedback mechanism. For example, the outcome of certain goal behaviours may lead to dissatisfaction of such an extreme nature that an adjustment in orientation is made to

---

*Similar to Goldthorpe's 'Solidaristic' orientation.

+Somewhat similar to Goldthorpe's 'Bureaucratic' orientation.

accommodate future similar such situations or to avoid them. By assuming that no necessary link exists between performance (c.f. goal behaviour) and job satisfaction, Hilgendorf and Irving lose an important means of explaining the learning that often takes place in relation to goal symbols. However, their view of the traditional model is accepted since many research findings dispute a causal relationship between satisfaction and performance respectively (Schwab and Cummings, 1970; Lawler and Porter, 1967; March and Simon, 1958; Vroom, 1964). That some form of link exists is suggested by the excellent literature and research review of Schwab and Cummings.

The General model is illustrated in figure 2.8.

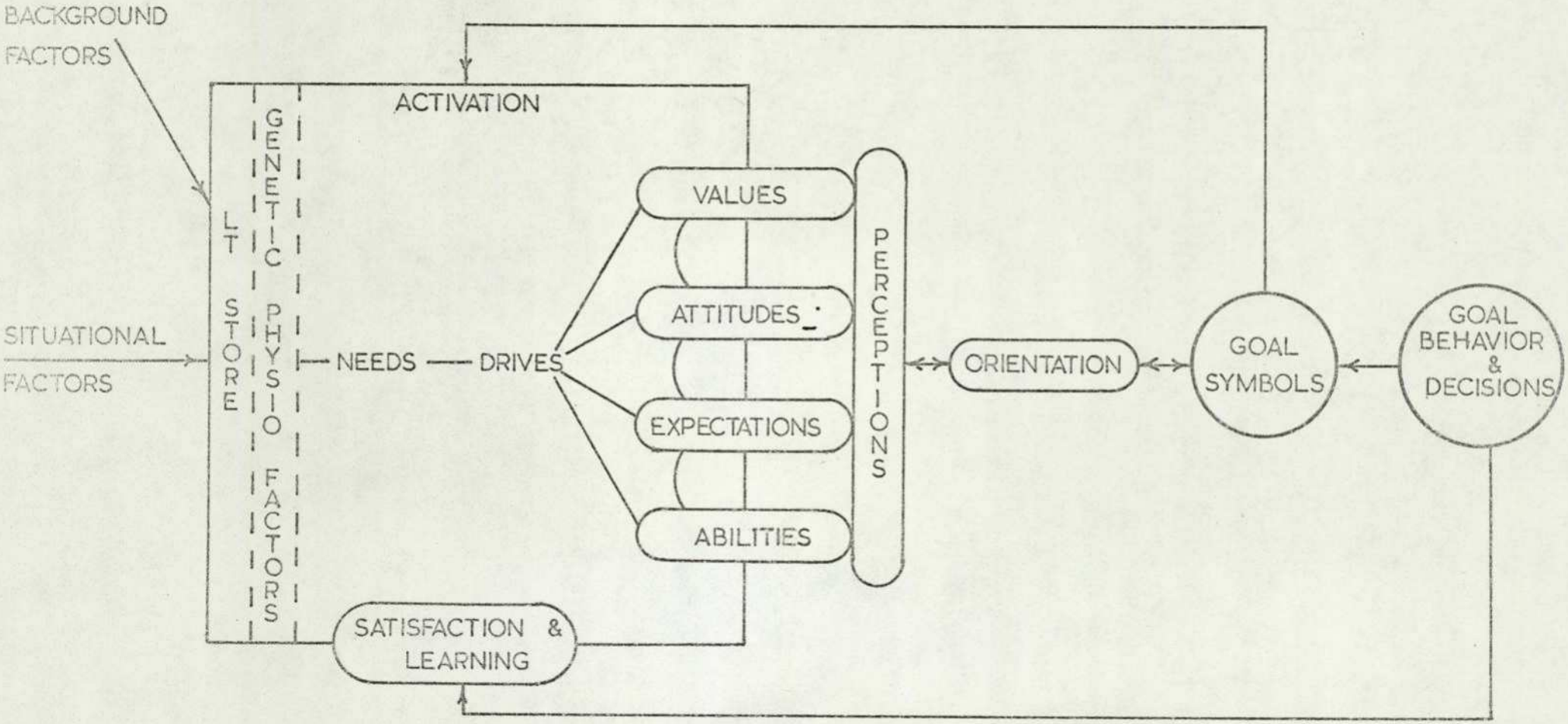


FIG. 2.8

PROPOSED SET OF RELATIONS FOR DEFINING ORIENTATION AND JUSTIFYING ITS USE AS A REFLECTIVE CONCEPT IN MEASUREMENT.

It is important to consider briefly the work of Porter and Lawler (1968) with respect to job satisfaction and Lawler (1971) with respect to motivation, performance, and importance of pay, the latter's model being a refined version of the formers. Both are based on an expectancy theory of motivation (c.f. Vroom 1964). Although Lawler argues quite convincingly (1971, p.102 - 107) for the expectancy approach, he does admit that "the choice (i.e. between drive and expectancy theories) is based upon some rather fine points, since the two theories make predictions that are basically similar. Our preference (obviously refers to Porter as well here) for expectancy theory is based upon the way it handles avoidance motivation, its forward-looking orientation, which has generated the research on expectancy beliefs, and its emphasis on the specificity of arousal states". It could be argued, however, that drive and expectancy theories are not mutually exclusive. Indeed, as noted previously, they are capable of doing similar things. Is it necessary therefore, to choose one or the other or any other theory? It is argued here that it is not! Wofford (1971) appears to agree.

Expectations regarding outcomes of goal behaviour (i.e. 'drive' initiated or, more correctly, 'need' initiated) may well modify the original drive pattern. Furthermore, the interplay between, for example, value systems and expectations may further inhibit or enhance the goal-directed behaviour since the perception of the likely outcome in terms of need-satisfaction could well be influenced by previous similar-experiences. It may seem strange, then that the motivation model shown on p.103 of Lawler (1971), introduces the concepts of needs which is an important part of many widely accepted drive theories.

None-the-less, there are similarities between the model proposed here and that offered by both Lawler and Porter. Both are concerned with behavioural outcomes; both view satisfaction as important feedback; both take abilities into account and both are concerned with expectations. The major differences are concerned with (a) generality, (b) relationship, and (c) nature of inputs. Here the model is much more general (i.e. it does not specify the kind of behaviour - e.g. job performance); it seeks only to establish input - output relationships although depicts some process relationships; and the inputs comprise both situational and background variables. On the latter point Lawler (1971, p.26), when discussing the instrumentality of pay, concedes that "the instrumentalities themselves are shown (in his model of the importance of pay) to be influenced by <u>past conditioned associations</u> involving pay as well as by general means-end learnings and by <u>situational factors</u>." (My underlining). If such 'past conditioned associations' can affect perception of pay, why should they not affect other facets - such as the perceived need-satisfaction utility of particular goals?

Finally, Vroom (1964) declares that past experiences should be combined with situational factors in a model of motivation, that few people have done so, and then proceeds almost to ignore them. However, his model has been of considerable influence upon the ideas discussed in this chapter and, as Hunt and Hill (1969) state

> "We believe it is time for those interested in organisational behaviour to make a more thoroughly scientific look at this very complex subject of industrial motivation, and Vroom's model seems a big step in that direction."

It is hoped that the model of orientation discussed in this chapter provides a further, if somewhat smaller, step forward.

CHAPTER THREE

THE ORGANISATIONAL CONTEXT OF ORIENTATION TO WORK

The main purpose of this chapter is to develop a conceptual framework of the context within which an individual works and expresses directly or indirectly, verbally or behaviourally in other ways or utilizes, his orientation to work. According to Argyris (1973) this is a pertinent task to undertake since the exact nature, policy and fulfilment of predispositions (orientations) "are influenced by the organisational context." It will seek therefore to discuss the relationships between different facets of an "enterprise" and their effect on the individuals behaviour. This is not to suggest that external factors are of no account within this organisational context. Indeed, if a systems view of organisation is taken then the environment of the enterprise is considered an important influence of internal matters. Such a view will be adopted in this chapter as in the last (and as advocated by Pugh (1966) and Etzioni (1960)) and an attempt will be made to integrate the two conceptual frameworks, i.e. that of orientation and that of organisation, into a total view of organisational behaviour. This chapter will, therefore, draw heavily upon concepts used in Organisation Theory - a steadily emerging interdisciplinary subject - but will not attempt to present an overview of it. This has been done most eminently by others (e.g. Pugh, 1966; Hutton, 1969).

The approach adopted will, however, concentrate on the "individual" as its unit of study and will use mainly psychological concepts for, as Pugh (1966) writes:

> " ... the study of the individual in the organisation is just as much a theoretical venture and has potentially just as much to contribute to the development of psychology as any other

> part of the discipline. But this will only happen if the individual theorists widen their sights and choose the problems that they wish to study in terms of the development of the discipline" (rather than attempting to solve managerial problems - my addition).

It is hoped that the conceptual frameworks developed here and in chapter two will allow the sights to be set just wide enough without distorting the view. But first it is necessary to define the term 'work' so that it is clear just what an individual is oriented toward.

The Meaning of Work

According to Brown (1954) "it is a futile attempt to define exactly what we mean by the term 'work'." (p.p. 187/8) His reasons appear to be that work can be defined in terms of so many other concepts - such as pay, motivation, social activity; and that different people will get different things from it, such as the means to obtain financial security, status, and so on. In effect this is an attempt to explain work in terms of the orientations of those who do it - indeed a futile task since one concept is being used as the definition of another. Yet an individual possesses orientations whether he is doing work or not, and it must, therefore, be possible to define them separately. It is also important if we are to know toward just what a person has an orientation, in addition to the fact that 'organisation' comes about to accomplish work on one scale or another. Whether work is something that is liked or disliked, it is an activity in which everyone engages at some time or other and must, therefore, be amenable to definition.

Few studies have bothered to look systematically at how people define work, as Thorns (1971) points out when discussing work and its definition. He cites one notable study - that by Weiss and Kahn (1960) - and extends the ideas a good deal further. Unfortunately, Thorns (like

so many others) has confused two highly related but none-the-less separable aspects of work, which might be best explained in terms of two questions. The first question - "what is it?" - attempts to seek a true definition of work, whilst the second - "how is it viewed?" - seeks to determine what sorts of judgements are made about work. Most writers appear to ask and answer the second question which still leaves the problem of just what it is that people are making these judgements about.

For example, Thorns lists several 'definitions' used in his study and in that of Weiss and Kahn, namely that work

(1) is necessary though not enjoyed
(2) requires exertion
(3) is a productive activity
or (4) is an activity organised by others.

It is evident that (1) describes a person's feeling toward work, (2) states what is required to do it and (4) suggests that it has something to do with other people. Only (3) comes near answering the question, what is it?

Vroom (1964) does not define what he means by the term 'work' but rather attempts to offer insight by using the concept of 'work role'. If one assumes that work is some form of activity carried out by an individual then it is not misleading to start from an examination of work roles. He lists five properties of work roles viz:

(1) provision of wages
(2) expenditure of mental or physical energy
(3) production of goods or services
(4) social interaction
and (5) social status.

Again, some of these are concerned with what work does to or for the individual (1 and 5), whilst others describe an end result (3) or a context (4); only (2) appears to answer our question.

Other writers do not attempt to define work explicitly but make a distinction between work and non-work (leisure) activities. Parker (in Parker et al, 1967) takes such an approach, and highlights the difference in views of those who consider leisure to be completely separated from work and those who consider work and leisure to be much more integrated in contemporary society. The distinction between work and non-work is also made by Cotgrove (1967) but he does ask the question "but what is work?" and provides what he terms "an operational definition" by way of answer, namely,

> " ... any activity which is directed towards the production of goods and services which typically have a value in exchange and which are carried out for a valuable consideration." (p.115)

Such a definition implies a distinction between work and leisure, and yet many leisure and non-work activities can be described in terms similar to those used in Thorns' study. Some non-work activities are enjoyable - others are less than routinised boredom. Clearly, then, a more generally applicable definition should be sought.

Recourse to the physical sciences does not, at first sight, offer much help. There, work is defined as the effect of moving a force through a distance in an attempt to overcome a resistance, and yet the units of work are the same as those of energy (see Walker, 1948). It thus appears that work involves the expenditure of energy - one of the definitions considered by Thorns (1971). This expenditure of energy might be mental or physical, or both, and it need not be solely concerned with the production of goods and services. In this way, 'work' and 'leisure' activities might both come under the same definition, for the person

industriously tracing his ancestors as a hobby is expending considerable energy, whilst the person 'at work' enjoying a break because of, say, a shortage of materials may not be expending so much energy. But everyone expends energy all the time - simply by breathing, so is this work? In strict terms, it is, but it is necessary to separate 'prescribed' (by self or others) and 'automatic' work. It is possible, therefore, to define work as

> "the expenditure of energy on activities prescribed by self or others for the accomplishment of some purpose."

Compare this with the definition given by Drever (1952) namely, "serious activity with reference to a real world and real values, as contrasted with play activity". In the definition presented above the words 'prescribed', 'accomplishment' and 'purpose' utilize Drever's concepts of a 'real world' and 'real values'. It cannot, therefore, be mistaken for play, which is none-the-less part of non-work activity.

The utility of adding "for some purpose" lies in the principle of conservation of energy - there must be some form of exchange; for example, money, goods, status or intrinsic happiness on the accomplishment of the purpose. This definition does not imply any value judgements about the nature of work, neither does it restrict the consideration of orientation to work in situations not normally considered to be of a work nature, although this will be the emphasis for the treatment given to it in this chapter.

Thus, orientation to work is concerned with the desires and expectations a person has of those activities prescribed by himself or others, and implies some goal attainment.

A General Framework for Viewing Organisational Behaviour

It is a well established fact - both empirically and subjectively - that the behaviour of people in organisations (i.e. individuals at work) is influenced by a number of determinants. No single factor, except life itself, can be exclusively associated with such behaviour, as indicated by Applewhite (1965) in his opening chapter. The purpose of this section is to look at the different major determinants of behaviour in the organisational context and to derive a general framework to aid this process. Hopefully, this will help give perspective to the role played by the wage payment system as compared with other facets of the organisation.

Before embarking upon this task it is, perhaps, desirable to consider what is meant by the term 'organisation'. One would imagine that it had a fairly consistent meaning and yet a review of the literature will demonstrate that, whilst this is true to some extent, different writers use a variety of different terms to define it. Definitions range from Brech's (1957) definition which associates organisation with planning to that of Etzioni (1965) which considers it as "a social unit deliberately constructed to seek specific goals". Most writers use definitions which imply that an organisation is a formalised social unit. Perhaps Kelly (1969) expresses it well when he considers that

> "a formal organisation may be viewed as a group of inter-related groups created to achieve a particular purpose". (p.262)

Such a definition implies that concepts such as 'structure', 'co-ordination', 'differentiation', and 'technology' are pertinent to the consideration of organisational behaviour. A review of some of the

literature will indicate what determinants are considered important, and will form the basis of a general framework. The amount of such literature is vast and a complete review of it would result in repetitive, boring reading. Therefore, a small number of recent treatments will be considered.

Argyris (1973) in discussing recent ideas in personality and organisation theory, suggests that such a theory enables the scholar to cross disciplines - particularly between psychology and sociology, leading one to

> "focus on organisational structure, technology, managerial controls, reward and penalty systems, evaluation systems, leadership roles and styles, and job or role requirements".

Athos and Coffey (1968) consider a framework (p.220) which is based on an integration of the individual, the group, and the total organisation. They then develop a number of different dimensions for looking at organisations (e.g. social, psychological). They suggest, also, that satisfaction (and, therefore, behaviour) are affected by the type of work the individual is engaged upon, the nature and composition of the work group, the setting within which the work is carried out (e.g. environment, conditions in the organisation) and the style and practice of management. (p.178/9)

In an earlier chapter the authors spell out quite clearly the importance they attach to viewing the organisation as a 'unified system', particularly the various background factors or variables that "are of significant importance in most organisations". (p.35). Those are classified as internal and external, and include, amongst many others,

things such as economic, political, and socio-cultural climates; the variety of groups and institutions with whom the enterprise might come into contact; and the technology, organisation, conditions, management, size, financial conditions, objectives, etc., of the enterprise - all of which add up to 'behaviour'. The list (p.37) comprises 29 factors - a daunting prospect of experimental control for any research worker.

In a reasonably wide ranging discussion of the business enterprise in modern industrial society, Child (1969) develops a psycho-sociological model of the quality of experience within the enterprise (see pp. 64-76) which separates the concepts* of 'self identity', 'work identity', and 'work role', relating them to a number of 'influencing variables' in a way similar to the model of orientation to work presented in chapter two. However, he proceeds further to take account of organisational features and includes among these things such as the workplace itself, the individuals reference group, the technology deployed by the enterprise, the structure and size of its organisation, and the managerial policies of the enterprise. He reviews some of the literature in this field and suggests (p.67) that

> "there is already considerable evidence that certain features of organisational structure can affect quality of work experience,"

and continues to cite some. Such literature will be looked at a little more closely in a later section.

Apart from organisation determinants, his model also includes environmental determinants and personality determinants, both of which

---

*These three concepts are used to describe what the concept of orientation to work describes i.e. the relation of the self to the work situation.

are considered in chapter two. However, nowhere does he consider the effect of pay and payment systems on the quality of experience within the enterprise - an enterprise specifically labelled 'business' and therefore concerned with the 'grubby' subject of money. Such an omission is considered serious since the vast majority of people go to work in order to earn money and, therefore, the level of pay and its method of determination must at least be considered in any initial developments of a theoretical model of work experience even if it is later found that research data does not justify its inclusion - an extremely unlikely event, as will be shown later in this chapter.

A more clearly specified systems approach to organisations is taken by Kast and Rosenweig (1970) who suggest that

"organisations are

(1) goal oriented, people with a purpose;

(2) psycho-social, people working in groups;

(3) technological systems, people using knowledge and techniques; and

(4) an integration of structured activities, people working together."

They add later (see p.121) the managerial system into their thinking giving a list which is similar to that of Athos and Coffey (1968). They also suggest that it is futile to consider organisations without giving due attention to 'facts' of social organisation - a mistake made by so many when adopting a purely psychological approach.*

They then continue to discuss a number of subsystems of the 'process'

---

*For a critique, see Katz and Kahn (1966).

element of their organisational model namely

(a) a goals and values subsystem
(b) a technology subsystem
(c) a structural subsystem
(d) a psycho-social subsystem, and
(e) a managerial subsystem

all of which are interrelated and have some impact upon organisational behaviour.

Again, as with the previously mentioned authors, they do not specifically give any attention to the role of the financial subsystem within the organisation and its impact upon behaviour.

In a purely systems-oriented view of organisations Katz and Kahn (1966) describe a social organisation in terms of five generic subsystems which affect the functioning of the organisation. These are termed as

(1) Production or technical subsystems, which are concerned with transferring the inputs;
(2) Supportive subsystems which ensure that inputs from the environment are procurred, and outputs disposed of;
(3) Maintenance subsystems which attempt to ensure that the pattern of human behaviour is continued, and includes as a "major maintenance substructure" the reward and sanctioning systems;
(4) Adaptive subsystems which look to the future (e.g. market research, R & D) and the organisations continued role in its environment; and
(5) Managerial subsystems which are the activities required for "controlling, co-ordinating and directing the many subsystems of the structure".

They give a great deal of attention to the consideration of roles and role sets. Considerable discussion is also given to the way in which goals/objectives are set and internalised.

Kelly (1969 - p.262) however, considers that the two main determinants of behaviour in organisation are the structure and culture of the organisation. The structure specifies communication routes and defines the pattern of authority and command, whereas the culture represents the shared beliefs, values, norms, myths and attitudes which help shape company thinking. All are, or can be, specifically discussed in behavioural terms. Whilst not giving specific mention to wage payment systems he does suggest (p.277) that economic as well as technological, political, marketing and size factors are "major determinants of what heppens in the organisational milieu". This gives some hope, however slight, that pay and payment systems might have a role in the organisational context of behaviour at work.

Leavitt (1964) when considering the process of change within an organisation uses a framework which includes as major variables the tasks that have to be undertaken, the actors or people who undertake these tasks, the structure which helps relate different tasks and people to one another via lines of authority and communication, and the technology adopted for the accomplishment of work. He considers each of these factors to be related and that a change in one will result in some form of change in the others, with concomitant affects on behaviour. This framework has been extended by Margerison (1973) to include management as a major variable. Note again the absence of the payment system.

In a useful review of the literature written on modern organisation theory Pugh (1966) takes a psychological and sociological view. After considering the subject under six headings - management theories, structural theories, group theories, individual theories, technology

theories, and economic theories - he concludes that the study of organisations is developing at three distinct levels of behavioural analysis, (a) organisation structure and functioning, (b) group composition and interaction, and (c) individual personality and behaviour, and that each can be related to the other. He also believes, as mentioned earlier, that a systems approach has much to offer the researcher. Yet in all this extensive review - which covers technology and structure, the individual and the group amongst other features of organisation - the nearest Pugh gets to including pay and payment systems is when he mentions the 'subjective' variables used by March and Simon (1958) - among them "the expected value of reward". Since most organisations are of a "reward giving" nature, it is somewhat surprising that Pugh does not develop the point further.

In what has probably become one of the most widely used texts on courses in organisational behaviour Sayles and Strauss (1966) range over a wide area of influences upon human behaviour in organisations. Several chapters are devoted to a discussion of the impact of technology upon job satisfaction, whilst the text covers also the importance of work groups, authority, specialisation, hierarchy and motivation in general. Discussion in several places is given over to the importance of pay and incentives as 'satisfiers' (e.g. pp.7/8) and its effect upon, for example, status (p.96) both in terms of the <u>amount</u> and <u>how</u> people are paid. They too, appear to place reliance upon a systems view.

Seiler (1967) takes a specifically systems view of analysing organisational behaviour, based largely on the socio-technical conception. His model - or elementary framework as he calls it - for diagnosing human

behaviour in organisations considers the key determinants of behaviour to be the inputs to the organisation, namely human, technological, social and organisational. This latter input includes salary levels and incentive systems - among others, of course. These inputs - or influences - are said to 'determine' the nature of actual behaviour in terms of activities, interactions, and sentiments. Clearly basing his ideas on the Homans model, Seiler fails to acknowledge this fact.

He then uses the notion of 'functional analysis' - i.e. that one variable is functional (or dysfunctional) for some other - to relate these behavioural categories to the outputs of productivity, satisfaction, and development (the latter presumably referring to the individual and the organisation). For example, the generation of group norms might be functional for satisfaction but dysfunctional for productivity. All take place within the pressures of the environment.

Other contributors to the book make further mention of the role of incentives and pay but put them in proper perspective. (See, for example, Bunker's chapter three - pp. 63 & 68; Seiler & Lorsch's chapter five - pp.111; Hower & Lorsch's chapter seven - p.157). They are treated somewhat minimally, as variables to stand alongside others in influencing human behaviour (a point which must be accepted) but at least their effect is not ignored.

Whilst accepting and welcoming the conceptual framework offered by Seiler, issue is taken with the types of inputs used. In the strictest use of the systems concept an input is treated as something upon which other variables act in order to transform or convert it in some way or other. Thus, a technology is a set of knowledge and methods which are used to change an input into an appropriate (i.e. desired) output.

Similarly, behaviour (i.e. work behaviour) is a set of actions upon something else in order to convert or change it. Yet Seiler treats the former as an input and the latter as part of the process, when both, in fact, are process elements. With this reservation, his framework is considered very useful in analysing behaviour in organisations.

A more recent view of organisation theory is that offered by Sofer (1972) who based much of his book on his own experiences over the years in a number of organisations, as well as making use of the literature. As with most such books, he gives a useful review of landmark contributions to the subject and offers some thoughts of his own. In chapter twelve he puts forward some propositions concerning organisational behaviour, with an emphasis given to the role of technology and tasks as determinants of internal structure, style of behaviour and personnel composition (i.e. the make-up of the labour force). For example on p.220 he writes:

> "The structure of work organisations and the behaviour of their members is substantially influenced by the nature of their tasks and by the character of the technology they operate, in the sense of both physical equipment and of systems of work".

But he does not, however, consider task and technology as absolute determinants of behaviour - rather as constraints on what can be done. Amongst other important influencing factors he lists the sub-group to which the individual belongs, the values which transcend organisational boundaries, and historical variables. He suggests, also that orientation to work will vary with the level of position in the organisational hierarchy. But again, any mention of pay is difficult to find.

One of the latest offerings from the doyen of "technology theorists" produces some very flexible comments on the nature of the influences on

organisational behaviour. Woodward (1970) provides a very useful discussion on behaviour in organisations which, whilst almost apologetic in its attempts to give fair consideration to other variables, still gives a great deal of emphasis to the role played by technology. Nonethe-less, it is acknowledged that

> "these limitations (i.e. those of technology)* will not be the only ones, or even the most important ones which affect his (i.e. the operator's)* behaviour, for he will also be limited by the requirements of the administration (this including the supervisory structure and the system of payment)*, by the demands of his colleagues, and by other factors."

She then goes on, together with her co-authors, to develop the notion that behaviour in a work organisation is subjected to 'constraints' and 'facilities'. Constraints are the demands of the formal organisation which prescribe rules and procedures for doing work that it wants, whereas facilities provide the employee with an opportunity to engage in activities which are not directly related to the formal requirements (e.g. social intercourse where none is demanded by the work arrangement). These can be compared to the notion of 'goal symbols' used in Chapter Two.

The model presented on p.8 is in the best systems tradition with 'environment' seen as an all-pervading influence upon the internal variables, namely, the administrative system, production technology, work groups, and the individual and his behaviour - not forgetting, of course, the summation of these in terms of constraints and facilities.

---

*My brackets.

The model is simple and attractive and, it is believed, constitutes a step forward in the thinking of the technology theorists (as Pugh, 1966, calls them). It is a pity, therefore, that so much of the rest of the book tends to follow the "technology as key determinant" pattern.

It is necessary to mention, if somewhat briefly, the notion of 'socio-technical systems' as developed by members of the Tavistock Institute of Human Relations. The development of this conception has marked an important stage in thinking about organisations and serves to illustrate the complex nature of both the organisation and the research worker's role in studying it. In essence, however, the notion is a very simple one - that the technical system is not something which exists upon its own in isolation from the rest of the organisation but that it affects, and is in turn affected by, the social system of behaviour, roles and groups which are concerned with deploying the technical system to some fruitful purpose. Both systems have a structure of their own, overlain by the formal structure of the organisation such that a change in any one part of the total system will affect other parts of that system (refer to the definition of 'system' given in chapter two). If one then considers the organisation as an 'open' system it is not too difficult to appreciate that external events will also affect behaviour of its members. This simple - at first sight - conceptual framework embodies all the variables and factors discussed previously, as the work of Emery (1959), Emery and Trist (1959), Miller and Rice (1967), and Rice (1958) demonstrates.

A review of the previous discussion of the literature will indicate that some determinants of organisational behaviour appear to be mentioned more frequently than others, as shown in Table 3.1 following. There it

will be seen that at least ten such determinants exist, any of which could be subdivided into yet more possible variables demonstrating the difficult task facing the research worker whose interests are focussed upon behaviour in organisations. But some of these determinants (from now on called variables) might be discounted from further consideration in this chapter. For example, the effect of individual differences in personality has, to a large extent, been the subject of discussion in chapter two and can therefore be omitted from further analysis of the variables affecting behaviour in organisations until the need arises to integrate the two basic conceptual frameworks. Also, the effects on behaviour of culture and values systems are much broader and all-pervading compared with, say, reward systems that they can be considered as a constant. Whilst it is true to say that sub-cultures exist and values vary from one sub-culture to another the likelihood of short term changes is small, whereas reward systems can be changed in the short term, as argued elsewhere (Bennett, 1968). This is not to suggest, however, that behaviour could be changed realistically by alterations in the reward system. Rather, it is suggested that the kind of employee attracted to the organisation may be affected more by the Company image (via payment, technology etc.) than because of changes in the sub-culture or value systems.

The remaining variables do, however, come within the scope of change and control to some extent, and will be considered in further detail. The general relationship can be demonstrated in Figure 3.1 which is nothing more than a pictorial presentation of the general organisational context. It does, however, demonstrate a certain logic in-as-much as

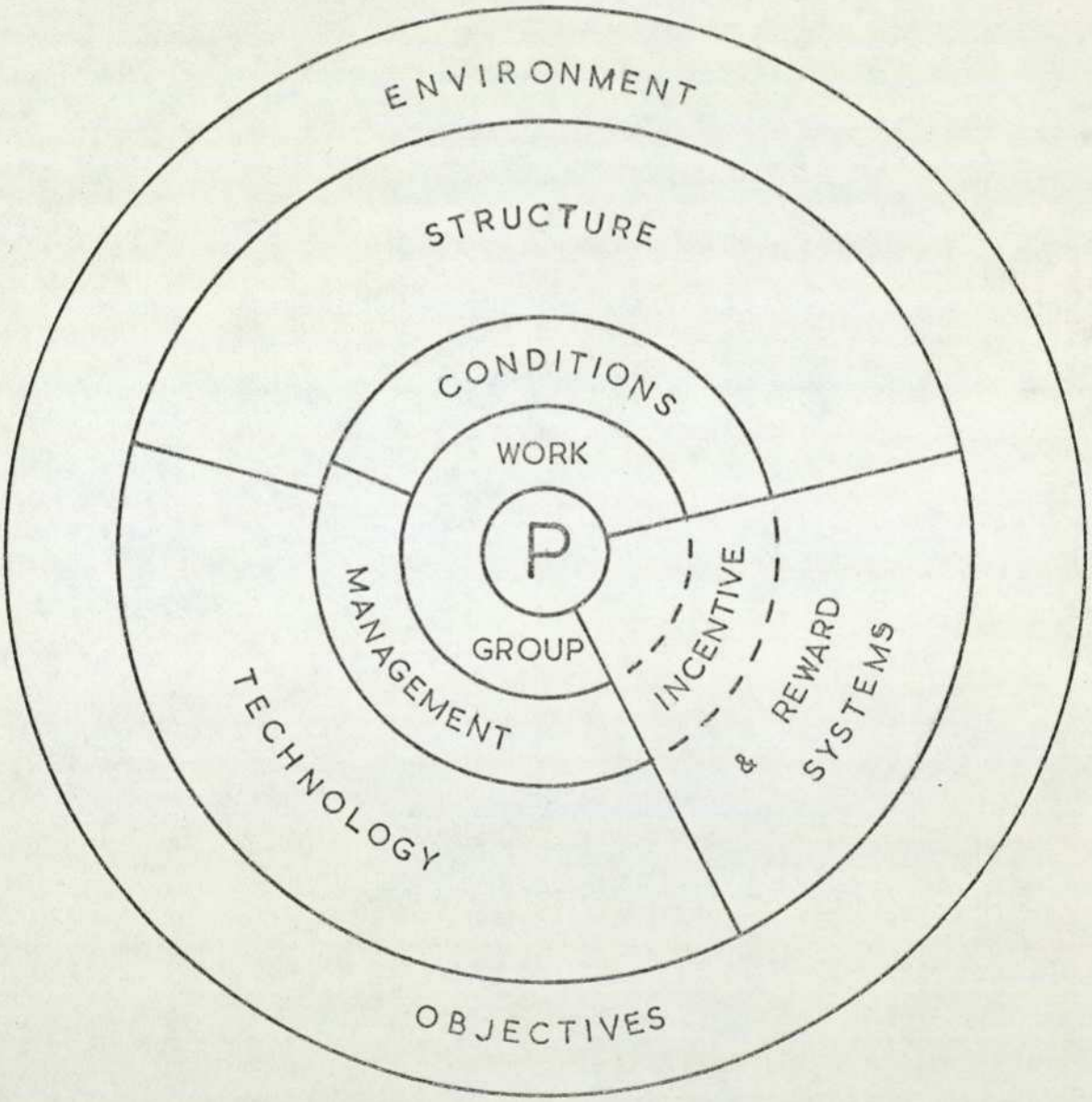
the individuals work group may be argued as being a primary influence on organisational behaviour whereas the environment is probably less direct in its influence. Other variables, such as technology, may be considered intermediate influences of behaviour since work groups may affect behaviour in several ways within a given technology. It is hoped that a clearer picture of the relationships involved will emerge after further consideration of each variable.

AUTHOR \ VARIABLE	COND'S	CULTURE & VALUES	ENVIR'NT	MAN. SYSTEM	IND'L PERS'N	REWARD SYSTEM	STRUCTURE	TECHN'GY & TASK	WORK GROUP	OBJECTIVES
ARGYRIS (1973)				*	*	*	*	*		
ATHOS & COFFEY (1969)	*	*	*	*	*	*[2]	*[2]	*[1]	*	*
CHILD (1969)	*		*	*			*	*[1]	*	
KAST & ROSENWEIG (1970)		*	*	*			*	*	*	*
KATZ & KAHN (1966)			*	*		*		*	*[2]	*
KELLY (1969)		*	*				*			
LEAVIT (1964) - MARGERISON (1973)			*[2]	*	*[5]		*	*[1]	*[5]	
PUGH (1966)				*	*		*	*	*	*[2]
SAYLES & STRAUSS (1966)				*		*	*	*	*	*
SEILER (1967)			*			*	*	*		*[2]
SOFER (1972)		*			*			*[3]	*	
WOODWARD (1970)			*	*[4]		*[4]	*[4]	*[3]	*	*[2]

NOTES: 1.- includes the work itself i.e. task. 2.- implicit. 3.- considered as major determinant
4.- considered together as one variable: the admin system. 5.- included in general concept of 'actors'.

TABLE 3.1

GENERAL CONTEXTUAL FRAMEWORK



Examination of Major Organisational Variables

The Group

The effects of group processes on individual behaviour has been the subject of almost continuous study since the Hawthorne experiments were carried out in the late 1920's and early 1930's, (Roethlisberger and Dickson, 1939)culminating in theories of group functioning and dynamics as illustrated in the readings provided in the notable work of Cartwright and Zander (1968), and of Sprott (1958). Even a cursary review of recent literature will demonstrate that it is still a prime target for many researchers in fields ranging from production situations (Shalinsky, 1969) to general community levels (Korte, 1971 and Jackson, 1973) - (see also Burnstein, 1969; Castore and Roberts, 1972; Lampkin, 1972; and Pfeffer, 1972). That the group can exert much pressure for conformity behaviour is now almost a truism for, as Sayles and Strauss (1966) and many others point out, social needs can be extremely potent sources of motivation and groups may exercise great control over the satisfaction of such needs, often to the demise of managerial control. The development of group norms as a means of directing or steering behaviour towards shared group goals is a well enough demonstrated phenomenon: the literature abounds with cases of restriction of output and resistance to change (such as the famous Tavistock coal mining studies) based on deeply accepted norms working contrary to management expectations, as well as positive increases in productivity when groups had confidence in management (e.g. Coch and French, 1948; Seashore, 1954; Whyte, 1955; Trist et al, 1963; Sayles and Strauss, 1966). Indeed, many of the most eminent writers in the field of organisations and management have stressed the need to give greater

attention to the emergence and effect of groups in an enterprise. Likert's work (1961 and 1967) is a good testimonial to this in the organisational field - his concept of overlapping group structures can be seen as a plea not to ignore the informal organisation structure based around the group and has been useful as an aid to analysing organisational situations (Bennett, 1971). In the management field much has been written concerning the management of work groups and the effect of managerial style (Margerison, 1973). Currently, much is being said and written of the attempts by companies such as Volvo and Saab to design work processes around the work group and, indeed, Bennett (1972) has argued along similar lines.

The work group, then, appears to be in truth a prime influence on organisational behaviour but, as Goldthorpe et al (1968) have shown this may well be a function of the nature of orientation to work possessed by the individual. If he has a fairly dominant relational orientation he may well be influenced by group processes: if, on the other hand, one or other different orientations are dominant, he may not succumb so easily. He may develop a 'loner' role, or may leave the organisation if the pressure becomes too great, rather than change his view. He may also, of course, 'give in' for the sake of his job, his family, or his own feelings. So generally, then, the work group can be considered as a significant variable but subject to excepting situations.

In summary, work groups may influence behaviour directly, or indirectly in being mediated by the individual's orientation to work.

Working Conditions

Conditions of work are inferred from the literature to mean the total physical environment within which work is carried out. As such it will

include physical layout, heat, noise, lighting and ventillation: the traditional factors which were the subject of much pre-Hawthorne work by industrial psychologists and, indeed, is the subject still of some controversy in the field of organisational behaviour. Working conditions probably do not have such a strong influence on behaviour as do working groups, and their effect can sometimes fluctuate considerably depending upon the nature of the work itself. For example, where task performance itself is dependent upon, say lighting conditions for reading dials, poor conditions may result in extreme frustration at the inability to perform well - especially if financial rewards are tied to performance. In other situations, however, such as coal mining, extreme conditions of work may not have any significant effect if the group relations are highly developed and highly valued. (See Trist, et al, 1963: although this work relates to change, the effect of groups viz a viz conditions is apparent).

Ever since the Hawthorne researchers concluded that physical working conditions made little difference to the performance of a group that were the subject of special attention (Roethlisberger and Dickson, 1939), their consideration in the literature is somewhat enigmatic to say the least. No doubt spurred on by the finding of Hertzberg and his colleagues (1957, 1959, 1966) that job context factors - among them working conditions - were not really sources of motivation some writers (and practitioners) seem to ignore them. For example, Cruden and Sherman, (1963) and French, (1970) appear to pay no attention to them in discussions on worker behaviour. Yet, on the other hand, some authors give working conditions a prominent place in their writings - Cuming (1968: a whole chapter nearly); Ghiselli and Brown (1955: again, one chapter); Northcott (1955: various mentions). It would seem, however, that neither extreme is

warranted for, as Feldman (1971, p.70) suggests, both psychological and physical features of the environment will affect work behaviour and both should be included in any analytical model. In summary, then, it is probably true to say that conditions will have a direct, possibly unmediated, effect on behaviour - either positive or negative - but that its potency is not likely to be as strong as other factors.

Management

To say that management - in terms of its practices, policies, philosophies and styles - affects organisational behaviour may seem a somewhat banal statement. Yet however trite and accepted it might be, one cannot escape the fact that a tremendous amount of research, time and effort has been spent in trying to determine just how the process of management affects behaviour, suggesting that some attention should be given to it in a thesis of this nature rather than merely noting the fact that behaviour is what management is all about - or is it? A whole host of management techniques exist which purport to aid the manager in dealing with facts, interpreting information, and making decisions. These are supported by an equal volume of text books on the subject of managerial decision making (see, for example, Miller and Star - 1960; Kepner and Tregoe - 1965; and Rappoport - 1970). And yet even some of these decision theorists recognise that management is more than the manipulation of figures - a good example being Simon (1960). For without people to generate the information, provide specialist knowledge of techniques for analysing it and help make the decision, and to implement the decision once made - the manager is helpless. As Taylor and Watling (1972) state, in a book which provides glimpses of the whole spectrum of management

from operational research to human relations;

> "Management is people. Being a manager is different. It is different because you do your work through the minds and hands of other people. The art of the manager lies in getting other people to work effectively to achieve objectives". (p.53)

Tannenbaum, et al (1961) obviously also believe that management has an important effect on behaviour since they devote a complete chapter to the concept of the manager and define managers thus:

> "It is our thesis that managers are those who use formal authority to organise, direct, or control responsible subordinates (and, therefore, indirectly the groups or complexes which they may head) in order that all service contributions can be co-ordinated in the attainment of an enterprise purpose." (p.263)

In a more 'personal experience' - oriented treatment, Bower (1966 - p.223) leads one to the same definition, and suggests that there are eight principle means of 'activating a person to work productively', namely (1) orders, (2) penalties, (3) advice, (4) constructive job attitudes, (5) rewards, (6) personal commitment, (7) self givernment, and (8) leadership. He further suggests that 1 - 7 form a spectrum from an authoritative approach to a more participative style, with leadership complementing them all. This introduces the notion that whilst management does have an important effect on organisational behaviour, different styles might produce more or less favourable effects - a subject of research attention for some considerable time and still going strong. A survey of 1½ years editions of one journal* produced no less than five major papers on this topic. But positions seem to be far from clear. Some writers

---

*Organisational Behaviour and Human Performance - 1972 and 1973.

(e.g. McGregor, 1966; Marrow, et al, 1967; and Argyris, 1957; amongst others) would proclaim participative, people oriented management to have the most positive effect on behaviour whilst others (e.g. Fiedler, 1967; Sashkin, 1972 and Michaelson, 1973; again, amongst others) suggest, and demonstrate through considerable research data, that the affect of style on behaviour depends upon the situation to a large extent. Authoritarian and participative modes have, in other words, their place in the organisation, as demonstrated by Scontrimo (1972) and Hill (1973).

It is therefore safe to conclude that management has an effect on behaviour, which ever direction it takes, as Greene (1969) suggests in the title of his book "The Management Game: How to win with People". He also, not surprisingly, devotes most of the book to the problem of "people pursuading". The effect on behaviour may be direct - as in the giving of orders; or it may be indirect in that the manager and his particular style symbolises or clashes with the individual's own orientation to work.

Technology and Tasks

The role of technology in organisation theory often seems a much vexed subject. Many writers and academics have crossed swords over this contentious topic which appears to have two main facets. One facet is whether or not technology is the key to organisational structure; the debate here having been brought into the academic arena by Woodward (1958 and 1965) and continued quite ably by various members of the "Aston group"* and their critics (see, for example, Pugh, et al, 1963; Perrow, 1967; Hickson, et al, 1969; Osmond, 1970; George and Bishop, 1971; Mohr, 1971; and Aldrich, 1972). Noteworthy (and no doubt confusing to

---

*Industrial Administration Research Unit, University of Aston in Birmingham.

the manager) though all these studies might be, little attention is given by some (and none by the others) to the end result that managers are interested in, namely constructive, productive behaviour. The second, and almost distinct, facet does however deal with the effect of technology on behaviour in terms of the nature of jobs and the structure of work flow systems.

As already discussed, Woodward had more recently begun to look at the effect of technology on behaviour and came down firmly on the side of those who suggest its pre-eminent role in this respect. Wedderburn and Crompton (1972) take a similar view - probably because both they and Woodward worked at Imperial College - and again show the ambivalance that has been noted in Woodwards' latest book. The fly-sheet says, for example, that "The authors reject any approach which could be called technologically determinist but none-the-less seek to show that a comparative approach to the study of behaviour in organisations may still fruitfully take as its starting point technology and the systems of control which are devised for the planning and execution of the task". Such a statement hardly generates a feeling of trust in what one is about to read: either they do consider technology to be the key determinant (and they do) or they do not. Little is to be gained by being paradoxical.

That technology has an important influence on behaviour cannot be denied. Many studies and articles have demonstrated that the nature of work and the organisation of work has a considerable bearing upon job satisfaction and behaviour (Walker and Guest - 1952; Brayfield and Crockett - 1955; Trist, et al - 1963; Blauner - 1964; Smith - 1968; and Form - 1972: among very many others). The current momentum towards re-thinking work structures, as summed up in the Government report of

1973 on the quality of working life, only reinforces this fact. The attempts by companies such as Phillips, I.C.I., Volvo and Saab to put theory into practice adds lustre to the concepts of work structuring, job enrichment, job enlargement, and autonomous working groups to such an extent that they can be meaningfully discussed in the popular press (see Wilson, 1973). None of this is disputed. Yet it also remains true that almost all of these attempts have only been successful by engaging in relevant communications with the work groups and by either paying more money or changing the payment system. In some cases managerial practices had also to change. (See again, Wilson, 1973; Daniel and McIntosh, 1972; and Wild, 1974).

This demonstrates the true need to look at any enterprise as a system where a change in one element brings about changes in others. In-as-much as technology defines the work system and to some extent the nature of work, it is an important causal factor. But, given a particular technology, is it possible to change or influence behaviour by varying management styes, changing payment systems, etc.? The undoubted answer must be yes!

It should also be borne in mind that contradictions can be found in the research literature dealing with technology, the most notable being that between those who claim the assembly line is soul destroying and produces negative behaviour and those (such as Goldthorpe) who maintain that this depends upon the pre-existing orientations of the workers and need not be the result. Such contradictions do not detract from the importance of technology and task as influencing factors on behaviour - they do, however, serve to question again the pre-eminent role of technology, as Brown (1971) has done.

Whilst technology and task are difficult to separate in the literature,

it is possible to separate out their potential effects on behaviour. The nature of the task is an inescapable part of day-to-day working life. Task requirements directly influence behaviour since, for example, they demand certain physical activities. But they also may have symbolic significance for the individual thus exerting an indirect influence on behaviour: for example, complex tasks may symbolise prestige and personal acumen. Technology, on the other hand, whilst being the major determinant (via product or service) of the task, does not have any great symbolic value but may directly affect behaviour since it constrains activities within certain knowledge and procedural limits.

Structure

This term is used here to refer not only to the patterning of formal (static) activities and lines of authority but also to the idea of size and shape of the organisation. As such, it too has been the subject of considerable debate in the literature, often in relation to types of technology as mentioned previously. Whether or not structure is determined by technology (and, it is believed both are anyway determined by purpose and function) it is likely that different structures have different effects on behaviour.

Argyris (1957 and 1965) has argued quite convincingly that conventional, formal organisations have a negative effect on the 'psychologically mature' individual but most of his theory is based around the concepts of task specialisation, span of control, and the nature of management rather than purely on structure. Even so, the point is made that formal, bureaucratic patterns of organisation may well be 'unhealthy' since they tend to demand 'infancy dimensions' whereas the individual may exhibit or

express 'adulthood dimensions' (Argyris, 1973). Burns and Stalker (1961) have suggested that different kinds of structure are required for different types of work activity. Thus, where routine programable work is the norm, a mechanistic (i.e. formal) structure is required whereas a more suitable structure for scientific and innovative work is of a flexible, organismic nature. Likert (1961) and McGregor (1960) would tend to support the notion that formal organisation structures and associated principles of management have a negative effect on behaviour.

Yet Morse and Lorsch (1970) in an extremely thought provoking paper argue that we have to go beyond McGregor's theory Y and suggest

> "the appropriate pattern of organisation is contingent on the nature of the work to be done and on the particular needs of the people involved". (p.62)

In other words, just as managerial style has to fit the situation, so too must the organisation structure. They offer convincing descriptive data for this idea - an idea which tends to knock on the head any thirst after a 'technology determinist' theory of either structure or behaviour.

Other studies have also demonstrated a link between structure and behaviour. Porter and Lawler (1965) have shown a significant relationship between five variables of structure (organisational levels, line/staff hierarchies, tall/flat shape, subunit size, and total-organisation size) and one or more attitude or behavioural variables, as discussed in the literature. Unfortunately, little 'experimental proof' is, they say, available to substantiate this statement. Surprisingly, in an earlier paper (Porter and Lawler, 1964) they conclude

> "It is clear that our findings show no overall superiority of of flat over tall organisations in producing greater need satisfaction for managers". (p.146)

And yet 'tall/flat shape' was one of the variables their 1965 paper suggests is related to attitudes and behaviour. Indeed, 'experimental proof' is much needed. Carpenter (1971) offers some data which suggests that flat structures yielded perceptions of higher job satisfaction of teachers in public schools in America than did taller structures. Child (1973) also offers data in this field, but concludes that the relationship between structural, role, and behavioural characteristics is complex and in any case is dependent upon other things in the organisation, including the individual's place or level. Rice and Mitchell (1973) find some relationship between structure and behaviour, but suggest it is dangerous to speculate on causality. Again Herman and Hulin (1972) suggest a relationship but again at managerial level, and Ronan and Prien (1973) show a relationship between structure and unit performance behaviour.

In all, then, structure does seem to have some effect on organisational behaviour particularly at managerial levels. But it is unclear as to how worker behaviour is affected, if at all. Most effects of structure are likely to be brought to bear upon the nature of the task and work flow system - but so too are other variables, such as technology. It is unlikely, therefore, that structure has a direct influence on behaviour, but its indirect effects might be significant via other variables. The symbolic influence of structure, for example, in terms of opportunities for advancement in the hierarchy; freedom, or otherwise, of action from rules and procedures - exists, but will probably be slight. It may also influence the nature of the system of incentives and rewards, as pointed out by Lawler (1971) and Daniel and McIntosh (1972).

The Environment

This refers to all those forces external to the organisational system which act upon it, and upon the people who behave within it. It includes many other systems - economic, political, social, educational, cultural, industrial - which interact with and which at some stage or other provides an immediate enviornment for those now working in the organisation. The importance of the environment cannot be denied since it provides inputs to and receives outputs from the enterprise as well as helping to shape the orientations of its members. Organisational members may have roles in many of these external systems which can induce role conflict in the organisation; that is difficulty in making decisions about work behaviour since similar goals in the differing systems may symbolise different things, or different goals may symbolise similar behaviour patterns. In addition, the model presented in chapter two leads us to conclude that past experiences in external systems (e.g. educational) may have operational effects on behaviour in current organisational contexts. Also, the state of, for example, the industrial, economic or consumer systems can have a fairly profound effect on organisational behaviour by influencing level of pay, investment in advanced technologies, or the type of product/service offered. Such situations are well documented in contemporary industrial relations.

Despite the obvious conclusion, based on simple systems analysis, that the environment can have important effects on organisational behaviour, and that writers such as Kast and Rosenweig (1970) and Seiler (1967) - among others - discuss its importance, little seems to be known of the way in which it operates. Indeed, it is exceedingly difficult to find any notable

research reports on this subject. As Sells (1964) points out

> " ... the effects of environmental factors on organisational behaviour, although generally recognised as having significant effects on behavioural criteria, both directly and in interaction with other variables, have been largely neglected".

The situation seems much the same today: although a number of writers (e.g. Emery and Trist, 1965; Terreberry, 1968; Hall, 1972; Tosi et al, 1973) still make reference to, and sometimes report data on partial aspects of, environmental factors, little hard research data on their influence on organisational behaviour appears to exist. It is clear that a complete thesis could and should be devoted to this topic, but our interests here are in different directions. None-the-less, a model of the organisational context of orientation would be incomplete without it, and should at least depict its direct influence on orientation and its influence on behaviour via other organisation variables.

Objectives

A wide range of terms appear to exist which describe the reasons for the existence and activities of an organisation. Words such as 'goal', 'mission', 'purpose', 'aim', and 'objective' are often used quite glibly and interchangeably, as demonstrated by Athos and Coffey (1968) and Hutton (1969). At least Hutton does attempt to define them. For the purpose of this chapter, the term 'objective' is preferred since it can be differentiated from the use of the word 'goal' in the model to be later developed. Essentially, the term 'goal' will be restricted to individuals and 'objective' to the desired overall organisational future states.

That organisational objectives have some influence on employee behaviour is obvious, but any direct influence appears to be limited to

senior personnel. Katz and Kahn (1966) state that:-

> "The pattern of motivation associated with value expression and self-identification ... has great potentialities for the internalisation of system goals and thus for the activation of behaviour not prescribed by specific roles".

But they also add:-

> "It is generally confined to the upper echelons or the office personnel." (p.365) - except, they suggest, in voluntary organisations.

Athos and Coffey (1968, p.215) demonstrate the sub-objectives can affect group behaviour, so that it therefore depends upon the level of analysis as to whether objectives do directly influence behaviour. But apart from the nature and level of the objectives, the way in which they are set can influence behaviour, as Sayles and Strauss (1966) point out. The fact that a unit manager's goals are subsets of organisational objectives will influence what has to be done, whilst the way he delegates and manages the process leading to their achievement will effect the behaviour of his subordinates. This distinction is noted by Perrow (1961) who terms them 'official' and 'operative' goals respectively. It is the latter, he suggests, which really determine day-to-day behaviour and activities. Furthermore, as Hall (1972) argues, organisational goals - or objectives - are the basis for organisational activity in both the wide and narrow senses. Without such objectives and their consequential control systems, the organisation can decay to a state of random activity - what systems theorists would refer to as 'entropy'.

In summary, then it seems reasonably clear that organisational obejctives do have an influence on behaviour, but that it is mediated almost entirely by other variables - such as managerial practices, structure,

and technology. The analyses by both Hall (1972) and Hutton (1969) would seem to support this view.

Incentive and Reward Systems

That incentive and reward systems have some influence on behaviour cannot be denied, and yet the previous review of literature concerned with organisation theory has revealed little emphasis given to payment systems - directly or indirectly - as a determinant of behaviour in organisations. Perhaps the wrong literature has been reviewed, and that other organisation theorists might accord this particular aspect a pre-eminent role in determining behaviour! Perhaps so little is known about the effects of payment systems that it is not possible to discuss its place in the organisational melieu! Neither of these explanations would seem to hold true for no matter how extensively the literature is searched few organisation theorists give much attention to this topic, exceptions being Clark and Wilson (1961) and Lawler (1971); and no matter how casual the search for reports of research to do with pay, one invariably stumbles across an article concerned with that subject (e.g. Lupton and Gowler, 1972). Indeed, so great is the literature specifically related to pay that it would not be possible to review it here and, as with other topics previously discussed, would represent an unnecessary duplication of effort since it has been carried out so well by others, in particular Lawler (1971), Lupton (1972), Marriott (1961), and Opsahl and Dunnette (1966). The special bibliography at the end of this chapter gives an indication of the wide range of literature on this topic.

It would seem important, therefore, to attempt to relate the role of

payment systems in the organisation to the other factors previously discussed and, of course, to consider how the nature of an individual's orientation to work relates to payment systems; via theoretical deliberation and research. The remainder of this chapter, together with the next, will therefore focus upon theoretical issues which might form the basis of research activity. There would appear to be at least three main aspects when considering incentives and rewards: (1) their meaning, (2) their importance, and (3) their distribution. In simplest terms, three questions are being asked - what does money mean to people? What level of pay is necessary to induce a reasonable performance (relative to other inducements)? What sort of payment system is the most equitable? Or, put into the terms of Lupton and Gowler (1972), what are the 'motivational' and 'control' aspects of incentive and reward systems?

A necessary prerequisite to any answers is to define the purposes of incentive and reward systems. Whilst several authors (Behrend, 1960; Daniel and McKintosh, 1972; Sibson, 1960) have discussed the nature of objectives or purposes of such systems, they tend to agree upon the following:-

(1) to attract and retain employees of the desired quality in the right quantity;
(2) to encourage and reward desired performance;
(3) to provide security of income and promote good attendance;
(4) to encourage flexibility of working practices;
(5) to reduce unnecessary conflict; and
(6) to minimise administrative burdens and control costs.

At the very least, it can be suggested that incentives and rewards - either actual or perceived - will have an effect on selection: at most, they will have a strong effect on work behaviour in-as-much as they will

influence personal decision-making processes through symbolic means. Brown (1954) suggests that "an incentive is an objective goal which is capable of satisfying what we are aware of subjectively as a need, drive or desire". However, such an 'objective goal' is usually represented in symbolic terms; that is, information exists which leads an individual to believe that the goal exists, is obtainable, and will provide some relevant return on the energy expended in achieving the goal. Further the goal is usually generated internally by the individual with incentives symbolising this goal in terms of desirability and attainability. It may, therefore, be misleading to use the terms 'incentive' and 'goal' synonimously - the former 'symbolises' the latter; or, as in the view of Locke (1968), goals act as mediators on the effects of incentives.

Most of these objectives allude, then, to the offering of certain inducements for people to join, work in, and stay in some form of work organisation (c.f. March and Simon - 1958). These inducements are based on the kind of society we live in and therefore takes the form of money to which Gellerman (1968) attaches great symbolic value. That most people 'go out to work' for money is as self-evident as is its contradiction for, indeed, some do not 'work' - in the terms defined at the beginning of this chapter - for monetary gain. Our main interest must, therefore, be in those kinds of organisations which offer money in exchange for work.

But what does money mean to people? How is it viewed, and how does this judgement of money affect what people will do in order to get it? Surprisingly enough, very little research has been carried out on this particular topic as noted by Opsahland Dunnette (1966), although Gellerman (1963 and 1968) has philosophised on the subject by suggesting

that an increment of pay may symbolise the hopes and way of life of that particular individual. One of the few systematic research projects in this field is that described by Werniment and Fitzpatrick (1972) which used the semantic differential as the basic research instrument. They were not so concerned with the well-trodden paths of satisfaction with pay, but more with the symbolic relationship between money and variables such as responsibility, security and recognition. They conclude that money means different things to persons in different (and diverse) groups. Whilst not surprising, this does support the views of Gellerman. Money is seen as a source of anxiety; as being socially desirable; or as being unimportant - by widely different groups (e.g. salesmen, college students). As an "incentive to exert effort" money seems again to be valued differently by different groups. Their main conclusion, however, seems to be that one cannot generalise about the meaning of money, and that different forms of tailor-made payment systems might be desirable for different groups of employees.

Perhaps, then, it is sufficient to suggest that money means whatever an individual sees it to symbolise: to some it will be survival and security; to others, status and prestige; and to others still, it may represent the true meaning of freedom - freedom to do what one pleases, as and when one pleases. That is, money symbolises the desire content of an individual's orientation and reflects, therefore, his biography as well as the demands and pressures of the current situation.

The question of the importance of pay and the amount of money required to induce effective performance is, therefore, related to the meaning attached to money. Whilst most writers (see Opsahl and Dunnette, 1966, and Lawler, 1971, for execellent reviews) agree that money is important -

though not necessarily all important - they also agree that its particular importance to an individual is difficult to specify. Theories and research data justifying those theories abound - from Hertzberg's (1966) two-factor theory through equity theory as portrayed by Pritchard (1969) and the expectancy theory of Vroom (1964) to the less sophisticated approaches of McDermid (1969) and Bennett and Dawson (1972). Some suggest a lesser role for financial compensation than others, but all at least recognise that (a) people on the whole work for money in order to obtain other satisfactions and (b) little effect on performance is noted unless specific actions relate directly to the amount of money earned, especially if few other job motivations - such as interesting work - are present or available at work. In Lawler's (1971) terms, pay must be related to performance in order to act as a motivator.

It will not be surprising, then, if the suggestion is put forward that the type of payment system in operation will be effective in-so-far as it is consistent with the meaning an individual, or group of individuals, attaches to money and, therefore, his orientation to work. Put in a logical sequence, orientation influences the meaning given to money which is obtained through the agency of the payment system - and all three must have a considerable degree of consistency if the wage payment system is not to fall into disrepute. For example, an individual with a dominant instrumental orientation will probably view money as a means of achieving materialistic or status goals external to work, and would respond well to an effective bonus system or a measured day work system with an extremely high rate. At the other extreme, someone exhibiting a dominant personal orientation may be attracted to a merit rating system in which all or many of his contributions at work are reflected in the grade, and hence money,

earned. A higher rating for him will provide personal recognition for his skills. Lupton and Gowler (1969) asked the basic question "what combination of organisation, environment and payment system is best fitted to satisfy a given set of objectives?", thus recognising the need for a proper fit between all those aspects affecting behaviour in organisations, not least the individual's own view of the situation.

The objectives, advantages and disadvantages of different types of payment systems need not be documented here since others have already done so (see for example, Marriott, 1961; Grinyer and Kessler, 1967; and Bennett, 1968). Later on an analysis will be made of the relation between payment systems and orientation to work: the present need is to justify their inclusion in a general organisational framework. It can be seen that pay and incentives have an effect on work behaviour but only indirectly. Whereas the job itself demands certain things directly of a worker, incentives and rewards act as an influence upon the decision-making process which regulates job behaviour. Whilst other organisational factors also function in this way, they do so as well as having a direct influence on behaviour. It is, therefore, justifiable to include the topic in a theory of organisation. Its absence from modern organisation theory is noticed by Lawler, 1971 - p.273, who sees pay as a crucial issue in the debate on organisational effectiveness, and that pay should be tied to performance. He goes further to relate the pay system to the organisational climate, organisation structure and technology, suggesting that the type of pay system is dependent upon these other factors. In some of these respects his views are similar to those expressed by Daniel and McIntosh, (1972 - chapter nine).

Systems of incentives and rewards may therefore be considered as the

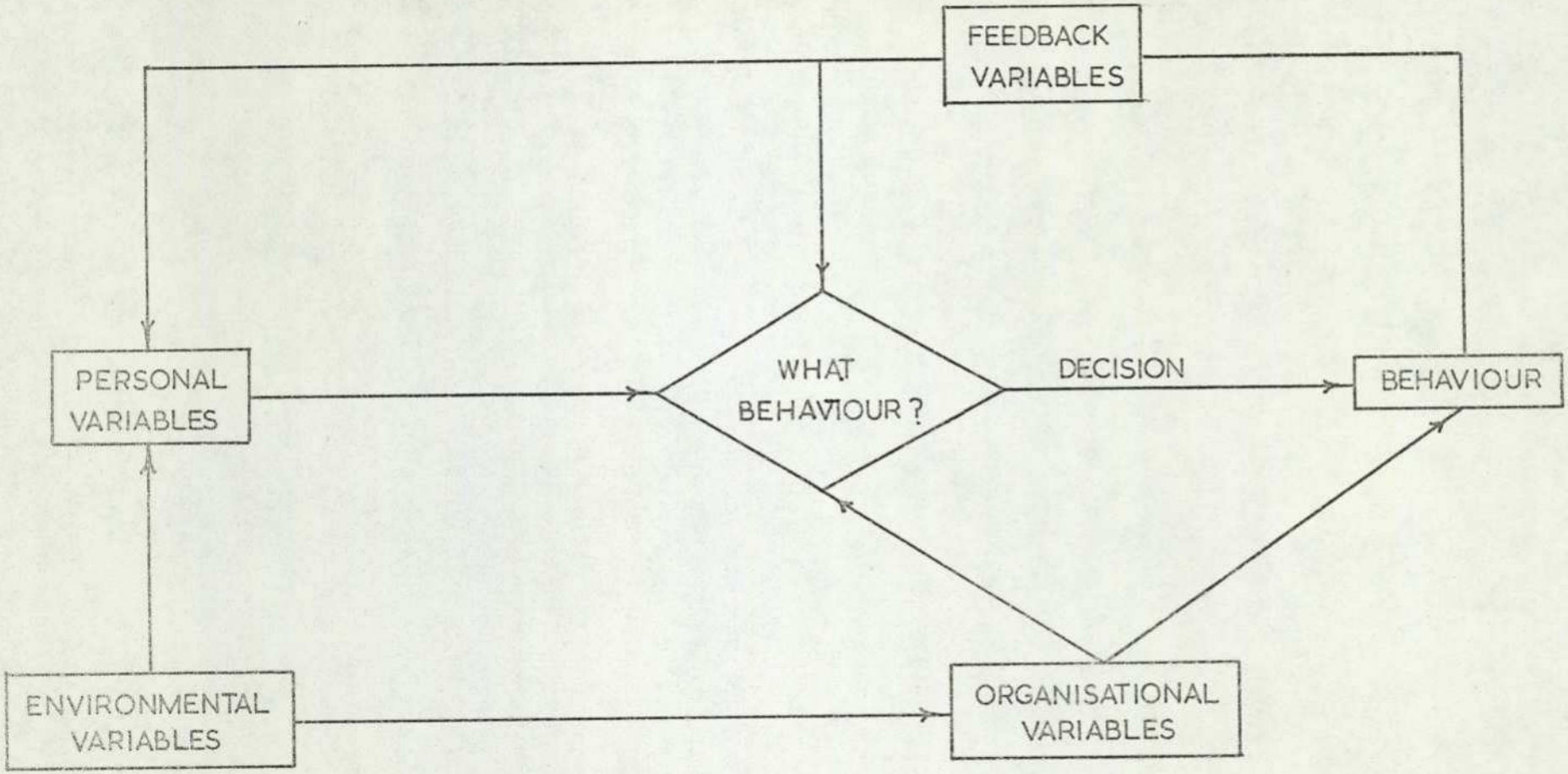
major significant factor influencing the decision-making process of the individual. It does not have any direct effect on behaviour, but is mediated by orientation to work. It is the only factor so far discussed whose effect is not dissipated in other directions.

A General Conceptual Framework

It is now possible to postulate the relationships that appear to exist between the various factors or variables affecting work behaviour either directly or indirectly. This will be done using a semi-systems approach documented in diagrammatic form. The output, or dependent variable, is quite obviously work or goal behaviour i.e. what an individual does in an organisation is a function of other variables. Difficulty arises, however, as to what are considered input variables or, independent variables; mediating variables, or intervening variables. For example, technology is an independent variable in-as-much as it does not vary with worker behaviour, but it may also be considered as an intervening variable if one accepts that it can condition work attitudes. To resolve the problem, orientation to work will be considered as an input variable which mediates, and is mediated by, the independent organisational 'process' variables, such as technology.

Perhaps it is simpler to consider the possible chain of events rather than become immersed in semantic deep water. An individual enters an organisation with unique values of personal variables or a particular orientation-set; i.e. environmental variables have been, and are, at play influencing his orientation. He perceives the effects of different organisational variables in terms of what they symbolise for him, and makes decisions as to how he will behave. Some decisions are pre-empted

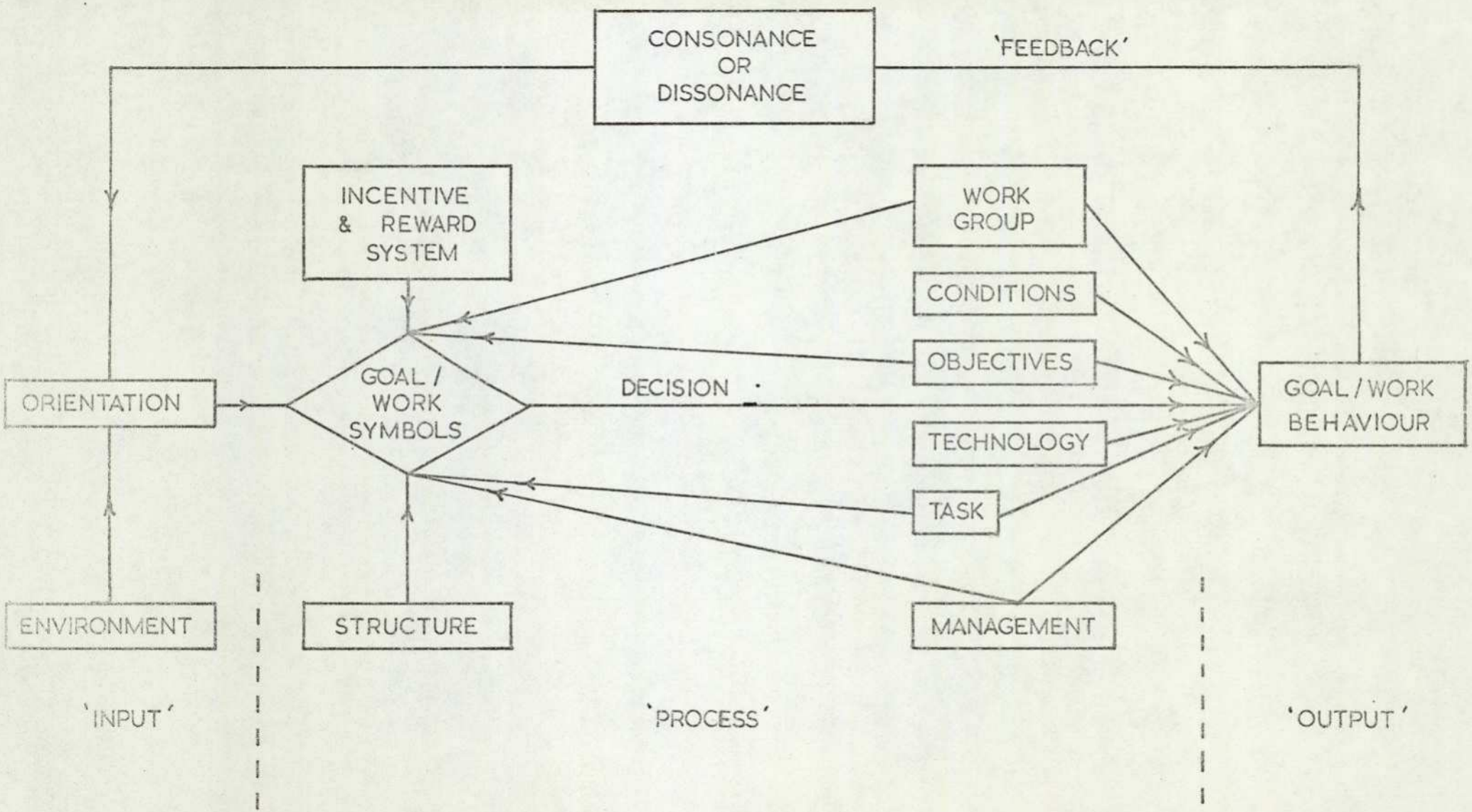
by the constraints of the work situation and as a consequence he may adjust his behaviour. The perceived effects of his behaviour is received as feedback variables and considered in terms of their consonance with his primary orientations. Consonant feedback (e.g. the approval of others) will reinforce the mediating effect of his orientations, whereas dissonance (e.g. lack of bonus earnings) will increase the mediating effects of organisational variables. Hence the term 'semi-systems approach' - one cannot totally and discreetly define all variables into particular classes, but one can demonstrate their interdependence in a true systems manner. These simple relations are shown as a basic model in Figure 3.2.



THE BASIC MODEL

FIG. 3.2

This model can be enlarged to cope with the variables discussed in this chapter, as illustrated in Figures 3.3 and 3.4. Figure 3.3 shows the direct relations between behaviour and other variables leaving out the interactions that occur between organisational variables. Organisational objectives are therefore omitted from this diagram. It will be seen that orientation to work is considered as a prime input to the decision unit labelled goal/work symbols with environment being the only significant independent influence on orientation. Other variables act as inputs to, or rather mediators of, the decision process and may be likened to the 'facilities' of Woodward and her colleagues (1970). These aid the decision to behave in a particular manner by acting as symbols of what might be the result of that behaviour. Some of these same variables plus those of conditions and technology act more in the manner of Woodward's 'constraints' i.e. those work behaviours which are demanded by the organisation in order to achieve its aims and objectives. The resultant output, behaviour, produces reactions in or from the work situation which may be consonant or dissonant with the individual's desires and expectations. Such feedback will, as was suggested in the previous chapter, be of considerable importance in reinforcing or questioning the relevance of the behaviour or the situation. The model does not indicate any priority or order of importance of the effects of the organisational variables (this is an important research issue) but it does suggest that the incentive and reward system is probably the most important 'facilitator-only' variable, other variables open to the possibility of being dissipated as constraints. Structure is not considered an important 'facilitator-only' variable for reasons previously advanced.



THEORETICAL MODEL OF RELATIONS BETWEEN BEHAVIOUR AND ORGANISATION VARIABLES

FIG. 3.3

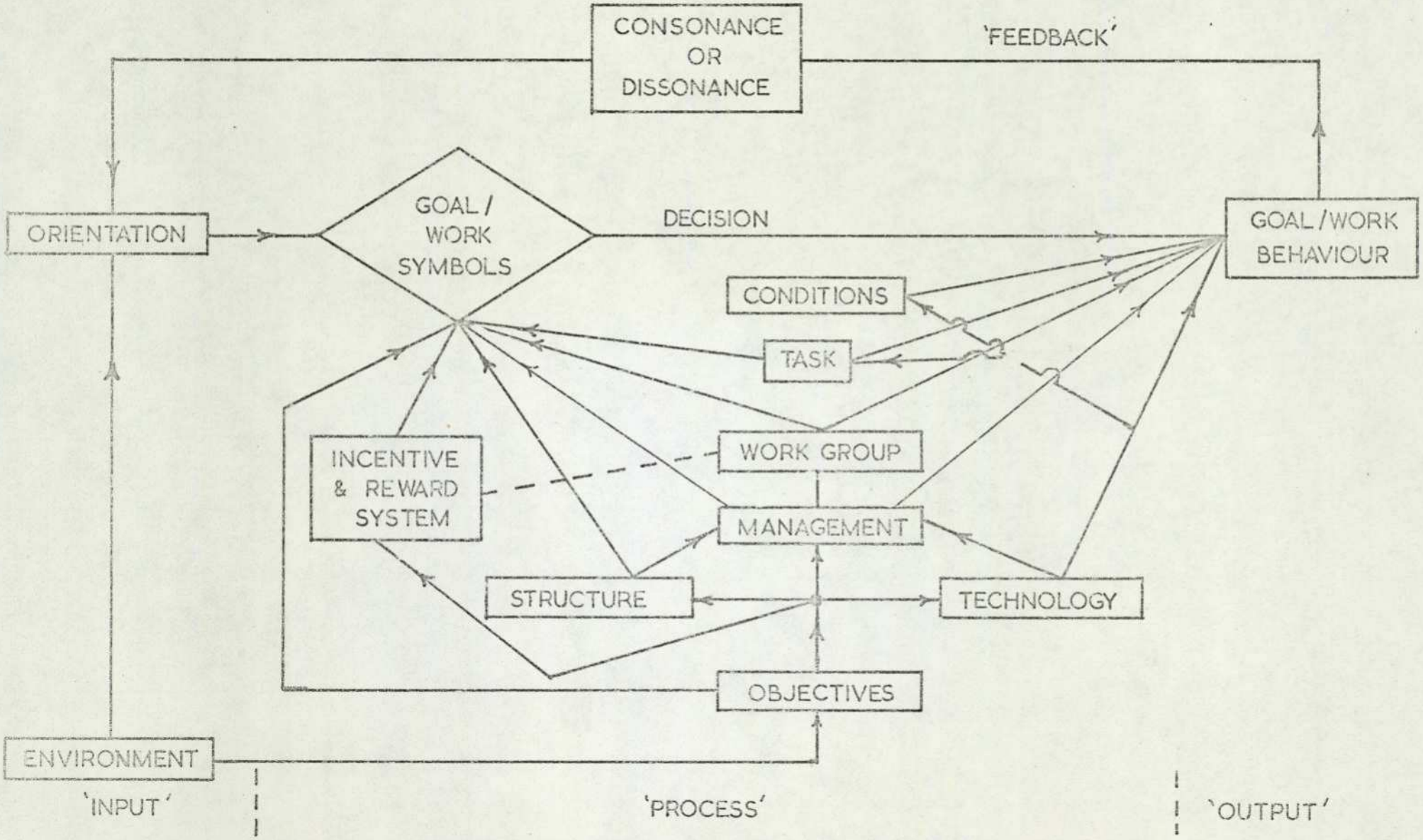


FIG. 3.4

THEORETICAL MODEL OF COMPLEX RELATIONS BETWEEN BEHAVIOUR AND ORGANISATION VARIABLES

Figure 3.4 is of exactly the same form but shows the interactions among organisational variables as suggested by the previous literature review. The importance of demonstrating these interactions lies not in their value in relation to incentive and reward systems per se but rather in the fact that such interactions may have a greater synergetic effect on the three basic elements of the model - orientation, decisions, and behaviour - than would be the case if they were treated separately. An important research issue is, therefore, to look at the important interactions as well as the relative effects of individual variables.

It is recognised that the model shown in figure 3.4. is not totally adequate in representing all possible interactions among the variables. For example, the environment can have a considerable effect on shaping work group attitudes and loyalties which in turn may act as constraints or facilities on the behaviour of an individual member. Thus it might be considered desirable to show a link between environment and work group in the interactions model - except that (a) the model would become clumsy, and more importantly, (b) the model applies to each individual member of the work group so that environment is already accounted. Perhaps one serious omission is the relationship between work group and the incentive and reward system. Work group norms will often militate against the effectiveness of incentives and rewards by imposing restrictions on output levels or practices and procedures of work - a point already noted in this chapter. But the effect of such work group norms will very much depend upon the way in which the individual makes up his mind about particular behaviours. If, for example, he does not have a very strong relational orientation the effect of work mates attitudes on his behaviour may be minimal. The link, therefore, is shown by a dotted line.

It is also recognised that numerous attempts have previously been made to put into diagrammatic form either a specific model of behaviour in organisations (e.g. Child, 1969) or a generalised model of organisational behaviour (e.g. Glueck and Dennis, 1972) and that others (e.g. Newman, 1973) have taken account of both individual and organisational features in analysing the problems of organisation structuring. However, few attempts, if any, seem to have been made in deriving a framework for analysing both behavioural and organisational problems and their relationships. It is believed that the model presented here enables a number of important questions to be answered theoretically and pragmatically. Such questions as "How will a proposed re-organisation affect behaviour?" "What organisational changes can be made to bring about more positive behaviour?" "Which organisational variables, if changed, will bring about the greatest change in behaviour?" It is believed that these can be answered more readily by adopting such a model and attempting to measure its variables and the interactions between variables. It will also help to specify the role of the wage payment system.

Finally, it is realised that the nature and extent of resources will influence (and will be influenced by) not only objectives but also work behaviour. That these are related is demonstrated well enough by Newman (1973). A scarcity of resources can have the effect of providing significant constraints of behaviour (e.g. waiting time, loss of overtime, lay-offs, redundancy) whereas an abundant supply will provide opportunities not normally legislated for by the organisation (e.g. social activities, self-development courses) and which can be classed as facilities. The nature of organisational objectives themselves will be influenced by the resources available to the organisation: an objective to grow by 20% per

year may have to be limited because it is not possible to obtain the financial resources for it. However, such resources are considered an environmental variable since in all cases transactions with the appropriate sub-environment determine their extent and nature. Even self-financed growth is a paradox for the organisation has to sell goods or services in its environment in order to make a profit from which to finance its growth. Resources will not, therefore, be considered as an organisational variable, though this decision is to some extent arbitrary.

Another omission is that of organisational size. Although this has been referred to and included in the variable 'structure' some writers believe it to be of significance in its own right. The effect of size on worker attitudes (Ingham, 1970 and Indik, 1963) and its relationship with technology and structure (Hunt, 1973 and Donaldson, 1974) have been the subject of considerable research and should be included in such a model. However, size is both a factual and perceptual variable and seems almost to defy definition - is it by number of employees, number of managerial levels, sales turnover, capital investment, or some combination? Thus, whilst it is not included in the model, it will be referred to again in later discussions.

The next chapter develops further the concept of orientation to work in its organisational context, paying specific regard to incentive and reward systems, and drawing together and summarising some basic research issues and hypotheses.

SPECIAL BIBLIOGRAPHY

It has been stated a number of times that much work has been carried out in the field of wage payment systems. Indeed, the literature already referred to in chapter one and this chapter cover quite a wide spread of the field, which can be classified under three headings: mechanistic approaches - M - (those dealing with the mechanics of payment systems); behavioural approaches - B - (dealing with, for example, the effects of payment systems on worker behaviour); and evolutionary approaches - E - (for example, those dealing with changing payment systems - may well include both mechanistic and behavioural elements). Much of the work already covered can be classified in this way.

The following short bibliography will not cover previous references, but will simply demonstrate the extension of the field that is possible. It will, however, give some examples of how the literature already used can be classified. A fourth category, general approaches - G - will be used for material which treats the field in a general, overview-type of way. Comments have been made against some references to demonstrate the nature of the material.

Babchuk, N., & Goode, W.J. (1951); Work Incentives in a Self-Determined Group; Amer.Soc.Rev., 16(5), 679-687. (B)

Baldamus, W. (1956); The Relationship Between Wage and Effort; J. of Ind. Econ. - 5, 192-201. (M)
(Mainly based on economic arguments, it does relate to sociological and psychological concepts - e.g. 'fairness', 'ratebusting' and so on.)

Behrend, Hilde (1959); Financial Incentives as the Expression of a System of Beliefs; Brit.J. of Soc. - June, 137-147. (B)
(Considers the problems related to the beliefs underlying different forms of incentives).

Belcher, David W. (1969); Toward a Behavioural Science Theory of Wages; J. of Ac. of Man., August, 102-116. (B)
(An excellent theoretical discussion of wages, probably one of the most interesting in the field).

Cunnison, Sheila (1966); Wages & Work Allocation; Tavistock. (G)

Dearden, John (1972); How to Make Incentive Plans Work; Harv. Bus. Rev., July/Aug. 117-124. (M)
(Oriented toward paying executives - looks for a formula).

Dobb, M. (1928 - (1959 ed'n)); Wages; L.U.P. (M)

Evans, W.A. (1970); Pay for Performance: Fact or Fable; Pers. J., Sept. 726-731. (G)

Fletcher, L.J. & Simon, J.R. (1962); The Relation Between Method of Wage Payment & Incidence of Psychosomatic Disorders; Occ. Psych., 36(3), 140-145. (B)
(Brief description of a simple investigation showing that disorders occurred more in older than younger men rather than between different pay systems).

Genders, J.E. & Urwin, N.J. (1962); Wages and Salaries; I.P.M. (M)

Gracie, J.J. (1949); A Fair Day's Pay; Management Publications Trust Ltd. (G)
(Heavily biased toward work measurement).

Lupton, Tom (1964); Methods of Wage Payment, Organisational Change, and Motivation; Work Study & Mgt., Dec. 543-549. (E)

Mace, C.A. (1950); Advances in the Theory and Practice of Incentives; Occ. Psych. - 24, 239-44. (G)
(A review article of three publications concerning bonusing, incentives, and the Scanlon Plan).

North, D.T.B. & Buckingham, G.L. (1969); Productivity Agreements and Wage Systems; Gower Press. (G)
(A useful text, covering mechanistic, behavioural, and evolutionary aspects, although obviously biased toward productivity agreements).

Schuster, J.R., Clark, Barbara, & Rogers, M. (1971); Testing Portions of the Porter and Lawler Model Regarding the Motivational Role of Pay; J. of Appl. Psych., 55(3), 187-195. (B)

Schuster, J.R., Collett, J.A. & Knowles, L. (1973); The Relationship Between Perceptions Concerning Magnitudes of Pay and the Perceived Utility of Pay: Public and Private Organisations Compared; Org. Beh. & Hum. Perf., 9, 110-119. (B)

Schwab, D.P., & Dyer, L.D. (1973); The Motivational Impact of a Compensation System on Employee Performance; Org. Beh. & Hum. Perf., 9, 215-225. (B)

Scott, I. (1969); The Search for New Payment Systems; The Director, May, 271-276. (E)
(Quite a useful discussion on payment systems - with considerable emphasis on graduated measured day-work - concluding that no ideal system exists).

Shimmin, Silvia (1955); Incentives; Occ. Psych., 29, 240-244. (B)
(Defines incentives and relates these to goals. An interesting, although dated, paper).

Smith, Elizabeth, A., & Gude, G.F. (1971); Re-evaluation of the Scanlon Plan as a Motivational Technique; Pers. J., Dec. (B)

Zweig, F. (1961); The Worker in an Affluent Society; Heinemann. (G)
(In some respects, an earlier 'edition' of Goldthorpe et al (1968)).

The following examples, taken from the main bibliography, might be classified as follows:

Bennett (1970) - E

Bowey (1972C) - B

Brown (1972) - G

Clark & Wilson (1961) - E

Cole (1918) - M

Currie (1963) - M

Grinyer & Kessler (1967) - E

Hickson (1963) - B

James & Rzasa (1968) - M

Marriott (1961) - G

Pym (1964) - E

Gibson (1960) - G

Whyte (1955) - B

CHAPTER FOUR

FURTHER THOUGHTS - AND SOME HYPOTHESES: A SUMMARY

At this stage in the discussion of the conceptual framework it would seem relevant to remind ourselves of the basic theoretical slant suggested in chapter one. There, it will be remembered, it was stated (p.6) that the aims of this thesis were to do with "analysing factors affecting human motivation, as made manifest through the individual's orientation to work, using a psycho-social analytical framework with a view to establishing the importance of wage payment systems in determining employee satisfaction, in relation to other organisational variables". It was also noted there that this topic was as much the result of the author's preferences and past experiences as the need for work in this field but that many writers on the subject shared the same or similar concern. A lot of ground has been covered between chapter one and this chapter: a psycho-social conceptual framework has been developed, and much space (and words) given to a discussion of the relationship of payment (incentive and reward) systems to other organisational variables and constructing a model of these to aid further analysis.

It will be clear that the point reached at the end of the last chapter is somewhat different in emphasis from that in chapter one. Not only was it seen that few organisation theorists give any pre-eminent place to the role of wage payment systems in influencing behaviour but that those writers, such as Lawler, who do give great attention to the topic also add that other organisational factors or variables must be accounted for in any analysis of organisational behaviour and effectiveness. This, then,

must be the starting point for the current chapter. It would be as wrong to assume a "payment systems determinist" approach as it has been argued earlier to assume a "technology determinist" approach or any other approach based on single causal factors. It is hoped that this chapter will see the further development and summarising of ideas put forward in previous chapters leading to the formulation of hypotheses and research issues.

The Basic Point of Departure

The discussion in chapter one together with that of the section in chapter three dealing with incentive and reward systems generates a fundamental, if somewhat arguable, point of departure for developing further thoughts. This has to do with the idea, as expressed by Clark and Wilson (1961), that the incentive and reward system may be regarded as the "principal variable affecting organisational behaviour". Certainly, in terms of the model proposed in chapter three, it can be viewed as the major "facility" of behaviour since it determines the way in which goal symbols are generated more than other variables. But it is also readily apparent from chapter two that people have different views of work, different desires and expectations, and are subject to different historical and situational influences. Such a view softens the hard line taken by Clark and Wilson, and leads to a statement of a general, guiding hypotheses for any research carried out in this field:

HYPOTHESIS ONE - the extent to which a wage payment system will contribute toward the need-satisfaction of any individual will be a function of the particular psycho-social influences to which that individual has been subjected.

This, of course, is not of a form which can be readily put to the

test, but it does represent to some extent the author's philosophy with respect to payment systems. Such a philosophy may well require modification when other variables are brought into consideration. Whilst not being easily testable, this hypothesis does suggest certain elements of a basic model which might be tested. In chapter two the idea was put forward that an individual's view or judgement of his work situation was determined by the demands of his current situation or phase in the life cycle and by his previous experiences: i.e. that his orientation to work was a function of the psycho-social influences to which he had been subjected. In algebraic terms, this may be expressed as follows:-

$$O_t = K(S_t B_t)$$

Where O = orientation
S = situational influences
B = background or previous experiences
t = the state at a particular point in time
and K = a factor dependent upon the 'inner nature' of the person.

It should, therefore, be possible to obtain data which might shed light upon the relationship between orientation to work and various groups or types of situational and background influences, apart from that which has already been referred to in chapter two. The next hypothesis summarises these points:

HYPOTHESIS TWO - individuals expressing different orientations to work will be characterised by different combinations of background and situational variables.

Such an hypothesis lends itself to testing but the difficulties associated with it are immense. Whilst data can be obtained through survey techniques of one form or another, the number of variables and interactions

amongst variables would appear to be enormous, (as shown by Sells, 1964) making it difficult to obtain satisfactory measures of significant variables. Causality may be based more on relationships between variables (i.e. interaction effects) than on the variables themselves, making analysis very complicated indeed. None-the-less, the attempt to obtain such data must be made if the conceptual framework outlined in chapter two is to be of any value in analysing work behaviour.

Another aspect which would appear to derive from the first hypothesis is that persons with different backgrounds and in different situations will be attracted by different forms of payment systems. If a man wants, and expects to get, a high rate of pay in return for hard work and high degrees of effort he is likely to look for a job where pay is determined solely on the basis of output, subject to a minimum level of pay being offered. On the other hand, someone else may wish for a steady, regular pay packet but which none-the-less takes account of all his contributions to the organisation. Here, a merit rating system might apply. There may, of course, be people who do not really care whether a 'wage-work' bargain is struck; their main concern might be to get a reasonable wage for as little effort as possible. Such might be attracted by straight hourly rates with no bonus or merit elements associated with it. Why people might view work in such ways is, of course, the subject of the general hypothesis - suffice it to recognise that differences in view will prevail. Thus another hypothesis suggests itself:

HYPOTHESIS THREE - different forms of wage payment systems will attract employees with particular orientations to work, other things being equal.

This qualification is, of course, absolutely essential in view of the discussion in chapter three, but it must be recognised that 'other

things' are seldom equal in the social sciences. Whilst this hypothesis can be tested by investigating say, two organisations similar in all respects other than payment systems, one should be under no delusions about the practical possibility of this being achieved. However, this is a research design problem and should not deflect from the task of developing further the theoretical notions previously discussed. One can, of course, develop further hypotheses from number three. For example, it is likely that the general orientation of current employees in the organisation will be significantly different from those who have left its employ. For the time being, however, hypothesis three will suffice.

The implication of hypothesis three is that people with different orientations will be 'satisfied' by particular froms of payment system and it must be possible to hypothesise these relations. From the definitions of orientations given in chapter two (reprinted again for clarity) and the descriptions of different types of payment systems given by Grinyer and Kessler (1967) which are given in summary, definitional form - the relations shown in table 4.1 are hypothesised.

HYPOTHESISED RELATIONS OF "ATTRACTION" BETWEEN TYPE OF ORIENTATION TO WORK AND TYPE OF WAGE PAYMENT SYSTEM

	TYPE OF PAYMENT SYSTEM*					
PREDOMINANT ORIENTATION	OUTPUT INCENTIVES	COST REDUCTION	PRODUCTIVITY BARGAINS	PROFIT SHARING	MEASURED DAYWORK	MERIT RATING
INSTRUMENTAL	HIGH	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
RELATIONAL	LOW	MEDIUM	MEDIUM	MEDIUM	HIGH	MEDIUM
PERSONAL	LOW	LOW	LOW	LOW	MEDIUM	HIGH

*TAKEN FROM GRINYER AND KESSLER (1967)

NOTES:

DEFINITIONS OF ORIENTATIONS TO WORK

INSTRUMENTAL - an orientation towards material gain and those material objects necessary to maintain life and enhance the comfort and security of living.

RELATIONAL - an orientation towards interaction with other people and establishing meaningful friendly relationships with them.

PERSONAL - an orientation towards self-engaging, self-absorbing and self-developing activities.

'ORIENTATION' - is defined as a measure or reflection of how an individual views a particular situation in terms of what he desires from it and the extent to which he expects these desires to be achieved in it.

DESCRIPTIONS OF WAGE PAYMENT SYSTEMS

OUTPUT INCENTIVES - a system whereby a portion of pay is determined by the amount of output produced, and a bonus paid, usually weekly.

COST REDUCTION - a system whereby plant-wide savings, usually in labour costs, are passed on to employees - normally on a monthly basis - in addition to their regular pay.

PRODUCTIVITY BARGAINS - a system whereby improvements in productivity are achieved through better utilization of labour and the buying-out of restrictive practices, and a percentage increase in hourly rates paid as a result of such improvements.

PROFIT SHARING - a system whereby a percentage of the Company's profits are paid to employees once or twice a year in addition to their normal wages.

MEASURED DAYWORK - a system whereby an employee is guaranteed a specified weekly wage if he attends work for a certain period of time and produces a stipulated (or expected) number of items.

MERIT RATING - a system whereby a number of elements of an individual's total performance and contribution are rated by a superior, and the resultant 'score' or 'points' value converted into a monetary rate which he will receive until the next rating, usually in three or four month's time.

It will be recalled, however, that the phrase 'other things being equal' was used to qualify the effect of payment systems on employee satisfaction, and that it was stated that such 'things' are seldom equal. Indeed, in any one organisation, the same 'thing' may take different forms in different units or departments but generally speaking each organisation has a particular ethos which is the resultant of interactions amongst different aspects of the total system. By 'things' is meant, of course, the different variables enumerated in chapter three, and each may take a different form. Many writers have attempted to classify such different forms using as many terms almost as there are authors in the field, as indicated in appendix 1. Generally, however, the range of forms extend from organisations based on classical principles to those utilizing a more open, flexible, and adaptive set of governing assumptions (c.f. McGregor's Theory X and Theory Y). Each variable, then may take a specific value or form and together with the way the variables interact, will determine the effect that the wage payment system will have on employee satisfaction. A realistic payment system may well be incompatible with other variables and therefore not have the desired effect on performance and satisfaction, a point made by Newman (1973B) in a private communication with the author. It is thus necessary and desirable to hypothesise the relation between variables as well:

HYPOTHESIS FOUR - the effect of a wage payment system on employee satisfaction and behaviour is a function of the interaction between it, other organisational variables, and the type of orientation generally held by employees.

The nature of this hypothesis can be illustrated in figure 4.1.

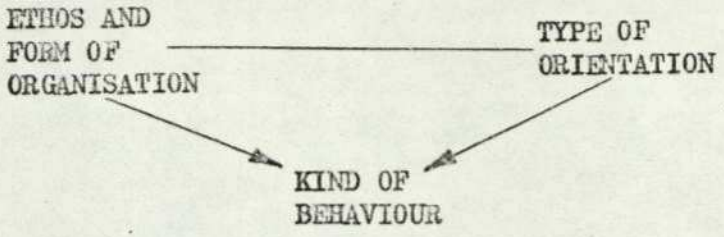


FIGURE 4.1

In mathematical terms,

$$B = K + aO_n + bF_n$$

where B = behaviour, O = orientation, F = organisation form, and K, a, b, and c are constants.

This is basically, of course, a summary of figure 3.4 and suggests that whilst both organisation and orientation can be viewed as causal factors of behaviour their exists an interaction between them which in itself may have causal properties. Little, however, can yet be said of the kind of behaviour which results until some clear idea is gained about the nature of the causal factors. As far as orientation is concerned enough has been said already in chapter two as to its nature and various types, but little of the different forms an organisation might take. Although a number of variables have been drawn from the literature and their relationships considered no discussion has been given to the ultimate form these variables might produce. Such an omission will be remedied now.

Organisation Variables - Some Further Thoughts

A brief look at appendix 1 will demonstrate that many writers consider organisational forms to exist on some kind of continuum - and the present

writer is no exception. Enough research in this field has been carried out (e.g. by Argyris, 1964/65 and Likert, 1967) to convince most people other than the professional sceptic that it is both relevant and meaningful to do so. The only slight difficulty is the plethora of terms previously referred to in that they do pose some degree of conflict of choice. However, the main aspects of each end have already been alluded to and form a combination of two of Etzioni's (1961) typologies ofpower bases and the nature of the organisation's response to its circumstances. These opposite extremes will be generally labelled thus:

UTILITARIAN REACTIVE (UR)	———————	NORMATIVE ADAPTIVE (NA)

These forms are similar to the 'rational' and 'natural' models of organisation discussed by Gouldner (1959).

The UR from is essentially based on the concepts of the Classical Theorists where effeciency is a key plank of endeavour. Such an organisation, because it is based on principles of a 'semi-closed' system, will react to pressures from outside in a way which will seek to maintain its present form of existence rather than to change it. On the other hand, the NA form is one which will adapt to changing circumstances by changing itself or its goals, thus seeking not only to maintain an internal balance but also to ensure a reasonable balance between itself and the environment. It is, therefore, of a less rigid and highly regimented nature than the UR form. Excellent discussions of such notions are to be found in Thompson (1967) and Hall (1972) - the latter offering a particularly useful analysis of the nature of organisation which in many respects reinforces the stance taken not only in this chapter but also in chapter three.

Etzioni's other power base of coercive is considered unsuitable in the context of this work since many of its components are only to be found in penal institutions.

Each of the variables enumerated in chapter three can also be described by labelling the extreme forms they are likely to take and considering them to exist on a continuum from one extreme to another. This is not as easy a task as might appear at first sight since each variable could be considered to consist of a number of sub-variables which would adequately describe the main variable. A problem arises, however, when considering the effects this would have on any research instrument - the more complex the less chance of obtaining a reasonable amount of useful data. It has been decided, therefore, to keep the variables as simple as possible, along the following lines:

MANAGEMENT	-	Authoritarian/Autocratic - Participative/Democratic
STRUCTURE	-	Flexible/Organic - Rigid/Bureaucratic
ENVIRONMENT	-	Hostile/Difficult - Friendly/Responsive
CONDITION OF WORK	-	Pleasant - Unpleasant
TASKS	-	Interesting - Boring
WORK GROUPS	-	Cohesive/Tight-knit - Non-Cohesive/Loose-knit
TECHNOLOGY	-	Simple - Complex
ORGANISATION OBJECTIVES	-	Vague/Ambiguous - Clearly defined

The alternative labels given for some variables indicate the difficulties in adequately describing them. Systems of incentives and rewards cannot be treated in the same way and will be described according to type, as in the notes on table 4.1.

The labels used to describe these variables are chosen partly on the basis of notions contained within the literature and partly on the authors own experience and preference. For example, styles of management have been

variously described but most treatments (such as that by Tannembaum and Schmidt, 1958) consider them to range from tight, order giving modes (authoritarian) to patterns of behaviour which involve subordinates more in decision making and problem solving (participative). Similarly, organisation structure has been considered to take many forms and labelled accordingly (c.f. Burns and Stalker, 1961). The literature also abounds (see that by many of the Tavistock workers) with discussions of work group behaviour which employs the term 'cohesive'. Technology follows Kast and Rosenweig (1974). As far as the remaining variables are concerned, the labels given are somewhat arbitrary in nature but have been chosen to reflect their essential ingredient. Thus, for example, Woodward's notions on technology are not used - rather, the labels given attempt to reflect the degree of complexity which is seen to be associated with a given technology. Thus, the labels are not intended to be 'factual' descriptions (such as 'small-batch' technology) but more attitudinal in their nature.

But is it possible that variables of certain forms will tend to 'fit' together more naturally or comfortably to produce a form of organisation closely resembling one or the other of the two forms previously referred to? If it is, what combinations of such variables might produce such forms? It is considered that such combinations and resultant forms may well exist (as do, for example, Kast and Rosenweig, 1974) and these are illustrated in table 4.2. These postulations are based initially on some of the previous discussions in chapter three, the general 'organisation' literature and also on the author's own experiences and inclinations. To some extent these notions are supported by the work of Argyris (1957 & 1964), Likert (1961), McGregor (1960) and Morse and Lorsch (1970) but it is hoped that further verification will be obtained from the research data.

The main point of the discussions in chapters two and three are, however, concerned with the way in which individuals exhibiting a particular orientation will respond to the form of organisation in which he or she is working. This is especially true of the model developed in chapter three, and such behavioural responses can be postulated as the basis for research activity. Those possible behaviours are shown in table 4.3 for each variable (extremities only) and are summarised for each of the two organisational forms in table 4.4. Each table comprises three elements - type of orientation, behavioural response, and form of organisational variable (i.e. the extreme positions); and suggests how these might relate to one another. Obviously, such postulations can and need to be subjected to research verification and it is hoped this can be done.

Finally, an attempt has been made in table 4.5 to postulate the degree of fit between the type of incentive and reward system and the organisational forms discussed previously. These are based on the outcomes of discussions with certain students on the role of payment systems and on the author's own experience and knowledge of the field. For pointers in this direction see Clark and Wilson (1961), Marriott (1961), Lawler (1971), Lupton and Gowler (1972) the latter suggesting quite strongly that the principles of motivation and control built into payment systems are often not well matched by those implicit in the technology, workfloor organisation, management and so on. It has also been suggested by, for example, Udy (1959) that the reward system is dependent upon organisational, social and technological contexts - although Udy's work was among non-industrial peoples. None-the-less, there seem to exist sufficient pointers for making such postulations.

TABLE 4.2

POSTULATED CHARACTERISTICS OF MAJOR ORGANISATIONAL FORMS

	ORGANISATIONAL FORM:	
ORGANISATIONAL VARIABLE	UTILITARIAN REACTIVE	NORMATIVE ADAPTIVE
MANAGEMENT	Authoritarian Autocratic	Participative Democratic
STRUCTURE	Rigid Bureaucratic	Flexible Organic
ENVIRONMENT	Hostile Difficult	Friendly Responsive
CONDITIONS OF WORK	Unpleasant or Pleasant	Unpleasant or Pleasant
TASKS	Boring	Interesting
WORK GROUPS	Non-Cohesive Loose-knit	Cohesive Tight-knit
TECHNOLOGY	Simple or Complex	Simple or Complex
ORGANISATION OBJECTIVES	Clearly Defined	Vague and Ambiguous
INCENTIVE AND REWARD SYSTEM	Based on Output	Based on Merit

TABLE 4.3

POSSIBLE BEHAVIOURS RESULTING FROM INTERACTION OF ORIENTATION WITH SPECIFIC ORGANISATIONAL VARIABLES

	TASKS		WORK GROUPS		MANAGEMENT	
ORIENTATION	BORING	INTERESTING	NON-COHESIVE LOOSE-KNIT	COHESIVE TIGHT-KNIT	AUTHORITARIAN AUTOCRATIC	PARTICIPATIVE DEMOCRATIC
INSTRUMENTAL	NEUTRAL	NEUTRAL OR POSITIVE	NEUTRAL OR POSITIVE	NEGATIVE	NEUTRAL	NEUTRAL
RELATIONAL	NEUTRAL	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE
PERSONAL	NEGATIVE	POSITIVE	NEUTRAL	NEUTRAL OR NEGATIVE	NEGATIVE	POSITIVE

TABLE 4.3 continued

	STRUCTURE		ENVIRONMENT		CONDITIONS OF WORK	
ORIENTATION	RIGID BUREAUCRATIC	FLEXIBLE ORGANIC	HOSTILE DIFFICULT	FRIENDLY RESPONSIVE	UNPLEASANT	PLEASANT
INSTRUMENTAL	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL OR NEGATIVE	NEUTRAL OR NEGATIVE
RELATIONAL	NEGATIVE	POSITIVE	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL
PERSONAL	NEGATIVE OR NEUTRAL	POSITIVE	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL

	TECHNOLOGY		ORGANISATION OBJECTIVES		PAYMENT SYSTEM	
ORIENTATION	SIMPLE	COMPLEX	CLEARLY DEFINED	VAGUE AMBIGUOUS	BASED ON OUTPUT	BASED ON MERIT
INSTRUMENTAL	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL	POSITIVE	NEUTRAL OR NEGATIVE
RELATIONAL	POSITIVE	NEGATIVE	NEUTRAL	NEUTRAL	NEGATIVE	NEUTRAL OR POSITIVE
PERSONAL	NEGATIVE	POSITIVE	POSITIVE	NEUTRAL OR NEGATIVE	NEGATIVE	POSITIVE

Note: POSITIVE BEHAVIOUR = constructive, supportive behaviour.
NEGATIVE BEHAVIOUR = disruptive, antagonistic behaviour.
NEUTRAL BEHAVIOUR = indifferent, middle-of-the-road behaviour.

TABLE 4.4

SUMMARY OF LIKELY BEHAVIOUR OF PERSONS EXPRESSING PARTICULAR ORIENTATIONS IN CERTAIN FORMS OF ORGANISATION

	ORGANISATIONAL FORM:	
ORIENTATION	UTILITARIAN REACTIVE	NORMATIVE ADAPTIVE
INSTRUMENTAL	POSITIVE	NEGATIVE
RELATIONAL	NEUTRAL OR NEGATIVE	NEUTRAL OR POSITIVE
PERSONAL	NEGATIVE OR NEUTRAL	POSITIVE OR NEUTRAL

Note: POSITIVE BEHAVIOUR = constructive, supportive behaviour
NEGATIVE BEHAVIOUR = disruptive, antagonistic behaviour
NEUTRAL BEHAVIOUR = indifferent, middle-of-the-road behaviour.

TABLE 4.5

	ORGANISATIONAL FORM:	
TYPE OF PAYMENT SYSTEM	UTILITARIAN REACTIVE	NORMATIVE ADAPTIVE
OUTPUT INCENTIVES	GOOD	POOR
COST REDUCTION	MODERATE	MODERATE
PRODUCTIVITY BARGAINS	MODERATE	MODERATE
PROFIT SHARING	MODERATE	MODERATE
MEASURED DAYWORK	MODERATE	MODERATE
MERIT RATING	MODERATE	GOOD

It is evident from these various tables that a large number of specific hypotheses may be derived. For example, it is likely that employees selected on the basis of a particular payment system will behave negatively if this system is incongruent with the organisational context as a whole. Again, with certain forms of systems it is possible that other organisational variables may completely overshadow its effect on performance. Whilst such further hypotheses may be developed of necessity at a later stage in the thesis it is not proposed to enumerate them here. To do so would detract from the main emphasis developed so far and bog down the research design in unnecessary problems. If this seems as though a few theoretical stones are being left unturned, then so be it. No apologies are offered, for often it is expedient to see what lies under one stone before rushing blindly to the next.

The following list is an example of the kind of 'stones' that may, however, require examining in order to gain a better understanding of the chosen field of investigation:

1. Organisation leavers will have a different mean orientation than stayers.
2. Organisation stayers will have successfully adjusted their orientation to suit their situation or will have joined with the more suitable orientation.
3. Employees indicating no one specific orientation will leave only through general dissatisfaction.
4. Employees indicating a specific orientation will leave only if those aspects of the job relating to the orientation are not satisfactory.
5. Differences in orientation will be more attributable to difference in job and organisational features than to personal background factors.
6. Where personal background factors are important it will be due to degrees of difference in the same factors rather than different factors.

7. Different background factors will only marginally affect differences in orientation.

8. Differences in pay system and other organisational features will produce differences in orientation.

9. The nature and form of the pay system will be of importance only so far as other organisational features are consonant with or irrelevant to the measured orientation.

10. Orientation is not a fixed personal attribute.

11. Orientation will not take any predetermined, hierarchical form.

12. Orientation will be determined by the interaction of external factors and internal organisational factors.

Such propositions demonstrate the complexities associated with the study of organisational behaviour.

Summary of Research Issues

It is desirable to delineate in summary form the main research issues or topics stemming from the previous theoretical considerations in order that the following discussions can be set in the right perspective. These research issues are concerned with:-

(1) The determinants of orientation to work: it should be possible to gain information as to the most likely causes or determinants of particular types of orientation in terms of the 'inputs' described in chapter two.

(2) The nature of particular orientations: people expressing a particular orientation may be characterised differently from people expressing another orientation. It should be possible to obtain some idea of how each type is characterised.

(3) Changes in orientation: it is likely that orientations can be changed by, for example, training and education. Such changes can be detected through certain kinds of research designs.

(4) Developing Measures of Orientation: before any of these can be tackled an attempt must be made to develop adequate measures of orientation. Little work has been carried out in this direction and it may hold back progress on some research issues.

(5) Relationship between organisational variables: it should be possible, also, to gain further understanding of the likely effects of the various organisational variables upon behaviour as they relate to one another and to specific kinds of orientation.

(6) The relative importance of payment systems: since this is the main point of interest throughout the thesis an attempt must be made to determine just how important payment systems are (in their effect on behaviour) in relation to the total organisational context of behaviour.

(7) The effect of orientation and organisational variables on employee turnover: the use of the concept of orientation should enable turnover problems to be studied more meaningfully. Research in this field may well be of importance currently to many organisations.

(8) Managerial perceptions of organisational behaviour: the author's main interest is to understand how managers view these particular issues since their perceptions will colour their own descisions and behaviour. This particular issue must, therefore, pervade the others.

These issues will be linked together and elaborated upon in the next chapter which deals with the research design stemming from the theoretical requirements of the first four chapters of this thesis. It is necessary and desirable to obtain whatever empirical support is possible for the assertions made so far. Some such support already exists and has been referred to, either directly or indirectly, in previous pages. It is possible, too, that other evidence so far unknown to the author, is in existence. Indeed, correspondence with a number of other research workers indicates that such further data is currently forthcoming and will be used if and when available. Yet gathering data is not the only way of gaining faith in one's philosophy and concepts for, as Krupp (1961) points out:

> "To verify a proposition, then, may be more complex than relating it to observation; it means relating it to a theory as well as assessing the quality of empirical support".

One hopes that chapter four provides a useful bridge between theory and empirical support.

PART TWO

METHODOLOGICAL CONSIDERATIONS

"Any research plan is deliberately and specifically conceived and executed to bring empirical evidence to bear on the research problem"

Kerlinger (1964).

CHAPTER FIVE

RESEARCH DESIGN

The major emphasis so far in this thesis has been given to the discussion and development of theoretical tools and frameworks for dealing with the topic of orientation to work and related organisation contextual variables. Whilst this is an important aspect, as stressed in the preface, it does not obviate the need to establish empirical support for the conceptual basis of one's philosophy. The most excellent theories, in terms of their logical derivation, may or may not be useful since some aspects of human behaviour are far from logical and rational.

It is hoped that this chapter will lay the foundation and structure for the eventual search for data which might reinforce the belief that the philosophy contained in this thesis is relevant and useful in analysing behaviour in organisations. The aims and principles of research design will be considered, and an account given of the methods employed. But these alone will not necessarily yield answers to the research questions posed in chapter four.

The reason lies, of course, in the researcher himself. However good the data, the interpretation of 'it' (i.e. the real world) is a function of the researcher's own subjective self, and must inevitably be so. A useful way of thinking about this is to consider life as being made up of three different worlds, as Popper (1972 - chapter four) does when discussing the objective mind. He (Popper) considers there to be a physical world, i.e. a world made up of physical, tangible objects and states; a mental or subjective world, i.e. a world made up of mental and emotional states; and finally, a world of "intelligibles", i.e. a world of thought objects,

theories, logical relations. (It is preferred to call this third world a 'conceptual world').

According to Popper, these three worlds interact but only through the agency of the second i.e. subjective world (which will be called a 'personal world'). In other words, concepts and reality can only interact in the mind of the researcher such that, however elaborate the data of the physical world may be, its meaning in relation to its appropriate conceptual framework is a direct function of the mental and subjective state and capacity of whoever is viewing it. The researcher's perception of his data will be subjected to personal whims and fancies, intellectual flights of fantasy, and personal inclinations as well as to the logical analysis stemming from research objectives and hypotheses. No doubt the interpretation of data presented later will suffer similar problems.

RESEARCH PROCESS AND DESIGN

Definition of Research

Research has been defined (Rummel and Ballaine - 1963) as

> "a careful inquiry or examination to discover new information or relationships and to expand and to verify existing knowledge." (pp 2 and 3).

Apart from the inferences to be drawn from phrases such as 'new information' and 'existing knowledge', the important part of this definition rests on the words 'careful inquiry'. What is a careful inquiry? Is it tactful prying into someone else's business? Is it a well-staged series of interviews? Or does it have some greater scientific meaning attached to it? Helmstadter (1970 p p. 5) suggests quite definitely that it does. For him 'methods of inquiry' mean scientific approaches to establishing new information, as opposed to the simple asking of questions to which answers

already exist. Research does ask questions (in the form of hypotheses) and it does attempt to yield answers (in the form of theoretical propositions and supported hypotheses) but it does so in a manner which can be described as 'not ad hoc', i.e. in a scientific manner. For Popper (1972) the aim of science is to find a satisfactory explanation for whatever is in need of explanation.

What is being sought, therefore, is a method of inquiry which will produce a satisfactory explanation of the factors affecting orientation to work and which will be acceptable to those scholars currently established in the field of organisational, and human, behaviour.

Classes of Research

Research is often discussed in terms of two main categories - basic research (variously termed also 'pure' or 'fundamental') and applied research (sometimes referred to as 'decisional' research). (See for example, Helmstadter, 1970; Rummel and Ballaine, 1963; Tull and Albaum, 1973). The 'pure' researcher may not be at all interested in the application of his findings, yet the 'applied' researcher may experience difficulties if concepts and knowledge do not exist to help solve his problems. Therefore, to some extent the two are related - a need exists to translate the results of basic research into helpful and useful theories and principles. This relationship is shown in Figure 5.1.

There it is being suggested that both basic and applied research can be oriented toward gaining a greater understanding of the research situation or problem and the prediction and control of variables in that situation. Basic research, however, is concerned more with developing new concepts - understanding and using them, the process labelled A - B and termed the

'inventive' process. This is the process during which new conceptual and theoretical insights and breakthroughs are gained. On the other hand, applied research is concerned with this process in real, practical situations (Popper's 'physical' world as opposed to the 'conceptual' world). Someone has a problem and reacts to it in a particular way - hence the term 'reactive' research process (C - D). The necessary bridge between these two is the process B - C; 'adaptive' research which aims on the whole to adapt concepts and theories into working methods and principles. That such research is necessary cannot be denied, but it could be argued that applied research usually takes this form. Unfortunately, constraints of cost and time often preclude this, but in any case an element of both basic and applied research ought, perhaps, to embrace this important activity. This thesis is mainly centred around the adaptive process - it generates no new concepts but is 'basic' in the sense that new or different relationships and explanations are sought, and whilst it seeks to solve no specific practical problems its pragmatic stance is based on a desire to consider the possibilities of practical application.

It should be noted that the classification of research can be extended beyond that depicted in Figure 5.1. A very useful taxonomy which relates three different dimensions - breadth of application, level of outcome and degree of control - is provided by Helmstadter (1970; p.28).

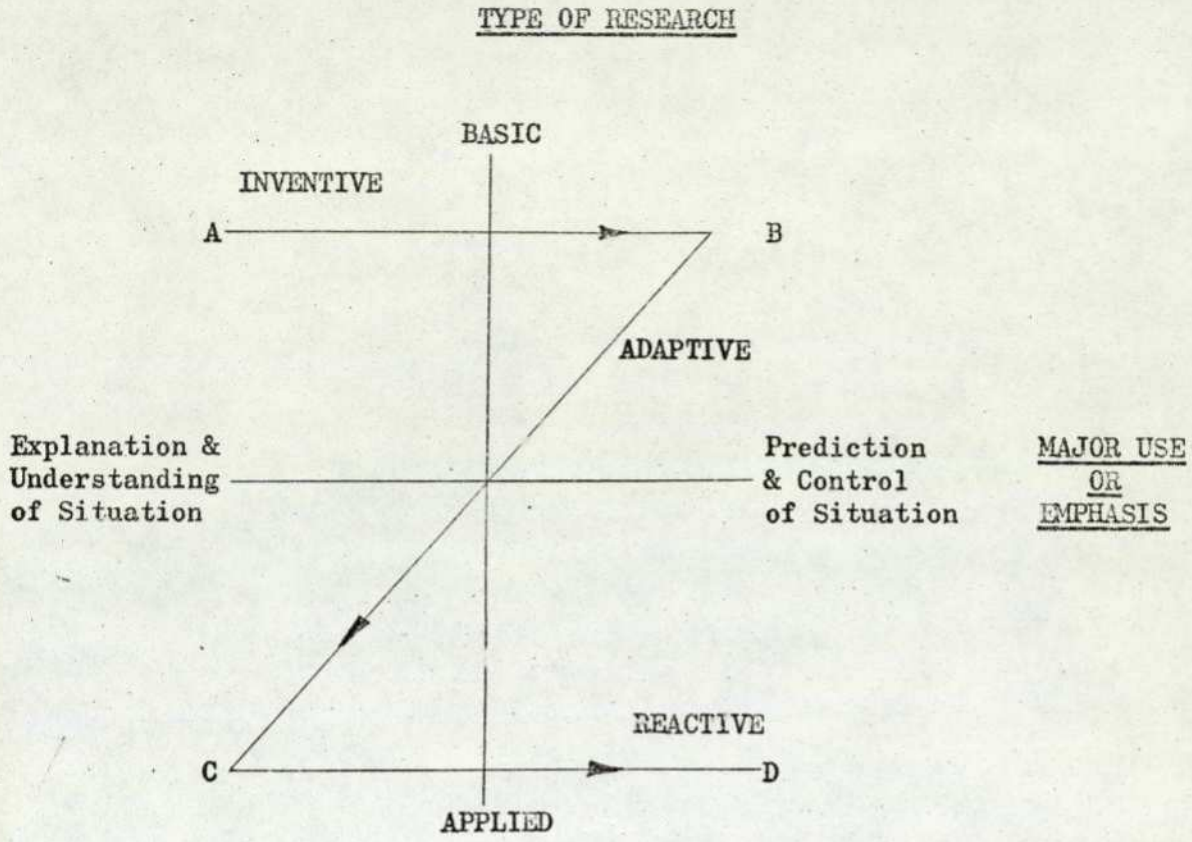


FIGURE 5.1: TYPES OF RESEARCH AND THEIR APPLICATION

Research Method

What, then, of this 'careful inquiry' referred to earlier! Generally, research method follows scientific method, as alluded to previously. Scientific method* adopts a form which is similar to what Tull and Albaum (1973) call 'the objectivist method'. This method comprises the following steps:

1. Formulating a problem;
2. Developing an hypothesis;
3. Making predictions based on the hypothesis;
4. Devising a test of the hypothesis;
5. Conducting the test, and
6. Rejecting or failing to reject the hypothesis based on the test results.

Chapter One of this thesis dealt with the research problem, whilst chapters Two, Three, and Four concerned themselves with, ultimately, the development of hypotheses and (to a greater or lesser extent) making predictions. It remains to consider how the hypotheses may be tested or support sought for the conceptual frameworks developed. Since the hypotheses have been derived from these frameworks a test of one should equally be a test of the other. Therefore the 'objectivist' or 'scientific' method has in large measure been followed.

But other, equally useful, approaches can be used as Tull and Albaum clearly show (1973 - pp. 13 - 29). They cite three other methods which might have value, these being the 'subjectivist' method, the 'Bayesian' method, and 'phenomenology'. The subjectivist position is indicated by a quote from Diesing (1966) given on page 20 of Tull and Albaum:

---

*See also Kerlinger (1964 - Chapter One)

> "The subjectivists have argued that the essential unique characteristic of human behaviour is its subjective meaningfulness*, and any science which ignores meaning and purpose is not a social science."

This quote underlines the basic difficulty of adopting full scientific method in research into human behaviour, and means that investigator influence and judgement is tolerated more in the subjectivist approach than in that of the objectivists. None-the-less, the initial stages of formulating problems and developing hypotheses are little different in either approach. The main differences occur later: predictions need not be limited to overt behaviour; tests may be revised as results begin to show; test procedures cannot always be made public; and analysis may be based on descriptive and inferential statistics, in the subjectivist approach.

The Bayesian approach includes the admissibility of prior judgements which are expressed as probabilities, and that "the everyday process of utilizing additional information to revise prior judgements should be incorporated and revised in the formal testing process" (Tull and Albaum, 1973, p.24). On the other hand, the Phenomenolist approach tends to differ from the previous three in that explanatory hypotheses are opposed since they represent preconceived ideas. Rather, one should attempt to describe the phenomenon, determine universal elements, and attempt to understand the relationships involved.

The approach adopted here centres around that of scientific method

---

*Popper's 'second world'.

since it is a well-proven way (over very many years - see Helmstadter, 1970, pp. 25 - 27) of seeking new knowledge and testing hypotheses, but account will be taken of certain subjectivist and phenomenolist aspects in seeking explanations of the factors under investigation. It must be stressed however, that the research has been designed with the avoidance of common errors in mind, even if at all times they have not been completely eliminated. The kinds of errors referred to are very neatly summed up by Dunnette's (1966) 'Fads', 'Fashions' or 'Folderol'. It is hoped that the "games" many researchers play as a result of these have been avoided in this research. These games refer to such things as overcommitment to some great theory or method ("the pets we keep"), dreaming up new labels for concepts as a way out of poor data ("the names we love"), and a compulsion to forget the problem and become preoccupied with instruments and apparatus ("the fun we have"). Whilst this delightful analysis has a somewhat 'journalistic' ring to it, the points made are valid and ought to form (in the converse, of course) the basis of all research design in general. An attempt will be made to do so here.

But, as Lindszey (1958) points out, "there is no such thing as an investigation that is beyond criticism". (p. 9). Perhaps, therefore, the aim should be to reduce criticism to a minimum - or should it?

Techniques of Research

Nothing has been said so far about the various ways in which research might be conducted from the point of view of collecting data, making investigations, etc., for the purpose of testing hypotheses and predictions. In view of the amount of literature* already available on this subject, it is

---

*See, for example, Helmstadter (1970), Kerlinger (1964), Rigby, (1965), Rummel and Ballaine (1963), and Selltiz et al (1965).

not intended that the various techniques and their advantages/disadvantages be documented here. As the basic research design unfolds, so will reference be made to (and analysis given of) the techniques adopted and the reasons for their adoption. What is important to note here is that the techniques used are not only a function of the research objectives but also of the constraints and limitations inherent in the total research situation.

THE RESEARCH DESIGN

According to Kerlinger (1964) research design is "the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and to control variance." (p.275) In terms of the definitions given by Kerlinger, the plan is implicit and explicit in the design of this thesis and the presentation of the original research proposals (appendix 2) since it is the overall programme of research.* Similarly, the strategy, i.e. the paradigm of the operation of the variables, has been presented in chapters two, three and four. Thus, this section concerns itself with a rather specific aspect, that of structure - format of data collection, methods of analysis, etc.

It would be desirable to present a general paradigm of the overall design in sufficient detail to relate each of the subsequent project descriptions to the others but, as an analysis of the variables will show, this is rather difficult to achieve. Maybe this is a basis for criticism in that the research should be simple and self-contained so as to permit adequate general representation. Yet a few moments thought about the complexities of organisational behaviour will be sufficient to demonstrate the

---

*These proposals have been modified in the light of subsequent literature searches and experience.

problem as, indeed, chapter Three suggests. The research problem is composed of four major areas of variables, namely,

orientation to work (ORN),
personal factors (PF),
organisational factors (OF) and
behaviour (B).

Each of these take a number of different forms and cannot, therefore, be represented in the usual way. They can, however, be shown in a very simple way:

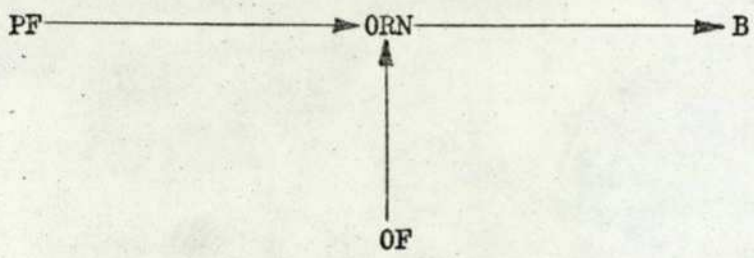


FIGURE 5.2 - SIMPLIFIED FORM OF RELATIONSHIPS BETWEEN MAJOR VARIABLES

Thus, a number of critical research questions can be asked (see chapter four) such as

How do personal factors (background and situational variables) determine orientation?

What characterises different orientations?

How do organisational factors influence behaviour as mediated by orientation?

What measures can be used?

It is proposed to answer such questions by preparing structures and strategies based on the conceptual frameworks discussed in chapters Two and Three and the research issues and hypotheses developed in chapter Four.

PROJECT 1 - ASSESSING THE MODEL OF ORIENTATION

The model developed in chapter Two, and reflected in hypothesis two of chapter Four, has already been seen to possess some degree of support from the literature. Because of some of the weaknesses in existing support it was felt desirable to further assess its utility by gathering fairly detailed - if somewhat superficial - data from a reasonably large number of people. In essence, a general questionnaire survey was carried out based on the following analysis.

Purpose

The purpose of the general questionnaire survey was to test the conceptual framework for general validity, i.e. to indicate that orientations A1, A2, and A3 will be associated with certain background variables B1, B2 and Bn, and also with certain situational variables C1, C2 and Cn,

where A1 = instrumental orientation
A2 = relational orientation
A3 = , personal orientation

Actions Required To Achieve Purpose

There are, theoretically, two approaches - possibly more. The first is to attempt to manipulate the independent variables (B & C) and look for differences in output or dependent variable (A). The second is to maximise the variance between A1, A2 and A3 via the survey design and look for associations with B & C. In the case of ex post facto research such as this the second approach is the only one which offers practical application. Hence the dependent variables will be made the experimental variables and it will be necessary to ensure that these are varied as widely as possible.

Likely Influencing Factors

From studies that have been carried out in the field of attitude and

value development it would appear that the following factors will be influential:

culture, race, sex, occupation, level within occupation, type of organisation worked for, size of organisation worked for, geographic location, intelligence, educational achievement, age. (See, for example, Sells - 1964)

Of these factors some can and must be controlled whilst others require to be varied.

Controlled variables

culture: (use only British subjects - noting that sub-cultural effect may be present)

race: (use only white British subjects)

sex: (aimed at male population)

geographic location: (within limitations set by maximising experimental variance)

Manipulated Variables

occupation and occupational level (may well be a result or determinant of orientation)

intelligence (can assume it will vary with occupation and occupational level - hence discount it for general survey)

type of organisation (may have properties of attraction for people with certain orientations - a la Goldthorpe - hence needs to be varied)

size of organisation (again may have properties of attraction/satisfaction - a la Ingham)

age (will affect to a great degree the demands of situational variables and the ability to operate according to any basic orientation)

educational achievement (presumably related to occupation, occupational level, and age - hence discount it).

Basic Survey Design

In order to meet requirements stated above, the design must allow for maximum variation of manipulated variables. The following paradigm applies:-

TABLE 5.1 - RESEARCH DESIGN - PROJECT 1

				TYPE OF ORGANISATION								
				T1			T2			Tn		
				Size			Size			Size		
				S1	S2	Sn	S1	S2	Sn	S1	S2	Sn
JOB LEVEL	JLn	Age	Yn									
			Y2									
			Y1									
	JL2	Age	Yn									
			Y2									
			Y1									
	JL1	Age	Yn									
			Y2									
			Y1									

One major problem is to determine what practical definitions to give to suffixes 1, 2, ...n. An initial attempt yields the following:-

Type of organisation - needs to be as diverse as possible in order to maximise experimental variance. Must include both manufacturing and non-manufacturing organisations of very different natures. Hence the following breakdown is proposed:

Manufacturing		Non-Manufacturing	
computer manufacturers	(T1)	banking	(T5)
electronic "	(T2)	hotel catering	(T6)
car "	(T3)	agricultural	(T7)
general engineering	(T4)	general commercial	(T8)

(this could also be determined by process)

Size of organisation - again this should be as diverse as possible and most certainly include very large and very small organisations. It is suggested that three categories be used to sample the entire range:-

below 100 employees (S1)
101 to 1000 employees (S2)
1001 or more employees (S3)

These sizes refer to one particular location and not to the entire group if applicable.
(N.B. Size of organisation by capital employed or sales volume is discounted because they have indirect relationships with the experimental variables).

Job Level - this has been used in preference to 'occupation only' as it is assumed that occupations will be covered by the diversity of organisational types used. There are a number of different 'titles' that can be applied but difficulties exist with respect to interpretation. For example, a 'supervisor' means different things in different organisations. Hence a number of defined levels will be used.

Professional: responsibility for giving advice and service to, or supporting in other ways, organisation management (a professional may also manage professionals) (JL1)

Executive: responsibility (in terms of ownership or directorship) for running the organisation, making policy, and setting objectives (JL2)

Managerial: responsibility for planning and controlling say, a department, and interpreting policies (JL3)

Supervisory: responsibility for day to day activities of a limited number of resources and dealing with technical job problems as well as human problems (JL4)

Operational: performance of task activities at the manual level of skilled, semi-skilled, or unskilled (JL5)

Clerical: Performs task activities at the routine administrative paperwork level (JL6)

Trainee: engaged in acquiring knowledge and skills with respect to one or more of above jobs (JL7)

Other: general category for those not fitting JL1 to JL7

Age - many categories for age are possible, but it is suggested that three important life phases should be sampled. The first is at the post-school level and above when the individual is developing work orientations, career patterns, future objectives (marriage!); the second covers the period of life when most people have established work orientations and taken on some of their major long-term responsibilities; the third is concerned with those years when many of the major responsibilities have been met or at least are in a stable state. Such analysis yields the age brackets shown below:

under 20	(Y1)
21 - 30	(Y2)
31 - 45	(Y3)
46 - 60	(Y4)
60 +	(Y5)

Method

It was intended that a number of organisations be selected from within the Southern region. This could have introduced bias arising from looking at, perhaps, only one sub-culture but does keep geographic location constant. However, since the Southern region is subject to influx of people from many other parts of the country this bias may not be too great.

Contact was made with an appropriate person (in many cases the

Personnel Manager) asking for assistance on the project and offering to discuss it if required. From such a discussion it was hoped that permission would be obtained to use company records to select a sample of people of various ages and job levels, and receive permission to distribute and collect questionnaires.

Alternatives

There are a number of possible alternatives to the approach outlined above: e.g. a random sample of the population working from the electoral register. This has the disadvantages of time and cost associated with it. Further, it is not proposed to make inferences about the general population but merely to assess whether the conceptual framework used has support in general terms outside the literature.

It is also possible to take, say, one major factor (e.g. type of organisation) and vary that as extensively as possible in the hope that other factors will vary to some extent with it. This would appear to be a little unsafe in ensuring a spread of variation in other factors.

A further method is to operate as some market researchers do and stop people in the street. With this approach one would have to know the shopping habits of a wide range of males - and not a great number actually do go shopping!

It is suggested that, since the survey is looking at orientations to work, the approach outlined is perhaps the most effective since it varies the work aspect itself.

Questionnaire Development and Analysis

The original questionnaire was based on the model discussed in chapter Two and on empirical findings reported in the literature. It set out to measure, or collect data on, three major aspects of the individual

respondent: (a) his orientation; (b) his personal background; and (c) his current situation. Three questions aimed to measure his orientation, the rest being concerned with personal, biographical data. Items for the orientation measures were drawn from the literature (cf. Alderfer, 1969, and others quoted in chapter Two).

Before using the questionnaire as a research instrument it was tested several times, and modified, by asking males in different jobs to complete it and discuss the difficulties etc., in interview. In all, the questionnaire was piloted with students on the Diploma in Management Studies (D.M.S.) course at Portsmouth Polytechnic, manual and clerical employees in a local factory at Gosport, colleagues within the School of Management Studies at Portsmouth, employees in two small local organisations, members of staff within Portsmouth Polytechnic, and discussed with the research supervisor at City University. In addition, the paired comparisons measure of orientation (Q 29) was tested on D.M.S. students. Two groups were asked to sort a number of statements (including those in Q 29) into however many meaningful categories they thought suitable, and were then asked to describe each category (or 'pile') with a word or short phrase. Their classification was then compared with the way the researcher had classified the statements in Q 29 into instrumental, relational, and personal orientations, thus testing validity of measures. Another group was also asked to complete Q 29 on its own. A split-half reliability test was then conducted on the data. Similar tests were made for Q 13.

After receiving completed questionnaires, a telephone interviewing programme was undertaken with just under ten per cent of respondents in order to check accuracy of information. Further checks on, for example, pay, age, and job were made through the employing organisation.

Analysis of data was intended to be by computer programme in view of the possibly large sample involved - to this end codes were developed and computer card punching facilities provided on the questionnaire. The method of analysis to be used caused some measure of concern in the initial stages. It was thought that some form of analysis which grouped personal variables as they determined - or were correlated with - orientation, would be desirable, but unfortunately not all variables were of a truly continuous nature. Many questions could only yield binary data and no assumptions available - acceptable or otherwise - could be used to yield a continuous variable. After discussions with mathematician colleagues it was decided to use a survey analysis programme and again difficulties were encountered. The Polytechnic computing department did not currently have such a programme available, and the one offered at City University seemed doubtful in terms of what it could do. Eventually, through colleagues in the Social Studies Department at Portsmouth, a link was made with the University of London's Atlas Computing Service. Use was made of the Multiple Variate Counter Programme (Singh, 1968) which required general specification programming by the user with reference to the manual. The programme offers many facilities (including computation of correlation coefficients and standard deviations) but analysis had to be limited to generating cross-tabulations of raw data and percentage figures together with chi-square calculations because of the different types of variables inevitably encountered. Computing time was made available at the S.R.C. Atlas Laboratory near Abingdon, Berkshire, whilst punching was done by the Computing Department of Portsmouth Polytechnic. The questionnaire and codes used are shown in appendix 3.

It was possible to use interviews and case histories for this project, but both are extremely limited (in terms of cost and time) in scope. It

would have been impossible to have considered a sample anywhere near so large as that which was achieved. The purpose was not, in any case, to probe in depth but to gain general data with respect to the model. A questionnaire thus seemed the most suitable instrument.

PROJECT 2 - DEVELOPING MEASURES OF ORIENTATION AND EXPLORING THE CONCEPT FURTHER

The measures of orientation used in the research instrument for project 1 were considered adequate for their purpose, i.e. to have some gauge of how the respondent was orientated, but in many ways they did not reflect the definition of orientation given in chapter Two. It was not possible to discern the 'desire' content from the 'expectation' content of the total orientation. Furthermore it was clear that insufficient attention had been given in the literature to the development of measures of any kind and to the characterisations of the three categories of orientation used. Project 2 was an attempt to remedy these deficiencies by considering research issues (2) and (4) (coupled with (3)) of chapter Four.

It is not necessary to analyse the project's rationale in as much detail as for project 1 for it is quite simple, namely to consider means of measuring orientation at any point in time with sufficient reliability to also detect changes in orientation over time. Throughout the project reference was made to certain texts which addressed themselves to the problem of measurement in the social sciences, not with a view to developing extensive personal knowledge and skill in this area but in order to reinforce and extend working acquaintance with certain technical issues (for example, various approaches to testing for reliability). The most frequently used texts were Helmstadter (1954 and 1970) supplemented by

Cronbach (1960), Guilford (1954) and research texts already noted in this chapter.

Before describing the type of measures used and their development it is important to say a few words about 'measurement' itself, particularly with respect to human behaviour. As Helmstadter (1970) points out, measurement in psychology is not developed to the same extent as in the physical sciences and yet is, at the same time, more difficult to adequately achieve. Many of the aspects being measured are intangibles or inferences, subject only to verbal description by the respondent. In few other fields does the object of measurement itself tell the 'measurer' how much of an attribute it possesses. Imagine the reaction of a physicist to the analogy that much measurement in the social sciences is akin to asking an electron how heavy 'it' is, let alone what 'it' feels when bombarded by electrons from another substance! Yet frequently this is the kind of method that has to be adopted in research in human behaviour. The problems (and assumptions) concerned with this are recognised.

Secondly, at no time in this research has measurement reached the level of the ratio scale - taken for granted by most physical scientists and often assumed (through ignorance) by the engineer to be the only level of measurement. Having been trained initially as an engineer, the author recognises the head start that many researchers in other fields have over the behavioural scientist. At best in this research measurement has achieved interval status but in some instances only nominal or ordinal levels have been achieved. This imposes some constraints on analysis as Siegel (1956) makes clear.

Finally, although measurement in research attempts to achieve the highest degrees of validity and reliability, it should not be assumed (for reasons just advanced) that the measures are infallible. At best they

attempt numerical quantification of the attribute concerned along some continuum: at worst they provide descriptive material free, hopefully, of value judgements. To the extent that they go some way beyond pure human judgement they are taking on some of the characteristics of 'precise instrumentation'.

Types of Measures used

Four types of measurement devices were used: those two already developed for project 1 together with two developed for a later project. These are described briefly as follows:

1. Job Descriptions. Descriptions were written of jobs which had certain elements in common (not all) but varied on the emphasis given to the required predominant orientation implicit within the job (Q.13 - Appendix 3). Each description was subject to the pilot tests described in project 1, together with certain validity checks (see next chapter).
2. Paired Comparison Items. A number of statements reflecting in different ways each of the three types of orientation were prepared and two per type eventually used in pairs with each other (Q.29 - Appendix 3). Again, project 1 tests apply together with the validity and reliability checks already noted.
3. Rating Scales. In order to attempt differentiation between 'desire' (D) and 'expectation' (E) components of orientation, a series of rating scales were developed based on the items used in Q29 of the questionnaire described in project 1 together with additional materials and tested on students and in a local factory. Two separate measures were obtained from separate forms: a 'D' measure from a set of 15 five point scales and summing scale scores for each type of orientation; and an 'E' measure from a set of 9 five point scales, again summed for scores on

each type of orientation. The two sets of scores were multiplied together to achieve a measure for each orientation. D - responses ranged from 'Extremely Desirable' to 'Extremely Undersirable', each scale polar points set in random order. This together with some negatively worded statements, attempted to overcome response set. E - responses were of the form 'Not at all' through 'On some occasions' to 'All the time' as a result of the question 'How frequently do you expect to have these opportunities?'

4. Semantic Differentials. It was felt that a rather more descriptive approach to the measurement problem was required in order to complement the range of measures used. The Semantic Differential (Osgood Suci and Tannenbaum, 1957) seemed to meet this requirement. A number of adjective pairs were developed (using a small group of colleagues and students) and a set of 29 scales prepared. These were circulated to final year D.M.S. students throughout the Regional Management Centre and to members of staff at the School, all of whom were asked to describe the concepts 'Economic Man', 'Social Man', and 'Self-Actualising Man'. Since nearly all were familiar with the concepts (definitions were, in any case, provided) a reasonable set of descriptions should have been obtained. Results were analysed to determine scales which did not discriminate between the concepts and these were rejected. The revised forms were then used to obtain self-descriptions of respondents in subsequent work.

Project Design

In order to gain data to examine which of the measures were consistent with the others, an inventory was produced (Appendix 4) and distributed to a number of students taking the D.M.S. and other courses in the Polytechnic. Some students were also given the Alport, Lindsey Values Test and correlation

sought between the measures. Scores achieved on each part of the inventory were correlated for signs of consistency or inconsistency. Besides the values test, another (though somewhat subjective) criterion indicator was used, i.e. the expected basis of motivation of students, particularly those on the D.M.S. course. Past experience shows that most are operating at a self-actualising level (i.e. expressing a personal orientation) and the measures should reflect this.

A further opportunity was taken in this project to extend the data on changes in orientation. It might be expected that a person taking the D.M.S. course would be affected to some extent in his attitudes and motivations as reflected in his orientation. A longitudinal study with a control group would make an ideal design. Unfortunately, a control group of 'similar' people not taking the D.M.S. was not possible, so some control was sought by comparing full-time, block release, and part-time students. Thus, subject to the validity of the measures being determined, it was hoped to be able to gain further useful information.

PROJECT 3 - ASSESSING THE RELATIONSHIP BETWEEN BEHAVIOUR, ORIENTATION, AND ORGANISATIONAL VARIABLES

Purpose

The purpose of project 3 was to test the general validity of the conceptual framework outlined in chapter Three, as seen by managers in different organisations, and to illustrate the relative role of payment systems as influencers of behaviour.

Actions Required*

A major difficulty with organisational research is concerned with how

---

*I am grateful to my colleague, [redacted], for his help and advice on this problem.

to control and manipulate the many variables involved. In this case some ten primary variables are involved, each of which can be divided into clusters of sub-variables. It is unlikely that a field experiment could be designed let alone achieved which would offer sufficient control. It was decided, therefore, to aim for statistical variable control rather than experimental control. In order to do this managers from many different kinds of organisations would need to be contacted. This ruled out any form of intensive interviewing as a means of obtaining basic data and, as with project 1, a questionnaire formed the research instrument (see Appendix 5), backed up by a small number of interviews.

Likely Influencing Factors

Unlike project 1, maximisation of personal variables of the respondents was not required. Indeed, the opposite may be argued to be desirable in order to reduce perceptual bias. Whilst variations in jobs and job levels are controllable to a certain extent, other personal variables are not. Ideally, one would wish to assess respondents on personal variables before distributing questionnaires but such a process would be too ambitious and would not be totally reliable.

Again, therefore, the aim was to maximise variation on the model's variables but reducing extraneous variation where possible. Since students on the D.M.S. courses come from a wide variety of organisations, it was decided to use them as sources of information, supplemented by non-D.M.S. respondents.

Basic Design and Method

The design was essentially very simple since statistical manipulation of variables was aimed for. In essence the basic design is similar to that for project 1, with the addition of experience and qualifications to the

matrix of variables. By design, the D.M.S. course at Portsmouth Polytechnic uses similar criteria in the selection of applicants and thus offers a suitable population from which to obtain data to test and clarify the model. Course members on the D.M.S. range from 23 years of age to the mid-forties or early fifties; some have first degree or equivalent qualifications whilst others have none; some have had only a few years job experience - others many years; some are just beginning their managerial careers whilst others have been in management for years. Course members also differ in the type and size of organisations for which they work, the range being extensive in both cases.

Whilst the D.M.S. course offers a reasonably suitable population, it does pose problems of bias. Since the project is primarily concerned with perceptions of organisation variables it was necessary to ensure that as few extraneous variables as possible influenced the perceptions or, at least, to know the likelihood of it happening. A course such as the D.M.S. may well have such influences on perceptions, and attitudes, as a result of the study and discussion which takes place. Whilst not being able to eliminate this, its potential occurence was catered for by ensuring that completed questionnaires could be analysed by the stage reached on the course by the respondets. Questionnaires were distributed personally to course members and returned anonymously to guarantee confidentiality. A small number of persons were also interviewed to gain their reaction to the general model - not to verify their completed questionnaires, since their identity was unknown. Whilst no individual follow-ups were possible, it was relatively easy to follow-up groups of people in different classes and remind them about the questionnaire. Additional respondents were gained by direct contact with a number of local companies.

Alternatives

It would, perhaps, have been more appropriate in some respects to have selected a number of organisations varying in the type and size and to have conducted a survey among a sample of managers from them. This would have ensured balance and contrast in the data. However, the difficulties of doing this were well-experienced in project 1 and these, coupled with the most severe economic, political and industrial problems for many years (the project was carried out late 1973 and early 1974), made the method chosen the most suitable. It could also be argued that several field studies of actual situations would have been more relevant than studying the perceptions of how the variables interact but again the prevailing 'ambient conditions' were unsuitable. The main purpose was, in any case, to study perceptions.

Questionnaire Development and Analysis

The questionnaire was developed based directly on the model discussed in chapter Three, and comprised six parts. Part one contained a set of measures of the respondents' organisation on nine variables; part two sought to gain some indication of how the respondent thought individuals with different orientations would behave in the organisation; part three asked for a rank order of the nine variables in terms of their influence on behaviour; part four attempted to gain information as to how direct or indirect the respondent thought the influence of each factor was on behaviour; part five obtained a rough measure of the general orientation of employees in the organisation; whilst part six sought basic factual data about the company as a check on some of the earlier responses - particularly those in part one.

A draft version of the questionnaire was circulated to a small group of people including colleagues - who were asked to complete it and discuss

any difficulties experienced with the author. As a result of this process substantial revision in content and format* was made.

Each copy of the final questionnaire was signed personally by the author and marked to indicate which stage of the D.M.S. course the respondent had reached. A small sample of non-D.M.S. respondents was used as a control group. Data was analysed using a B.M.D. regression analysis programme+ in order to examine the interaction between variables and the relative importance of each variable as perceived by the respondents. All analysis was carried out on the Polytechnic's computer, other than those concerned with rank orders - these were performed by hand. On certain aspects of regression analysis reference was made to Yeomans (1968 - vol. 2) and Afifi and Azen (1972) - the latter being particularly oriented towards users of computer packages (although still a fairly mathematical and symbolic treatment).

PROJECT 4 - PAYMENT SYSTEMS AND ORIENTATION TO WORK

One of the major reasons for embarking upon the research described in this chapter was the notion that the relationship between the dominant orientation expressed by an individual and the type of payment system in operation in an organisation could be crucial to the survival of the individual in that organisation. Indeed, hypotheses 1, 3 and 4 discussed in the last chapter, together with tables 4.1 and 4.5 and research issues 6 and 7 indicate how important this relationship might be. The results of the previous projects will, of course, have a real bearing on what research will be carried out in project 4 but a general design can be presented now provided it is accepted that modifications may have to be made later on.

---

*Thanks are due to my colleague [redacted] for the time and help given in providing constructive criticism of format.

+Thanks also go to [redacted] of the Polytechnic's Mathematics Department, for his advice concerning statistical analysis.

The following analysis - similar to that already applied in projects 1 and 3 - shows how the design of this project is built up and indicated the formidable task confronting the research worker in this field.

Purpose

The purpose of this project is summed up in the hypotheses and research issues listed in the last chapter, suggesting a complex set of possible aims. In order that the research design can be kept in sensible proportions it is necessary to distill the essence of the project into a statement of more general intent, namely that its purpose was to explore the relationship between the variables of orientation (ORN), behaviour (B), and payment system (P.S.) assuming other organisational factors (OF) to be constant. This latter qualification will be borne very much in mind when assessing possible research strategies.

Actions Required

The ideal approach would be to keep constant all variables other than ORN, B and P.S. and to vary P.S. for different forms of ORN whilst observing B. To the physical scientist this would be, perhaps, the only acceptable approach available but for the social scientist it is a utopian state aimed for but never (or very rarely) achieved. It might, of course, be possible to find several organisations which were similar on a large number of O.F. variables but with differing payment systems. Or it might be wiser to look at only one organisation and try to determine differences in orientation between current and past employees or between employees in different units subject to different pay systems. Such an approach might allow, for example, technology to remain constant but often payment systems vary with technology. Furthermore, the possibilities of finding such an ideally suitable organisation are small - except by chance - and the search for one might take more

time than that available for the research itself. It would seem, then, that most approaches are problematical and that a design which allows flexibility should be sought. Therefore, a multi-organisation design will be considered since it can be narrowed to a specific organisation or unit of that organisation if further analysis shows this to be necessary - it is more difficult to work the other way into the unknown. The approach used will require the P.S. variable to be manipulated, ORN to be measured and the independent variable B to be assessed.

Likely Influencing Factors

These have already been discussed in chapter Three and some simple measures suggested in chapter Four. Of the eight O.F. variables (excluding payment systems) it seems more likely to be able to hold technology, tasks, and conditions of work reasonably constant. They are fairly overt in character and, therefore, more easily idenifiable than the others. It might become desirable to use a mixture of experimental and statistical control for the remaining variables but this may present technical problems in the analysis of data at a later stage. However, such an option needs to be borne in mind for if certain variables cannot be controlled (i.e. kept constant) through experimental design the possibility of their manipulation, through statistical means, by the researcher is of paramount importance.

Basic Design

The general strategy is illustrated in Table 5.2 which assumes organisational variables other than payment system to be held constant. The organisations (and pay systems) were chosen to represent extremes of the variable(s) being manipulated, such that one group of employees were paid a flat weekly wage whilst another group was on a bonus system. For this multi-organisation approach three payment systems would be ideal - for

example, bonus, straight hourly/weekly rate, and merit rating - for maximising possible effects on behaviour and expressed orientations of employees.

TABLE 5.2 - GENERAL RESEARCH DESIGN - PROJECT 4

	ORG. 1. Pay System A	ORG. 2. Pay System B	ORG. M. Pay System k
INSTRUMENTAL ORN			
RELATIONAL ORN			
PERSONAL ORN			
COMBINATION ORNS			

The cells of the matrix can represent either exhibited behaviour or number of employees expressing a particular orientation, depending upon the particular purpose in mind.

A second experimental design is possible within this general framework and that is one which looks at the effects of the same payment system in different organisational contexts. Table 5.3 illustrates this form.

TABLE 5.3 - RESEARCH PARADIGM FOR ILLUSTRATING MODERATING EFFECTS OF DIFFERENT ORGANISATIONAL CONTEXTS ON THE RELATIONSHIP BETWEEN PAY SYSTEM AND ORIENTATION

	Payment System k		
	ORG 1	ORG 2	ORG M
INSTRUMENTAL ORN			
RELATIONAL ORN			
PERSONAL ORN			
COMBINATION ORNS			

By holding PS constant it would be possible to test the effects of variations in other major causal factors - say technology. A series of such experiments would enable the perceptual evidence of project 3 to be tested against 'reality', although the likelihood of finding such ready-made experimental situations are slim indeed.

Another more specific experimental design can be derived from the general approach. This concerns the relative attraction to an organisation of employees with different orientations. A fairly simple indication of this would be the mean ($\bar{X}$) orientations expressed by current employees and also by those who had left in the recent past, as indicated in table 5.4.

TABLE 5.4 - RESEARCH PARADIGM FOR ASSESSING RELATIVE ATTRACTION OF PEOPLE WITH DIFFERING ORIENTATIONS TO AN ORGANISATION

	ORGANISATIONAL FACTORS (CONSTANT)					
	PAY SYSTEM A		PAY SYSTEM B		PAY SYSTEM k	
	S	L	S	L	S	L
INSTRUMENTAL ORN						
RELATIONAL ORN						
PERSONAL ORN						
COMBINATION ORNS						

S = STAYERS: L = LEAVERS

Thus, a survey of representative samples of current and past employees would be undertaken to assess individual and aggregate orientations. An addition would be to trace a group of new recruits through their life in the organisation to determine if any changes or adjustments in orientation occur

and their major causes, or at what point an individual with a 'contrary'* orientation decides to leave. Such a longitudinal study would require considerable time to follow through but could provide important empirical evidence for some of the points raised in chapter Four.

Method

Information about a large number of organisations in the southern region was obtained through the Information Officer at the Portsmouth School of Management Studies from which to establish a reasonable potential population for study. From these a few were chosen based on similarity in technology and size, and personal contacts were developed with - in the first instance - a senior member of the personnel department. It was hoped that these would form the basis of the longitudinal study mentioned above as well as offering opportunities for implementing the general research design (Table 5.2). Other organisations were approached with a view to implementing Table 5.4. Although this could also be achieved with the same organisation(s). Permission to approach a sample of new recruits, current employees, or past employees (whichever was appropriate) was requested on the understanding that follow-up studies would be necessary in the case of new recruits. A similar understanding was reached with members in the sample.

Development of Research Tools

Originally it was planned to use the interview technique throughout and back them up with supplementary questionnaire data from a wider population.** This would have allowed for an in-depth exploration of orientations to take

---

**The use of a combination of research methods is strongly advocated by Chisnall (1973) among others.

* A contrary orientation is one that would appear to be in conflict or opposition to that type of payment system in operation. (See table 4.1 of chapter Four).

place, elaborating upon the results of project 1 and, hopefully, going beyond them.

However, the results of project 1 indicated that a larger amount of data than envisaged was required, making the use of a questionnaire innevitable. The questionnaire (see appendix 6) was developed and tested in a way similar to that used for project 1 with the content being based upon the theoretical and research literature available. It was hoped to gain as much simple data as possible not only about the respondent's orientations but also about his attitudes towards his job and various organisational factors, particularly the payment system. The measures of orientation were chosen from those developed and tested in project 2. Supplementary interviews were intended to be used in a follow-up made to a percentage of respondents in the longitudinal study to assess changes in orientations. In the case of the other designs interviews were intended as validity checks on the data obtained from using a simple set of orientation measures (see Appendix 7).

A General Note

It will be apparent from the descriptions given in this chapter that a fairly ambitious, even perhaps, over-ambitious programme of research has been embarked upon. The last project is as big, if not bigger, than the first three together which, it is estimated, would take some two years of full-time research to complete. Each project must be completed before the next begins (with the exception of project 2 which, in fact, straddled projects 1 and 3) such that the hope for this thesis is to complete the first three projects and make some inroads into the fourth, the latter then forming the basis of an on-going research programme itself. Particular importance is attached to the development of measures of orientation with the hope that some meaningful progress will be achieved in that direction

whilst exploring the models discussed in chapters Two and Three. Thus it is hoped to achieve results in both the inventive and adaptive fields of research (fig. 5.1) which will be of a descriptive and prescriptive nature. The inevitable complexity of the research designs also implies the adoption of a subjectivist approach since the objectivist's model and its consequential experimental design criteria cannot be adhered to in survey work and field studies of such highly dynamic complex nature.

The overall research programme is shown in network form in figure 5.3.

Fig. 5·3 Network of Total Programme

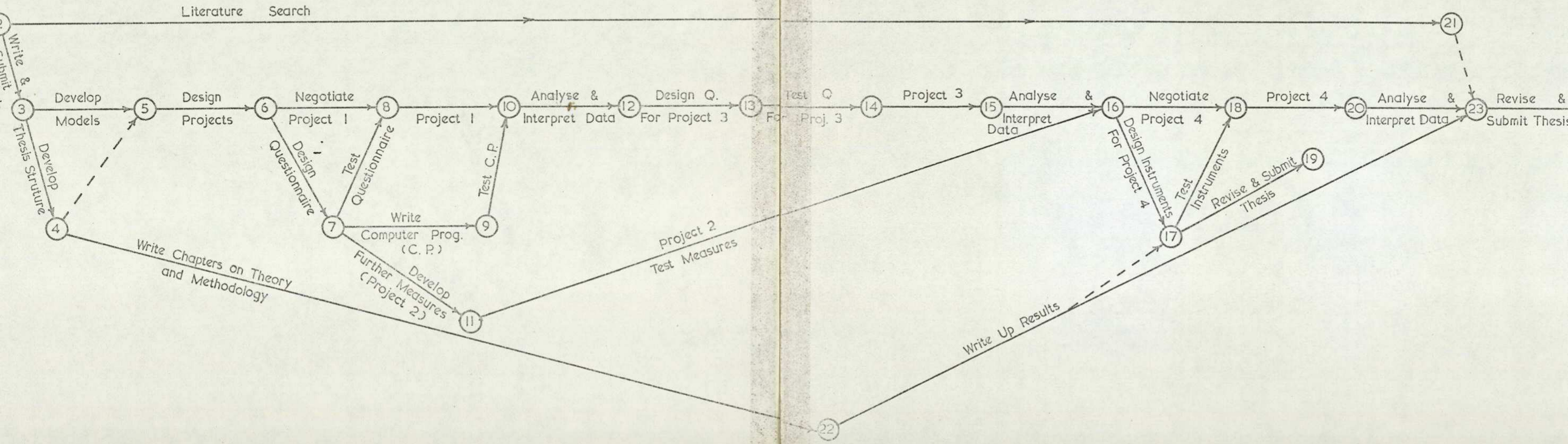


Fig. 5.3

PART THREE

A R E C O N S I D E R A T I O N

"I seek not to know all the answers, but rather to better understand the questions." Anonymous, 1973

"The purpose of research is to discover answers to questions through the application of scientific procedures." Selltiz et al, 1965, p.2

"But solutions are only as good as the information on which they are based (subject to the vagaries of intuition) ... " Bennett, 1974B

NOTE: Some of the data related to the discussions in chapters six and seven are presented in Appendix 8. The tables and figures containing these data are numbered in sequence with the tables and figures appearing in the text itself in order that their logical relationship to the discussion is maintained. Whilst this is unconventional, it is hoped it will aid the reader in referring from text to appendix and back again.

CHAPTER SIX

RESEARCH DATA AND DISCUSSION - ORIENTATION TO WORK

The point has been made earlier in this thesis (preface and chapter one, for example) that the primary concern of the author was to develop a theoretical basis for viewing organisational behaviour (a 'need' pointed out by Bennett - 1974A) and to attempt where possible to seek some empirical support for the theoretical positions taken. This chapter presents and discusses data collected in two of the projects - those concerned with orientation to work and its measurement.

It is suggested that the research data helps clarify some of the major questions asked, and indicates some possible answers, too. A small step forward will have been made if only the questions are better understood.

PROJECT 1

ASSESSING THE MODEL OF ORIENTATION

It will be recalled from chapters two, four and five that, although some support existed for the model developed in chapter two, it was felt necessary to attempt to gain additional support, and that this would be achieved by means of a questionnaire survey backed up by telephone interviews. The data was gathered with the aim in mind of providing support for hypothesis two (chapter four) namely:

> "that individuals expressing different orientations to work will be characterised by different combinations of background and situational variables."

Such variables are numerous and those used as the basis of questions were selected from the literature as being of likely influence on orientations. A list of the variables covered is given in table 6.1 together with the variable name given (initially to facilitate writing the survey analysis computer programme) and the relevant question number (ref. appendix 3). Since not all were true, continuous variables it was not possible to use very sophisticated clustering or factor analytic methods; indeed, the strength of the data would not have justified this, as will be discussed later.

Variation achieved in terms of research design

Before presenting and discussing the results it is important to establish the extent to which the survey covered the major requirements of the research design shown in table 5.1 of chapter five. It will be recalled that these were to cover as widely as possible the type and size of the organisation to which an individual belonged, and the age and job level of that individual. This has to be done in two ways; first, for the type and size of organisation

TABLE 6.1

SURVEY VARIABLES

CLASS	VARIABLE	VARIABLE NAME	QUESTION NUMBER
SITUATIONAL	AGE	AGE	1
	CURRENT JOB	CUR JOB	2
	UNION MEMBERSHIP	UN MEM	7
	INCOME	INCOME	8
	OTHER INCOME	OTH INC	9
	MARITAL STATUS	MAR STAT	10
	NO. OF CHILDREN	NUMB CHILD	11
	WORKING WIFE	WIFE WORK	12
	TYPE OF ACCOMMODATION	TYPE ACCOM	14
	CLUBS BELONGED TO	ASS MEM MAN	28
	BROTHER'S JOB(S)	BR JB	6
BACKGROUND	PREVIOUS JOB(S)	PST JB	3
	TRAINING DONE	APPR	19
	STUDYING DONE	TYPE ST	20
	TYPE OF QUALIFICATIONS	TYPE QUALS	21
	MOTHER WORKED	MOTH WORK	22
	NO. OF BROTHERS	NUM BROTH	23
	NO. OF SISTERS	NUM SIST	24
	SCHOOL ATTENDED	SCHOOL ATT	15
	TYPE OF SCHOOL	TYPE SCHOOL	16
	SCHOOL QUALIFICATIONS	SCHOOL QUALS	17
	POSITIONS AT SCHOOL	SCHOOL POS	27
	JOBS AS BOY	JOB BOY	26
	CLUBS BELONGED TO AS BOY	ASS MEM BOY	25
	FATHER-IN-LAW'S JOB	FATH IL JOB	4
	FATHER'S JOB(S)	FATH JOB	5
	AGE ON LEAVING SCHOOL	AGE LEAVE SCH	18

it is necessary to look at the organisations that participated in the study since (deliberately) this information was not sought in the questionnaire. Secondly, age and job levels can be more adequately shown by reference to actual returns since these were data gained by the questionnaire.

The range of potential organisational types to be covered is well illustrated by reference to the Standard Industrial Classification (S.I.C.), a general version of which is given in table 6.2. Any survey adequately covering all these categories would be immense in terms of volume of questionnaires and time, and was outside the scope of the author's facilities. It was possible (as intended) to include a number of very different types of organisations as demonstrated in table 6.3 and covering at least nine categories of the S.I.C. In addition to this, questionnaires were distributed to members of various courses run by local institutions (including shop stewards, managers and other types of employee) and by a small survey of the local general population. It was not intended that the samples be proportionate to or even totally representative of their populations but that they should throw up as wide a variation as possible in terms of the research design. (See Moore, 1970, and Thomas, 1972 on problems relating to the percentage sample).

The sizes of the organisations sampled (and other population sources) ranged from those employing a few dozen people to those employing tens of thousands, as column 2 of table 6.4 clearly shows. Note that some population sources (M to R) had indeterminate or irrelevant sizes in-as-much-as respondents could be counted as members of several populations (e.g. people on a mechanical engineering course were members of the course population, the educational institution's population, their employing organisation's population, and the public at large). Such sources did, however, help to ensure a reasonable spread on the design criteria.

Table 6.5 demonstrates the variation achieved on actual returns on the age and job criteria. It will be seen that, whilst a variation has been achieved along each dimension, there is a tendency for certain categories to dominate, especially in table 6.5(a).

None-the-less, the range achieved should be sufficient to indicate at least the possibility of orientations differing as a result of different combinations of factors.

The survey did, then, achieve a considerable degree of the intended variation but with some gaps - the gaps being reasonably random or spread along the dimensions.

Response Rate

With the resources available to the author it was possible to aim at a total survey of 1000 potential male respondents. In the event only 852 questionnaires were distributed since negotiations with some organisations could not be completed due to, for example, delicate union problems or other particular issues which made it unwise to carry on with the survey. The frustrations felt with, and the time and effort spent on, these unsuccessful negotiations were considerable but although they have been lost to the research programme the experience gained has been invaluable.

Since an option of anonymity was given to potential respondents it was felt unwise (and, in any case, impossible) to trace non-respondents and follow up with a reminder. The expectation was, therefore, that a low percentage return rate would be achieved. In the event a very encouraging return rate was achieved (nearly 46%) as indicated in the lower portion of table 6.4. If one considers the somewhat personal nature of some of the questions asked then the rate is even more encouraging. Of the 389 useable returns only a handful had data missing from just one question.

TABLE 6.2

LIST OF INDUSTRIAL CLASSIFICATIONS

01 = Agricultural forestry, fishing
02 = Mining and quarrying
03 = Food, drink and tobacco
04 = Coal and Petroleum Products
05 = Chemical and Allied Industries
06 = Metal Manufacture
07 = Mechanical Engineering
08 = Instrument Engineering
09 = Electrical Engineering
10 = Shipbuilding and marine engineering
11 = Vehicles
12 = Metal goods not elsewhere specified
13 = Textiles
14 = Leather, leather goods and fur
15 = Clothing and Footwear
16 = Bricks, pottery, glass, cement, etc.
17 = Timber, furniture, etc.
18 = Paper printing and publishing
19 = Other manufacturing industries
20 = Construction
21 = Gas, electricity and water
22 = Transport and communication
23 = Distributive trades
24 = Insurance, banking and finance
25 = Professional and scientific services
26 = Miscellaneous services
27 = Public administration and defence

TABLE 6.3

RANGE OF ORGANISATIONAL TYPES COVERED

PUBLIC UTILITY A,M

PUBLIC SERVICE (VIA COURSES - HEALTH and POLICE) D,L

ELECTRONICS B

LOCAL GOVERNMENT C

COMMERCIAL (T.V. RENTAL) E

DISTRIBUTION (FUELS) F

MANUFACTURING G, J

BREWING H

GENERAL POPULATION - MAIL SHOT S

GENERAL POPULATION (VIA COURSES) N, O, P, Q, K

RETAIL TRADE I

TRADE UNIONS R

Note: Letters refer to Table 6.4

TABLE 6.4

SURVEY RETURNS

1 SAMPLE+ SOURCE	2 APPROX. TOTAL POPULATION	3 USABLE RETURNS	4 CIRCULATION NETT/GROSS*	5 % USABLE RETURNS	
				NETT	GROSS
A	60,000	11	13/13	84.6	84.6
B	3,000	16	37/40	43.2	40.0
C	5,500	25	85/109	29.4	25.0
D	2,500	17	19/20	89.5	85.0
E	50	7	40/40	17.5	17.5
F	150	13	31/31	41.9	41.9
G	2,000	14	27/27	51.9	51.9
H	300	6	26/26	23.1	23.1
I	150	4	12/12	33.3	33.3
J	200	21	39/39	53.8	53.8
K	1,500	42	98/98	42.9	42.9
L	7,000	5	10/10	50.0	50.0
M	NEITHER	36	65/69	55.4	52.2
N	KNOWN NOR RELEVANT	6	10/10	60.0	60.0
O		46	79/79	58.2	58.2
P		7	43/43	16.3	16.3
Q		90	96/98	93.8	91.8
R		8	25/25	32.0	32.0
S	250,000	15	56/60	26.8	25.0
		389	811/852	48.0	45.7

SUMMARY

TOTAL RETURNS = $\frac{430*}{852*}$ = 50.5%

GROSS USABLE RETURNS = $\frac{389}{852*}$ = 45.7%

NETT USABLE RETURNS = $\frac{389}{811}$ = 48%

* INCLUDES 41 BLANK RETURNS

+ LETTER CODES RELATE TO TABLE 6.3 AND TO TEXT DISCUSSION

TABLES 6.5 (a & b)

ANALYSIS OF RESPONDENTS

TABLE a

AGE RANGE	RESPONDENTS	
	No.	%
UNDER 20	30	8
21 - 30	117	30
31 - 45	148	38
46 - 60	90	23
OVER 60	4	1
TOTAL	389	100

TABLE b

JOB/ OCCUPATION	RESPONDENTS	
	No.	%
TRAINEE	29	7
MANUAL	76	20
CLERICAL	40	10
SUPERVISORY	43	11
MANAGERIAL	40	10
PROFESSIONAL	100	26
OTHER	61	16
TOTAL	389	100

The response rate does, however, vary considerably with the population source, the lowest being 16.3% and the highest 91.8% No undue difference in pressure was applied to any of the sources so it must be assumed that the response rates reflect some undefined characteristic(s) of the sources. Although these differences would affect the data they have to be accepted, and measures taken to assess the significance of the data. (See Bebbington, 1970, for a discussion on effect of non-response).

Significance of Data

The survey analysis programme contained the facility for producing values of X^2 and the associated levels of significance (p). These significance levels are summarised in Table 6.6 against each of the questions posed. It will be seen that a good number cannot be accepted as significant even if a rather loose level (20%) is taken as the cut-off point. Eleven variables are significant (on at least one of the criterion measures - questions 13 and 29) at the 10% level or better, rising to 16 if a 20% level is used and 17 at the 25% level. Although it is conventional to use $p = 0.05$ as the cut-off point it is contended that in this case a 10% level is not unreasonable.

Therefore, the 20% and 25% levels are questionable in terms of their acceptability but some will be used in the following discussion as pointers to possible influencing (causal) variables. A few sample calculations were carried out by hand to check the computer results and little variation was evidenced.

TABLE 6.6

SIGNIFICANCE LEVELS OF DATA:
PROJECT 1 QUESTIONNAIRE SURVEY

VARIABLE AND QUESTION	CRITERION Q	SIGNIFICANT AT (OR UP TO):							
		0.1%	1%	5%	10%	20%	25%	50%	OVER 50%
AGE (Q1)	13								*
	29				*				
CURRENT JOB (Q2)	13		*						
	29			*					
PAST JOB (Q3)	13						*		
	29			*					
FATHER-IN-LAW'S JOB (Q4)	13								*
	29							*	
FATHER'S JOB (LAST) (Q5)	13							*	
	29								*
1ST BROTHER'S JOB (Q6)	13					*			
	29								*
UNION MEMBER (Q7)	13					*			
	29								*
INCOME (Q8)	13		*						
	29								*
OTHER INCOME (Q9)	13								*
	29					*			
MARITAL STATUS (Q10)	13							*	
	29			*					
NUMBER CHILDREN (Q11)	13							*	
	29								*
WORKING WIFE (Q12)	13							*	
	29							*	
LIVING ACCOMN. (Q14)	13								*
	29					*			

TABLE 6.6
(continued)

VARIABLE AND QUESTION	CRITERION Q	SIGNIFICANT AT (OR UP TO):							
		0.1%	1%	5%	10%	20%	25%	50%	OVER 50%
SCHOOL ATTENDED (Q15)	13			*					
	29				*				
SINGLE/MIXED SCHOOL (Q16)	13								*
	29							*	
SCHOOL QUAL'S. (Q17)	13		*						
	29			*					
AGE LEAVE SCHOOL (Q18)	13							*	
	29						*		
APPRENTICESHIP (Q19)	13							*	
	29								*
STUDY SINCE SCHOOL (Q20)	13			*					
	29			*					
FURTHER QUAL'S. (Q21)	13			*					
	29			*					
MOTHER WORKED (Q22)	13							*	
	29				*				
NO. BROTHERS (Q23)	13								*
	29								*
NO. SISTERS (Q24)	13								*
	29							*	
CLUBS AS BOY (Q25)	13			*					
	29								*
JOB AS BOY (Q26)	13								*
	29							*	
POSITIONS AT SCHOOL (Q27)	13								*
	29							*	
CLUBS AS MAN (Q28)	13					*			
	29					*			

In summary, then, it would seem from the data that the following variables might affect orientation to work:-

1. (S) Age;
2. (S) Current job;
3. (B) Past job;
4. (S) Income;
5. (S) Marital status;
6. (B) School attended;
7. (B) Qualifications obtained at school;
8. (B) Studying done since leaving school;
9. (B) Qualifications obtained since leaving school;
10. (B) Mother working;
11. (B) Clubs/societies attended as a boy: (4S & 7B)

and possibly:

12. (S) Brothers job(s);
13. (S) Union membership;
14. (S) Other sources of income;
15. (S) Nature of living accommodation;
16. (B) Age on leaving school;
17. (S) Clubs/societies attended as a man (5S and 1B)

Note: S = Situational variable; B = Background variable.

Thus, overall there would seem to be an even split between background and situations influences but the strongest data indicate a greater affect coming from background variables. How these relate to actual expressed orientation will now be the subject of discussion.

Orientation related to significant (and potentially significant) variables

In order to establish the relationship between independent and end-result

(criterion) variables the data have been produced in graphical form and are presented in figs. 6.1 - 6.17*. Thus by inspection one can deduce possible relationships. Before discussing the data it is important to make a few points concerning their presentation. In each of the figures the vertical axis represents the percentage number of respondents indicating a particular orientation. This axis has not been labelled because the figures were tending to become too confused by ancilliary data. Each figure consists of data related to the two criterion questions i.e. the job description - J.D. - (Q13) and paired comparisons - P.C. - (Q29) questions, with (a) being Q13 and (b) being Q29.

Some figures are drawn in a different manner as a consequence of the different types of variables involved. Thus, a continuous line is used for true variables (such as age); a dotted line for variables assumed to be true (such as level of job or qualification); and bar charts for discrete variables (such as marital status). For each of these forms, a triangle (△) represents a Personal orientation (P), a circle (⊙) Relational orientation (R), and a cross (x) an Instrumental orientation (I), whilst for question 29 only, a square (□) is used to represent those respondentsindicating no dominant orientation (since an equal number of statements for each orientation could be chosen). The values of p and X^2 are shown in each figure together with the number of respondents in any particular category: this will help in discussions of the viability of the data.

In discussing the data, each figure will be analysed individually for its features and an attempt made later to summarize and integrate the results of the discussion.

---

*Figs. 6.12 - 6.17 appear in appendix 8.

Relationship to age

The relationship of age to orientation is show in fig. 6.1. The data in graph (a) suggests that personal (P) and relational (R) orientation increases with advancing age whilst instrumental (I) orientation decreases. (Exceptions occur at age sixty and over, but the number involved are so small as to make them meaningless. Even so, such changes would be expected on retirement or near retirement). Graph (b) whilst containing data of different forms, indicates a similar pattern for P and I but a rather different one for R. This is probably due to differences in the nature of the R-type aspects of the two questions rather than of the respondents.

One would expect reasonably consistent and similar patterns if the questions were measuring totally the same things. It also appears from graph (b) that older people have more easily distinguishable orientations than younger people; hence the downward trend of frequency of people expressing no dominant orientation. To some extent one would expect these trends - based on experience and life generally. It is unfortunate, however, that the data in graph (a) has turned out to be insignificant, especially when fewer response categories were involved, but visual inspection of the graph does show somewhat smallish trends.

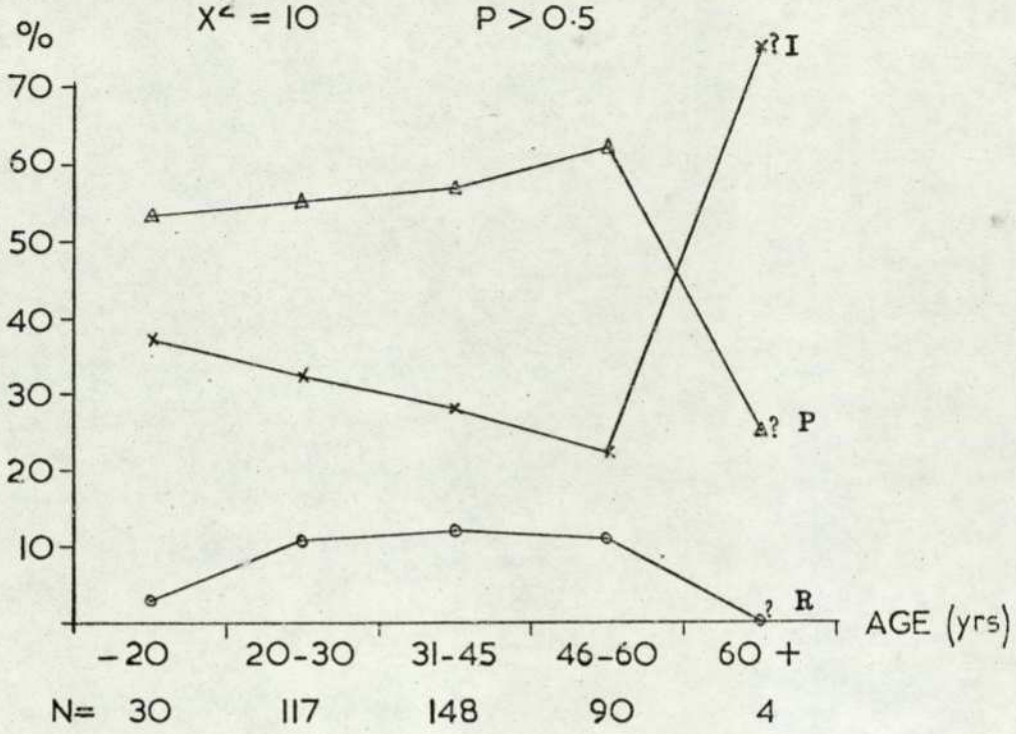
Relationship to current job

This can be seen in fig. 6.2, where both sets of data (a and b) are significant. Both graphs show a tendency for P to increase with advancing level of work, and for I to decrease. The latter point may be more a function of the fact that income also tends to increase with job level, thereby reducing the dominance of I. If one considers the concepts of 'deficiency' and 'growth' motivation, again it is reasonable to accept these trends. The exceptions at supervisory and managerial levels are difficult to explain, particularly in view of the fact that the two graphs

DOMINANT ORIENTATIONS RELATED TO AGE (Q1) FIG.6·1

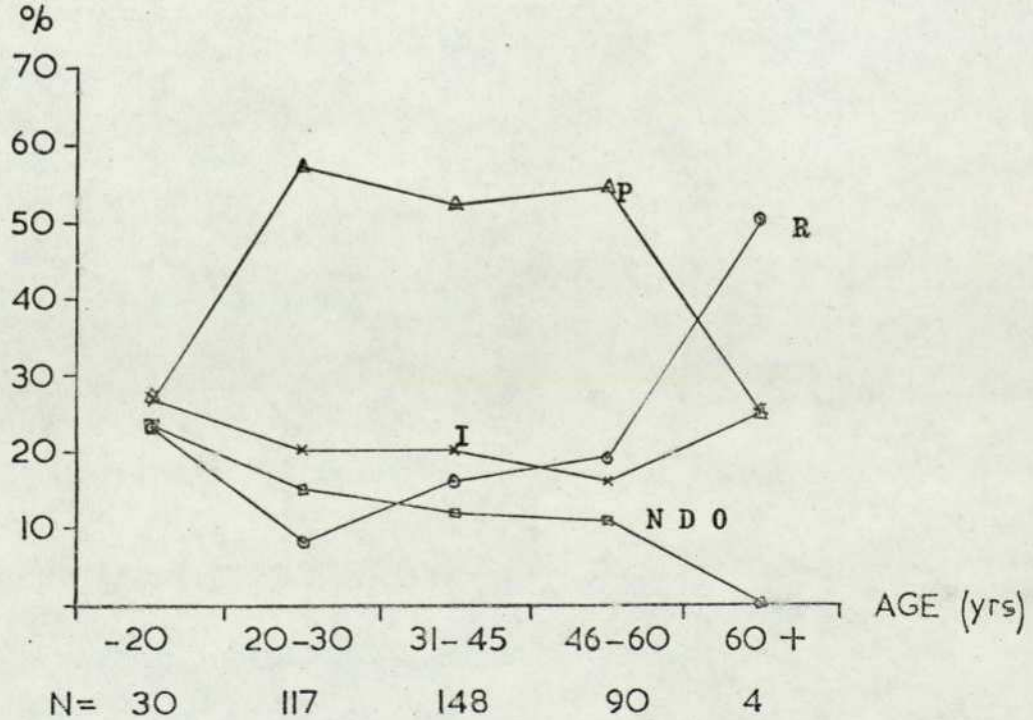
Q 13 a - J.D.

$X^2 = 10$ $P > 0.5$



Q 29 b - P.C.

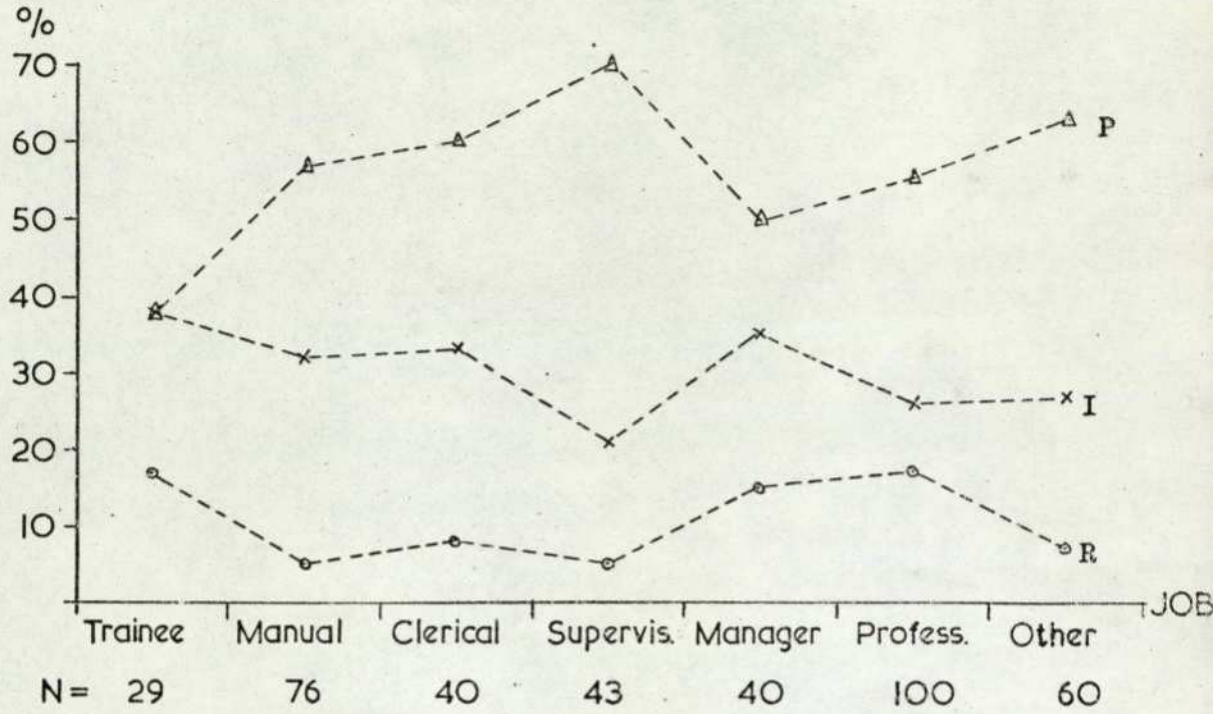
$X^2 = 20$ $.05 < P < 0.1$



DOMINANT ORIENTATIONS RELATED TO CURRENT JOB (Q2) FIG.6.2

Q13 a -J.D.

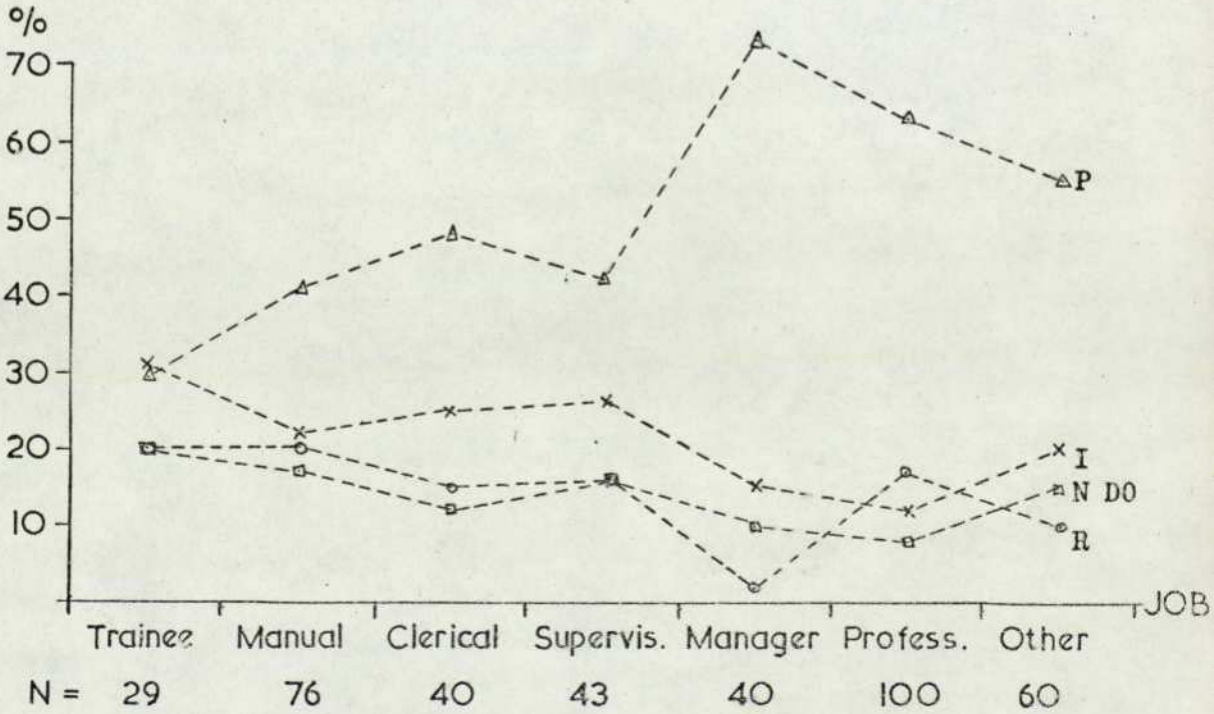
$X^2 = 55$ $P < 0.01$



N = 29 76 40 43 40 100 60

Q29 b -P.C.

$X^2 = 37$ $0.01 < P < 0.05$



N = 29 76 40 43 40 100 60

are contradictory at these points. With respect to R, both graphs show a rather uneven trend, but with an interesting agreement for professional people. They appear to have a higher relational orientation (as a category) than most, but the proportion is small ($< 20\%$). Those people expressing no dominant orientations fluctuate a little but the curve remains fairly consistent. It seems that fewer managers and professionals have difficulty in making up their minds than do others.

Relationship to previous job (fig. 6.3)

Although data relating to many previous jobs was gained by the questionnaire, only the data for the immediate past job was acceptable. Numbers on the others were too small. Here, although again there are exceptions, it can be seen that P tends to increase with the level of the previous job whilst I decreases slightly. R tends to increase in graph (a) (the significance of which is marginal) and remains fairly static in graph (b) (as does the non-dominant responses). As in fig. 6.2 the curious anomaly between the supervisory and managerial levels occurs in addition to trainees being slightly out of phase on the two graphs in relation to other categories. No explanation is offered at this stage for these anomalies.

Relationship to income (fig. 6.4)

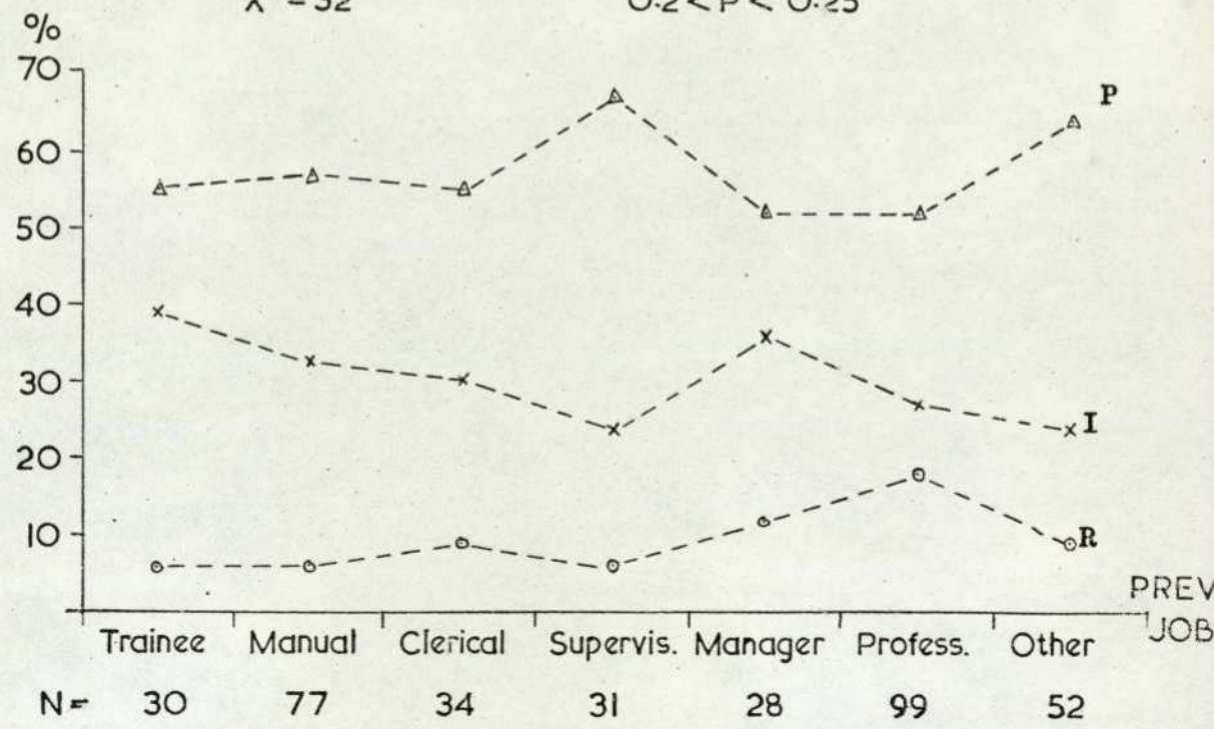
To a certain extent a pattern similar to that shown in fig. 6.2 should occur and to a large degree this is so. It will be seen that P increases quite steadily as income increases - a not unexpected result since a higher level income gives the scope for seeking personal satisfaction (e.g. it reduces the need to worry about paying bills) and since also, on the whole, better paying jobs tend to have more interest and responsibility inherent within them. Thus income, job level, and orientation may be related in a complex causal manner - a point made with some frequency in the literature.

DOMINANT ORIETATIONS RELATED TO (Q3) FIG.6-3

PREVIOUS JOB

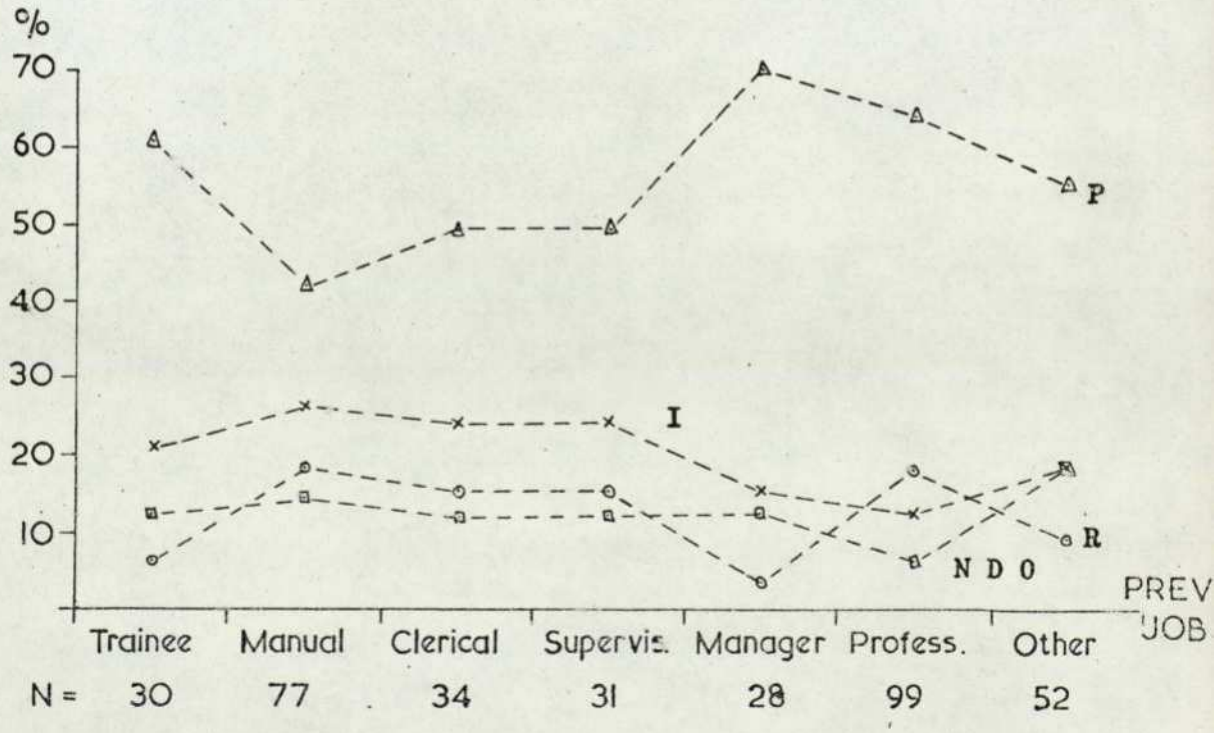
Q13 a -J.D.

$X^2 = 32$ $0.2 < P < 0.25$



Q29 b - P.C.

$X^2 = 43$ $0.01 < P < 0.05$

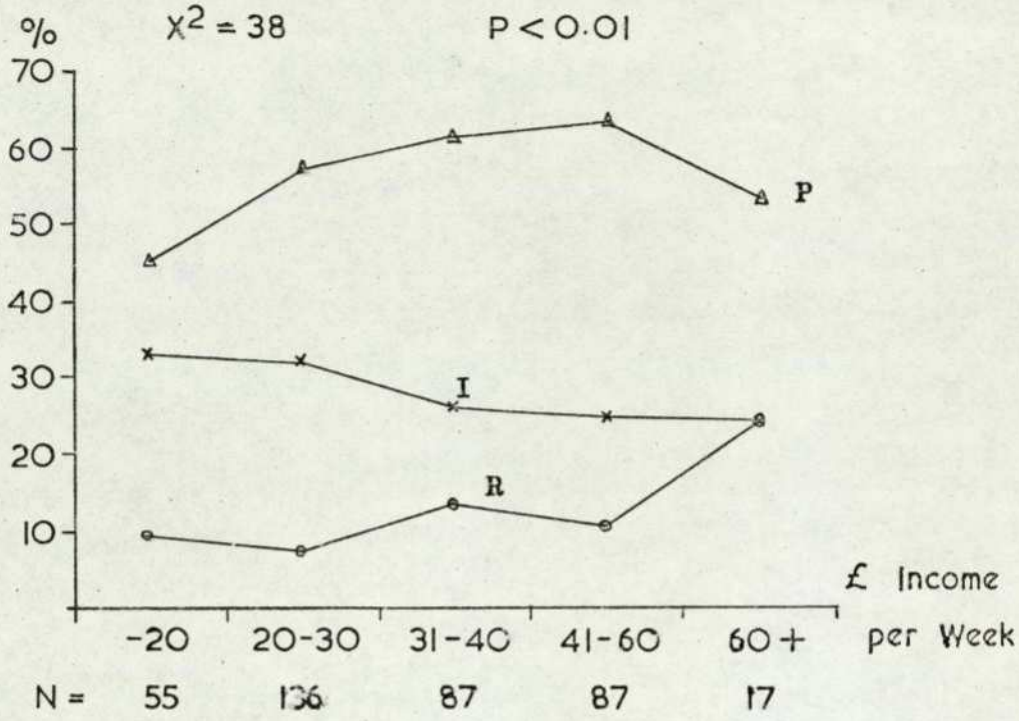


DOMINANT ORIENTATIONS RELATED TO (Q8) FIG.6.4

INCOME

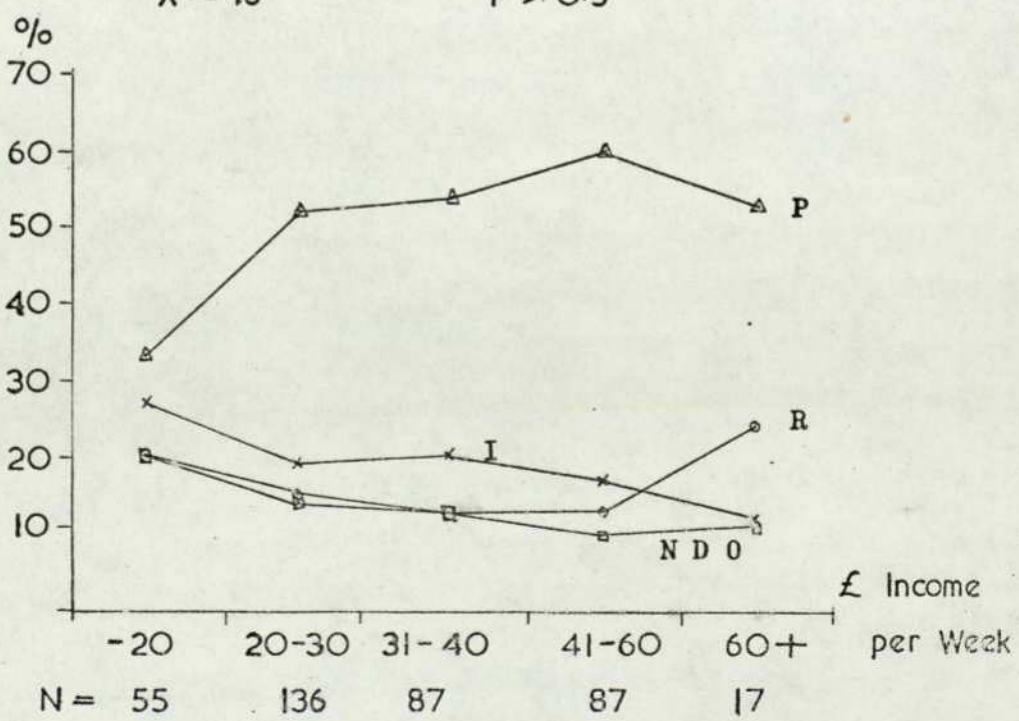
Q13

a –J.D.



Q29

b –P.C.



R also tends to increase with increasing level of income - perhaps because more money gives greater opportunities for social outlets.

It is interesting to note that at the higher level income end of the scale, R tends to increase at the expense of P. This could be due not so much to the fact that the individual is earning a fairly high level of income (note that the values per week no longer relate to current income levels) but rather to what has happened to him in getting to that income level. The person concerned may have had several different types of job at lower levels; the jobs influencing his orientation more than his current income level. Although graph (b) shows trends similar to those of (a), its significance level is not acceptable.

Relationship to marital status (fig. 6.5)

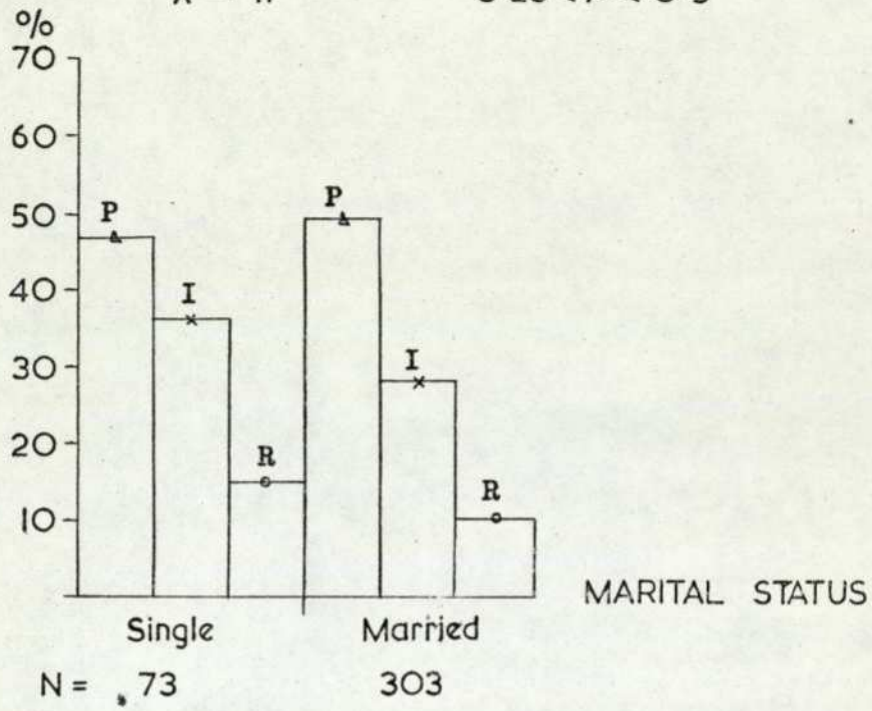
The bar charts or histograms in fig. 6.5 show the responses of married and single people in the survey - other categories being much too small for inclusion (9 in total). It appears that more married men have a greater personal orientation than single men, less instrumental requirements, and marginally less relational requirements. This seems, at first sight, to be the reverse of one's expectations until some deeper questions are answered. One would assume, for example, that married men would have greater financial commitments (particularly if they have children) and therefore more of them would express I as dominant than would single males. But perhaps men do not normally get married until they know they are financially viable, thus reducing the I dominance after getting married. Again, one might expect married men to be more R orientated: yet being married possibly satisfies more relational requirements than does being single, reducing its dominance. Hence, these two areas of requirements being relatively better met than with single, it is understandable that more married men should express a dominant

DOMINANT ORIENTATIONS RELATED TO MARITAL STATUS (Q 10) FIG. 6·5

Q 13

a – J.D.

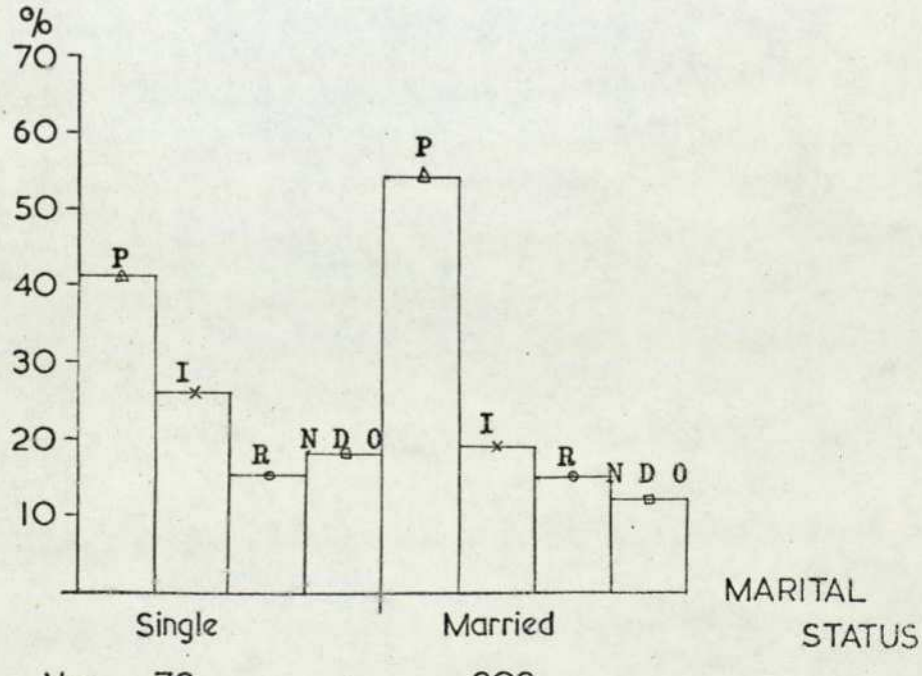
$X^2 = 11$ $0.25 < P < 0.5$



Q 29

b – P.C.

$X^2 = 22$ $0.01 < P < 0.05$



P orientation - however small the difference.

Relationship to school attended (fig. 6.6)

This relationship is not so easy to determine by inspection of the data, although a number of points of interest can be discerned. One is the striking difference between those who attended a comprehensive school (admittedly a very small sample) and the rest. If the results are true of the larger population then comprehensive schools either possess, or are turning out, more instrumentally oriented people than are other schools. This statement does, of course, require much more data to back it up or refute it. A similar interesting difference occurs amongst those who attended a public/private school, but here the two questions differ markedly rendering any analysis inconclusive. On most other aspects the two sets of results also differ (e.g. R-orientation) such that even tentative relationships are difficult to determine. Clearly, if such differences continue to appear, Project 2 will be more than justified, but more will be said on this matter later.

Relationship to qualifications obtained at school (fig. 6.7)

Little of interest can be said about these data. Few patterns emerge, except that those who studied for G.C.E.'s tended to have higher P orientation than others. One interesting point is that the P dominance reduces from 'O' to 'A' level studies with a corresponding increase in R (and only a slight increase in I). Perhaps this is a function of the smaller numbers who study together for 'A' levels, and the impending move into the 'big world'. It may also be that 'O' level study may have satisfied some of the P desires.

Relationship to type of studying done since leaving school (fig. 6.8)

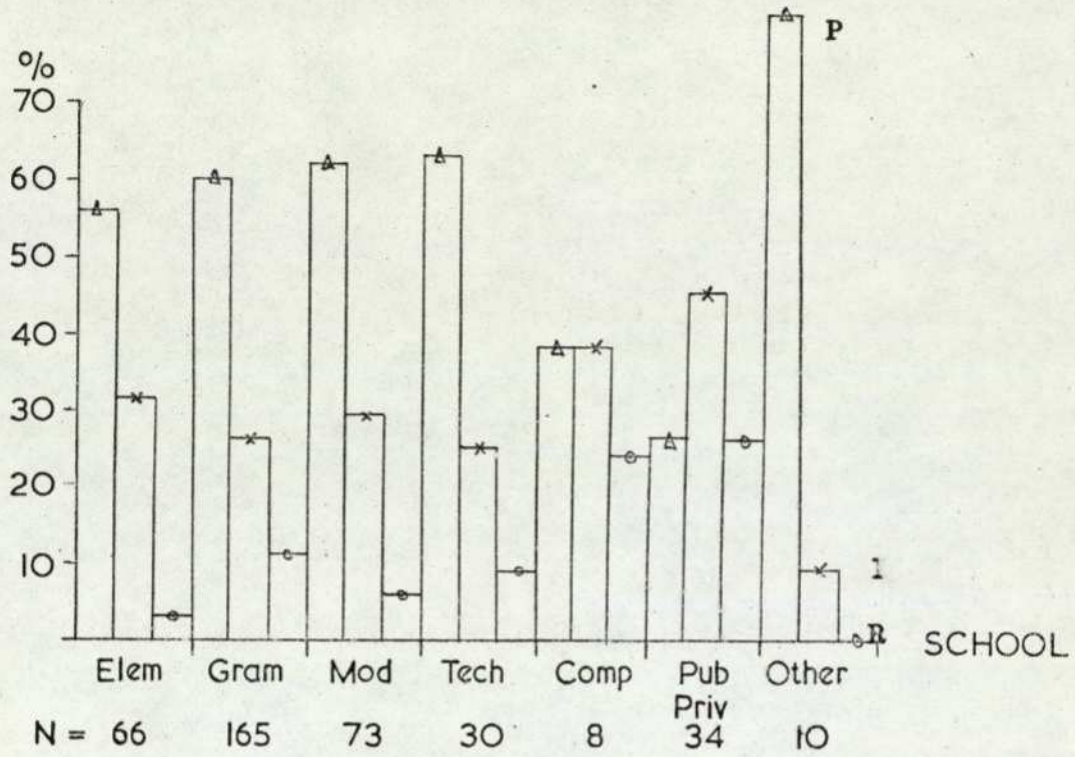
Again no clear-cut relationship seems to exist although some differences are interesting. It would appear that those respondents who undertook a correspondence course of study are much more dominantly P oriented than

DOMINANT ORIENTATIONS RELATED TO (Q15) FIG. 6.6

KIND OF SCHOOL ATTENDED

Q13 a - J.D.

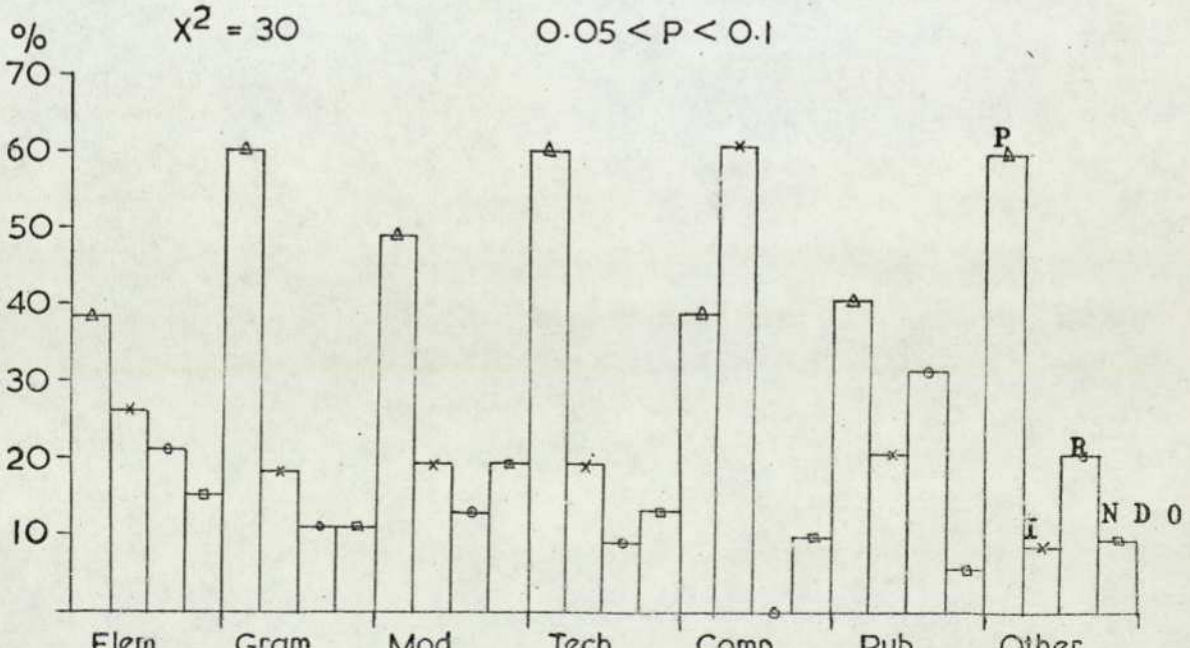
$X^2 = 37$ $0.01 < P < 0.05$



N = 66 165 73 30 8 34 10

Q13 b - P.C.

$X^2 = 30$ $0.05 < P < 0.1$



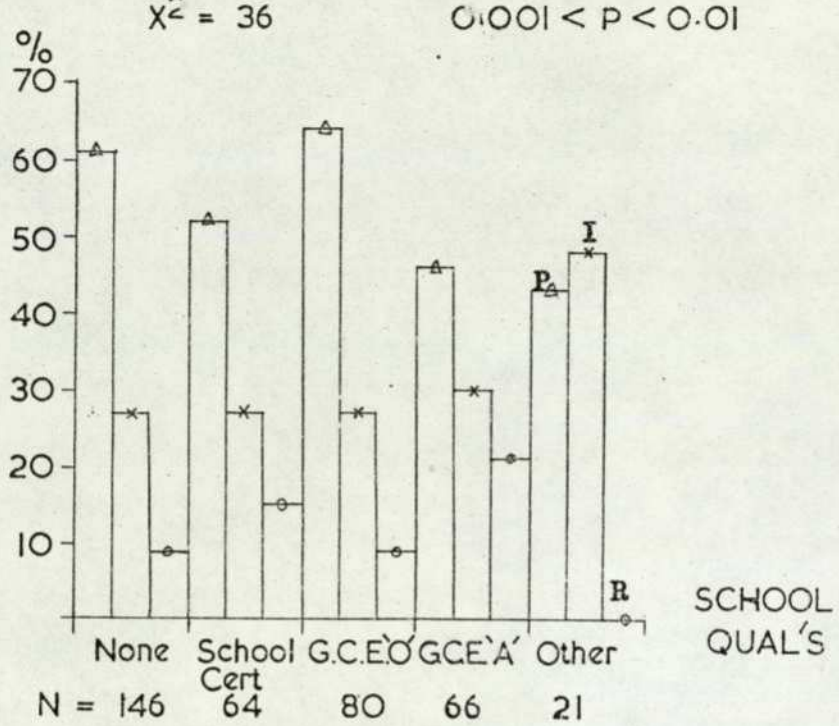
N = 66 165 73 30 8 34 10

DOMINANT ORIENTATIONS RELATED TO SCHOOL QUALIFICATIONS (Q17) FIG.6.7

Q13

a -J.D.

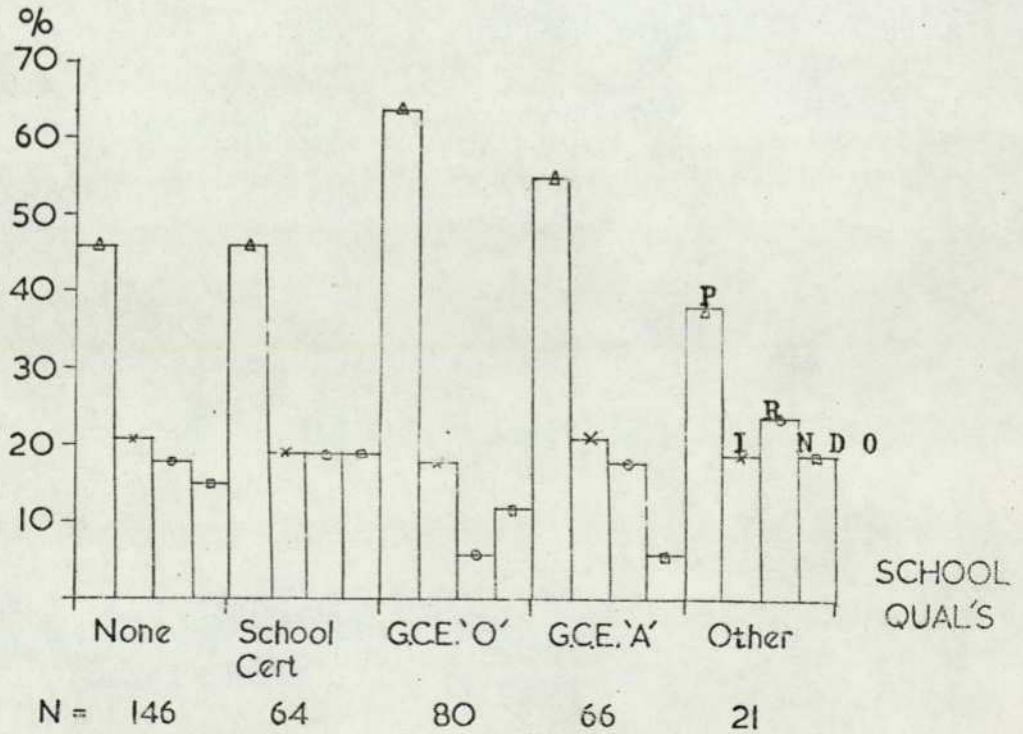
$X^2 = 36$ $0.001 < P < 0.01$



Q29

b -P.C.

$X^2 = 30$ $0.01 < P < 0.05$

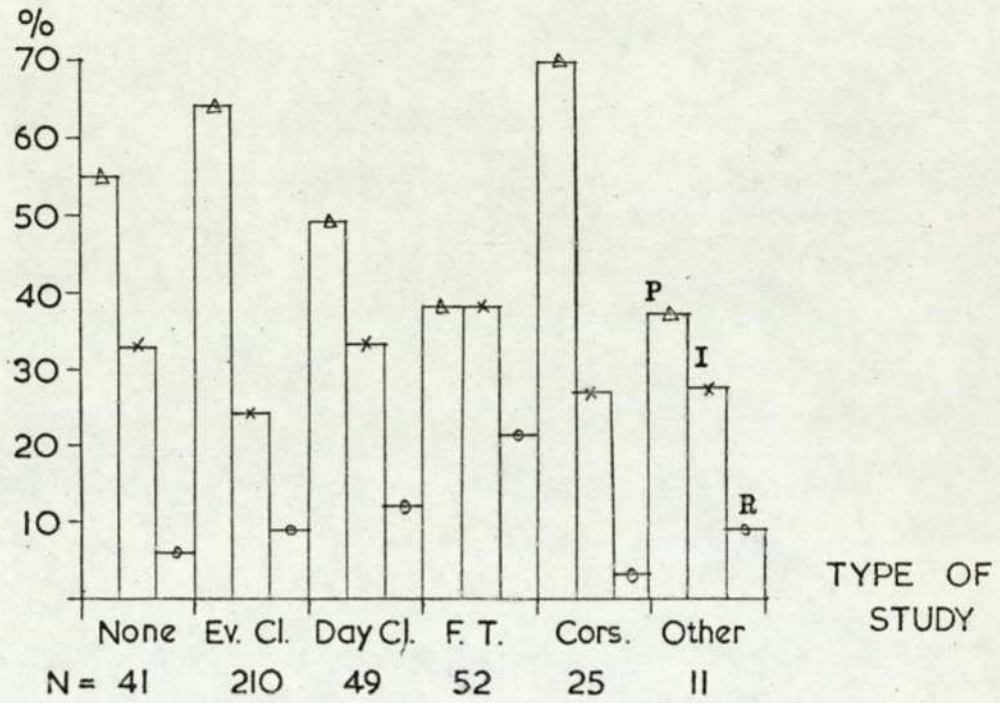


DOMINANT ORIENTATIONS RELATED TO (Q20) FIG. 6.8

TYPE OF STUDY SINCE SCHOOL

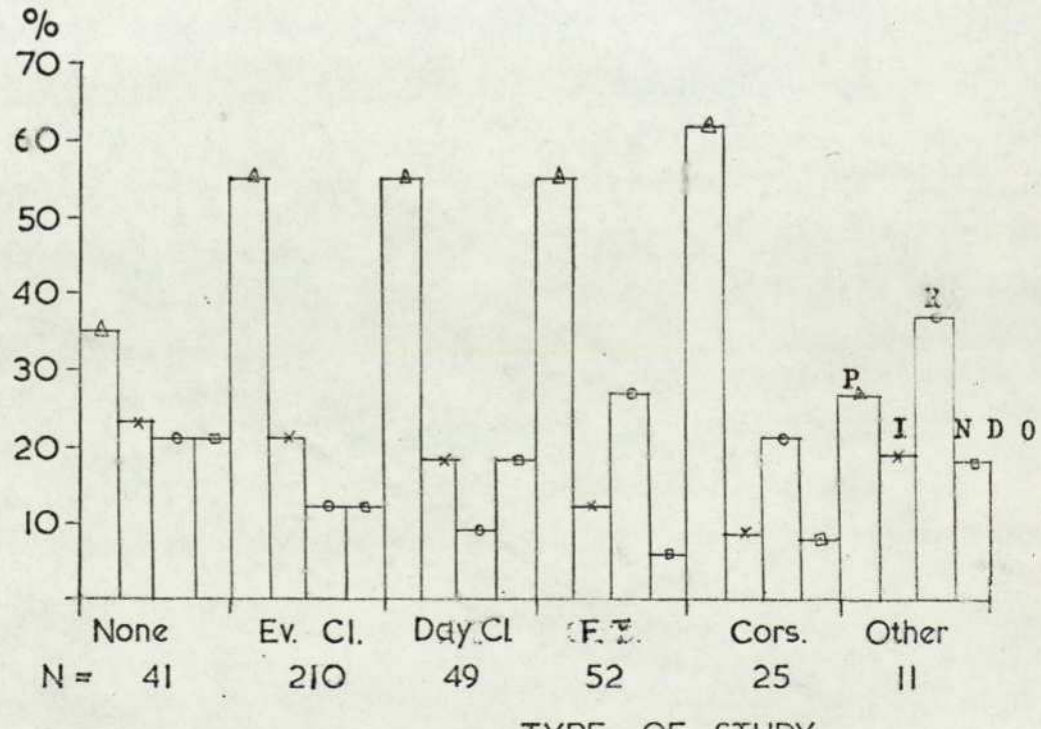
Q 13 a -J.D.

$X^2 = 38$ $0.01 < P < 0.05$



Q 29 b -P.C.

$X^2 = 29$ $0.025 < P < 0.05$



many others. Obviously a person must be highly motivated to undertake such an arduous route and the data are not, perhaps so surprising. Another not so surprising result is that a greater proportion of people who studied on a full-time basis show a dominant R-orientation than do those in other categories. Personal experience of this type of study leads the author to believe that full-time study does have the effect of increasing one's social awareness and expectations. Perhaps the only other noteworthy point is that some 20% of respondents who had undertaken no study were unable to express a dominant orientation ('b'). Maybe continued study does affect orientation, with the nature of the outcome being dependent upon the actual type of study undertaken. This is so for some of the preceding discussions.

Relationship to highest qualification possessed (fig. 6.9)

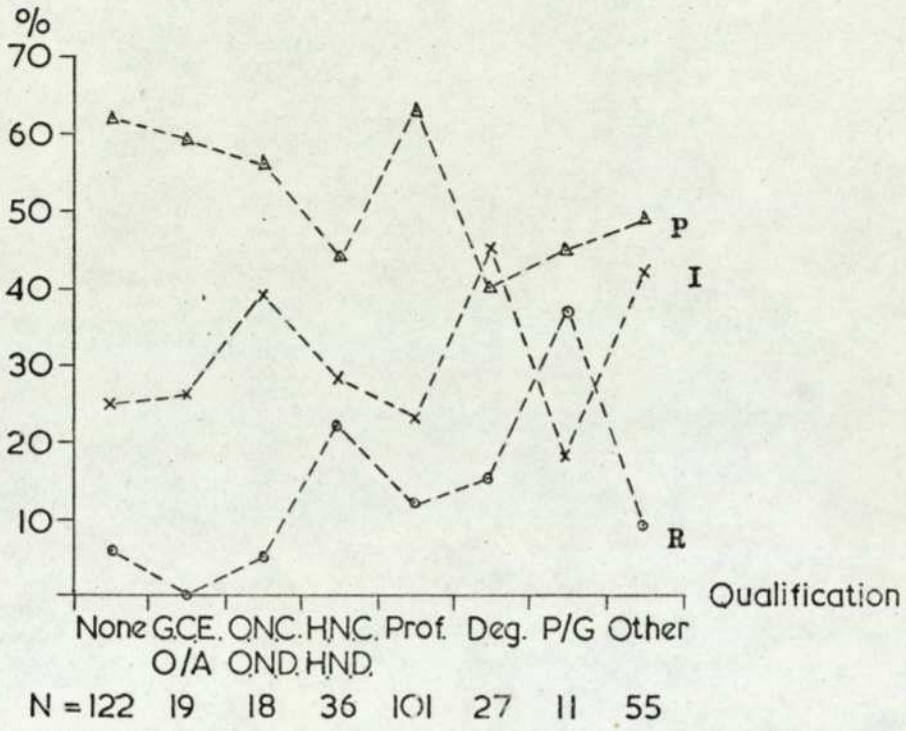
The pattern of relationships shown in these graphs tend again to be somewhat confusing, especially with respect to personal orientations. Graph 'a' depicts a decline in dominance with increasing level of qualification attained whilst 'b' suggests the opposite, although for the latter a general decline takes place between ONC and 'other' qualifications. This may well be due to the effect of the 'no dominance' opportunity available in Q.29. For example, this is zero on Q.29 with a high P dominance for post-graduate qualifications, and higher for the categories of no qualifications and GCE. If the 'no dominance' response was more even, the curve for P would be a little more similar to that resulting from Q.13. Also, I-responses on Q.29 are zero compared with some 18% on Q.13. Thus, if some of the extremes are argued away the resulting 'smoothed' curve would indicate a decline. Both graphs indicate a decline in I responses with increased level of qualification - probably more due to a third variable (job level and/or level of income)

DOMINANT ORIENTATIONS RELATED TO (Q21) FIG. 6·9

HIGHEST QUALIFICATIONS POSSESSED

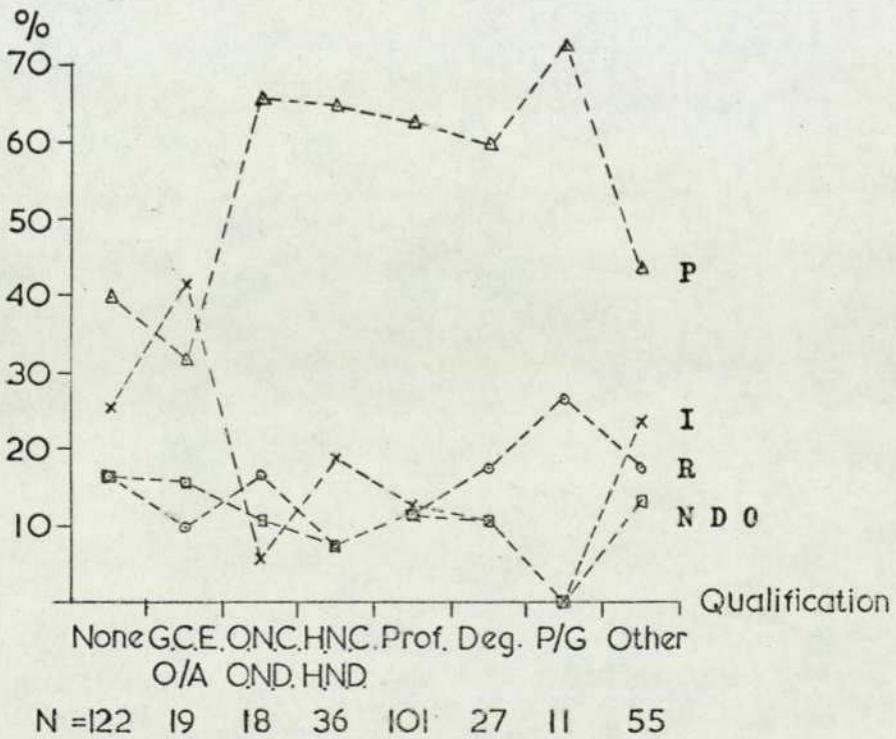
Q13 a - J.D.

$X^2 = 38$ $0.01 < P < 0.05$



Q29 b - P.C.

$X^2 = 33$ $0.01 < P < 0.05$



which is related to qualifications. In general, level of qualification increases with level of job and pay increases with level of job. Thus, level of qualification may not be very important in relation to instrumental orientations. Relational orientations tend to increase with level of qualification and, as was seen previously, this was so far the nature of the previous job (fig. 6.3) income (fig. 6.4) and, to a marginal degree, current job (fig. 6.2). It is clear, therefore, that any further study of sources of orientations to work must utilize a correlation analysis technique which allows for 'partialling out' to be carried out on several variables. This would clarify further what has been seen through inspection alone.

Relationship to mother's working status (fig. 6.10)

This figure indicates a very slight difference between those people who had working mothers and those who did not, and their personal orientations. Slightly more of those whose mothers did not work expressed a dominant P score. Of more significance, perhaps, is the lower number of respondents with non-working mothers, expressing dominant I orientations. This would seem to make sense, since a working mother may be seen to reinforce the importance of economic factors. Equally, the greater R dominance among respondents with non-working mothers makes sense: presumably the importance of satisfaction of good family, social (group) relations is demonstrated by not working, whether by choice or not.

Relationship to nature of clubs attended as a boy (fig. 6.11)

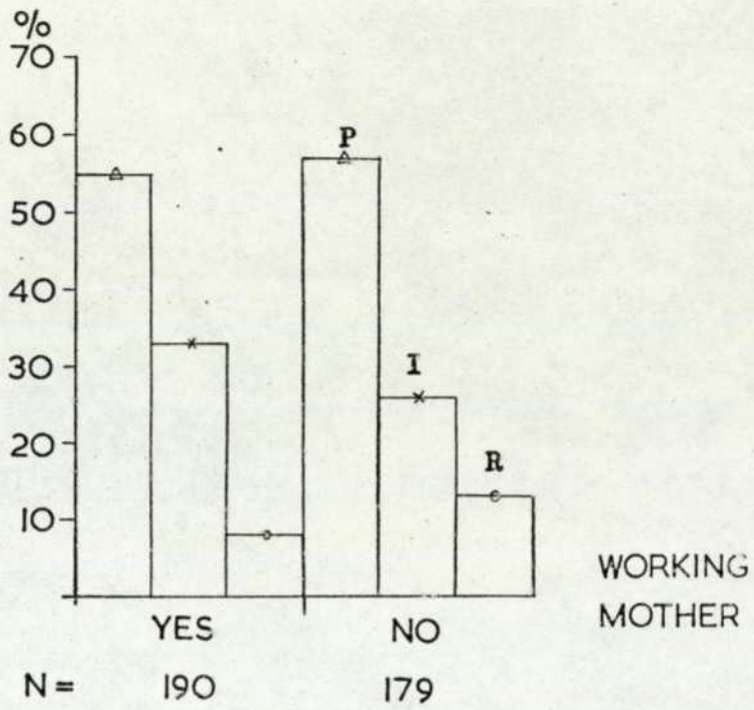
It is difficult to draw any patterns from these graphs since the types of club attended cannot be fitted into any kind of continuum. None-the-less, certain points of interest emerge. It seems clear that those respondents who did attend clubs of one sort or another more frequently express dominate P orientations than did non-club attenders. This is not so true of R and I

DOMINANT ORIENTATIONS RELATED TO (Q22) FIG. 6·10

MOTHER WORKED

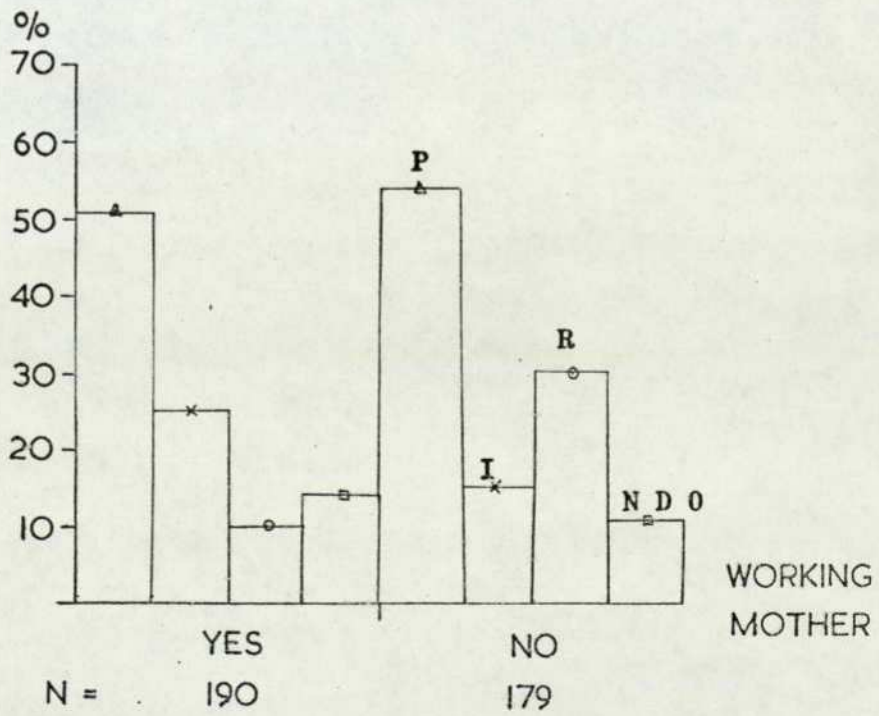
Q13 a -J.D.

$X^2 = 9$ $0.25 < P < 0.5$



Q29 b -P.C.

$X^2 = 16$ $0.05 < P < 0.1$

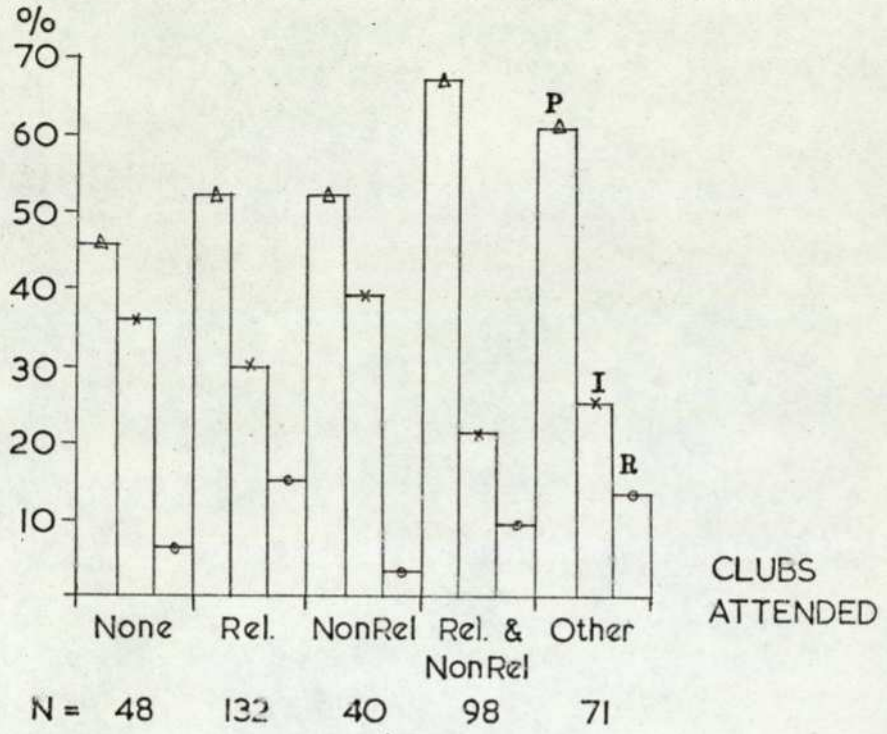


DOMINANT ORIENTATIONS RELATED TO (Q25) FIG. 6.11

CLUBS ATTENDED AS BOY

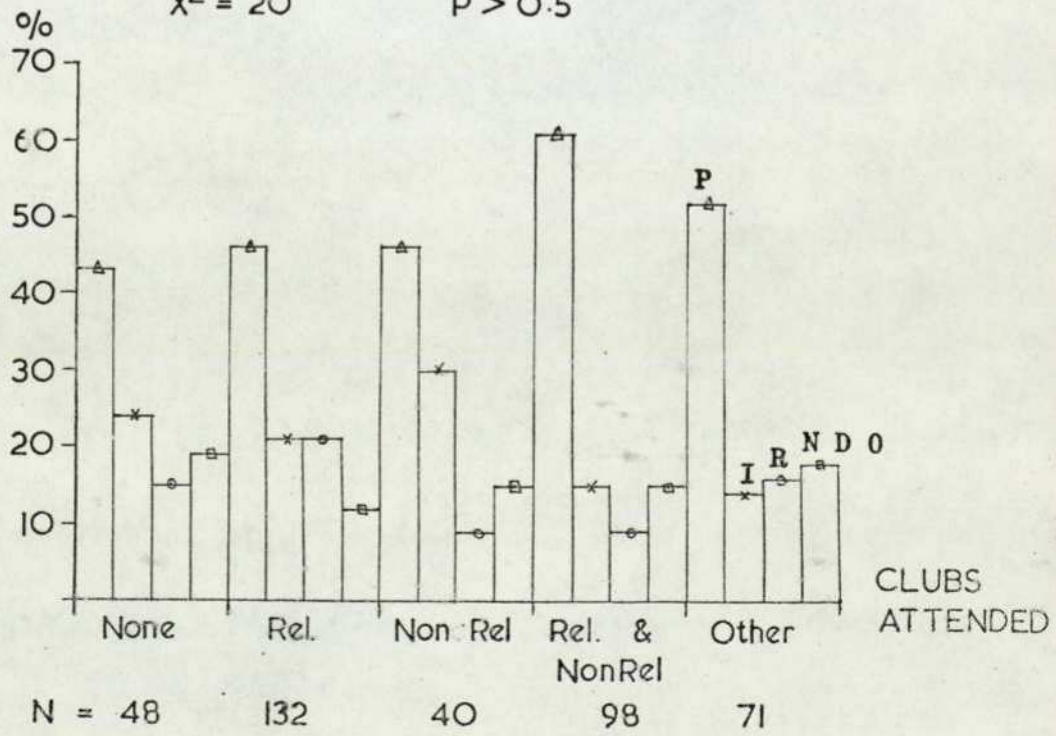
Q13 a -J.D.

$X^2 = 35$ $0.025 < P < 0.05$



Q29 b -P.C.

$X^2 = 20$ $P > 0.5$



orientations where the pattern seems much more random. It is interesting to note that those respondents who attended clubs of both a religious and non-religious nature are more numerous in P dominance and less numerous in R dominance, than others. This may well indicate that such people do not join clubs for social reasons but perhaps to fulfil personal requirements. Perhaps those respondents who joined only one type of club did so because their friends belonged or joined with a group of friends - this was certainly so in the author's youth.

It is not intended to discuss figures 6.12 - 6.17 - which are shown in appendix 8 - (i.e. 'potentially significant' variables) figure by figure since the strength of data is suspect. Rather, only those fairly clear trends or patterns will be highlighted. To do more than this would be to impute more significance to the data than is warranted.

Some of the clearest trends are with respect to the nature of occupation or job of the respondent's first brother, which indicates an increase in P dominance with increasing level of occupation, and a decrease in I dominance. This is to be expected on the basis of Goldthorpe's Luton studies, but little importance can be attached to the results since they are not cross-analysed with the occupation of the respondent.

Summary of Points Emerging

It is now possible to attempt to draw together the points emerging from the data discussed thus far to see if any general comments can be made about respondents expressing dominant orientations of one form or another. One general point emerges quite clearly above all else, and is that no definite 'types' can be derived, i.e. the typical 'instrumental' person seems not to exist. (This is not surprising in view of some of the studies cited in chapter two or if personal experiences of people are analysed. So often the stereotypes based on previous experience evaporate in new situations). It would be impossible to predict the orientation of a particular individual, even with extensive knowledge of his background and personal situation, in the light of the results obtained in this study. Perhaps a more extensive study, comparing different groups of people, and covering a bigger sample would demonstrate rather more definitive results, but this seems doubtful for a number of reasons. One is that not enough is known about the black-box elements of an individual's make-up and their moderating effect on behaviour (although steps forward in this direction are being made in, for example, the neurological field). Another is that it is difficult, if not impossible, to effectively study the interactive effects of the many variables that might be associated with orientations despite the numerous statistical techniques - such as factor analysis, discriminant analysis, and multivariate analyses of many forms - available to the research worker. These techniques can yield results which are, at best, as good as the data collected and in ex-post-facto research the data is never as sound as could be hoped for.

Whilst no general conclusions can be reached about the predictive nature of certain factors, it is possible to describe how orientations seem to change with certain variables. This will be done by considering each

predominant orientation in turn.

Instrumental Orientation

- tends to decrease with increasing age, except near retirement.
- tends to decrease as occupation becomes more advanced, and shows a similar pattern with respect to level of previously held occupation.
- tends to decrease with increasing income.
- tends to be lower for married men than for those who are single.
- tends to be higher for men who had mothers that worked.
- might possibly decrease with level of occupation of brother.
- appears to be lower for owner occupiers.

Relational Orientation

- tends to increase with increasing age, but falls off near retirement.
- tends to increase with increasing level of income.
- seems to be marginally lower for married men.
- appears to be high for people with public school background.
- tends to increase with advancing level of qualification possessed.
- tends to be higher for those whose mother did not work.
- tends to be higher for those who, as boys, belonged to religious clubs.
- appears to be high for those with brothers who are supervisors or managers.

Personal Orientation

- tends to increase with increasing age.
- tends to increase with advancing level of occupation.
- tends to increase with increasing level of income.
- seems to be low for people with comprehensive and public schooling.
- seems to be high for people with G.C.E. qualifications.
- is highest for people having studied via correspondence courses.

- appears to decrease with higher level qualifications - but is doubtful.
- is highest for those who, as boys, belonged to religious and non-religious clubs.
- tends to increase for those with brothers in higher level occupations.
- tends to be high for those belonging to clubs not solely associated with work.

These summaries are based on data for which reasonable agreement exists between both measures of orientation.

Whatever deficiences may exist in the project design and its implementation, the results would appear to indicate that it is important to take into account both background and situational factors when considering the nature of orientation. This has certain implications from a managerial and an organisational standpoint in that the selection of employees, their training, the design of their work situations, and the method of rewarding their efforts might be more usefully analysed if such factors are borne in mind. It means, also, that managerial and organisational action can be only partially effective in bringing about situations which are consonant with the orientations of employees.

Critical Comments

Although considerable care was taken with the design of this project and the development of the research instrument it is apparent that certain flaws do exist. Perhaps the most important is the inconsistencies which sometimes show between the two measures of orientation, as highlighted in table 6.7, where, ideally, all responses should be contained within cells on the diagonal from top left to bottom right. Whilst no satisfactory explanation has been found, consideration must be given to the rather different natures of the two measures. The job description measure and the

COMPARISON OF RESPONSES TO THE JOB DESCRIPTION -J.D.- (Q 13) AND PAIRED COMPARISON -P.C.- (Q 29) MEASURES OF ORIENTATION

	J.D.-Q 13				
P.C.-Q 29	I	R	P	NR	TOTALS
I	34	10	30	3	11
R	16	10	30	3	59
P	51	16	130	4	201
N.D.O.	12	5	31	4	52
TOTALS	113	41	221	14	389

NOTE: N.R. = NO RESPONSE

N.D.O. = NO DOMINANT ORIENTATION

responses required are of a rather hypothetical and speculative nature since respondents were asked to indicate what they might do in the event of them choosing a job. The measure also forced respondents to make a choice, and in some cases (as indicated through the interviews) the choice might have been marginal. Some people also felt that elements of each job description were attractive. Even so, having to make a choice should have highlighted the dominant orientation if it existed. The paired comparison measure, however, was less hypothetical and allowed for the possibility of equal dominance or importance between orientations. It is thus clear that Project 2 is an important part of the research programme.

Another problem is related to the overall number of respondents as

mentioned just previously. Ideally this should have been much greater, and indeed the original aim was for some 1000 respondents. In order to achieve this considerably more facilities were required than those available, and it was not possible for these to be obtained. This created a further problem in that cross comparison between several variables became meaningless because so few entries were recorded in any one cell of a multidimensional matrix or array.

A further criticism can be levelled at the lack of use of more pertinent and sophisticated techniques of analysis - a point already made in chapter five. It is, however, not possible to measure everything at the interval or ratio level of measurement and this imposes constraints on the methods of analysis that can be used. It is considered that it is far more realistic to accept the limitations of the data than to pretend that sophisticated methods of analysis will produce better results or even overcome the limitations.

Problems can also arise from the motivation of respondents to complete the questionnaire. Some may be very interested in the topics being explored whilst others may respond in a more passive way. One check on the extent to which such differences in motivation to respond has biased the data is to look at the data for those people who were willing to be interviewed compared with those who were not (table 6.8) and again at those who requested a summary of results compared with those who did not (table 6.9). Reference to these tables will reveal reasonably consistent trends in the proportion of those respondents indicating a certain dominant orientation. Some major discrepancies do exist, mainly amongst R-respondents to Q.13 in table 6.8, the same category for Q.13 in table 6.9 - together with non-respondents, and R-respondents to Q.29 in table 6.9. In general, it appears that more R-respondents answered 'no' to both requests, whilst more P (I to a lesser extent)

respondents answered 'yes'. This suggests a slight bias of motivation but not enough to materially affect the data.

Thus, although weaknesses do exist, it is contended that these have been recognised and allowances made for them. No claim is made for the nature of the results beyond that which can reasonably stand critical self analysis.

ANALYSIS OF VARIATIONS IN ORIENTATIONS ACCORDING TO RESPONDENTS' READINESS TO BE INTERVIEWED

	WILLINGNESS TO BE INTERVIEWED			
	YES	NO	N.R.	
I	38(44)	30(39)	24(30)	Q 13 – JOB DESCRIPTION
R	6(8)	10(13)	16(20)	
P	60(81)	55(71)	55(69)	
N.R.	1(1)	5(7)	5(6)	
TOTALS	100(134)	100(130)	100(125)	
I	18(24)	19(25)	22(28)	Q 29 – PAIRED COMPARISON
R	16(22)	20(26)	11(11)	
P	53(71)	48(62)	53(68)	
N.D.O.	13(17)	13(17)	14(18)	
TOTALS	100(134)	100(134)	100(125)	

NOTE: NON-BRACKETED FIGURES ARE PERCENTAGES OF COLUMN TOTALS
BRACKETED FIGURES ARE RAW DATA
N.R. = NO RESPONSE
N.D.O. = NO DOMINANT ORIENTATION

ANALYSIS OF VARIATIONS IN ORIENTATIONS ACCORDING TO RESPONDENTS' INTEREST IN RECEIVING A SUMMARY OF RESULTS

	WISHING TO RECEIVE SUMMARY			
	YES	NO	N.R.	
I	32(77)	29(10)	23(26)	Q 13 – JOB DESCRIPTION
R	6(15)	17(6)	17(20)	
P	59(143)	49(17)	54(61)	
N.R.	3(6)	5(2)	16(6)	
TOTALS	100(241)	100(35)	100(113)	
I	19(46)	17(6)	22(25)	Q 29 – PAIRED COMPARISON
R	17(40)	26(9)	9(10)	
P	52(124)	40(14)	56(63)	
N.D.O.	12(31)	17(6)	13(15)	
TOTALS	100(241)	100(35)	100(113)	

NOTE: NON-BRACKETED FIGURES ARE PERCENTAGES OF COLUMN TOTALS
BRACKETED FIGURES ARE RAW DATA
N.R. = NO RESPONSE
N.D.O. = NO DOMINANT ORIENTATION

PROJECT 2

DEVELOPING MEASURES OF ORIENTATION AND EXPLORING THE CONCEPT FURTHER

It will be clear from the discussion of the results of Project 1 and from points made in earlier chapters that a need exists for adequate measures of orientation to work. The measures used in the Project 1 questionnaire were seen in certain cases to produce different results, so the major aim of Project 2 was to compare these measures with additional measures as described in chapter five. The four techniques used namely, Job Description forced choice (J.D.), Paired Comparisons (P.C.), Rating Scales (R.S.), and a Semantic Differential form (S.D.) were compiled in a single inventory (Appendix 4) and given to a number of people studying mainly on the Diploma in Management Studies (D.M.S.) course as well as a limited number of third year degree Architects. On the DMS course, the inventory was completed at the beginning and end of stage 1 by students on the full time (F.T.) who also completed it at the end of stage 2, block release (B.R.), and part time (P.T.) courses. The overall sample size was 89, 35 of whom counted also in the post - stage 1 D.M.S. category. Each of the measures were subjected to the pilot tests described in chapter five, details of which are given below.

PILOT TESTS OF MEASURES OF ORIENTATION

Job Description

In order to gain some assessment of the construct validity of each job description, thirty nine judges were asked to consider each one and give it a label which indicated what they felt was the dominant orientation expressed by the description.

Each judge had received tuition in the Behavioural Sciences to the

degree where they could make meaningful assessments of such descriptions. The results of this exercise are shown in table 6.10, which also includes the three job descriptions. It will be seen from this table that a large majority of the judges classified or labelled the descriptions in the manner intended when they were designed, and that the data are highly significant. Therefore, the null hypothesis that no difference would exist in labelling between the job descriptions can be rejected in favour of the hypothesis suggesting that they do, in fact, discriminate between differing orientations.

In addition to the results shown here, an indication of the usefulness of three descriptions was gained by interviewing respondents to the pilot version of the questionnaire used for Project 1. As a result of the comments made in reply to the question "what do you think are the most important features of each description?" substantial revision was made to the originals, yielding the current format and wording.

As far as general reliability is concerned, it is acknowledged that no data is available. Unfortunately it was not possible to design a test - retest situation where intervening factors could be minimised, and the use of parallel forms would have added to the complexity of an already lengthy questionnaire. In-as-far as several measures are being compared with one another, this is not considered to be too serious a defect although it is hoped that further work in this respect will be carried out before this particular measure is used in any further research projects.

NUMBER OF RESPONDENTS MAKING VALIDITY JUDGEMENTS OF JOB DESCRIPTION MEASURE

(N = 39)

JOB DESCRIPTION*	JUDGED CLASSIFICATION			INTENDED CLASSIFICATION
	I	R	P	
A	34	2	3	I
B	1	36	2	R
C	0	3	36	P

SIGNIFICANCE VALUES

A	$x^2 = 50.9$	df = 2	$p << 0.001$
B	$x^2 = 61.1$	df = 2	$p << 0.001$
C	$x^2 = 61.4$	df = 2	$p << 0.001$
OVERALL	$x^2 = 173.4$	df = 4	$p << 0.001$

* IDENTIFICATIONS ARE GIVEN BELOW:

IDENTIFICATION	JOB DESCRIPTION
A	Slightly higher pay than you now get; Opportunity to earn much more through hard work; Simple work, planned by your boss; No overtime, or very little; Working by yourself; Time off when reasonably requested; Small increases in pay each year; Job located long way from home.

IDENTIFICATION	JOB DESCRIPTION
B	Same money as you now get; Little chance of pay increases in the near future; Would involve working closely with other people in a small department; You would often be asked to work late; Many opportunities for going to parties held by your new work-mates/colleagues; Job close to home; No training involved.
C	Money slightly lower than you now get; Pay will increase slowly; Work very different from your present job; Would require going on a training course; Chance of promotion if you do the job well, or the opportunity of doing a more complex job; Reasonably close to home.

Paired Comparisons

Before using this measure in the questionnaire for Project 1 the same judges referred to earlier made assessments of each of the statements, together with additional statements not used in the questionnaire or inventory. They were asked to sort the statements into as many meaningful categories as they felt necessary and to describe the categories with a label consisting of one word or at most a short phrase. This, again, was done in an attempt to gain some indication of the construct validity of the measure - its face validity having been 'assessed' through the earlier piloting of the Project 1 questionnaire as was the case with the job description measure.

In the event nearly all judges used three classifications and of those who did not, all used classifications which could be merged quite readily to allow analysis without contaminating the data or their effect. The results of this exercise are given in table 6.11 which demonstrates a clear

and highly significant pattern in support of the hypothesis that the judges would classify the statements as intended - at least it enables the counter-vailing null hypothesis to be rejected. It may, therefore, be claimed that the statements do reflect more often than not their intended meaning.

TABLE 6.11

NUMBER OF RESPONDENTS MAKING VALIDITY JUDGEMENTS OF PAIRED COMPARISONS STATEMENTS

(N = 39)

STATEMENT	JUDGED CLASSIFICATION			INTENDED CLASSIFICATION
	I	R	P	
A	32	2	5	I
B	30	2	7	
C	6	28	5	R
D	7	30	2	
E	0	4	35	P
F	2	5	32	

SIGNIFICANCE VALUES

A	x_2^2 = 42	df = 2		
B	x_2^2 = 34.3	df = 2		
C	x_2^2 = 26	df = 2		
D	x_2^2 = 34.3	df = 2		$p << 0.001$
E	x_2^2 = 56.4	df = 2		
F	x_2^2 = 42	df = 2		
OVERALL	x^2 = 235	df = 2		

STATEMENT IDENTIFICATION

A	Save and invest more money.
B	More personal goods and belongings.
C	Friendly people to work with.
D	To get on well with neighbours.
E	More interesting job/occupation.
F	Promotion and more responsibility.

Additionally, an attempt was made to determine the reliability of this measure by using the split-half method (for a discussion see e.g. Freeman, 1962). In order to do this the statement pairs required re-arranging to gain a balance between the two halves. Again, the same 39 subjects were used and the data are given in table 6.12 (Appendix 8).

This data yielded the following correlation values:

	ORIGINAL VALUE	MODIFIED VALUE
I	0.472	0.64
R	0.637	0.78
P	0.778	0.88

(All significant at $p \leqslant 0.05$)

It will be noticed that two correlation figures are given for each orientation:
the first is the actual product - moment coefficient, whilst the second is a corrected value boosted to take account of the reduction in length of the test or measure, in accordance with the Spearman-Brown formula (see Freeman, 1962). The resulting values are clearly quite acceptable, especially in view of the fact that for any given orientation the nature of the statements were not balanced although the number of statements was. It can, therefore, be suggested that this measure exhibits a fairly high degree of reliability but with the proviso that the instrumental measure in particular should be strengthened before further use is made of it as a research or measuring instrument.

Rating Scales

Since most of the statements used in this measure were the same as, or based on, those used in the Paired Comparisons measure, it was not considered necessary to validate them in the same way as previously discussed measures. New statements were subjected to the normal face validity

scrutiny applied to all statements.

As has been stated elsewhere, the rating scales comprised two components: a 'desire' (D) component, and an 'expectation' (E) component - the latter being a fairly simple and straightforward measure. The D component, however, was complicated in as much as it comprised positively and negatively inclined statements for each orientation to provide a means of checking consistency of responses.

These have been analysed by comparing the scale value on one with that on another for scales purporting to measure the same thing. The results of this analysis are given in tables 6.13 - 6.24 (Appendix 8) together with an explanation of the method of analysis and a referenced list of statements, for thirty nine cases taken from the sample used for testing the measures. These are not the same thirty nine cases used previously as judges.

A review of these tables will show that the majority of statement responses compare well - i.e. a statement measuring, say, a relational orientation yields a value close to that of another relational statement for the same case. The correlation values, based on the Contingency Coefficient (Siegel, 1956) and boosted to unity, are very large in most tables, and all are highly significant. The doubtful statements are D, I, and O all of which were intended to be negatively inclined but appear to have perceived as positive when compared with their negative counterparts namely E, J, and O (tables 6.16, 6.20, 6.24). In each of these tables the spread is not as symmetrical as should be the case for like-scoring scales. To assess the impact this might have had on the resulting orientation scores, the scores achieved for a sample of 14 respondents on the P.T.D.M.S. courses were adjusted, the new scores ranked and correlated with the old score rank

orders. Using Spearman's Rank Order Correlation Coefficient, r_s, the following values were obtained:

I - r_s = 0.967 ($P < 0.0005$ - one tailed)

R - r_s = 0.953 ($P < 0.0005$ - " ")

P - r_s = 0.978 ($P < 0.0005$ - " ")

Thus, it can be concluded that the effect of these inconsistencies is small generally but the order of the effect is greatest on the relational measure and least on the personal measure.

Semantic Differential

This form was designed with the purpose of obtaining a profile measure of orientation for groups of individuals with which to compare individual scores, and was based on the work of Osgood and his colleagues (1957). A list of potential adjective pairs was initially generated using a group of twelve DMS students who were asked to complete a form which required them to list as many or as few words that described the types or categories labelled Economic Man, Social Man, and Self-Actualising Man. As a quick glance at table 6.25 will show, a tremendous range of adjectives were used, and it was necessary to reduce this range substantially before designing the S.D. form.

LIST OF ADJECTIVES USED TO DESCRIBE THREE CONCEPTS OF MAN (N=12)

ECONOMIC MAN	SOCIAL MAN	SELF ACTUALISING MAN
RATIONAL	SENSITIVE	PROGRESSIVE
SELFISH	ETHICAL	INTELLIGENT
DEMANDING	CO-OPERATIVE	INNOVATIVE
SHORTSIGHTED	HELPFUL	CREATIVE
WORDLY	SINCERE	IMPROVING
RELUCTANT	GIVER	INVOLVED
RECEIVER	RESPONSIBLE	AMBITIOUS
COMPULSIVE	EMOTIONAL	AESTHETIC
GREEDY	SYMPATHETIC	CONTENTED
OPPORTUNIST	FRIENDLY	INTROSPECTIVE
SPENDTHRIFT	GREGARIOUS	OPTIMISTIC
CAREFUL	CONFORMING	INDEPENDENT
DISSATISFIED	EMPATHETIC	RUTHLESS
LAZY	WARM	EGO-CENTRED
ENVIOUS	DEMOCRATIC	IMAGINATIVE
UNRECEPTIVE	FLEXIBLE	INQUIRING
INSECURE	DEPENDENT	RESPONSIBLE
UNINTELLIGENT	TOLERANT	FLEXIBLE
INDEPENDENT	EXTROVERT	INDIVIDUALISTIC
PERSISTENT	LAZY	DYNAMIC
INTERESTED	SELF-CONSCIOUS	ENERGETIC
RESPONSIBLE	HEDONISTIC	DETERMINED
NARROW-MINDED	IRRESPONSIBLE	PERSISTENT
EGO-CENTRED	ATTENTIVE	LEADING
ACCURATE	SUPERFICIAL	POSITIVE
INFLUENCING	PHILOSOPHICAL	ACCURATE
DEPENDENT	FASHIONABLE	CRITICAL
RELIABLE	SITUATIONALIST	SYNTHESISER
ANALYTICAL	HAPPY	RELIABLE
DULL	INTERESTING	DEMANDING
UNINTERESTING	COMPROMISING	DRIVING
RUTHLESS	HOPEFUL	KEEN
THOUGHTLESS	ACADEMIC	SEARCHING
CHEERFUL	AWARE	QUESTIONING
PRAGMATIC	HUMEROUS	ALERT
ENVIABLE	NEUTRAL	PROUD
REALISTIC	LIVELY	PEDANTIC
NORMAL	PUBLIC	DIFFICULT
LONELY	AMIABLE	ANALYTICAL
REASONABLE	ALTRUISTIC	CONCEITED
PUNCTUAL	SELF-EFFACING	ARROGANT
MERCENARY	DEMONSTRATIVE	RESPECTED
HEDONISTIC	LOYAL	FORCEFUL
IRRESPONSIBLE	WEAK	EDUCATED
AMORAL	OPTIMISTIC	CALCULATING
		INFLEXIBLE
		STRONG

With the help of colleagues and Roget's Thesaurus a shorter list of adjectives and their opposites was decided upon and are listed as follows (table 6.26).

TABLE 6.26

ADJECTIVE PAIRS USED FOR ORIGINAL SEMANTIC DIFFERENTIAL FORM

1.	ALOOF	- FRIENDLY	16.	CAUTIOUS	- IMPETUOUS
2.	SECURE	- VULNERABLE	17.	EMOTIONAL	- RATIONAL
3.	WEAK	- STRONG	18.	DISTANT	- CLOSE
4.	IRRESPONSIBLE	- RESPONSIBLE	19.	AGGRESSIVE	- DEFENSIVE
5.	IDEALISTIC	- OPPORTUNISTIC	20.	WARM	- COOL
6.	DEPENDENT	- INDEPENDENT	21.	DEMOCRATIC	- AUTOCRATIC
7.	RIGID	- FLEXIBLE	22.	ACCEPTING	- INQUISITIVE
8.	TOLERANT	- INTOLERANT	23.	TRADITIONAL	- PROGRESSIVE
9.	INTELLIGENT	- STUPID	24.	CAPABLE	- INEFFECTIVE
10.	DREARY	- CHEERFUL	25.	REJECTING	- WELCOMING
11.	ACTIVE	- PASSIVE	26.	SUPERIOR	- INFERIOR
12.	SELF-LESS	- GREEDY	27.	CO-OPERATIVE	- COMPETITIVE
13.	CREATIVE	- UNIMAGINATIVE	28.	NAIVE	- SOPHISTICATED
14.	EGOTISTIC	- ALTRUISTIC	29.	CONFORMING	- INFLUENTIAL
15.	RESTRICTIVE	- PERMISSIVE			

This was the order in which the pairs were presented on the form, but separated by a seven point response scale. As noted in chapter five, seventy-three final year DMS students and members of staff rated or described the concepts of Economic Man, Social Man, and Self-Actualising Man using the form. The mean position on each scale for each of the three concepts was calculated and an analysis of discriminating power made by comparing means against mid point of scale. Those pairs or scales which did not produce a mean different from the mid point for at least one concept were rejected together with those that produced the same mean for all concepts.

This reduced the number of scales to twenty-two but this was increased

by splitting one scale which did not contain acceptable opposites. The adjective pairs thus selected for use in the research instrument were as follows:

TABLE 6.27

1.	ALOOF	- FRIENDLY	13.	EMOTIONAL	- RATIONAL
2.	SECURE	- VULNERABLE	14.	DISTANT	- CLOSE
3.	IDEALISTIC	- OPPORTUNISTIC	15.	AGGRESSIVE	- DEFENSIVE
4.	DEPENDENT	- INDEPENDENT	16.	WARM	- COOL
5.	RIGID	- FLEXIBLE	17.	DEMOCRATIC	- AUTOCRATIC
6.	TOLERANT	- INTOLERANT	18.	ACCEPTING	- INQUISITIVE
7.	DREARY	- CHEERFUL	19.	TRADITIONAL	- PROGRESSIVE
8.	SELF-LESS	- GREEDY	20.	REJECTING	- WELCOMING
9.	CREATIVE	- UNIMAGINATIVE	21.	CO-OPERATIVE	- COMPETITIVE
10.	EGOTISTIC	- ALTRUISTIC	22.	CONFORMING	- DEVIATING
11.	RESTRICTIVE	- PERMISSIVE	23.	INFLUENTIAL	- ORDINARY
12.	CAUTIOUS	- IMPETUOUS			

All accepted pairs were significant at $p < 0.0001$

In order to provide a simple means of producing a score for each orientation, a respondents description of himself was compared with those of the three concepts of man previously mentioned. An index was calculated by ratioing the number of concept - related adjectives in his own description to the total number used to describe that concept in the previous pilot.

The number and type of adjectives describing each of the concepts was as follows:

TABLE 6.28

ADJECTIVE DESCRIPTIONS OF CONCEPTS OF MAN

(N = 67)

ECONOMIC (15) (INSTRUMENTAL)	SOCIAL (19) (RELATIONAL)	SELF-ACTUALISING (11) (PERSONAL)
ALOOF	FRIENDLY	SECURE
OPPORTUNISTIC	VULNERABLE	INDEPENDENT
INDEPENDENT	IDEALISTIC	FLEXIBLE
INTOLERANT	DEPENDENT	CREATIVE
GREEDY	FLEXIBLE	EGOTISTIC
EGOTISTIC	TOLERANT	AGGRESSIVE
RESTRICTIVE	CHEERFUL	AUTOCRATIC
CAUTIOUS	SELF-LESS	INQUISITIVE
RATIONAL	ALTRUISTIC	PROGRESSIVE
DISTANT	PERMISSIVE	COMPETITIVE
AGGRESSIVE	EMOTIONAL	INFLUENTIAL
COOL	CLOSE	
AUTOCRATIC	DEFENSIVE	
INQUISITIVE	WARM	
COMPETITIVE	DEMOCRATIC	NOTE: SEE APPENDIX 8
	ACCEPTING	FOR DATA FROM WHICH
	WELCOMING	THESE WERE DERIVED.
	CO-OPERATIVE	
	CONFORMING	

If a respondent's description yielded eight instrumental adjectives, eleven relational adjectives, and six personal adjectives his index scores for each would be

$$I = 8/15 = 0.533$$
$$R = 11/19 = 0.579$$
$$P = 6/11 = 0.545$$

This allows a direct comparison not only between his own scores but with the scores of other respondents.

No reliability checks have been carried out for reasons similar to those given in the preceding sections discussing the Rating Scales measure. Whilst subsequent analysis will demonstrate the relative utility of each measure, it is recognised that further work is still required. For example, the measures should be applied to different segments of the population. None-the-less, the work has been taken considerably further than in the known work of other researchers.

INTER-MEASURE COMPARISONS

In order to assess the extent to which the different measures yielded similar results, the scores for each case were transferred into rank orders (except, obviously, for the Job Description measure which yielded purely nominal data) and the ranks compared with each other for each case. Additionally, the Job Description results were compared with the highest ranks on the other measures, and the rank of P compared on each test for its dominance working on the assumption that most people in the sample would be motivated at that level. Results at the beginning and end of stage 1 D.M.S. were also compared to see if this particular type of study had any significant effect on orientation.

These comparisons are discussed below, followed by comments on particular measures in-as-far as they help explore further the concept of orientation.

Comparison of Ranks yielded by R.S., P.C., and S.D.

The frequency with which different orientations are ranked similarly by each of these three techniques is shown in table 6.29, together with significance and correlation values. (An explanation of the correlation

method used is given in the notes to the tables). Each technique or measure is compared with the others, producing rows of data which indicate the extent to which they yield similar results. Thus, for example, row 1 shows that in 23 cases out of 89 (26%) the two techniques (R.S. and P.C.) produced exactly the same rank orders. If they produced exactly the same ranks in all cases, one would have expected a value of 89 (100%) in column 1. Similarly, if the results were purely random, under the null hypothesis that there was no similarity between the two techniques, a frequency of 22.25 would be expected in each cell of row 1, thus allowing the X^2 test to be used. And similarly for the other comparisons.

It will be seen that the best comparison on all ranks the same is for R.S. and S.D. - 34%, although this is not the best comparison if columns 1 and 2 are added together. Indeed, of the three comparisons made of two tests, it is the worst on this basis, yet it does yield the highest correlation value.

If the first three rows are compared on these three different bases, different conclusions can be drawn:

(a) on the basis of all ranks the same, R.S.-S.D. yields the best comparison; with P.C.-S.D. the worst.

(b) on the basis of columns 1 and 2 added together, R.S.-P.C. yields the best comparison (47% as compared with 41% for R.S.-S.D., and 44% for P.C.-S.D.)

(c) on the basis of the correlation value obtained, R.S.-S.D. again produces the best comparison with R.S.-P.C. the worst.

Thus, whilst the results are by no means clear-cut, it does appear that R.S. and S.D. produce the best comparison on two of the three bases. However, the fact that none of the comparisons yield more than 50% of cases similar on all ranks and two ranks gives rise for concern, and one must at least pose the question as to whether they are really measuring the same

things to the desired extent. Clearly, the R.S.-S.D. comparison allows the null hypothesis to be rejected with the greatest of certainty.

Whilst not expecting a perfect correlation between such measures on all three orientations, it is disappointing that the results do not allow a more definitive statement of the adequacy of the measures. However, there is cause for hope, since it could be argued that most people are able to express what their dominant requirements are but may be less able to distinguish between lower order orientations. Indeed, a second look at table 6.29 may illustrate this, for the highest number of cases (for any comparison) occurs in column 3 - one orientation ranked the same.

Of course, it cannot as yet be assumed that these are the dominant orientations, but the following comparisons may shed some light on this problem.

Comparison of Dominant Orientations yielded by J.D. in relation to R.S., P.C., and S.D.

It could be argued that, if an individual respondent knows his mind concerning his dominant orientation, the Job Description choice will reflect this, avoiding the possible confusion which sometimes results from scaling techniques. For example, what really is the difference between an I score of 290 and a P score of 300 if, say, a tolerance of plus or minus 10 must be applied? The forced-choice approach of the Job Description prevents this problem from arising. (To some extent, therefore, one would expect the P.C. results to support those of J.D.)

A comparison of the J.D. results with each of the other measures is given in table 6.30. This comparison takes account of tied rank order position since it is clear that these can bias the results in the wrong direction. For example, if both P and R are ranked first, and J.D. yields a P, should this be claimed as a similar rank result? Therefore, the best

and worst positions are given: the best being that in sub-row 'a' of any major row, and the worst after correction for ties (sub-row's 'c' and 'd'). To obtain the worst position, the ties in any column are subtracted from the raw data figure and added to the raw data in the column immediately adjacent on the right, and so on.

Inspection of the data presented in table 6.30 shows that, particularly on a raw-data basis, P.C. matches best with J.D. on dominant ranks (I, R, or P), with sixty-nine out of eighty-nine cases (nearly 78%) having dominant ranks the same as the choice on J.D. Even after correction for ties (which is, after all, biasing the data in an extremely unfavourable direction), the J.D. - P.C. comparison is the same as that for J.D. - R.S. (row 1). Adding columns 1 and 2 together produced a similar result but the equal partner this time is J.D. - S.D. (row 3). In addition, the correlation values suggest that P.C. relates best to J.D., followed by R.S. and then S.D. (This supports the result of the raw data comparison in column 1). The data is also highly significant, thus allowing Ho (the null hypothesis) to be rejected.

It seems clear, therefore, that P.C. and possibly R.S. produce the greatest similarity of scores with J.D. assuming the arguments put forward earlier are acceptable, and helps clarify the data presented in table 6.29 since there both R.S. and P.C. figured in the "best " comparisons.

Comparison of Results with a Subjective Criterion Variable

It has previously been stated that people undertaking a course of study of the types involved in this project would have a fairly high P orientation and that this should be reflected in the data by a high occurence of dominant P scores. Thus an experimental hypothesis may be written as follows:

Hi: since all cases were students on an award giving course, most would express a dominant P orientation.

The null hypothesis would be as follows:

Ho: there is no difference between P, I, and R in terms of dominant scores.

The data relating to Hi and Ho are given in table 6.31, with each row (data corrected for ties) significant at p better than 0.01, and in three cases better than 0.001. Thus, Ho is rejected for all the data, but inspection reveals differences between the rows. Before correction for ties P.C. stands out best with forty-six out of fifty-four cases (85%) yielding P dominant. Even after correction, P.C. comes closely after J.D., followed by R.S. and S.D.

The other bases of comparison (correlation values and added columns) cannot be used. Correlation values have no relevance since only one variable is involved at any one time, whilst for J.D. it is not possible to differentiate on a rank basis.

However, the comparison available does relate strongly to those of the previous sub-section, suggesting that J.D. is perhaps the best measure of dominant orientation (followed by P.C. and R.S.) whilst P.C. and to a lesser extent R.S., are useful measures of relative orientations. The semantic differential does not seem to be a useful measure of self-expressed orientation - perhaps its main utility is still in the field of describing concepts and their meaning.

NOTES

(a) The correlation coefficient values are based on the Contingency Coefficient (C.C.) derived from the values of X^2 (see Siegel, 1956). This has been boosted to unity by using the maximum value of C.C.; such that

$$C = \frac{\text{C.C. (actual)}}{\text{C.C. (max)}}$$

thus allowing comparison to be made between the different results.

(b) Abbreviations used are as follows:

J.D. = Job Description measure
P.C. = Paired Comparison measure
R.S. = Rating Scale measure
S.D. = Semantic Differential measure
COR = Data corrected for ties

FREQUENCY WITH WHICH ORIENTATIONS ARE RANGED SIMILARLY ON DIFFERENT TESTS

(REFERENCE DATA IN APPENDIX 8)

		NO. OF CASES IN WHICH:				
MEASURES	DATA	ALL RANKS SAME (1)	TWO RANKS SAME (2)	ONE RANK SAME (3)	NO RANKS SAME (4)	TOTALS (5)
1 RS-PC	RAW	23	19	32	15	89
	%	26	21	36	17	100
2 RS-SD	RAW	30	6	38	13	87
	%	34	7	44	15	100
3 PC-SD	RAW	20	18	34	15	87
	%	23	21	39	17	100
4 RS-PC-SD	RAW	9	9	37	32	87
	%	10	10	43	37	100

SIGNIFICANCE AND CORRELATION VALUES

Row 1. $x^2 = 7.12$ $0.10 > p > 0.05$ $C = 0.314$

Row 2. $x^2 = 30.20$ $p << 0.001$ $C = 0.508$

Row 3. $x^2 = 9.79$ $0.05 > p > 0.02$ $C = 0.368$

Row 4. $x^2 = 28.22$ $p << 0.001$

FREQUENCY WITH WHICH CHOICES ON JOB DESCRIPTION MEASURE ARE RATED SIMILARLY ON OTHER MEASURES

(REFERENCE DATA IN APPENDIX 8)

MEASURES		DATA	NO. OF CASES IN WHICH: RANKS SAME (1)	ONE RANK DIFFERENT (2)	TWO RANKS DIFFERENT (3)	TOTALS (4)
1 JD-RS	a	Raw	57	20	12	89
	b	Ties	1	3	0	4
	c	Cor.	56	18	15	89
	d	% Cor.	63	20	17	100
2 JD-PC	a	Raw	69	13	7	89
	b	Ties	13	2	0	15
	c	Cor.	56	24	9	89
	d	% Cor.	63	27	10	100
3 JD-SD	a	Raw	47	31	9	87
	b	Ties	0	0	0	0
	c	Cor.	47	31	9	87
	d	% Cor.	54	36	10	100

SIGNIFICANCE AND CORRELATION VALUES

Row 1. $x^2 = 35.21$ $p \ll 0.001$. $C = 0.653$

Row 2. $x^2 = 38.85$ $p \ll 0.001$. $C = 0.675$

Row 3. $x^2 = 25.10$ $p \ll 0.001$. $C = 0.473$

TEST RESULTS COMPARED WITH SUBJECTIVE CRITERION VARIABLE (EXCLUDING POST-STAGE 1 D.M.S. MEASURES)
i.e. FREQUENCY WITH WHICH P IS DOMINANT

		P is:			
MEASURE	DATA	DOMINANT	DOMINANT (-1)	DOMINANT (-2)	TOTALS
1 JD	RAW	38	16		54
	TIES	0	0		0
	COR	38	16		54
	%COR	70	30		100
2 RS	RAW	32	19	3	54
	TIES	1	2	0	3
	COR	31	18	5	54
	%COR	57	33	10	100
3 PC	RAW	46	6	2	54
	TIES	11	2	0	13
	COR	35	15	4	54
	%COR	65	28	7	100
4 SD	RAW	29	25	0	54
	TIES	0	0	0	0
	COR	29	25	0	54
	%COR	54	46	0	100

SIGNIFICANCE LEVELS (AFTER CORRECTION FOR TIES)

Row 1. $x^2 = 8.96$ $0.01 > p > 0.001$

Row 2. $x^2 = 18.78$ $p << 0.001$

Row 3. $x^2 = 27.45$ $p << 0.001$

Row 4. $x^2 = 27.44$ $p << 0.001$

An additional analysis was performed by placing the scores on each measure for each orientation and course in rank order and calculating Spearman's r_s for the comparison of each measure with the other. The data are given in tables 6.32 - 6.36 which includes the average values for the whole of the data (table 6.36) - excluding post-stage 1 D.M.S. data. Whilst only one of the values in table 6.36 is near significance, the others are not so much in excess of $p = 0.1$ as to be completely discounted. One would naturally hope for a trend of positive associations, and this is the case, with the values for P.C. - R.S. being higher than for R.S. - S.D. and P.C. - S.D. This tends to support the previous assessment of S.D. being the least useful measure.

A possible reason for the low correlation values is that a high score on a measure for any one orientation does not mean that it will be dominant in the sense of the previous analysis. Put another way, two scores on any one orientation measure for different respondents may be widely different, yet lead to the same ranking in the individual cases. Thus, whilst some positive correlations between measures should exist, they would not necessarily be high.

VALUES OF SPEARMAN RANK CORRELATION COEFFICIENT ($\bar{r}_s$) FOR ORIENTATION MEASURES COMPARED WITH EACH OTHER

P.T.D.M.S. (N=14) TABLE 6.32

	ORIENTATION		
MEASURES	I-I	R-R	P-P
PC - RS	0.630[a]	0.253[d]	0.040[d]
RS - SD	0.190[d]	0.624[a]	0.377[c]
PC - SD	0.117[d]	0.030[d]	0.219[d]

F.T.D.M.S. (N=11) TABLE 6.33

	ORIENTATION		
MEASURES	I-I	R-R	P-P
PC - RS	0.277[d]	0.290[d]	0.172[d]
RS - SD	0.793[a]	0.196[d]	0.058[d]
PC - SD	0.446[c]	0.518[b]	0.371[d]

NOTE: ABBREVIATIONS ARE AS GIVEN IN TEXT

B.R. DMS (N = 15) TABLE 6.34

	ORIENTATION		
MEASURES	I-I	R-R	P-P
PC - RS	0.457^{b}	$\overline{0}.074^{d}$	0.339^{d}
RS - SD	0.060^{d}	0.288^{d}	0.288^{d}
PC - SD	0.386^{d}	0.054^{d}	0.111^{d}

ARCHITECTS - Yr.3 (N = 14) TABLE 6.35

	ORIENTATION		
MEASURES	I-I	R-R	P-P
PC - RS	0.392^{c}	0.450^{c}	0.253^{d}
RS - SD	$\overline{0}.017^{d}$	0.056^{d}	0.316^{d}
PC - SD	0.022^{d}	0.065^{d}	0.376^{c}

All Courses (N = 54)
(AVE N = 11)

TABLE 6.36

	ORIENTATION		
MEASURES	I-I	R-R	P-P
PC - RS	0.438[c]	0.300[d]	0.201[d]
RS - SD	0.257[d]	0.291[d]	0.245[d]
PC - SD	0.243[d]	0.167[d]	0.269[d]

NOTES (For Tables 6.32 - 6.36)

Significance Values (1 tailed)

(a) $p \leqslant 0.01$

(b) $p \leqslant 0.05$

(c) $p \leqslant 0.1$

(d) $p > 0.1$

ORIENTATIONS COMPARED WITH OTHER AVAILABLE INDICES

During the course of this project it was possible to obtain further information against which to compare the results gained from the inventory of orientation measures. The Values Test (Richardson, 1965 - British Edition) was administered to course members on the P.T. and F.T. D.M.S. courses (the timing of the B.R. pattern made it difficult to avoid a lengthy time-delay, so the test was not administered) and scores on this test have been correlated with orientation scores. In addition, orientations were compared with stage 1 D.M.S. exam results on all courses, and stage 2 results as well for the F.T. course, to see if orientation measures had any predictive qualities.

Comparison with Values Test

To obtain a meaningful comparison, the results from both sources for each course (P.T. and F.T.) were converted to rank orders and Spearman's r_s computed. This means, of course, that the Job Description measure does not figure in the comparisons but, since it has already been shown to be a useful measure, if other measures compare well, it can be assumed that it would too.

The Values Test (or Study of Values as it is called) attempts to measure six areas of values: theoretical, economic, aesthetic, social, political, and religious. Of these, the economic and social categories clearly are generally similar to instrumental and relational orientations, and theoretical values to the personal orientation although this is not so good a fit. Therefore, orientations were initially compared with these three values, and later with the others to see if further correlations existed.

Tables 6.37 and 6.38 give correlation and significance data for orientations compared with relevant personal values. For most cases, no significant correlations existed - even stretching the significance level to 0.1! However, some points can be made: for the P.T. course positive correlations were found for all comparisons except one but of these only three approached a level of significance. These were social-relational on PC and RS, and economic - instrumental on SD. Unfortunately, this is not supported by data given in table 6.38 where it will be seen that negative correlations tend to dominate - but only two are significant. This may be due to the fact that about one third of these course members were not British. The differences in the nature of the P.T. and F.T. courses can be discounted since both measures were applied at the commencement of each course.

The comparison with remaining values was made for the P.T. course only, and the results are given in table 6.39. Since no prediction as to the direction of association was being made, a two tailed significance test was carried out. It will be seen that conflicting evidence appears: namely that I (RS) correlates negatively with political values, whereas I (SD) correlates positively. On the other hand, I tends to correlate negatively with aesthetic values, but only one is significant, whilst R correlates positively with aesthetic values (again, only one significant).

It can be said, on the basis of the data given in tables 6.37, 6.38 and 6.39 that:

(1) instrumental and relational orientations tend to correlate positively with economic and social values respectively (except for the oddities in table 6.38);

(2) personal orientations may or may not correlate positively with with theoretical values;

(3) personal orientations may correlate positively with religious values;

(4) relational orientations tend to correlate positively with aesthetic values; and

(5) instrumental orientations tend to correlate negatively with aesthetic values.

It is perhaps disappointing that more substantial evidence (by way of stronger correlations) of a relation with a well validated test was not forthcoming. There are, however, at least two possible reasons for the nature of the correlational evidence obtained. One is concerned with the definition of orientation. The model in Chapter two depicted values as one of several modifying influences on orientation, and it would be more pertinent to obtain data on, say, intelligence and abilities (among others) as well as values and partial the correlations out with orientation. This would enable a better validation of the orientation measures to be obtained. Secondly, the discriminatory power of the values test itself does not seem to be very great. Many differences in rank orders were obtained on scores differing by only two or three points on the values scale. The average profiles given by Richardson (1965) vary by some 20 points only. Thus, it might well be possible that higher correlations could be obtained by changing values scores disproportionately to their effect on ranks. This contrasts markedly with the discriminating power of most of the orientation measures. Although disappointing, the data does give a glimmer of support for the orientation measures. Perhaps it is asking too much of the values test to act as a criterion for a purpose for which it was not intended!

Values of Spearman's r_s: Orientation compared with Relevant Personal Values

P.T. DMS (N = 14)

TABLE 6.37

	P.C.			R.S.			S.D.		
Values Test	I	R	P	I	R	P	I	R	P
Economic	0.125^{d}			0.178^{d}			0.394^{c}		
Social		0.344^{d}			0.367^{c}			0.319^{d}	
Theoretical			$\bar{0}.053^{d}$			0.074^{d}			0.245^{d}

F.T. DMS (N = 10)*

TABLE 6.38

	P.C.			R.S.			S.D.		
Values Test	I	R	P	I	R	P	I	R	P
Economic	$\bar{0}.198^{d}$			$\bar{0}.594^{b}$			$\bar{0}.05^{d}$		
Social		0.054^{d}			$\bar{0}.054^{d}$			$\bar{0}.15^{d}$	
Theoretical			$\bar{0}.16^{d}$			$\bar{0}.516^{c}$			$\bar{0}.065^{d}$

NOTES: Significance levels (1 tailed)

(b) $p \leqslant 0.05$

(c) $p \leqslant 0.1$

(d) $p > 0.1$

ABBREVIATIONS AS GIVEN IN TEXT.

*One set of Values data unknown for 11th case.

Values of Spearman's r_s for Orientation compared with other Personal Values

TABLE 6.39

P.T. DMS ONLY (N = 14)

	P.C.			R.S.			S.D.		
Values Test	I	R	P	I	R	P	I	R	P
Political	$\overline{0}.066^{d}$	0.151^{d}	$\overline{0}.082^{d}$	$\overline{0}.520^{b}$	0.078^{d}	0.126^{d}	0.419^{c}	$\overline{0}.210^{d}$	$\overline{0}.059^{d}$
Religious	$\overline{0}.108^{d}$	$\overline{0}.027^{d}$	0.263^{d}	0.305^{d}	$\overline{0}.330^{d}$	0.294^{d}	0.063^{d}	0.096^{d}	0.212^{d}
Aesthetic	$\overline{0}.180^{d}$	0.099^{d}	0.111^{d}	$\overline{0}.500^{b}$	0.435^{c}	0.019^{d}	$\overline{0}.215^{d}$	0.296^{a}	$\overline{0}.345^{d}$

NOTES: Significance Levels (2 tailed)

(a) $p \leqslant 0.1$
(c) $p \leqslant 0.2$
(d) $p > 0.2$

ABBREVIATIONS AS GIVEN IN TEXT.

Comparison of Orientations with D.M.S. Examination Results

It was stated earlier that this comparison was carried out to determine whether orientation measures might have any predictive qualities. In-so-far as high levels of personal orientation are associated with membership of the D.M.S. course, this would provide a further, although again partial, criterion test. It is partial in that performance is a function of ability as well as orientation (or the motivational basis of it, at least). If, however, the orientation measures were reflecting the totality of things suggested in the model in Chapter two, some fairly high correlations should exist. A glance at tables 6.40 and 6.41 will demonstrate that the latter is not the case. Less than 10% of the correlations achieved are in excess of 0.5 (positive and negative), whilst 69% are not significant at even the 10% level ($p = 0.1$). Since examination results are, to some extent, a function of ability (or intelligence) and hard work (or motivation), it is tempting to argue that the orientation measures do, in fact, reflect more the motivational aspect. But until further specific tests have been performed this cannot be put forward as a concrete proposition.

Although the data in tables 6.40 and 6.41 by no means present a clear, indisputable pattern, they do suggest possible trends or tendencies. As far as overall examination results are concerned, no real trends or tendencies exist. Only three possibly significant correlations were found - all for the F.T. course - and suggest a positive correlation of I with examination results, and a negative correlation for R. However, these are contradicted by the values obtained for other courses, although less significant. Similarly, no one measure produces more consistent results than any other.

Some trends do seem to emerge from table 6.41. In particular the data suggests that results in behavioural subjects might be negatively correlated

with I scores and positively correlated with R scores and to some extent also with P scores. As clear an indication does not exist for results in the quantitative subjects, although there is some possibility that R scores correlate negatively as do P scores. However, these trends are speculative for at least four reasons: (1) there is not complete consistency between courses and between measures; (2) even for items where some general consistency emerges, not all values are significant at an acceptable level ($p \leqslant 0.05$); (3) few correlation values are high enough to suggest even a remote causal relationship - accepting the fact that correlational evidence does not signify causal relations; and (4) not enough courses over a long enough period of time have been analysed to indicate possible areas of spurious effects. This having been said, it is also not the case that measures of orientation can be ruled out as predictive instruments of success of stage 1 of the Portsmouth D.M.S. Equally, it cannot be said that the criterion test drew a complete blank since both positive and negative significant correlations with P were found. It does mean, however, that much further work is still required.

In addition to the correlations made with stage 1 results, it was possible to compare orientations measured at the commencement of the F.T. course with final examination results since these came within the time-span of the project. The correlation values are given in table 6.42.

VALUES OF SPEARMAN'S r_s FOR ORIENTATIONS COMPARED WITH DMS STAGE I EXAMINATION RESULTS

ORIENTATIONS COMPARED WITH OVERALL RESULTS — TABLE 6.40

	P.C.			R.S.			S.D.		
	I	R	P	I	R	P	I	R	P
FT	0.509^{c}	$\bar{0}.317^{d}$	0.058^{d}	0.303^{c}	0.158^{d}	0.100^{d}	0.164^{d}	$\bar{0}.493^{c}$	0.174^{d}
PT	$\bar{0}.270^{d}$	0.465^{d}	$\bar{0}.183^{d}$	$\bar{0}.130^{d}$	0.106^{d}	$\bar{0}.180^{d}$	0.090^{d}	0.038^{d}	$\bar{0}.325^{d}$
BR	$\bar{0}.136^{d}$	$\bar{0}.070^{d}$	0.300^{d}	$\bar{0}.344^{d}$	0.140^{d}	$\bar{0}.508^{b}$	0.278^{d}	$\bar{0}.244^{d}$	0.004^{d}

ORIENTATIONS COMPARED WITH RESULTS GAINED IN BEHAVIOURAL (B) AND QUANTITATIVE (Q) SUBJECTS — TABLE 6.41

	P.C.			R.S.			S.D.			
	I	R	P	I	R	P	I	R	P	
FT	0.059^{d}	$\bar{0}.002^{d}$	0.058^{d}	0.500^{c}	0.070^{d}	$\bar{0}.189^{d}$	0.361^{d}	$\bar{0}.594^{b}$	0.335^{d}	
PT	$\bar{0}.253^{d}$	0.331^{d}	0.002^{d}	$\bar{0}.150^{d}$	0.440^{c}	0.020^{d}	$\bar{0}.105^{d}$	0.555^{b}	$\bar{0}.260^{d}$	B
BR	$\bar{0}.451^{b}$	0.077^{d}	0.606^{a}	$\bar{0}.327^{d}$	0.285^{d}	$\bar{0}.490^{b}$	$\bar{0}.155^{d}$	0.201^{d}	0.110^{d}	
FT	$\bar{0}.047^{d}$	$\bar{0}.154^{d}$	0.378^{d}	0.480^{c}	0.274^{d}	0.200^{d}	0.177^{d}	$\bar{0}.562^{b}$	0.251^{d}	
PT	$\bar{0}.343^{d}$	0.381^{c}	$\bar{0}.117^{d}$	$\bar{0}.190^{d}$	0.000^{d}	$\bar{0}.300^{d}$	0.036^{d}	$\bar{0}.201^{d}$	$\bar{0}.267^{d}$	Q
BR	0.065^{d}	$\bar{0}.193^{d}$	0.079^{d}	$\bar{0}.335^{d}$	0.010^{d}	$\bar{0}.540^{b}$	0.479^{b}	$\bar{0}.446^{b}$	0.075^{d}	

NOTES: Significance values (p), one tailed:

(a) $p \leqslant 0.01$
(b) $p \leqslant 0.05$
(c) $p \leqslant 0.1$
(d) $p > 0.1$

ABBREVIATIONS AS GIVEN IN TEXT UNLESS OTHERWISE STATED.

VALUES OF SPEARMAN'S r_s FOR ORIENTATIONS COMPARED WITH FINAL STAGE DMS RESULTS

TABLE 6.42

F.T. ONLY (N = 9)

P.C.			R.S.			S.D.		
I	R	P	I	R	P	I	R	P
$\bar{0}.247$	$\bar{0}.356$	0.676^*	0.242	0.000	0.220	$\bar{0}.306$	$\bar{0}.661^*$	0.096

*Significant at p = 0.05 (1 tailed). Since N = 9, table P of Siegel (1956) was used.

Whilst recognising the smallness of the sample and the points made earlier with reference to the F.T. course and its contradiction in general with the other courses on previous comparisons, the data does possess some trends. These are that high P scores are positively associated with high final stage results whilst R (and possibly I) may be associated negatively with these results. If this were true also of the other courses, the apparent contradiction between this and the stage 1 results could be due to the fact that the final stage results are based on examinations (45%), coursework (25%) and project work (30%) whilst stage 1 is purely examination oriented.

It seems possible, therefore, from this discussion that the P.C. measure again comes out strongest, followed by R.S.

Before leaving this section it is worthwhile considering the data shown in table 6.43 which contains correlation figures for the comparison of 'relevant personal values' with stage 1 DMS examination results for the P.T. course only.

VALUES OF SPEARMAN'S r_s FOR RELEVANT PERSONAL VALUES COMPARED WITH STAGE I D.M.S. RESULTS

TABLE 6.43

P.T. ONLY (N = 13)

	Examination Area		
Values	Behavioural	Quantitative	Total
Economic	$\overline{0}.370^{d}$	$\overline{0}.002^{d}$	$\overline{0}.193^{d}$
Social	0.293^{d}	0.292^{d}	0.365^{d}
Theoretical	$\overline{0}.361^{d}$	$\overline{0}.446^{c}$	$\overline{0}.533^{b}$

NOTES: (b) $p \leqslant 0.05$
(c) $p \leqslant 0.1$
(d) $p > 0.1$

This data suggests that only high social values are related to success on stage 1, yet this is contrary to (a) the data previously presented and (b) the Portsmouth School's own experience. It is surprising also that theoretical values correlate so strongly and negatively with success since stage 1 is exam and theory oriented. It may be that the previous comparison of orientation with values was, indeed, misplaced.

SOME FURTHER ASPECTS OF THE CONCEPT

Whilst the main emphasis of this project was to attempt to assess the measures of orientation designed as research instruments, it was decided to also take the opportunity it provided for considering some further aspects of the concept itself bearing in mind, of course, the results discussed in the previous sections.

The project essentially provided two major opportunities: (1) to consider the characteristics of and relationship between the three classes of orientation as defined and used in this thesis, and (2) to consider the effects, if any, of an educational programme on orientations of members taking the D.M.S. course at Portsmouth. Although it can be argued that data gained in assessing measures should not be used for different purposes it is suggested that potentially valuable information would be lost by not doing so. If the conclusions drawn about the validity and reliability of the measures are borne in mind no serious contamination should occur.

Characteristics of and relationship between Orientations

If reference is made to table 6.28 it will be seen that certain similarities and differences exist between the descriptions of the three classes of orientation yielded by the initial survey using the semantic differential form. The major similarities are between the economic man (instrumental) concept and the self-actualising (personal) concept, with social man (relational) being described very differently. These similarities are illustrated in the following table:

Common Descriptions of Three Concepts of Man — TABLE 6.44

Economic Man (Instrumental)	Social Man (Relational)	Self-Actualising Man (Personal)
Independent		Independent
	Flexible	Flexible
Egotistic		Egotistic
Aggressive		Aggressive
Autocratic		Autocratic
Inquisitive		Inquisitive
Competitive		Competitive

It is, perhaps, somewhat surprising that so little similarity is found between the social man concept and the others. It is surprising on at least a theoretical level since many theories pertaining to motivation suggest a progression from economic through social to self-actualisation needs, as discussed in Chapter two. On this basis, the expected similarity would be between social man and the other two, with little or no similarity between economic and self-actualising concepts. If the similarities found here hold good in other research situations then certain implications arise.

On the other hand, it can be argued that both economic man and self-actualising man are essentially individualistic concepts whereas as social man is not, and that the pattern noted in table 6.44 is to be expected. However, this argument cannot be extended too far since the three concepts deal with essentially different aspects - things, people, and the self.

In an attempt to gain further evidence of these similarities, each orientation was compared with the others using the data collected during Project 2. The correlation data are given in table 6.45.

In general, the data exhibits a trend of negative correlations between I and R and between R and P which support the 'difference' theory indicated previously and, to some extent, a trend of positive correlations between I and P - but with less support. It is interesting to note that the P.C. measure consistently produces negative correlations between I and P, although only one (BR) is acceptable at the 0.05 level. Equally, only 4 out of 8 of the positive values are significant at the same level - 3 of them result from the S.D. measure. It is thus possible that the 'difference' theory is based on data which is instrument biased but, on the other hand, the theory is not refuted effectively by other measures. On the evidence

VALUES OF SPEARMAN'S r_s FOR ORIENTATIONS COMPARED WITH EACH OTHER

Arch's = Architecture 3rd year students

BR = Block Release DMS
FT = Full Time DMS
PT = Part Time DMS
} All pre Stage 1

Course	Measure	Orientation Pairs I-R	I-P	R-P
Arch's (N = 14)	PC	$\overline{0.683}^{a}$	$\overline{0.441}^{c}$	$\overline{0.363}^{d}$
	RS	$\underline{0.276}^{d}$	0.684^{a}	0.544^{b}
	SD	0.647^{a}	0.090^{d}	0.039^{d}
BR (N = 15)	PC	$\overline{0.713}^{a}$	$\overline{0.492}^{b}$	$\overline{0.247}^{d}$
	RS	$\underline{0.319}^{d}$	0.295^{d}	$\underline{0.071}^{d}$
	SD	0.709^{a}	0.629^{a}	0.456^{b}
FT (N = 11)	PC	$\overline{0.419}^{c}$	$\overline{0.283}^{d}$	$\overline{0.710}^{a}$
	RS	$\underline{0.299}^{d}$	0.336^{d}	$\underline{0.316}^{d}$
	SD	0.507^{b}	0.773^{a}	0.634^{b}
PT (N = 14)	PC	$\overline{0.940}^{a}$	$\overline{0.348}^{d}$	$\overline{0.019}^{d}$
	RS	$\underline{0.328}^{d}$	0.240^{d}	$\underline{0.142}^{d}$
	SD	0.546^{b}	0.490^{b}	0.355^{d}

NOTES: Significance values, p, (one tailed) are in the following ranges:

(a) $p \leqslant 0.01$
(b) $p \leqslant 0.05$
(c) $p \leqslant 0.1$
(d) $p > 0.1$

available, it is possible only to say that the 'difference' theory may be plausible but requires further investigation. Since this was not a primary aim of the project it has not been followed through; time constraints also prevented further exploration. This is unfortunate since such a 'difference' theory would have major implications as Bennett (1974A) has demonstrated with respect to the concept of orientation to work generally.

Effects of a Management Education Programme on Orientation

During the time-span of the project it was possible to carry out a semi-longitudinal survey of course members taking the D.M.S. at Portsmouth. The course is operated on a full time (F.T.) basis over one academic year; block release (B.R.) over two years; and part time (P.T.) over three years. Since this project lasted approximately one year it was possible to carry out a full longitudinal study of only the F.T. course. However, since the maximum length of stage 1 of the D.M.S. course was one year (P.T.) it was possible to make comparisons between all three courses at that stage. The general pattern for the survey was as follows:-

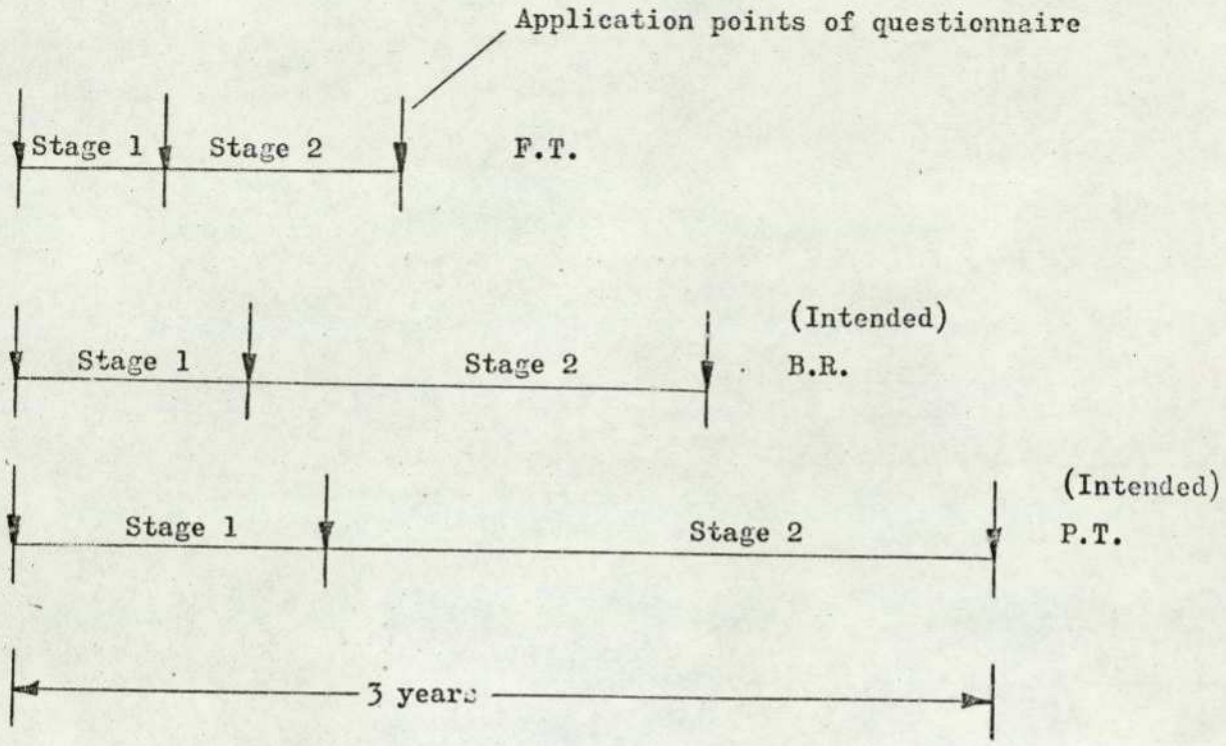


FIG. 6.18

SCHEME OF LONGITUDINAL STUDY OF EFFECTS OF A MANAGEMENT PROGRAMME ON ORIENTATIONS

(Note: Only F.T. is continuous study)

Completed questionnaires were analysed on a group by group basis and the data subjected to the Wilcoxon matched-pairs signed-ranks test (Siegel, 1956, pp 75-83). The results are shown in table 6.46 from which a general conclusion can be drawn - namely, that the three forms (individually or collectively) of structure do not produce any significant changes in orientations over the duration of stage 1. This is despite the fact that, on one course (F.T.), members have no contact with their organisations whilst on the others they do. The result is not surprising since stage 1 is mainly academic in nature and content whilst stage 2 is more developmental.

TABLE 6.46

TEST STATISTICS (WILCOXON) FOR CHANGES IN ORIENTATION RESULTING FROM THREE DIFFERENT FORMS OF MANAGEMENT COURSE STRUCTURE

		Full Time			Block Release			Part Time		
Variable	Statistic	RS	PC	SD	RS	PC	SD	RS	PC	SD
I	T =	8	6	6	44.5	10	15	5	17.5	9
	N =	9	7	6	13	8	11	8	8	10
R	T =	16	1*	13	38	17	7.5*	29.5	17.5	11
	N =	9	7	7	14	10	10	11	9	9
P	T =	10.5	5	4	31	5*	11	25	4	16
	N =	8	4**	6	13	9	9	11	5***	10

* Significant at 0.05 level (two tailed).
** N too small for Wilcoxon or Sign tests.
*** N too small for Wilcoxon test - not significant using Sign test.

NOTES: (1) Treating courses combined as one group receiving the same treatment, only one significant change in orientation occurs - P measured on S.D. (T= 80.5, N= 25, 0.05 p 0.02) using Wilcoxon test.

(2) Actual group sizes (responses) before - after course:-

Course	N
B.R.	14
F.T.	9
P.T.	11

(3) Abbreviations as given in Text.

It could be argued that, whilst no changes have occurred on a group basis, individuals may have changed, coming closer to the mean of scores for each variable for the particular group. By making appropriate assumptions about the nature of the data - in particular that it can be considered of interval status - the 't' and 'F' tests can be used to test for changes in means and variances respectively. None of the variances achieved were significant at the 0.05 level, whilst only two changes in means were significant at the same level. Thus, it is reasonable to argue that stage 1 of the D.M.S. course did not result in any real changes in orientation - either on a group basis away from a mean, or on an individual basis toward or away from the group mean. Table 6.47 summarises movements in $\bar{x}$ and S for the three courses.

Questionnaires were also given to the F.T. course members at the end of stage 2, but only five useable returns were obtained. Whilst no significant differences in means or variances were obtained, the sample was obviously too small to be able to say that stage 2 does not produce any changes in orientations. Since it is important to be able to establish a change or non-change condition, the author is continuing his investigations but these will be outside the scope of this thesis.

It is hoped that the discussions relating to Project 2 have demonstrated some advance in an area that had clearly been neglected, but it must be emphasised that further work is still required before additional research is carried out using the measures described above.

SUMMARY OF MOVEMENTS OF MEANS ($\bar{x}$) AND STANDARD DEVIATIONS (s) OF MEASURES GIVEN AT THE BEGINNING AND END OF STAGE 1 OF RMS

		PC			RS		
		BR	FT	PT	BR	FT	PT
I	$\bar{x}$	↓	↑	↓	↓	↑	↑
	s	↓	↑	↓	↑	↓	↓
R	$\bar{x}$	↓	↓ *	↑	↓	↓	↑
	s	↓	↓	↓	↑	↑	↓
P	$\bar{x}$	↑ *	↑	↓	↓	↓	↑
	s	↓	↑	↑	↑	↑	↓

NOTES:
(1) No S's significant at $p \leqslant 0.05$
(2) * denotes significance at $p \leqslant 0.05$
(3) ↑ denotes increase in value
(4) ↓ denotes decrease in value
(5) S.D. excluded as inadequate measure
(6) Sample sizes were BR: N = 14; FT: N = 9; PT: N = 11
(7) Abbreviations as given in text unless given.

Critical Comments

Although it is contended that the work carried out in developing measures of orientation has taken a step forward in the right direction, it is also recognised and accepted that it contains weaknesses. Some of these weaknesses are concerned with the nature of the measures chosen and the limited sample upon which they were tested - it might have been possible (if time and resources allowed) to have used alternative forms and included different types of individuals or groups in the total sample or as parallel samples. None-the-less, a fruitful base has been laid for continuing the work and making further strides towards achieving adequate measures.

Perhaps the greatest weakness, though, is the absence of reliable (and objective?) criterion measures - some external data or measures to which orientation could be meaningfully related. As previously mentioned, this is difficult to achieve (as experienced with the Values test) since orientation is very much a general attribute. However, it might be possible in further explorations and developments to use a number of tests of mental ability, primary abilities, attitudes and interests as comparators for measures of orientation. Inventories and measures of job satisfaction may also be found to be useful in this context.

A programme of work to achieve all this would be extensive indeed and require considerable time and resources which are outside the scope of this thesis. It has been decided, however, to extend the work by modifying the measures and collecting data from two very different groups for which orientations can be predicted. This work is described in the Addendum.

CHAPTER SEVEN

RESEARCH DATA AND DISCUSSION (CONTINUED) - ORGANISATIONAL VARIABLES

This chapter continues the discussion of the research data - in this case those stemming from Project 3 on the relationship between different variables, and an analysis of problems faced in Project 4 which, for reasons to be discussed later, was not completed for inclusion in this thesis.

PROJECT 3

ASSESSING THE RELATIONSHIP BETWEEN BEHAVIOUR, ORIENTATION, AND ORGANISATIONAL VARIABLES

It will be recalled from chapter five that the purpose of this project was "to test the general validity of the conceptual framework outlined in chapter three, as seen by managers in different organisations, and to illustrate the relative role of payment systems as influencers of behaviour". This stemmed from the fourth hypothesis, and research issues 5, 6 and 8 described in chapter four. The main data, collected via a questionnaire and supplemented by interviews, are discussed in this section together with additional data obtained from a number of experienced academics and research workers. The latter was added to the project at its completion in order to assess reactions to certain aspects of the current work, and will be detailed a little later on.

It will be helpful to remind the reader of the variables (referred to as factors in the questionnaire - see appendix 5) in order that references to abbreviations will be clear. The factors and appropriate abbreviations are as follows:-

LIST OF FACTORS USED IN REGRESSION ANALYSIS — TABLE 7.1

Conditions of work (C.W.)	-	the physical environment (heating, lighting, cleanliness, noise, ventilation, etc.) in which the individual works.
Work Group (W.G.)	-	those people with whom the individual most frequently associates during his working hours.
Incentive and Reward System (I.R.S.)	-	the way in which financial rewards are offered and made.

Technology (TECH.)	-	the state of knowledge, methods, procedures, technical operations used for producing goods and services, and determining the nature of the job or work performed.
Organisation Objectives (O)	-	the desired states of affairs the organisation hopes to achieve.
Management(M)	-	the process whereby orders are given, tasks allocated and work controlled in order that organisational objectives and purposes can be achieved through the effective and efficient use of resources.
Structure (S)	-	the arrangement of activities and authority within the organisation into a meaningful system for performing work.
Environment (E)	-	the forces of external systems (such as economic, political, social, educational, market, and cultural pressures - including trade unions and other interest groups) acting upon the organisation, and the people who work within it.
Tasks (T)	-	the work undertaken by the individual as required by his superior in order to help achieve the organisation's objectives.

NOTE: Orientation to work was, of course, also included.

In total, 189 respondents returned completed, useful questionnaires out of nearly 250 that were circulated. Six completed questionnaires were returned too late for inclusion in the analysis. Many respondents expressed a great interest in this project and requested some knowledge of the results when they became available.

Relationship between Incentive and Reward (Payment) System and other Organisational Factors

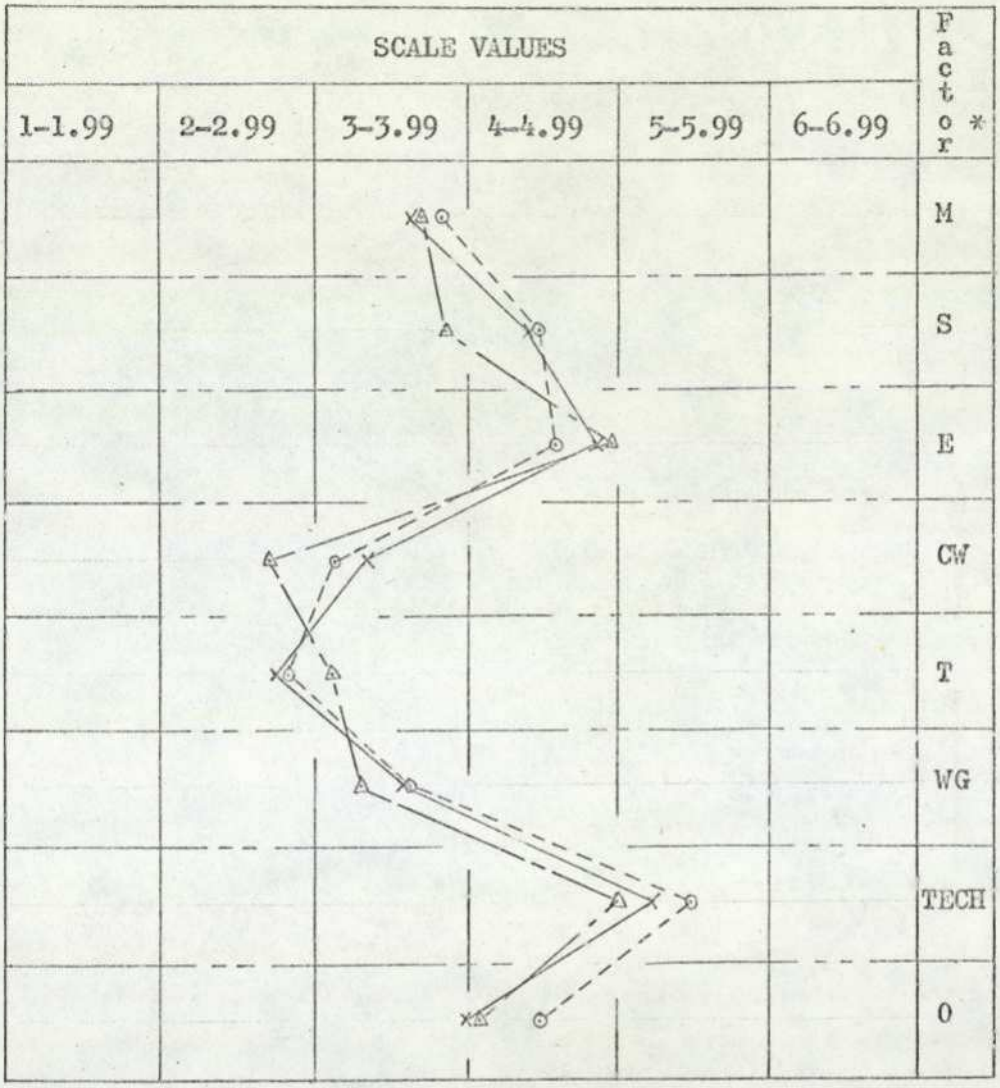
In order to explore the existence of a perceived relationship between these factors the responses to part one of the questionnaire were analysed against the stated nature of the I.R. system for manual workers only (except in cases where only clerical workers were employed). A profile was then drawn for each I.R.S. against all factors, based on the mean point of scale responses. These profiles are shown in figure 7.1 and the data from which they are drawn are given in tables 6.1.1 to 6.1.3 (appendix 8).

It is readily apparent that the profiles show no marked differences in form. Indeed, both F - and t - tests result in no significant differences except for the variances for the organisational objectives (O) scale. If the notion that the type of payment system is a function of the nature of work activities is true, there should be a perceived difference between at least output-based systems and merit-related systems on the task (T) and technology (TECH.) factors. These do not occur. It could be argued that the data are invalid since they do not take account of specific situations - they rely on statistical assessments! In some respects this criticism is justified since the responses do vary along the scales, as indicated in the tables by the standard deviations. Thus, for some companies the payment system may 'fit' the nature of the work activities, e.g. bonus schemes being used where work of a fairly high volume is under the control of the worker. But the point is surely made that this is not a universal 'fit': in some situations the payment system seems at odds with the other factors, yet seems to work or not as the case may be.

Some examples of these non-fit situations were thrown up during interviews. In one organisation a lot of time and money had been spent on the introduction of a pay and productivity scheme for a wide range of workers.

FIG. 7. 1

RELATIONSHIP OF INCENTIVE AND REWARD SYSTEMS
TO OTHER ORGANISATIONAL FACTORS



NOTES: ×———×———× = OUTPUT RELATED SYSTEMS
⊙- - - - -⊙- - - - -⊙ = STRAIGHT TIME SYSTEMS
Δ- —— -Δ- —— -Δ = MERIT RELATED SYSTEMS

*For description see page 242 of text

The work involved the operational control and maintenance of fairly sophisticated continuous flow process equipment. Some of the work was under the control of the operator, but most was done in a routine way, dependent upon the equipment itself. Some maintenance work could be prescribed, but often it was impossible to tell what was required until the equipment was dismantled. In both extreme cases, workers were subjected to the same job control card system and the same basic method of calculating bonus earnings.

In a second organisation, female operators were employed to produce and inspect semiconductor devices, the quality of which was of extreme importance. The number of good devices obtained from the complicated processes was critical to the success of the company in a severely competitive market. And yet these same operators were paid on a bonus system which took quantity of output as the key criterion and ignored quality improvement. In a process which can take three or more years (in this case nearly seven) to reach optimum quality of output, 'this seems absurd' (the manager's own words).

A third organisation was involved in the manufacture of sophisticated and advanced electronic equipment. Although much of the work was of a developmental form (of a small batch nature), some of a routine, regularised and semi-continuous type which could have been related to a bonus system. The company, however, operated a fairly standard time system with certain merit elements - and it seemed to work successfully irrespective of the job being done. The level of pay was high, the conditions of work excellent, and the management tough but very employee-centred when necessary. In these circumstances it is likely that any payment system would operate with a fair degree of success.

Other companies investigated by the author have contained similar paradoxes. In one, a bonus system (in which bonus accounted for well over 50% of earnings) was changed in favour of a merit rating system which, over time, evolved almost to a straight salary-cum-measured daywork approach - both systems being concerned with the same kind of work activities. In another, hourly rates were abandoned in favour of group bonus for work which could be meaningfully grouped and was not highly mechanised. This system was a failure because of the nature of the working groups. One was small, cohesive and consisted of fairly new recruits, the others were larger yet cohesive but contained many workers near retirement who were not much interested in working hard for the benefit of the group. The other members accepted this, and slowed down to the pace of the older workers. (The classic case of course is that of Glacier Metals which abandoned piecework in favour of hourly rates and who reputation and philosophy is well known and documented).

There are, then, both perceived and actual paradoxes in the relationship between the type of payment system and the other factors which form part of the conceptual model described in chapter three. Why this should be so is not really clear, although it is possible to attempt an explanation based on contingency theory. The model put forward in chapter three (figure 3.4) depicts certain complex relations between the major factors, and it will be seen that, for example, technology, structure and management may relate to or interact with the incentive and reward system. Other factors, such as task and work group, will also have an interactive effect, but the determining criterion is whether the management perceive one interaction to be more important than another, and one factor more influential than another. Thus, in company A the type of payment system chosen will be contingent upon

a shift in objectives or policies; in C upon the whims of management; and in D upon the type of work being undertaken. None of the author's experiences or researches have produced a situation in which a 'true fit' approach was adopted, i.e. where principles of motivation and control were congruent. Because the type of payment system seemed to be contingent upon the management's perception of what was important, one part of this project aimed to assess the importance attached to the various factors in-as-far as they influenced behaviour.

The Perceived Importance of Various Factors in their Effect on Behaviour

Section 3 of the questionnaire required respondents to place nine factors in a rank order based on the importance they attached to them as influencers of behaviour, in their view. The responses were analysed by various categories of respondent to obtain category- and overall-rank orders. Before discussing the results it must be stated that this section contained an omission, namely an overt indication of the type of employee whose behaviour was to be considered. This was explained in previous parts of the questionnaire, and a check on more than 25% of respondents revealed that they had made the assumption that this applied to the section in question. Together with remarks to this effect made on many questionnaires by respondents, this yields a fairly consistent approach to the exercise. Although this error was realised early in the project it was too late to alter the questionnaire - a practice not favoured since changing the research instrument may well alter the nature of the data. The pilot tests did not throw up this problem, adding to the belief that most if not all respondents assumed the section to be completed on the same basis as the rest of the questionnaire, namely that concerned with the behaviour of people at the level of manual and clerical workers.

The data yielding each specific rank order position in any category was subjected to the x^2 test to assess its level of significance. For example, it would be possible for a certain rank order position (e.g. those in the middle ranges) to result from a wide spread of responses, or from a general tendency to rank the factor at that position. A random distribution has therefore been used as the basis for determining the expected frequency.

The rank orders resulting from the analysis, together with their associated significance levels, are given in tables 7.2 - 7.4. The first of these tables shows the ranks related to categories based on the stage (if any) reached on the D.M.S. course (it being remembered that this course was used as a major source of respondents). It will be noticed that the payment system (IRS) is viewed fairly consistently by most categories as having a medium influence on behaviour, the exception being the non D.M.S. category for which it comes slightly higher. It thus appears that the IRS is not considered to have any great effect on behaviour compared with other factors. The interesting point lies, however, in the fact that the responses for the IRS were spread almost evenly over the entire rank positions - hence the lack of significance. This is true also of the categories used in the other tables. In other words, respondents exhibited greater differences in their perception of this factor than any other indicating, perhaps, the differences in role it is attributed. This may well be due to the different organisational experiences of the respondents, yet analysis by job type and nature of role does not support this view. The results here do confirm those discussed in the previous sub-section.

Some differences do occur between categories for other factors. For example, table 7.2 shows that applicants accepted for the D.M.S. but who

had not yet started their studies (pre D.M.S.) consider conditions of work to have the greatest influence on behaviour. This compares extremely with the views of first year students (D.M.S.1) - who have covered studies in psychology as well as the famous Hawthorne experiments - where C.W. is considered to be of little importance in determining or influencing behaviour. The rank positions given for this factor by students at later stages of the course tend to be more in line with people who are not taking or have not taken the course (non-D.M.S.). This level is reflected when the data are broken down by other categories, as the other tables show.

Another interesting difference thrown up in this table is the importance attached to management as a determinant or influencer of behaviour. Third year students (D.M.S.3) thought it pre-eminent whereas non-D.M.S. respondents gave very little weighting to it - the latter results being not quite significant at the 0.05 level. A further slight difference attaches to W.G. as seen by pre-D.M.S. respondents, but again the spread of responses is too wide to achieve significance.

Apart from these few variations, the results show considerable consistency between categories on most factors, yielding overall results which suggest that the nature of task activities engaged in at work (T), the relationships with work associates (W.G.) and the style and practices of management (M) have the greatest influence on work behaviour. The factors viewed as having the least effect on behaviour are the nature of the organisations objectives (O), the technology employed (TECH.), and the nature of the external environment (E). The remaining factors IRS, C', and S are viewed as having a middle-of-the-road influence on behaviour.

A review of the remaining tables will reveal, obviously, the same

overall results but also show the same general consistency between categories for each factor. Some exceptions do occur, as would be expected, and these tend to confirm the results as being reasonably acceptable. The exceptions in table 7.3 occur in three categories - people in administrative and 'other' jobs tend to disagree with the rest but agree with each other on the effect of structure (S) and the task (T). S is considered relatively more important whilst T is relatively less so (compared with other categories). Equally, these same respondents rank management (M) as of most importance. This is probably not so surprising since the work of lower level people in both categories is rather routine, and managerial and organisational (procedural) controls tend to be conspicuous. This was certainly the view of a good number of people interviewed. The other exceptions occur for people in R and D functions who view M to have less effect - since innovation is very much a 'personal thing' (at least in the eyes of one R and D worker interviewed) - whilst TECH. is seen, not unnaturally, as having greater effect (although not significant). The major surprise of this category is the importance attached to the IRS co-jointly with W.G.! The perceived effect of the working group is not so surprising since R and D workers are often required to work on a team basis. Perhaps laboratory workers are seen to be interested in money on a relative basis - i.e. since, as many R and D managers indicated, they personally are more concerned with status and prestige in the scientific community, any difference in behaviour on the part of their subordinates will be very noticeable (of perceived view of IRS by 'others').

The final table (7.4) shows the data broken down on the basis of whether the respondent is in a managerial or non-managerial role. Here the exceptions are less than in the previous table and mostly occur in the 'other' category - the differences being similar to those for the

'others' in table 7.3 i.e. M and S viewed as relatively more important, T not so (M being the only significant result of the three). The only other major exception is that professional people in a managerial role consider working conditions (CW) to have virtually no effect on behaviour - not surprising since most of these respondents and their workers are engaged on relatively interesting and absorbing work for at least some of the time and 'couldn't be bothered about surroundings so long as the job was worthwhile' as one of them put it.

Apart from these generally acceptable and expected exceptions, all three analyses show the same consistent trends - that the task, work group, and management have the most important effect on behaviour, as seen by the respondents. This is generally consistent with the model presented in chapter three. It would seem clear, therefore, that the role of the payment system must be considered in relation to at least these three factors.

TABLES 7.2 - 7.4

NOTES

ABBREVIATIONS

For factor abbreviations see list in text.

PRE-DMS	-	respondents about to start the DMS course
DMS1	-	respondents on year 1 of the DMS course
DMS2	-	respondents on year 2 of the DMS course
DMS3	-	respondents on year 3 of the DMS course
EX-DMS	-	respondents who have finished DMS course
NON-DMS	-	respondents not on, or having done, DMS course
ENG	-	respondents working in an engineering function
OP'S	-	respondents working in an operational department
ADMIN	-	respondents working in an administrative department or function
R & D	-	respondents working in a research and development department
STAFF	-	respondents working in a service or advisory department
MAN	-	respondents in a managerial role
NON-MAN	-	respondents in a non-managerial role
OTHER	-	respondents not fitting into any particular category
ALL	-	all respondents

SIGNIFICANCE LEVELS

*	-	significant at $p \leqslant 0.05$
+	-	p only just greater than 0.05

PERCEIVED RANKED EFFECT OF NINE FACTORS ON BEHAVIOUR IN ORGANISATIONS

BY STAGE ON D.M.S. COURSE

TABLE 7.2

	STAGE ON COURSE:						
FACTOR	PRE-DMS	DMS 1	DMS 2	DMS 3	EX-DMS	NON-DMS	ALL
CW	1*	8*	4	6	6	4	5
WG	4	1*	1*	3	2*	2*	2*
IRS	5	5	6	5	4	3+	4
TECH	7*	6	8*	8*	9*	5	8*
O	7*	7*	9*	9*	8*	9*	9*
M	2	3*	2*	1*	3	7+	3*
S	6	4	5*	4	5	8*	6*
E	9*	9*	7	7	7*	6	7*
T	3	2*	3	2*	1*	1*	1*
N=	19	27	46	25	44	28	189

BY TYPE OF JOB

TABLE 7.3

	TYPE OF JOB:						
FACTOR	ENG	OP'S	ADMIN	R & D	STAFF	OTHER	ALL
CW	5	6	6	5	5	5	5
WG	2*	2*	2*	2*	1*	2	2*
IRS	4	4	5	2*	4	7	4
TECH	8*	8*	9*	4	7*	8	8*
O	9*	9*	7	9*	9*	6	9*
M	3*	3	1*	6*	3*	1*	3*
S	7+	5	4*	7	6	3	6*
E	6	7	8*	8*	8*	9*	7*
T	1*	1*	3*	1*	2*	4	1*
N=	44	25	31	27	41	21	189

BY NATURE OF ROLE

TABLE 7.4

	NATURE OF ROLE:				
		PROFESSIONAL			
FACTOR	MAN.	MAN.	NON-MAN.	OTHER	ALL
CW	5	7*	4	4	5
WG	1*	2*	2*	3	2*
IRS	4	4	5	6	4
TECH	9*	7	7*	7	8*
O	8*	9*	9*	9+	9*
M	2*	3*	3*	1*	3*
S	5*	5	6	2	6*
E	7*	6	8*	7*	7*
T	3*	1*	1*	5	1*
N=	41	42	89	17	189

The Academic View

Shortly after the completion of Project 3 it was decided to attempt to gain the views and reactions of academic colleagues, many of considerable eminence, to the whole process of behaviour in organisations. There were a number of reasons for doing this: many of such people had considerable research experience which could contribute to the thinking behind this thesis; some were known (via the literature) to have opposing views in certain areas but might agree on general issues; and all would provide a useful test to the idea of generally assessing the 'importance' of different factors in influencing behaviour in organisations. But how to go about it was a difficult problem. Should the notion of ranking factors be put to them, and their responses sought? Or should they be asked to do it in the hope that they would find time to make comments as necessary? The view was taken that the latter approach was more meaningful, since it did not bias the respondents' comments but rather left it wide open. It was also considered that such people would freely state their views if they felt the method of responding was inadequate. (Both transpired to be more than justified).

It was, of course, impossible to interview the potential respondents since they were located in very different parts of the country. Reliance was again placed, therefore, on a questionnaire - deliberately a very brief, general questionnaire with certain design deficiencies, all intended to evoke the maximum comment from respondents. A second questionnaire was circulated to a number of initial respondents, in the hope that their views might be tested further. Both can be seen in Appendix 5. Potential respondents were selected on the basis of personal knowledge via the literature, the membership list of the Association of Teachers of Management, and discussions with colleagues. None of the respondents are named.

The numbers involved were as follows:-

Original circulation	22
Replies	17
Follow-up questionnaire	12
Replies to follow-up	5

(Note: - some follow-up replies were received too late for inclusion in the analysis)

No claim is made for the representativeness of the sample - the aim was not to be able to say what certain sections of academia thought, but merely to seek views which might agree with or differ from those expressed in these pages. The sample did range across a wide number of institutions and levels of personnel, from Principals and Professors thro' Readers to Lecturers and Research Staff.

As will be seen from the questionnaires in Appendix 5 respondents were asked to (a) rank the previously discussed factors on an 'importance' basis, (b) to state factors they thought should be added to the list, (c) indicate which factors might grow or decline in importance from a research view over coming years, and (d) make additional comments as they saw fit. The responses are discussed here on this basis, except that (a) and (d) are combined.

(a) Perceived importance of the factors - The purpose of this part was two-fold: (i) to gain an assessment of the viewed relative importance of the factors where it was felt possible to do so and (ii) to stimulate commentary on reasons for thinking this could not be done where respondents felt so. Only seven of the seventeen respondents to the first questionnaire attempted to rank the factors and several gave comments when they did. The remainder did not do so and, even with a follow-up based on an amended approach, only a further three did so. Although these numbers are small the overall rank order positions have been calculated to provide a crude comparison with the results of the previous section. These are shown in table 7.5.

COMPARISON OF ORGANISATIONAL FACTORS AS RANKED BY ACADEMICS AND GENERAL SAMPLE

	RANKS GIVEN BY:		
	ACADEMICS		GENERAL SAMPLE
RANK ORDER	NO REFERENT	MANUAL WORKER REFERENT	
1	T	T	T
2	M	IRS	WG
3	S	WG	M
4	IRS	M	IRS
5	WG	CW	CW
6	TECH	S	S
7	CW	TECH	E
8	E	E	TECH
9	0	0	0
N=	7	3	189

It will be seen that some differences do occur between the three ranks, as would be expected, but that certain similarities are striking. These similarities are concerned with the general agreement on the relative importance of the task, management, conditions of work, technology, environment and objectives, although technology tends to be placed a little higher by academics compared with non-academic people. What is surprising is the low ranking for W.G. and the high ranks for S when done against no specific referent (such as type of job), and the high ranking of IRS when done against the specific referent of 'manual' worker. Obviously some (a few) academics attach greater importance to payment systems than do most of the managers and professional people in the main sample. This may well be influenced by the specific nature of the research they have been involved with and the types of situation they have encountered - and this leads into a discussion on the comments made as an adjunct to the ranking exercise.

Some Comments - The most common remark made by those attempting the ranking exercise was concerned with the interactions and relationships that were seen to take place or exist between the various factors. Five of the seven respondents who ranked the factors made comment to this effect, as typified by the following:-

"The crucial questions seem to be 'how do the factors relate to (influence) each other', and 'how will these mutual influence patterns shift in the future'".

Many of the other comments, for example 'the rank order given would change as a specific case was thought of' and 'it depends on the interpretation of 'behaviour'' indicate a similar feeling of unease in trying to establish some general order of influence these factors may have on behaviour, and indeed some of the respondents who gave a ranking said they would not have much faith in it. Other respondents, however, did not see any great sin

being perpetrated in giving a rank of general importance.

Those who did not attempt the ranking exercise did so for varied yet generally similar reasons. One well-known academic wrote that he would always wish to say 'it depends!' The immediate retort to this is 'it depends on what?' and this is in part what this research is about. Some felt that such a ranking could be done more meaningfully against specific referents, such as job type, since they viewed these factors as having different effects on manual workers as compared to managing directors. (Yet this is a view which some academics have been heard by the author to refute). Others were of the view that the particular combination of factors found in any one situation together with the attitudes and orientations of the workers would vary - a point not really disputed by the model in chapter three. One respondent felt that we did not have enough knowledge to be able to say which was more important. Probably the view of most respondents is summed up in the comment: 'what is 'important' varies from time to time and place to place as well as from group to group' - made by one respondent replying to the follow-up questionnaire.

Generally, then it appears that the model posed earlier has been designed along lines which most experienced academics would accept - namely, that various factors interact with one another (in different ways in different situations) to influence behaviour although some respondents did note that certain factors had a more direct influence (e.g. T, M, W.G.). But why should one factor be influential in one situation and not another? The answer to this question is also contained in the model - the nature of orientation, in relation to the total situation but possibly influenced by one or more specific factors, determines how people will respond. Indeed, several respondents commented on the effect that 'attitudes', 'orientations',

and 'individual objectives' would have on the total outcome. It would also appear to be a generally held view (substantiated by much of the literature) that the task, the work group, and management have a consistently important influence on behaviour but that in certain situations - such as extreme frustration with delays over negotiating a new pay scale - these may be overriden by other factors.

(b) Factors to be included - The most commonly stated factor for inclusion in the list was that of the individual himself, although referred to in different ways. Personal factors (such as marital status) together with the employee's 'social characteristics' were mentioned by five of the seventeen respondents (a good number did not add to the list at all). Again, this is accounted for in the model but it is helpful that such reinforcement is forthcoming - although it is inconceivable that any model of human behaviour could omit them. Other factors mentioned were: organisational climate (twice); non-financial rewards (once); management philosophy (once); and management-union-employee relations (once). Most of these are subsumed under factors already in the model (e.g. management philosophy under management) whilst organisational climate might be said to be an end result of the successful 'fit' and interaction of all the factors. Probably non-financial rewards should be considered as a separate factor yet such rewards can eminate from a number of sources - the task, the manager, workmates - and is therefore of a rather different order from the others.

(c) The future! - As far as the future is concerned, many of the respondents felt that the environment would become the subject of much more attention via research, and there are good reasons for suggesting that this may well be true. Such reasons would include the increased political and Political attention it is receiving and the economic concomitants; the general trend in shorter working hours (thus making the employee even more

subject to 'the environment'); and the increasing number of researches suggesting its potentially important role in the lives of everyone. Thus, the perceived lack of effect it has on behaviour in organisations may belie the influence it might have in the future, and may require many models and theories of organisations and behaviour to be adapted or thrown away.

The next most frequently mentioned candidate for increased attention was the incentive and reward system. This is probably less easy to justify, although it is possible that future payment systems may have to be geared more to meet the requirements of flexibility and social equity whilst also acting as indixes of relative performance and merit - a tough demand requiring considerable further research and experimentation.

At first sight it may seem surprising that the task was mentioned only three times - as was 'objectives' - as likely to be receiving considerable attention in five to ten years time, and yet this could well be true. The current emphasis it is receiving may have subsided by 1985 - hopefully not without some very valuable pay-off - and research resources switched to something else.

Other factors were also mentioned and are shown in table 7.6 together with the few that respondents considered would vanish from under the microscope.

Number of Mentions given to factors which would receive increasing or decreasing attention: TABLE 7.6

Increasing		Decreasing	
Environment	8	Conditions of Work	2
Incentive & Reward System	5	Technology	1
Management	4	Structure	1
Task	3	Incentive & Reward System	1
Organisation Objectives	3	Management	1
Work Group	2		
Structure	2		
Political structures	1		
Systemic Properties	1		
Conditions of Work	1		

It is contended that, although the questionnaires could have been intentionally of a better design or based along different lines, the information and views gained have been helpful and genuine. Considerable support is shown for the model without the respondents having seen it, although it would appear that some form of 'factor selector' device needs to be built into it. This would allow different factors to be trown up as 'prime mediators' dependent upon the 'situation'. (Perhaps the model contains such a factor selector device already, namely the decision making box linking orientation and behaviour). Generally, however, the relationships depicted would seem to find support.

REGRESSION ANALYSIS OF PERCEIVED RELATIONSHIP OF BEHAVIOUR TO ORGANISATIONAL FACTORS AND ORIENTATION TO WORK

It will be recalled that a major aim of this project was to assess the general validity of the model presented in chapter three; that is, to consider the relationship between the dependent variable B (behaviour) and the independent variables derived from the literature, including orientation to work. These, it was suggested, might well be analysed using a stepwise multiple regression computer package (see, for example, the following for both general and detailed considerations of multiple regression-analysis; B.M.D. Manual (vol.3); Heward & Steele, 1972; Afifi & Azen, 1972). This programme allowed one variable at a time to be entered in order that its effect in terms of explaining variation in the dependent variable might be clearly studied. The programme attempted to fit the data to a linear model of the following form:

$$B = a + b.\,C.W. + c.\,W.G. + d.\,I.R.S. + e.\,Tech. + f.O. + g.\,M + h.S. + i.E + j.T. + k.ORN + E'.$$

The initial runs on the computer were carried out for the total sample to see if any general fit was obtained. The first run allowed each variable to be freely entered, subject only to meeting the F- and tolerance levels specified. This resulted in the following equation parameters:

$$B = 3.28 - 0.06\,C.W. - 0.05\,W.G. + 0.09\,I.R.S. + 0.03\,TECH + 0.13.O. - 0.04M - 0.11S + 0.02E - 0.04T + 0.13\,ORN + 0.92$$

It must be noted that negative coefficients are a function of the presentation of data from the scale measuring any particular variable. In other words, positive coefficients could be obtained by reversing the numbering of scale positions. This is, to some extent, an arbitary exercise but it does mean that the description given to the ends of the scales are important - the sign indicating to which description behaviour relates.

The error estimate of 0.92 is rather high and, in conjunction with the coefficient of determination, C.D., (i.e. multiple R-squared) of only 0.19 - which indicates that some 19% of the variation (of which 14% comes from O, ORN, S and C.W.) in B is explained by the independent variables - suggests a poor fit. A plot of residuals against each variable did not indicate the possibility of a non-linear relationship. The alternative possibilities are that the data is completely random or that some further variable (S) would better explain the variation in B. It is possible, based on residual plot profiles, that some degree of randomness exists but some semblance of a normal distribution can be detected - with a fairly large variance. Also, F-values are high enough to indicate a relationship. It is, of course, the case that not all possible variables are accounted for in the model but it is unlikely that, since the major variables are included, any significant improvement in C.D. would be obtained. Thus, a combination of some randomness and variable exclusion may account for the bad fit, or it may be that different sorts of people perceive the relationship in very different ways, yielding seemingly random data. It was decided therefore to run the programme for each of the categories used previously in discussing the rank order data, so that a more detailed exploration could be undertaken. This was preceded by another run on the total sample, but this time forcing the variables to enter in accordance with the overall rank positions obtained previously, with orientation entered first. No material differences occurred in any of the individual C.D. values (the total C.D. remaining the same, of course).

The partial correlation coefficient for the general sample (see table 7.7, appendix 8), show that behaviour correlates rather poorly with all variables. It is interesting to note, however, that M and S correlate quite highly, suggesting that they might be replaced by a single variable.

The remaining computer runs were carried out using the data broken down into the three different types of classification used earlier, i.e. nature of respondents role, job, type of respondent, and stage reached on the D.M.S. course (if he was taking it). Although the results yielded are by no means totally acceptable, a big improvement is achieved on those stemming from the overall analysis. The data relating to equation coefficients, MRSQ, and correlation values are given in tables 7.8 - 7.23 of appendix 8.

Analysis by Nature of Role (table 7.18, appendix 8)

It will be remembered that four categories were used in this classification - managerial, professional-managerial, profession-nonmanagerial, and 'other'. Each category has been analysed under the same conditions as the original run, namely with each variable free to enter in accordance with the F-value calculated.

For those respondents in a managerial role the regressor variables were seen to account for a much greater variation in behaviour than for the general sample; almost 62% (C.D. = 0.616) as opposed to 19% for the general sample. Of this, 45% was contributed by S & O, the F-values for which were more than three times those for each of the remaining variables.

Professional people in a managerial role saw things a little differently. In this category, two variables (S and E) were not entered because the F-values were too low. It is interesting that S is the major regressor with B for 'managers', but not even in the equation for Professional-managerial respondents. As far as this category was concerned, 52% of the variation in B was attributable to eight of the variables, 44% coming from ORN alone, (the F-value for which was very high), as reference to table 7.18 of appendix 8 will show. This compares with only ½% in the previous category. TECH and I.R.S. contribute 7%

Non-managerial professionals, however, saw only 25% of behaviour as being attributable to the regressor variables, with over 12% coming from O. (E, T, and ORN contributing a further 11% between them). Management and structure contributed the least in this regression. On the whole, respondents in this category seemed to see little relationship at all existing between behaviour and the regressor variables, as the low F-values obtained indicate, and in some respects reflect the results for the overall sample.

The results obtained for the remaining respondents ('others') indicate that some 51% of variation in B could be explained by the regressor variables, excluding orientation which was not entered into the equation due to its very low F-value. Here the major contributions came from S (13%), IRS (10%), TECH (10%) and T (8%). It is interesting to note that, for the first time, IRS and T figure among the variables which are perceived to explain variation in behaviour; whilst this is not surprising for IRS, it is odd that the task has been so far low in the lists, especially in view of the rank position it was given in a previous section of the questionnaire.

It is clear, therefore, that little consistency exists in the explanation of behaviour accorded to each of the regressors by respondents when considered on a role basis.

On the other hand, some consistency appears if the question is reversed i.e. which variable(s) do not seem to explain variations in behaviour? A glance at table 7.18 of appendix 8 will show that E contributes a steady 5-6% (except where it was not entered), and CW contributes less than 1%. Other variables tend to be more irregular in their perceived relationship with behaviour.

Analysis by Job Type (table 7.19, appendix 8)

This classification contained the categories engineering, operations, administration, research and development, staff, and others, and each were analysed on the same basis as before.

Respondents working in engineering functions attributed almost 36% of variation in behaviour to the ten variables, with major contributions coming from ORN (13%), W.G. (8%), M and TECH (6%) each, whilst S and O made negligible contributions. In some respects such results might be expected because of the nature of work undertaken in engineering functions and the flexibility required - particularly in relation to S.

A contrast is seen when the C.D.'s for respondents in operational functions or jobs are considered. Of a total explained variation of 41%, the major contribution comes from S (15%) closely followed by W.G. (12%). (A smaller contribution is made by T (6%) and IRS (3%), and one variable (E) was not entered). Quite often in such functions the activities and behaviour of employees are constrained by rules and procedures which can be relatively easily determined due to the predictability of the work. It is not surprising therefore, that structure is seen as a fairly important determinant of behaviour.

A similar argument might be made for those people in administrative jobs and, indeed, of the 33% explanation of behaviour, the largest contribution comes again from S (12%) followed by O (10%) and WG (6%). Orientation was not entered. Again, TECH contributed a negligible amount (0.04%, as compared with 0.06% for the previous category).

The category showing the greatest explanation of variation in behaviour is that covering respondents who worked in research and development functions. These respondents saw some 69% explanation stemming from the regressor variables (all entered, with the largest contributions being made by O (27%), TECH (14%) and ORN (11%)). Certain similarities can be seen between these respondents and those in the engineering category - particularly in relation to orientation (approximately 12% in each case); and to some extent with respect to technology, although for this variable the C.D. values, whilst

relatively high, are quite different. For R & D respondents, however, the nature of company objectives are all important in explaining behaviour, perhaps to be expected in a function where it is generally possible to determine overall aims and strategies but not to design structures which will closely constrain the activities necessary to achieve them. It is also to be expected that the individuals view of work would be seen to play a significant role - at least if the research by, for example, Morse & Lorsch (1970) is taken into account.

Personnel in staff functions, however, seemed less able to explain behaviour in terms of the variables used (C.D. = 29%). It seems clear, however, that management is credited with the greatest influence - a contribution of 11% deriving from this variable. ORN (6%), O (5%) and CW (4%) seem also to play a role but their individual contributions are somewhat smaller (note that E and T were not entered). Perhaps such respondents derive their view of the importance of management from the nature of their relationship to managers. Often they are required to advise on matters concerned with improving performance, devising new works methods, negotiating (arbitrating) and concilliating on personnel problems, and may as a result view managers as the ultimate decision-makers on the matter in question. Managers have 'authority', staff personnel do not!

The remaining respondents also attribute a good deal of explanation of behaviour to the variables used (C.D. = 53%), but again with a small number making the major contribution. In this case the variables are ORN (21%), W.G. (12%) and IRS (10%), with O making a contribution of some 6%.

It is clear that rather different and, perhaps, more consistent patterns emerge by using a job type or functional classification than are based on the nature of the respondents' roles. Here orientation figures more consistently and prominently than before, in the engineering, R & D, staff,

and 'others' categories, yet hardly at all in operations and administration. Structure seems more important in operations and administration than in the others, whilst W.G. and C seem to cross the categories. Again, E is consistently low (or absent from the equation) - in fact lower than for the previous classification - as also is C.W. The task again is variable but low and IRS again makes a reasonable contribution only in the 'other' category. Perhaps a 'functional' theory of organisational behaviour might be more fruitful for further exploration, or it might be possible to adapt the conceptual framework developed in chapter three to accommodate this view.

Analysis by stage reached on D.M.S. course (table 7.20, appendix 8)

The major purpose in doing this analysis was to detect any variation that might be attributable to knowledge and/or experience gained from the course. It can be argued, therefore, that a steady increase in the explanation of behaviour should occur over the duration of the course, since course members would have progressively considered in greater depth, various aspects of behaviour in organisations. Clearly, as the table shows, this does not occur - indeed, the value of C.D. falls considerably towards the end of D.M.S.2 and then rises again. Furthermore, the two highest values are obtained from data for those who had not started the course, and those who were not taking or had not taken the course. There are, however, differences in terms of the variables seen to account for the explanation of behaviour.

For example pre-D.M.S. respondents seem to associate behaviour quite massively with the external environment (E = 53%), the closest variables WG (6%) and TECH (4%) being far behind. (O and IRS were not entered). First year course members (D.M.S1) did not perceive behaviour in such simple terms, and felt that only 34% of it could be explained by the regressor variables. Of this, five variables contributed most - S (7%), M (6%), TECH (5%), O (5%) and E (3%). Thus the environment still figures, but only just.

Second year course members have an even more pessimistic view, attributing a mere 20% to the regressors, of which over half came from ORN (6%) and IRS (5%) together. M & T also figure but contribute a small amount between them. Third year students saw the situation rather differently and attribute nearly 41% of behaviour to the variables used in the model. Of this, half comes from the company's objectives (O = 20%), 8% from T and 5% from IRS. This is the first time that T has figured in explaining behaviour, and yet the D.M.S. course lays considerable emphasis on it throughout. This, coupled with the big drop in C.D. for T in the next category, lends further support to the view that the results are not biased by the D.M.S. course. Past D.M.S. students attribute 62% of behaviour to the variables (excluding TECH), with 18% from ORN, 14% from S, 14% from O, and 12% from C.W. Non-D.M.S. respondents attribute 64% of explanation to the regressors with 30% from O, 20% from TECH, 7% from M, and 4% from T.

There is, then, virtually no consistency in explanation derived from this classification. M is the only variable which maintains approximately the same value for increase in M.R. SQ (i.e. C.D.).

It should be noted that some authors (e.g. Heward and Steele, 1972) believe values of C.D. below 50% to be not very acceptable. Many of the values previously discussed do not exceed this level, and it is therefore concluded that, on the basis of the data obtained, the model as it stands does not possess very good predictive properties. This does not mean that it can never be used for predicting behaviour but modifications and further data based on better measures would be required before any further comment could be made in these respects. But, as the summary in table 7.24 shows, some patterns do emerge particularly for the functional categories.

A review of this table will demonstrate that in many cases three or four of the regressor variables contributed a considerable amount of the maximum variation achieved. A very simple analysis (i.e. a count of the

number of times a variable has a percentage figure against) suggests that company objectives, orientation to work, technology, work groups and, possibly, organisation structure are the variables which are generally seen to explain behaviour in organisations. The previous analysis based on rank orders suggest that the task, the work group, management, payment systems and conditions of work are the most important influences of behaviour (note that orientation to work was omitted from this analysis since it is a personal variable - the aim of the rank order exercise being to assess the perceived importance of organisational, as opposed to personal, variables).

There are several possible explanations for the differences in results from these two sources. One is that the ranking method ignores the effects of interactions between the variables - a point made with some frequency by colleague academics, as noted earlier. Whilst this may undoubtedly be so, it does not overcome the fact that many researchers (again, as noted earlier) have obtained research data, using several methodologies, which suggests the important role of the task in influencing behaviour at work. Another explanation is that the measures of variables used were too crude and unsophisticated to yield data of an adequate form for rigorous analysis. As will be seen in a later discussion, there is some justification for this view: a single measure can not really describe in a totally adequate way a variable as complex as the nature of a person's job or task. A third possible explanation is that the dependent variable - behaviour - is even more complex and cannot be reduced to the simplistic scale employed in the questionnaire. Again, some degree of influence must be attributable to this source. It can also be argued that only actual observation of behaviour in organisations, related to factual analysis of job content, company objectives, etc., can yield reasonable data. However, since the aim was to explore the perceived (by managers and professionals) relationship between the variables, this is not an adequate argument.

MAJOR PERCENTAGE (%) CONTRIBUTIONS OF INDEPENDENT VARIABLES TO EXPLANATION OF VARIATION IN DEPENDENT VARIABLE-BEHAVIOUR

		Independent Variables											
	Category	M	S	E	CW	T	WG	TECH	O	IRS	ORN	Total	Max+
Nature of role	Man		28*				6*		17*			51	62
	Prof.Man							6*			44*	50	52
	Prof.			6*					12*			18	25
	Other		13			8		10		10		41	51
Job Type	Eng.	6*					8*	6*			13*	33	36
	OPS		15*			6	12*					33	41
	Admin.		12				6		10			28	33
	R & D						5	14*	27*		12*	58	69
	Staff	11*			4				5		6	26	29
	Other						12		6	10	21*	49	53
Stage on Course	Pre-DMS			53*			6	4				63	68
	DMS1	6	7	3				5	5			26	34
	DMS2									5	6	11	20
	DMS3					8			20*	5		33	41
	Ex-DMS		14*		12*				14*		18*	58	62
	Non-DMS	7*				4		20*	30*			61	64
	Total Sample		3*		2*				7*	1*	5*	18	19

NOTES: *F-values to enter or remove significant at $p \leq 0.05$.
+Maximum contribution from all variables together.

It is, therefore, desirable that consideration be given to more adequate measures of the variables. This is done in appendix 9, using ideas gained during interviews with some of the respondents.

It is encouraging to note from tables 7.7 - 7.17 (appendix 8), however, that some degree of support seems to exist for the postulations made in table 4.2 of chapter four. Using management as the anchor variable the correlation values (many not significant) indicate that the tabled (table 4.2) relationship between M, S, E, C.W. and TECH might exist, whereas T, W.G., O, and IRS receive mixed support. Whilst such support was not a major aim of the project, it is useful to achieve by-products - however marginal.

The question remains, however, as to what forms of the variables tend to associate with each other and whether these can be grouped in any meaningful way, perhaps suggesting new measures for further research. Accordingly, a principal components analysis was undertaken to explore possible dependency patterns (using another B.M.D. programme, volume 2) and the results are presented in the following discussion. It must be borne in mind that this discussion can be only of a semi-speculative nature in view of the immediately preceding discussion.

The analysis was performed on only two classifications - nature of role and job type - since these produced the more consistent results in the previous analysis. A summary of the results of this principal component analysis is given in tables 7.25 and 7.26 for the first four components only - remaining components were 'smaller' than the original variables. These four components generally accounted for over 65% of total variance.

An inspection of these tables will reveal that, whilst variation exists on the same component from category to category, sufficient similarity is present to suggest three reasonably distinct components and a somewhat obscure fourth. The first component regularly includes structure and management,

sometimes in association with objectives and environment. People in R & D functions appear to be the only major exceptions, where component one is heavily biased to work related aspects - even so, component three reflects management and structure. Thus, one component would seem to have to do with the style or form that the organisation takes. This 'organisational form' component does, indeed, make sense in terms of the discussions in chapters three and four.

The second component seems to be describing the workflow structure or work system. Greater variability exists with respect to the sub-variables involved but frequent inclusion of the work group, structure and management, and occasionally technology, can be seen. This is quite different from the third component where task, technology and pay systems seem to dominate, with the occasional inclusion of objectives. These seem to reflect the nature or style of work. Again, respondents in R & D functions seem to have the components reversed, but they do exist. The fourth component does not appear to possess much consistency but rather seems to overlap the other three. Perhaps the residue (after taking out the three major components) might form additional components if further variables were added in subsequent research.

It thus appears that three components - organisational form, work system, and work style - might usefully be employed in place of the variables contained in the model, and that further regression analysis of these new variables with behaviour could usefully be carried out (cf. Levy and Pugh, 1969). However, much further work is required. The model requires additional variables to help further explain variance in behaviour; better scaling methods need devising for the collection of more adequate data; and further analysis carried out to substantiate the claim for the existence of three or possibly four major variables which might explain behaviour in organisations in association with orientation to work.

SUMMARY OF PRINCIPAL COMPONENT ANALYSIS - BY NATURE OF ROLE

(CELLS CONTAIN RANK ORDER OF EIGENVECTORS WITH VALUES $\geq \pm 0.3$)

		NATURE OF ROLE															
		MAN				PROF-MAN				PROF				OTHER			
	P.C.	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
VARIABLE	M	1				2	3		2	2	2			2	3		
	S	3	5		2	1				1	3			1	5		
	E	2					4		3		1	4	3	3			
	CW	4	3			4		3		5					2		
	T			1				4	1			3	5	4	4	2	
	WG		1				2			3	4				1		
	TECH		2	3		3		2				1	4				1
	O				1		1			4			1	5			
	IRS		4	2				1				2	2			1	
	C.P.%	23	41	56	68	23	39	55	67	21	41	54	67	36	53	66	78

NOTES:

P.C. = Principal Component.

C.P. = Cumulative Proportion of total variance.

Other Abbreviations as previously used.

Summary based on minimum eigenvectors of $\pm$ 0.3, and minimum eigenvalues of 1.00.

TABLE 7.26

SUMMARY OF PRINCIPAL COMPONENT ANALYSIS

BY JOB TYPE

(CELLS CONTAIN RANK ORDERS OF EIGENVECTORS WITH VALUES $\geq \pm 0.3$)

VARIABLE	P.C.	JOB TYPE																															
		ENG				OPS				ADMIN				R & D				STAFF				OTHER											
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
	M	2			4	2	4			1			3		3	2			1			1	4										
	S	1	4			3				2	4					1		2	4			2											
	E	5	5		3	1				3		3			2		2	3			2	4		2									
	CW		2	3	5	4						2	2				4	4			5		3		5								
	T		3		2			1		4	2			1			3			1	4			1	2								
	WG		6			7	3		3		1					3		5	1					1	3								
	TECH	4			1		1	2			3	4	5	4			1		3	2			5	1									
	O		1	1		5	2				5	1	4	3	4					3	1	3		2									
	IRS	3		2		6	5		2	5			1		1				2		3		5	4	4								
	C.P.%	22	42	53	66	31	48	62	73	27	46	59	70	25	46	61	75	28	46	60	73	27	50	67	80								

NOTES: AS PER TABLE 7.25

Critical Comments

Some points of criticism have already been referred to in earlier parts of this section and have mainly been concerned with the crudity of scales used for measuring organisational variables. It was suggested that single measures of any of these variables was not adequate, although providing a useful starting point for exploration of the model presented in chapter three.

A more fundamental point concerns the translation of the conceptual framework (model) into the questionnaire form used for data collection. As Donaldson (1974) has pointed out, dangers exist in using a too literal translation of the framework and using concepts of the science - dangers largely associated with the extent to which the questionnaire elicits the respondent's own world view as opposed to confirming the researcher's concepts of the world. This point was considered when constructing the questionnaire, and is still appreciated by the author. However, at what point in the process of translating one person's world view into another's framework is the researcher to be sure of minimum bias or least contamination? What words are sufficiently acceptable, in terms of their agreed definition, to enable the researcher and researched to communicate in a perfect manner? Should the researcher run the risk of being unable to translate 139 (possibly) different world views into one that allows him to interprete the 'real' world?

In view of the discussion in chapter five concerning Popper's (1972) three worlds - physical, conceptual, and subjective - it is suggested that the researcher must inevitably be more concerned with his subjective relationship to the conceptual world and attempt to see if other people share that conceptualisation about the real world. It is, perhaps, also somewhat arrogant to assume that no one else is capable of sharing and

judging that conceptual world. The approach adopted here was to define where possible the terms used and to allow the respondent to transmit his world view via his use of thes terms. None-the-less, the risks attached to the approach adopted were real and may have contributed to some of the inconsistencies found in the data. Some of those interviewed did indeed comment that the questionnaire - although well designed - required considerable thought.

Even so, it is considered that such thought provocation was not a 'cardinal sin' for the purposes required here.

Another criticism, alluded to earlier, has to do with the research design. It might well have been profitable to research, say, two organisations, using complex measures of behaviour derived from such indices as rate of labour turnover, absenteeism and sickness, number of disputes, productivity increases or decreases, and complaints/grievances - all of which could provide a more objective picture of behaviour in those organisations (appendix 9). Then, with more sophisticated measures of organisational variables and the application of the orientation measures discussed in Project 2, data could be collected on the independent variables. Principal component analysis, followed by regression analysis, would then be more meaningful.

That such an approach is desirable cannot be denied, and it is to be hoped that future research in this field will follow such lines. The purpose here, however, was to assess the general validity of the model - to see how far others shared this conceptual view of the world of organisations, as they saw it. To this extent it is believed that the approach adopted and the data collected have provided useful support, whilst recognising that further work is still required. The work presented here is a start on what could be a useful way of viewing behaviour in organisations.

PROJECT 4

PAYMENT SYSTEMS AND ORIENTATION TO WORK

This project was concerned with an exploration of the relationship (if any) that existed between the type of payment system in operation in an organisation and the orientations of those employees covered by the system. Its design catered for hypotheses 1, 3 and 4 (chapter four) and the appropriate research issues (6 and 7), and was intended to show up differences between current employees and those who had recently left the organisation's employ, and changes in orientations of new recruits over a period of time whilst still with the organisation.

A major difficulty anticipated and encountered was the selection of appropriate organisations for participation in the research. It will be recalled that in chapter four the phrase 'other things being equal' was used when discussing the effect of payment systems on behaviour, and that such 'things' were seldom 'equal'. Ideally it would have been preferable to research one organisation that was operating different pay systems in similar departments or units but this proved impossible. Investigations, using the School's Information Officer, the Industrial Liaison Officer and contacts with local Companies, drew a blank as far as this possibility was concerned.

It was therefore decided to research two organisations which possessed similarities on as many of the factors previously discussed (see chapters three and four) as possible but operating different paysystems (a reflection of the general research design shown in table 5.2 and also that in table 5.4). In addition, negotiations with a third organisation were embarked upon. Research facilities were granted by the first two organisations and

a number of new recruits volunteered to take part in the programme. Some completed questionnaires were received from them during the first few days in their new jobs. Agreement was reached with the third organisation to research into the orientations of current and previous employees.

It was unfortunate, however, that soon after the research was commenced the Government of the day found itself in confrontation with the miner's union which resulted in the three-day working week being imposed on industry. This completely upset the conditions necessary for carrying out this project and, together with the ensuing political and economic problems, made it impossible to complete the work or to start afresh. Any data collected would, it is felt, have been grossly contaminated and of little or no use for the purposes of this thesis. With the agreement of the research supervisor it was decided to abandon this project but with the hope that, as and when conditions became more conducive to it being of utility, an attempt would be made to carry out the research outside the scope of this thesis.

Although the major part of this work could not be carried out, some data was collected before the advent of the three-day week and this will be described and discussed.

Factors influencing employee's orientations during their life cycle with the Organisation

Whilst new recruits in the two organisations were taking part in what was hoped to be a longitudinal study of the influences affecting their view of the work situation, a parallel exercise was undertaken which sought to elicit how managers in the same organisation saw this problem. Only one organisation was willing to allow this to take place - the other was experiencing certain minor problems with middle management and felt it unwise to pursue this activity at that time. Subsequent events (already

referred to) made it impossible to embark upon it at a later stage. A very brief questionnaire was designed (see appendix 7) and circulated to 37 managers, 22 of whom replied. As will be seen from the appendix the questionnaire sought the managers' views on (a) the factors thought to influence employees at various stages in the life cycle and (b) the kind of employees they thought the Company currently employed as compared with those they thought should ideally be employed, using the Semantic Differential form which lent itself more readily to this type of exercise than did the others used in Project 2. It was hoped to be able to compare the latter with the self-ratings given by new recruits using the same form. Unfortunately this was not possible for reasons advanced previously.

Factors perceived to influence employees' views at work

Managers were asked to list those factors they thought affected the way in which employees viewed their work (i.e. their orientation to work) at different points in time. A large number of factors were listed, but content analysis has revealed a smaller number of general factors, as listed below. (Note: the numbers represent the % time mentioned).

ON JOINING THE COMPANY

Social Environment	29.2
Physical Environment	18.5
Reward system (monetary)	12.3
Motivation (employee's)	10.8
Company Image	7.7
Personnel Induction and Training	7.7
The Company (procedures, size, policy, etc.)	7.7
Others	6.1
TOTAL	100.0

SIX MONTHS AFTER STARTING

Advancement and Reward	28.3
The Job	23.3
Social Environment	16.7
The Company	15.0
Physical Environment	6.7
Others	10.0
TOTAL	100.0

AFTER FIVE YEARS

Advancement and Reward	43.7
The Job	18.8
Personal Frustrations	15.7
The Company	10.9
Others	10.9
TOTAL	100.0

ON LEAVING

Advancement and Reward (perceived lack of)	62.0
The Job	14.0
The Company	12.0
Others	12.0
TOTAL	100.0

It is interesting to compare the results of these freely given responses, i.e. responses to an open ended question, with the results of the rank order data analysed previously. The most striking difference is that technology and the external environment were not mentioned at all - neither was management, per se, except as part of the social environment on joining the company and six months after starting, although several respondents referred to man-management relations, management attitudes and management style as likely influences at these early stages. Thus, whilst technology and environment were ranked very low by the previous sample, these managers have not even mentioned them. Another major difference is that advancement and reward are mentioned most frequently as having an influence at stages after joining the company, whereas the IRS was ranked about overall fourth previously. The comparison is not exact since "advancement" has been linked with reward. "The Company" is used to cover policies, objectives, procedures, structure, etc., and therefore two other of the previous factors are also accounted for. Conditions of work, in terms of the physical environment, are mentioned much more frequently in the early stages but not again at later stages. This compares with a rank of five in the previous analysis. Apart from advancement and reward, the most consistently and frequently mentioned factor is that of the job itself, or the task. This compares favourably to some extent with the rank order data although the rankings suggest a somewhat higher degree of influence stemming from this factor.

In certain respects, then this data lends support to that gained from Project 3, although advancement and reward appear to be seen as a major influence and personal factors (motivation and frustration) are also included. The previous study did not couple these together and this quite possibly explains the difference. (It should be noted that managers in

this survey did not participate in Project 3).

It was intended to seek the same form of data (via structured interviews) from employees at different stages in the life cycle and make comparison with the views of managers. This may have provided useful insights into the way in which the two groups saw the same situations. It is regretted that this could not be achieved.

Managers' ratings of 'Current' and 'Ideal' employees

It will be recalled that the questionnaire also sought data on how these same managers viewed the 'ideal' employee and the current employee using the modified semantic differential form. This data is shown in profile form in figures 7.2 and 7.3 from which it is apparent that considerable differences exist. The actual descriptions yielded were as follows:-

IDEAL EMPLOYEE		CURRENT EMPLOYEE
FRIENDLY		FRIENDLY
SECURE		CHEERFUL
INDEPENDENT		CAUTIOUS
FLEXIBLE		
TOLERANT		
CHEERFUL		TOLERANT
SELF-LESS		GREEDY
CREATIVE	Marginal cases	EGOTISTIC
RATIONAL		WARM
CLOSE		ORDINARY
AGGRESSIVE		
WARM		
DEMOCRATIC	PROGRESSIVE	
INQUISITIVE	WELCOMING	

These are derived from the mean scale values, ignoring those that fall between 3.4 and 4.6 as being non-descriptive of the concept.

Using the data gathered in Project 2 it is possible to convert these into indices representing the degree and type of orientations expressed by these descriptions:-

	IDEAL EMPLOYEE	CURRENT EMPLOYEE (1)	(2)
INSTRUMENTAL	0.267	0.067	0.200
RELATIONAL	0.474	0.095	0.210
PERSONAL	0.636	0.0	0.090

NOTES: (1) excludes marginal cases
(2) includes marginal cases

Thus, existing employees are viewed as being relationally and instrumentally oriented whereas the ideal employee would possess more personally oriented characteristics. This may explain why so many managers felt advancement and reward and the social environment were influencing factors. It does not explain, though, the frequency with which the job was mentioned. One thing is certain: managers felt more able to use the scale extremities in rating the ideal employee than the current employee.

An analysis of variance* of the data given in figures 7.2 and 7.3 leads to the conclusion that employees of this Company, when compared with their managers' conception of the ideal, are:-

---

*I am indebted to my colleague, [redacted], for his help in performing this analysis.

LESS:	MORE:
Friendly	Rigid
Secure	Intolerant
Independent	Greedy
Cheerful	Egotistic
Creative	Emotional
Aggressive	Autocratic
Inquisitive	Ordinary*
Progressive	
Welcoming	

*scale values for both ideal and current profiles lie in the neutral zone (i.e. non-descriptive)

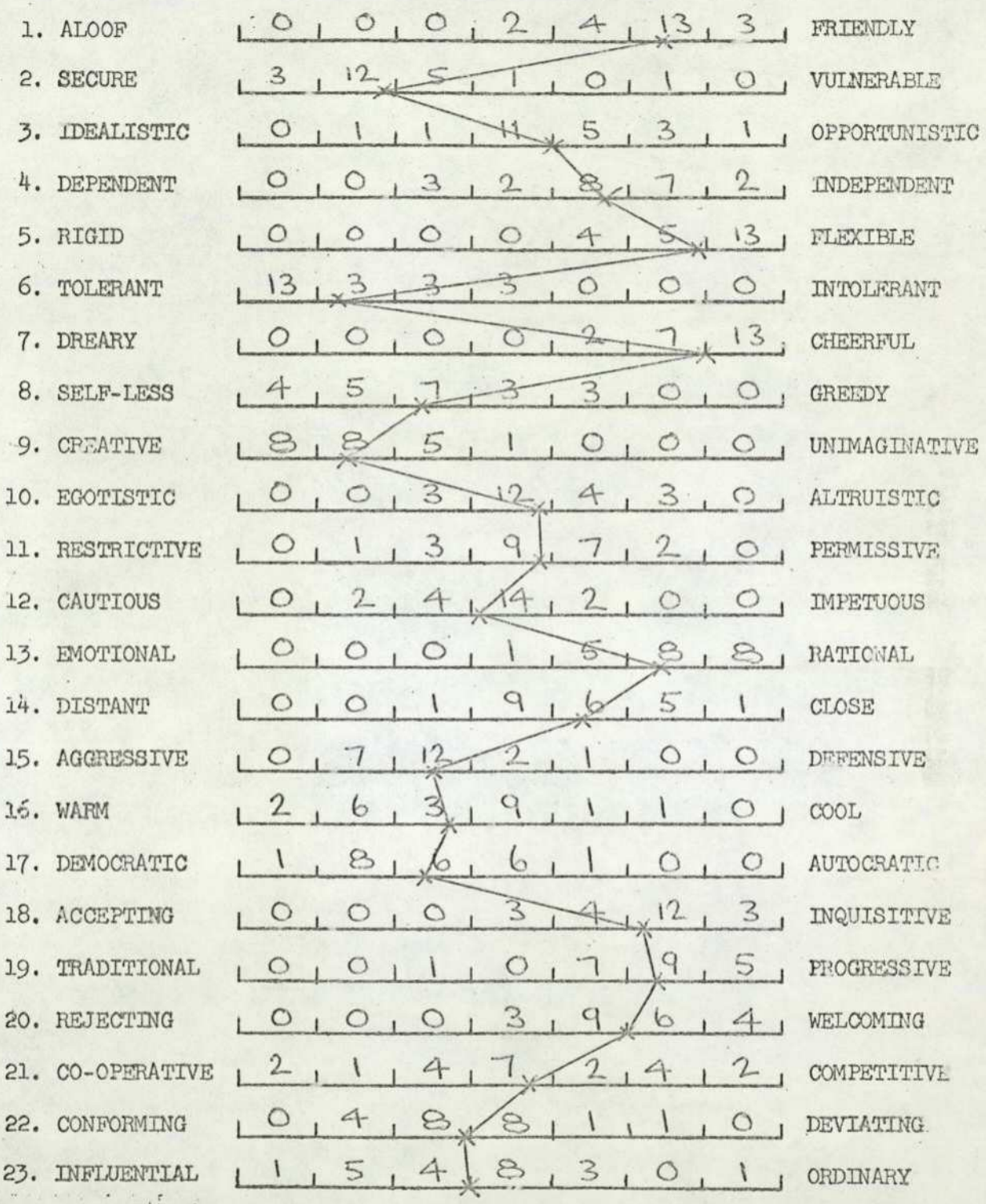
It is interesting to note that discussions with several personnel officers of the Company (prior to the data being analysed) left a deep impression with the author that it was policy to select wherever possible recruits with a high P orientation. Indeed, the Company's published managerial credo indicates this. Yet managers obviously felt that, whilst agreeing with this, Personnel had been unsuccessful. It is also interesting to note that the Company was amongst the first in the world to introduce certain forms of job enlargement (and, to some extent, job enrichment). These points appear to reinforce the view expressed in an earlier chapter that the measurement of orientation to work could and should play an important role in the selection process, and also that the task itself - in relation to orientation to work - has an important influence on behaviour.

IDEAL EMPLOYEE

FIGURE 7.2

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view the above. Please be honest - there are no right or wrong answers.



THANKS VERY MUCH FOR YOUR HELP.

FIGURE 7.3

CURRENT EMPLOYEE

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view the above. Please be honest - there are no right or wrong answers.



THANKS VERY MUCH FOR YOUR HELP.

Critical Comments

It is less easy to be critical about this project than of others since major factors outside the control of the author brought about its abandonment. What little data has been gathered is of some, though marginal, use in helping to develop a philosophy of behaviour in organisations. The instruments used for their collection were chosen on the basis of ease of collection, but it is suggested that they should have been more rigorously tested before using them. However, much of their basis had already been tested for previous projects. In addition, the questionnaire for the longitudinal study was much too long, providing a disincentive to respondents to complete it. Perhaps, too, some of the data should have been subjected to greater statistical analysis, yet the outcome seems fairly acceptable.

Probably the most disappointing aspect is that the survey as a whole could not take place since it was concerned with a key aspect of this thesis. It is deeply regretted of course that such a situation transpired, and yet certain benefits have been derived, the most important having to do with the role of the individual researcher. In the behavioural science field the researcher's laboratory is often life itself. Unlike the physical scientist he is not always (if ever) able to have relatively easily controlled and manipulated hardware tucked away in a room somewhere. Although his research may be important in his eyes and in the eyes of his academic colleagues, it is not always easy to pursuade key members of an organisation that it will be of value to them and for them to allow him to use the organisation as his laboratory. It is necessary for the researcher to be able to translate his requirements and ideas into a language which can be understood by the 'non-academic' and this can be difficult when he has been steeped in his work for a lengthy period of time.

Such problems were certainly encountered by the author and many of them surmounted. It is felt that valuable experience has been gained from Project 4, and that a much better understanding of research problems has been gained.

CHAPTER EIGHT

REVIEW AND CONCLUSION

This thesis opened with the notion that wage payment systems required further researching, especially in respect of their effect on employee satisfaction. It has subsequently seen the development of some models which attempt to portray the nature of organisational and personal factors and their relationship to each other and to behaviour in organisations. A specific research issue has, therefore, led to a very broad and wide-ranging conceptual basis, some support for which has been derived from the research data. In view of the extent to which the thesis has diverged from its original focal point, it is necessary to review what has taken place and then consider if any convergence is apparent, possible, or even necessary.

A Review of Conceptual and Research Issues

In chapter one, five major aims for the research were stated, all of which, with the exception of number two, were concerned in one way or another with wage payment systems. Before attempting to achieve any of these aims it was found necessary to develop certain conceptual frameworks to assist in guiding the research effort. These frameworks led to several hypotheses and further research issues being enumerated in chapter four and which formed the basis for the research projects described and discussed in the last three chapters.

The intended particular slant of the thesis was put forward in a general hypothesis (number one) in chapter four, namely that "the extent to which a wage payment system will contribute toward the need-satisfaction of any individual will be a function of the particular psycho-social

influences to which that individual has been subjected". From this was derived three further hypotheses which would help determine its validity. In specific terms, not enough research data on payment systems have been collected to allow any statement to be made about the acceptability of this hypothesis but in general terms it can be said that the work carried out does lead to a state whereby subsequent researchers can pick it up without some of the conceptual and measurement constraints that were found to exist.

One reason for claiming this to be so is that the research data relating to hypothesis two - that individuals expressing different orientations will be characterised by different combinations of background and situational variables - suggests that this hypothesis might be acceptable (even though the data conflicts with proposition 7 on p.120). It is certainly not the case that the null hypothesis can be accepted and this, together with other research findings (see, for example, that quoted in chapter two), lends support to the model of orientation developed in this thesis. Whilst further work is undoubtedly needed in this field, it is suggested that a sufficient basis now exists for using the notion of orientation to work in an in-depth study of the effects different payment systems might have on employee satisfaction.

Another, and perhaps more important reason, has to do with the lack of adequate - indeed any - means of measuring orientations. As has already been stated, a model of orientations now exists and finds some support in

the data available. However, it is now possible to test this model more thoroughly by using at least one of the measures developed in this thesis - the Rating Scale. Whilst recommendations for its further development have been made in the Addendum, it is clear that this is a useful device: one which can discriminate between groups characterised by different orientations. A second measure (Paired Comparison) is seen to have some potential use but is in want of much further development. The remaining measures (Job Description and Semantic Differential) do not appear to be useful. It is hoped that these developments will make a contribution towards easing some of the measurement constraints which have existed to date.

Hypothesis three suggested that different forms of payment system would attract employees with particular orientations to work (other things being equal) and it would appear that the testing of this hypothesis has become a possibility now that a model and measure of orientations exist. Whilst some further work is required, a significant step forward has been taken. It is regretted that Project 4 could not be undertaken but this also is now possible - subject to "environmental

turbulence". Then it might be possible for the notions expressed in tables 4.1 and 4.5 to be put to the test much more fully.

Although the major focus was on the role of payment systems, even from the beginning stress has been laid on interactions with other variables as demonstrated in the model developed in chapter three - a need verified by the views of academics given in the last chapter. Indeed, hypothesis four indicated that the effect a wage payment system might have on employee satisfaction and behaviour is a function of the interaction between it, other organisational variables and the orientations of employees. Whilst it cannot be claimed that the data collected in Project 3 provides a completely adequate basis for accepting this hypothesis, it can be argued that they prevent it being rejected out of hand. Certainly payment systems are not seen as a major determinant of behaviour but the differences in perception of the role they play are quite extensive. This would seem to be true for other variables too, particularly in relation to the person doing the perceiving. For some categories the statistical model fitted quite well whilst for others an exceedingly poor fit was obtained. No doubt both additional variables and more adequate measurements (as discussed in the last chapter) of all variables will be required before this model is used in any specific situational research, but it does appear to have some degree of utility.

In summary, whilst not all the aims of chapter one have been achieved, it is argued that the research has gone some way in (a) providing evidence for the model of orientation, (b) providing evidence for the model of behaviour in organisations, and (c) providing the basis for adequate measures of orientation to work (and developing general measures of organisational variables). It also suggests that the role of the payment system is in some respects enigmatic and requires considerable investigation. By no

stretch of the imagination could it be said that such investigation is unnecessary. Equally, it cannot be said that the research has achieved what it set out to achieve - it has gone only some way towards it.

Concluding Discussion

The research data, taken in conjunction with the conceptual models, suggest a number of points for conclusion - some of which have already been mentioned or alluded to in chapters six and seven. It is not the intention of this final section to discuss detailed conclusions since some of them must be subject to the weaknesses of the data collected. Rather, it is hoped to pull out from the work the main points of conclusion which seem to have implications for future thinking and research, and for managerial and organisational action.

It is the author's belief, based on this research and other experiences of organisational life, that managerial and organisational action is seldom (if ever) based on the application of theoretical development and thinking prior to such action. Perhaps this is the fault of the academic for not communicating his work and ideas in an effective manner (as argued by Bennett, et al, 1972) to the 'lay' audience: or perhaps of the practising manager who does not take the time and effort to read and understand what the academic has to say. Wherever the fault may rest, it is clear that theoretical developments and empirical research have implications for the world of work. In this case, it is contended that the notion of orientation to work and the development/changes of an individual's orientation have major implications. One of these has to do with current trends toward group methods of working and, in some cases, the application of group incentive and reward systems. A clear picture emerged from Project 1 that only a small proportion of the sample expressed dominant relational (or social)

orientations. It may be, therefore, that hurried attempts to design group working situations will fail if they do not possess the flexibility to cope with other, more dominant orientations. Some approaches, such as self-organising groups (see Wild, 1974), should suffer less from this problem but a great deal does depend upon the spread and strength of orientations. It is also doubtful if they could be used in, say, power stations or railway signal boxes, where little discretion is available due to, e.g. safety requirements. Similarly for group methods of payment. In both cases, 'tailor-made' approaches (see Gardner & Rowland, 1970; Bowey, 1972; Husband, 1975 re: tailor-made incentive pay systems, and Bowey, 1972 more generally) are seen to be relevant (as was noted on page 90 - chapter three) although not always practical.

This relates to the problem of organisational action. The data does suggest that orientations are more influenced by factors outside the control of the manager or organisations than those which are so controllable. Even where pre-selection takes place via the labour market, a diversity of orientations is likely to exist, and it may be difficult to modify these internally. Were it not the case that such diversity existed at one point in time, it is likely that changes would occur as a result of, for example, increasing age, increasing family size, and so on, leading to diversity in the future. Thus any organisation is likely to suffer from the problems that can stem from individuals viewing, and making judgements about their work in different ways. It is particularly problematic for the manager especially when making attempts to adjust his management style to fit the orientations of subordinates. He may have to be much more of a chameleon than he would perhaps wish. Of more significance, though, is the implication of a move towards self-organising workgroups and tailor-made or

self-selecting payment systems (and it was suggested via Project 3 that work organisation and work style might be general factors influencing behaviour). The widespread use of such methods will surely take away from the manager many of his traditional functions, leaving him a major co-ordinative and supportive role.

It is already clear that management has moved from its predominantly 'directing' role to one which is based much more on 'compromising', that is, seeking to achieve agreement on what should be done and the processes/ resources needed to achieve it. Often this has led managers (and management trainers) to realise the need for acquiring bargaining and negotiating skills, if not political acumen. In the near future it is likely that a further shift in emphasis will take place - toward the managers' role being 'facilitating' in nature. This is not to say that managers will never direct or seek compromises: they undoubtedly will, but their major task will have changed. In this situation, discussions of appropriate management style would be irrelevant if not absurd. Yet, if orientations and work situations are to be congruent, management may have to change.

Perhaps, therefore, we are on the verge of an era which will see a fundamental re-definition take place of the process of management: perhaps it is important for managers to be able and willing to recognise the influential nature of the work system and the work itself in conjunction with the employees' orientations to work, and to adopt a facilitating role. It might be that managers of the near future will become specialists in monitoring and researching the work situation, identifying future needs and potential, and providing support and information to those who are organising and carrying out work. Therefore, instead of management being about "getting things done through the agency of a community" (Renold, 1949) it

might more properly be concerned with 'enabling things to be done through the agency of a community by the provision of support for, and facilitation of, the communities activities". In other words, three of the four elements of a leadership role suggested by Bowers and Seashore (1966) - namely work facilitation, support, and interaction facilitation - will be of critical importance, if in a somewhat changed context.

It might be argued, therefore, that

IF (a) factors affecting orientations are generally outside the scope of organisational and managerial action;

(b) most people express a dominant P-orientation but that this is not always the case;

(c) managers perceive organisational form, work system and work type to influence behaviour;

and (d) different orientations do lead employees to view, and make judgements of, work situations in different ways;

THEN (e) management's style and strategies must alter;

and (f) greater discretion be given to employees over work organisation and style of incentives;

IN ORDER THAT

(g) orientation, behaviour, and the work situation are congruent for most employees most of the time.

It would, of course, be naive to suggest that this will or could occur in all organisational situations for the same reasons. In some cases political processes may be much more significant in changing the role of the manager than will those put forward here, as Fletcher (1973) so vividly points out. The author's own experience of political processes in organisations confirm this view, as did the discussions held with members of the sample in Project 3. Perhaps, therefore, the political process is another dimension which should be added to the measures of organisational

variables. Such political forces may well be strengthened by moves (or pressure for moves) towards greater worker participation whether this be at the level of the task (e.g. job enrichment, autonomous/self-organising groups), in the internal decision-making process of management itself or at the institutional level (e.g. worker directors). It may be that technological developments, particularly in the information processing and automatic assembly/control fields, will render some of today's managerial practices redundant. In addition, the narrowing educational gap between manager and employees (especially trade union officers and shop stewards) will continue to diminish the emphasis given to managerial superiority. All of these forces, harnessed and swept along by changing attitudes of government and society at large, will require a rethinking (perhaps fundamentally) of the role of managerial and organisational action in influencing behaviour in organisations.

This seems to be the view of Scott (1974) who argues for a reassessment of organisation theory on the grounds that a change is occurring in the basic premises on which management and organisation thinking is based. He suggests that changing values and environmental facts call for a move from assumptions of growth, abundance and concensus to those of stability (or decay), scarcity and conflict. Parker (1974) argues that "management is at bay. The bracing examples of today are variations on the swelling theme of management's shrinking freedom, or rather, as I would prefer to put it, changing freedom." Even Reddin (1974), in a discussion on future managerial effectiveness, is forced to ask the question "will the manager exist?" - although he doesn't answer it. The answer is undoubtedly yes, but in a different form. It has been argued here that this form will possibly be of a 'facilitating' nature, and that managerial and organisational action will be a function of the orientations of employees. This

view is partially confirmed by Child (1974) who puts forward the proposition that effective organisations are those with structures which are consistent with the expectations and perceived needs of their personnel. " ... managements need to spend time ascertaining the expectations of different groups among their employees if they want to have a reliable idea of which arrangements will secure the willing commitment of those employees." It is also the view of Smith, 1973 - pp 59 to 62. A rethink does, therefore, seem necessary - bringing with it, no doubt, major implications for management education and research.

As far as incentive and reward systems are concerned the research data suggest that the importance attached to it at the beginning of this thesis may have been misplaced. This throws up an interesting dilemma - who is one to believe? Should faith be placed in the views and research data of the academic? (see chapter one) - or should it be pinned on the responses given by 189 managers and professionals who clearly see them as having little importance? This dilemma can probably only be resolved by adequate, situationally based research but even so it is considered doubtful as to whether a meaningful and manageable research design could be found. The variables involved are too many and too complex (as discussed in the last chapter) to make viable, conclusive research possible. But perhaps this is begging the question underlying the remainder of this chapter.

What, then, of the implications for future thinking and research? Whilst it is no doubt true that our understanding of behaviour in organisations has increased considerably in the last two or three decades (although it is arguable that little development has taken place post-Hawthorne - our understanding has simply become more refined!) it would also seem to be true that as yet we have no generally acceptable and adequate frameworks for viewing such behaviour. This is evidenced by the different approaches

discussed and summarised by, for example, Bowey (1972, A & B) and Pugh (1966). Bowey argues (1972 B) that insufficient integration has taken place between the main approaches to organisation theory (i.e. systems theory, action theory, contingency theory and goal theories). "But it is contingency theory which is at present least integrated with the other approaches discussed in (her) paper ... If these data (i.e. of the contingency theorists research) were to be interpreted from the perspective of a more accurate model of human interaction and further contingency research based upon this model, it seems reasonable to expect that organisation theory would advance considerably." (1972 B, p. 125).

It could be that the general models presented in this thesis, particularly that discussed in chapter three, provide a basis for doing what Bowey suggests, but more specifically concerned with behaviour in organisations. Whilst the models were designed on a systems formulae (strongly advocated by Pugh, 1966) they integrate the main features of the other approaches. For example, the model of behaviour in organisations (fig. 3.4) depicts behaviour as being contingent upon certain other factors or variables which interact in different ways in different situations (as evidenced in chapter seven). The two models together also exhibit some of the essence of an action approach by being concerned with the interpretation placed upon work situations, and behaviour in work situations, via orientation to work. They are not, admittedly, concerned with the meaningful action per se of the actors in a situation - this is but one element of the approach adopted here. In-as-far as 'goal approaches' are meaningful, the models certainly account for them by being concerned with work goals and goal symbols - an unexplored aspect of the models which may provide a useful further step forward when attempting to explore the meanings attached to behaviour in relation to orientations.

If any adequate model is to be forthcoming it would seem to have to possess the characteristics of a systems-contingency approach, but based on perceptions and judgements of the work situation thus resembling in some respect an action frame of reference. Such a model must enable an explanation to be made of the 'fit' or 'balance' requirements. A general predictive model is unlikely to cope with the diversities encountered in organisational situations, whereas a 'fit' or 'balance' theory would. In such a theory, the view of the individual participant is likely to be the trigger for explaining behaviour: the nature of organisational variables (and their interactions) would be seen to 'fit' the participant's view. A major stumbling block in the development of such a theory is not the complexity of organisational variables but rather the unknown features of the 'black box' referred to in chapter two - the human being. Just as the formulation of quantum mechanics provided a breakthrough in physics, so a knowledge of this 'black box' might provide the breakthrough in thinking about behaviour in organisations.

Kefalas and Suojamen (1974) illustrate this point most admirably when discussing the biological bases of behaviour in organisations and the contributions from ethology. As they say "this essay has attempted to demonstrate the virtual absence of any kind of ethological assumptions in theories purporting to explain and predict the behaviour of man in organisations." (p. 526). And yet, surely, ethology, as much as many other disciplines (biology, neurology, physiology, etc.) has a contribution to make in understanding the 'black box' a little better!

In the event, this much sought after general model might be deceptively simple - despite the contrary view expressed in chapter two. An eminent American Nobel prize-winning physicist, Richard Feynman, suggested in a T.V. interview in 1973 that the problems of understanding human

behaviour might be similar to those that confronted an understanding of behaviour in the physical world. He went on to argue that many physicists sought after too complex solutions to their problems, and indeed made their problems seem more complex as a result. It may be that viewing behaviour in organisations is currently being done at too close range - like looking at a painting at very close quarters. What we see is a complexity of interrelated strands which seem to make little sense, although closer scrutiny of one tiny part of the painting might lead us to falsely see relevance or pattern.

This point is made by Weick (1974) about the problems of organisational theorising when he says "When a scientist confronts a big business organisation, he is frequently awed by its complexity, distracted by its props, and bewildered by its people. To counteract this confusion, the scientist understandably narrows his sights; it is here that theory suffers. The bewildered scientist may focus on tangible things; he looks at technical systems or spacial layouts. He focuses on the collective; he looks at Departments, not individuals. He focuses on the visible; he looks at organisational charts, not interaction patterns. And he focuses on the dramatic; he looks at crises, not routine. If he narrows his focus in these ways, then the concepts left are incomplete. Furthermore, they are difficult to chain together in theoretical networks because they consist of such sissimilar commodities." (p. 488). He then goes on to argue that organisation theory could be enhanced by looking at behaviour in seemingly non-organisational, even absurd, settings - and also warns of the too-obvious explanation.

Perhaps, therefore, if we stood back further the picture might become simpler and clearer, and take shape. The problem is that both strands and shape are important - they are related; so where should conceptual thinking and research be directed?

It is suggested that we have sufficient knowledge of many of the 'strands' involved in influencing behaviour in organisations to be able to start building up a picture that has meaning and shape. Concepts and research concerned with the individual, the roles he adopts, the group he works with and the organisations and societies he works in (or, in the terms of Blau (1968), work concerned with role analysis, group analysis, and organisational analysis) can be found in considerable abundance in the literature (see previous chapters and especially Pugh, 1966 who pulls much of it together), but it needs integrating at both the conceptual and empirical levels. Although Silverman (1975) argues that "something like a consensus" is emerging in organisational analysis, a good deal remains to be done. The frameworks suggested in this thesis have attempted such an integration and, hopefully, provide at least a basis for further consideration of this problem which Kahn et al (1964) considered urgent. Yet one of the basic difficulties remains - that of the individual researcher pursuing his own 'strand' of development. Although he may, as in this case, correspond and converse with colleagues in his field, his work is not part of a broader programme aimed at knitting the strands together to see if a picture or pattern does emerge.

It would seem desirable, therefore, that an attempt was made to provide a platform from which such a programme could be launched and on which to base future thinking and research. Perhaps a useful starting point would be an international (or national) conference on behaviour in organisations, the objective for which would be to agree on the main conceptual issues facing workers in this field and to initiate a series of working papers aimed at producing a (currently) acceptable conceptual framework within which these issues could be meaningfully considered. This would be a brave step forward indeed, for one suspects that some (but not all) academics are

jealous of their little niches and would require some pursuasion to open them up for others to trample over. This may seem a harsh judgement - and indeed it can be argued that most workers do publish their research findings for others to critically judge. True! But this is a far cry from full and extensive co-operation on a common front. It might be desirable to put this effort on a continuing basis by constituting a standing conference on behaviour in organisations, the function of which would be to monitor progress towards the goal and initiate action in its pursuit.

Having agreed the issues and framework it should then be possible, or desirable, to embark upon at least a national programme of integrated and co-ordinated research aimed at providing empirical support for the frameworks so developed. It is the author's view that such research should be situationally based and of a pragmatic nature in order that it might help our understanding, and resolution, of behavioural problems. (This is not to suggest that some ex-post-facto research will not be necessary). It would not seek to establish a general, predictive model but rather to seek an understanding of how the different variables fit together in different situations and the effects they produce. Above all it must seek to provide knowledge of ways in which managerial and organisational action can be made more effective within the constraints that must and will exist.

If major centres were to co-operate in such a venture, it would be possible, although administratively difficult, to integrate individual research such as that carried out for PH.D's and M.Phil's with major projects linked to one or more of the centres. The possibilities for continuous development would form naturally whereas currently it is suspected that often they are haphazard. Examples of such co-operation and development do exist - as in the Aston-London work on organisation structures - but they appear to be exceptions.

It is not suggested that such proposals are new - or that they lack in naivity - but whatever their status the needs seem still to exist for a greater effort to be made in pooling research and intellectual resources in order to avoid waste and duplication - a point made by Bennett (1967) concerning the work of both American and British writers on organisations. Whilst it is still the author's view that no adequate general model of behaviour will be forthcoming, we should be in a much stronger position to make judgements concerning the scope of a systems/contingency-based model for situational analysis.

It is, therefore, contended that although this thesis has quite properly diverged from its original focus, a re-convergence has taken place but at a different level. This level has to do with the development of acceptable and adequate conceptual frameworks and meaningfully related research - the aim, surely, of all scientific pursuits.

In summary it is suggested that meaningful individual research can still take place provided the points noted previously are borne in mind by the research worker. A framework for aiding such research is suggested in figure 7.1, the major features of which are discussed here briefly.

1. Agreement of remaining major theoretical issues. Some of these issues are concerned with the nature of the individual himself, as discussed previously, and may not be resolved in the near future. But at least further attempts at establishing the unknowns should be made so that the limitations of research into behaviour in organisations are fully known and agreed. A further issue concerns the nature of the symbolic processes through which orientations are related to the work situation. The concept of goal symbols is not well understood and perhaps constitutes a weakness of this thesis. But it is suggested that some of the other theoretical and practical

issues faced have been tackled leaving greater scope for giving attention to the way in which, for example, payment systems, technology and group membership act as goal symbols, thereby reinforcing orientations and related behaviour. Further thinking about such issues will enable the conceptual framework to be revised and working hypothesis to be formulated. The following propositions, stemming directly or indirectly from this thesis, may help in their formulation:

(a) that behaviour is best explained when viewed in the context of the functional activity in which it takes place;

(b) that orientation to work is more influenced by factors outside the scope of managerial and organisational action than by those which come within that scope;

(c) that orientation to work has a persistent, if changing, influence on behaviour;

(d) that the modification of this influence is contingent upon the interaction of orientation with organisational variables;

(e) that the effect of this interaction will be contingent upon the general nature of the work situation rather than specific elements of it;

(f) that the influence of the task is enigmatic and not constant;

(g) that the influence of payment systems is also enigmatic but will generally be low;

(h) that orientation will be increasingly influenced by environmental forces and internal political processes;

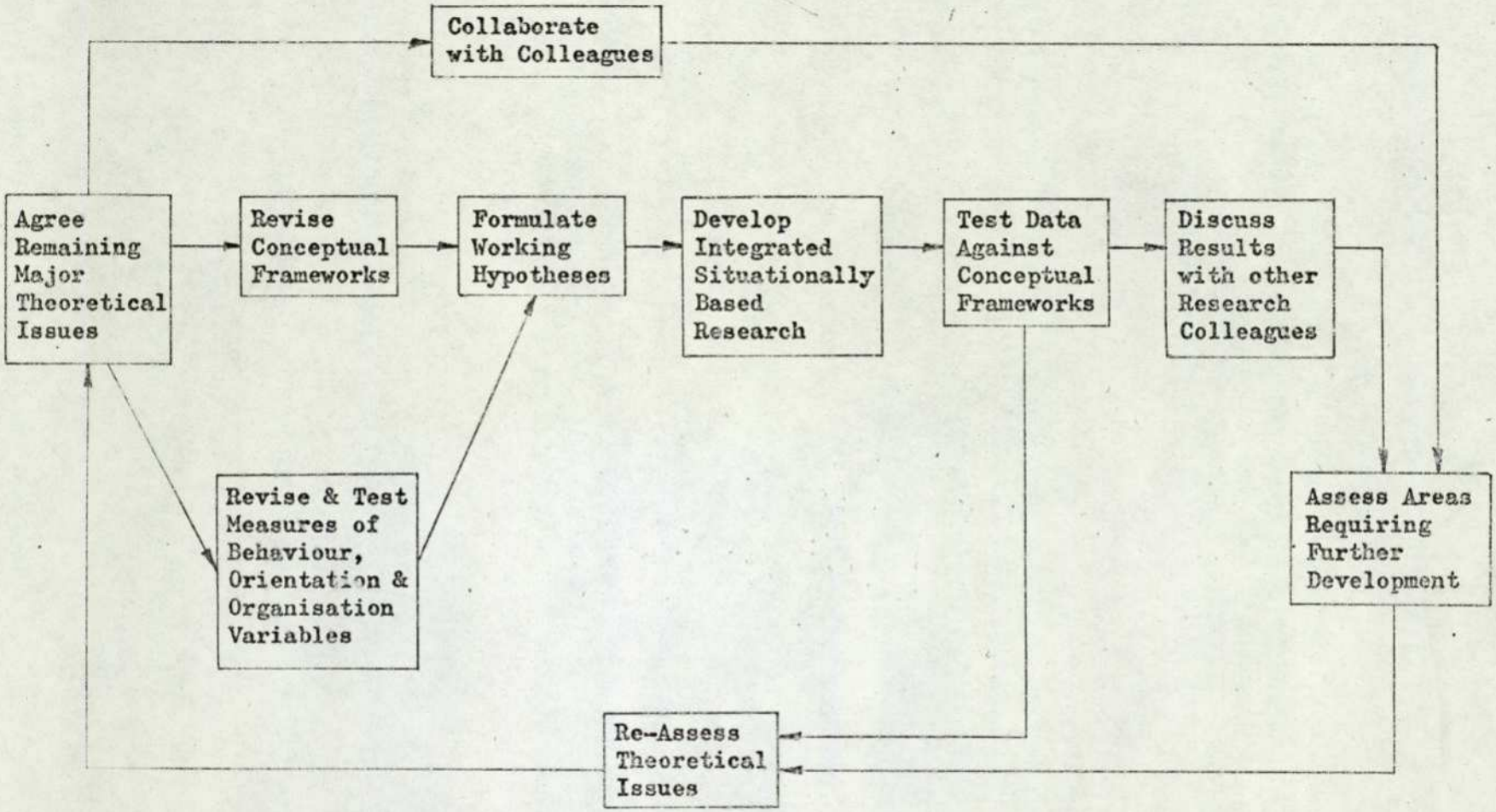
(i) that the resultant of these influences will be a change in the role and nature of management.

2. Development of situationally based research. Such propositions can be tested only against specific situations, necessitating an integrated programme of research which will require a number of individuals working in co-operation with each other and with other colleagues. A data bank of research data would be desirable, perhaps similar to that which Aston Management Centre has set up with respect to the work carried out on organisational structures. This would require impetus coming from a major centre if a standing conference on organisational behaviour is not a practical venture.

3. Development of adequate measures. A prior requirement for such research is the continued development of more adequate measures of the variables involved. Whilst the work described here has taken this process some small way, a good deal remains to be done (see appendix 9).

4. Continuous collaboration with colleagues. One of the dangerous tendencies in pursuing individual research is to lose contact with others in the field. The author found it invaluable to discuss issues via letter, telephone or direct conversations, although the fragmented nature of the field made it difficult sometimes to establish a sense of relatedness. It is particularly difficult if the research is undertaken on a part-time basis: full and continuous involvement is desirable if not essential.

Finally, it is hoped that out of the divergent nature of this thesis the author's philosophy of behaviour in organisations is discernible and that this chapter has gone some way towards crystalising it. That such divergence was necessary is a reflection of the current state of the field - somewhat confusing but possessing signs of meaningful development and possible areas of agreement.



A FRAMEWORK FOR CONSIDERING FUTURE WORK IN THE FIELD OF ORIENTATION TO WORK AND ORGANISATIONAL ANALYSIS

FIGURE 8.2

A P P E N D I C E S

Comparison of Different Conceptions of Organisational Form

(Extract from Bennett, 1969)

		Structure 1	Structure 2	Structure 3	Structure 4
1.	Argyris				
2.	Barnes	Closed System			Open System
3.	Bennis	Habit			Problem Solving
4.	Brown	Formal Manifest	Formal Assumed	Formal Extant	Requisite
5.	Burns & Stalker & Shephard	Mechanistic			Organismic
6.	Guest (Implied)	Authoritative			Democratic
7.	Jaques (Implied)	Short timespan			Long time span
8.	Likert	Authoritative Exploitative	Authoritative Benevolent	Authoritative Consultative	Participative
9.	Litwak	Bureaucratic			Human Relations
10.	McGregor	Theory X			Theory Y
11.	Tavistock	Closed Social & Technical System			Open Socio-Tech System

APPENDIX 2

Original Research Proposals

PROPOSAL FOR RESEARCH LEADING TO PH.D.

Proposed Title: An Analysis of the Importance of Wage Payment Systems in determining Employee Satisfaction - A Psycho-Sociological Approach.

Introduction

A great many studies have been carried out concerned with the effect of wage payment systems on the motivation of operators. However, the emphasis has been on a very long controversial debate concerning the type and design of a wage payment system in relation to organisational objectives. Further this debate has carried with it conflicting views as to whether financial or non-financial incentives are most applicable, especially with regard to the kind of technology employed, and how such incentives aught to be administered.

Relatively little work, however, has been done based on a conceptual framework which enable an individual's general psycho-sociological development to be related to the effect a wage payment system may have on that person's motivation and work-achievement.

It is proposed that this research project analyse such psycho-sociological factors and attempt to determine their importance in relation to wage payment systems. This will not be to the exclusion of considering the importance of other organisation factors. The emphasis will be on looking at individual differences with respect to needs and how instrumental particular types of wage payment systems are in meeting those needs. It is envisaged that no more than two organisations can be studied in depth. Therefore the research will concentrate on obtaining insight into the problems and establishing initial justification of hypotheses. A much longer and far ranging study will be required to establish general validity.

The remainder of this proposal will be concerned with some general details of the project under the following headings:-

(1) general framework of project

(2) guiding hypothesis and conceptual framework

(3) methods to be used

(4) time requirements

1. General Framework of Project

It is proposed that the following procedure be used in carrying out the project:-

1.1. preliminary investigation of problem area in search of suitable hypotheses (preliminary methodology);

1.2. selection of hypotheses, collection and testing of data (design and method);

1.3. analysis and discussion of findings (results).

From this procedure a general research framework emerges comprising essentially two parts, namely:-

1.4. theoretical basis, emerging from 1.1., looking at appropriate writers and researchers in the field, and building a theme.

1.5. research application, emerging from 1.2. and 1.3., covering practical and operational aspects of the project.

These can be broken down as follows:-

1.4. theoretical basis:

1.4.1. initial general survey of applicable literature with a view to generating a guiding hypothesis.

1.4.2. survey of literature covering existing work looking at extent of findings and theories relevant to any of the specific areas covered by the project.

1.4.3. analysis of various forms of payment systems, based on a framework used in my M.Sc. thesis, in an attempt to discern the objectives of each and the types of needs they purport to satisfy.

1.4.4. analysis of the individual in society and the factors influencing or likely to influence his future occupation and what he wants from it.

1.4.5. analysis of major and relevant organisational factors influencing an operator in the work situation and their effect relative to the payment system.

1.4.6. generation of hypotheses - general and experimental.

1.5. research application:

1.5.1. determination of data required to test hypotheses, whether descriptive and/or quantitative, and a general experimental framework.

1.5.2. choice of methods for obtaining data, with particular emphasis on validity and reliability requirements.

1.5.3. requirements for analysis and testing of data, and methods of presentation.

1.5.4. overall results and conclusions.

1.5.5. possible generation of hypotheses for further work based on the results of this project.

2. Present State of the Project.

At the time of submitting this proposal work has been started on sections 1.4.1., 1.4.2., and 1.4.4. This has led to the formulation of a basic guiding hypothesis and a tentative conceptual framework for developing working (experimental) hypotheses.

2.1. Guiding Hypothesis

With a project of this nature there is an inherent danger that it will become an examination of related but not necessarily particularly relevant side issues. To prevent the theme of the project becoming directed into consideration of these side issues it is proposed that a guiding hypothesis be used. This hypothesis will form the base for further theoretical discussion and the generation of working hypotheses. If, however, explanation of results needs to be made in terms of these side issues, they will be used accordingly.

The guiding hypothesis is, basically, very simple, and can be derived by asking the question "what makes a person continue to work for a particular firm?" One can answer that the firm's ability to meet the needs, goals, ambitions, and desires of that person is an important part of the process. The company's payment system is in many ways central to this point since it may be designed to achieve more than the allocation of financial reward. It may have as its objective the assessment of employee's skills and abilities and the relation of these to economic and other satisfactions. Just what an operator requires from his work situation will depend upon the psycho-social processes he has experienced, and how he relates these to the company's total system of rewards - of which this project is taking the payment system as its point of focus. The guiding hypothesis may be stated thus:-

> The extent to which a wage payment system will contribute toward the need satisfaction of any individual will be a function of the particular psycho-social influences to which that individual has been subjected.

The overall strategy in attempting to verify this hypothesis (by way of proving further, derived hypotheses) will thus be to classify these psycho-social influences and compare this with the functional objectives of the payment system and the characteristics of operators with a relatively long period of employment with that particular company. Further comparisons can be made with operators leaving the company after a relatively short period of employment.

2.2. Conceptual Framework

The basic conceptual framework is shown in figure 1 (attached). It's aim is to attempt to establish a relationship between causal factors and the appropriate decision-making process.

This framework can be considered as follows:-

2.2.1. Cultural Determinants - this is a basic causal area which can be considered to affect people in the same way. There are differences of emphasis on various aspects and these will be accounted for in later stages of the framework. The importance of considering general cultural factors is to be found in a deeper study of motivational factors.

2.2.2. Background and Situational Factors - culture will have a direct/indirect influence on the background experiences and present environmental situations concerning an individual. The important background factors under consideration are related to family and education. The important situational factors relate to the person himself and his career. General factors, such as youth clubs attended, etc., will be used in both areas for allowing factors of importance to be considered but which do not specifically come under other headings. A detailed analysis of important factors in each category is at present being undertaken. For example, family factors might include social class, financial position, occupation (of parents), size of family, etc., whereas personal factors might include friendship/status group, background/status of wife, etc.

2.2.3. Motivational Pattern - it is intended to analyse how combinations of the above factors will influence behaviour patterns. Motivation theory will be used as the base for analysis, but explanation may need to be made in terms of learning theory. For example, a person from a working class background with a large family may be single, have had average educational opportunities, contemplating marriage and buying a house, and runs a car. It is possible to examine his behaviour by analysing his needs - at present they would tend to be in terms of finance and security. That is, he may be looking for a high basic rate plus a bonus and a regular savings scheme. However, traditional conditioning processes may have given him a stereotype of particular methods of payment and he may look for a firm that offers a reasonable basic rate but has high job security. Thus, the tendency for conflict between financial and security needs may be solved by reference to the learning process. i.e. that it is better to have mediocre pay with good job security than run the risk of redundancy for higher financial reward. By analysing background and situational factors it is possible to predict what motivational aspects will be exhibited in terms of rational-economic, social, and self-fulfilment aspects. Such prediction will form the base for working hypotheses.

2.2.4. Decision-Making Process - the working hypotheses will be concerned with making a choice between satisfaction of various needs, aspirations, and ambitions. It must be emphasised that a decision may be made in relation

to present and future needs. In other words, a decision to stay with a particular company may be made on short-term requirements but with a view to satisfying certain future needs in some other way, e.g. to raise enough money and gain experience in order to go into business on his own.

Thus, it is hoped that this conceptual framework will allow predictions to be made concerning what sort of persons with which kind of needs will be attracted by what sort of payment system.

3. Experimental Methods

It is proposed that the general experimental methodology comprise two parts, namely:-

3.1. Selection of one company operating a particular type of payment system with a view to carrying out a substantial investigation based on the conceptual framework. The exact design of this stage will depend upon the working hypotheses used, but will be concerned with substantiating and describing the features contained in the conceptual framework. Personal interviews, in depth, will be the main experimental tool, although the possibility of using attitude measuring techniques is not ruled out. Access to personnel records will be required in order to establish the nature of the labour turnover curve. This will then be used as a parameter for deciding which leavers to interview.

3.2. On completion of the first stage a second company will be selected for investigation. This company will exhibit similar characteristics to the first, in terms of spread of labour market, type of operator skills required, technology, etc. but a different payment system. Similar investigations will be made with a view to obtaining greater substantiation of the theoretical basis and adding to its content.

It must be pointed out that this project is intended to be theoretically oriented and will use descriptive evaluation methods for analysis. If, however, quantitative techniques appear applicable and valid, as in the case of analysing responses to attitude survey questionnaires, they will be used.

4. Time and Facility Requirements

4.1. Time

It is estimated that, apart from time available during evenings and weekends, one working day will be required for a period of not less than two years. This will enable interviews and other investiga-

tions within the company to be conducted during the normal working week. The project is likely to take 3 years to complete on a part-time basis. If time becomes a critical factor it may be necessary to forgo section 3.2. unless this is partly under way by the commencement of the third year. In the latter case a request may be put forward to extend the submission date by the period required. If these proposals are accepted registration takes place in October 1970 some considerable background work could be achieved before commencing the 3 year period.

A tentative programme of action is set out in table 1.

4.2. Facilities

The basic facilities required would be access to duplicating/copying equipment, availability of basic materials, and typing facility. It is unlikely that access to a computer will be required. The extent to which any facility is required will not be known until a detailed experimental programme is drawn up. Help will be required with typing and printing of the final thesis, demanding something like 25 - 35 hours.

At present, effort is being put into obtaining information concerning the theoretical basis of the project as well as research method. A preliminary bibliography is attached. It is realised that considerable work needs to be done before the experimental stage is reached - the above outline demonstrating that the effort should be rewarding.

Proposer: R.D. Bennett. B.Sc.,M.Sc.,A.M.B.I.M.,
A.I.Sc.B.

FIG. 1

CONCEPTUAL FRAMEWORK

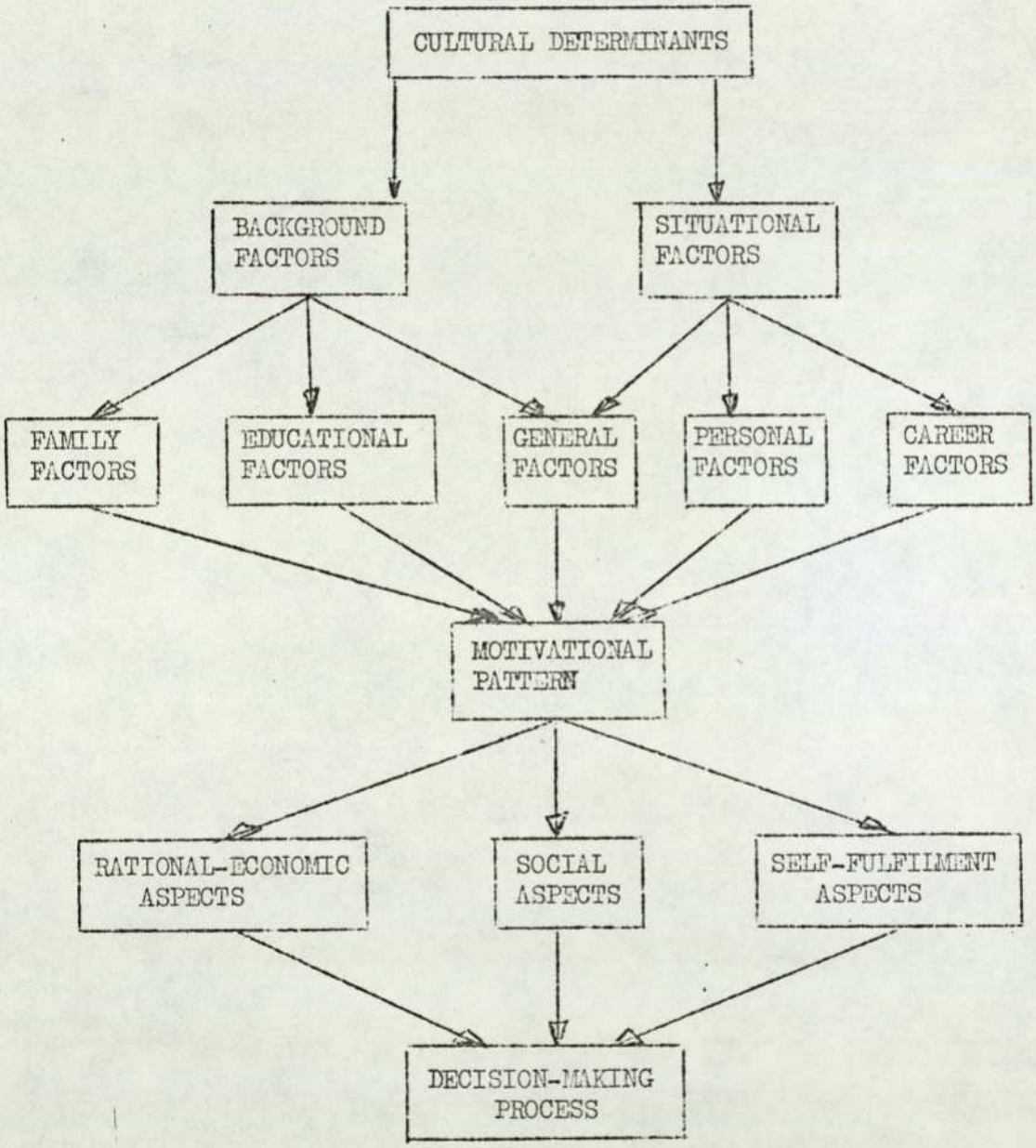


TABLE 1

PRELIMINARY PROGRAMME

ACTIVITY	START DATE	FINISH DATE
Theoretical Analysis and Literature Survey	In Progress	Feb. 1971
Experimental Design	Oct. 1970	Feb. 1971
Analysis Design	Dec. 1970	Feb. 1971
Stage 1 Survey	March 1971	Oct. 1971
Analysis, and Review of Theoretical Basis	Oct. 1971	Jan. 1972
Stage 2 Survey	Feb. 1972	Sept.1972
Analysis	Oct. 1972	Jan. 1973
Results & Interpretation	Feb. 1973	April 1973
Thesis Design & Draft	May 1973	July 1973
Final Thesis	Aug. 1973	Oct. 1973

PRELIMINARY BIBLIOGRAPHY

Applewhite - Organisation Behaviour - Prentice Hall - 1965.

Bal (Marcel Balle de) - The Psycho-Sociology of Wage Incentives - Brit. J. Ind. Rels. - vol.II, No.3, 1969.

Bendix & Lipsett (eds.) - Class, Status, and Power - Glencoe Free Press - 1953.

Butler - Occupational Choice - London: H.M.S.O. - 1968.

Caplow - The Sociology of Work - New York: Prentice Hall - 1965.

Carr - Productivity Through People - Industrial Society - Sept. 1969

Centres - The Psychology of Social Classes - Princeton University Press - 1941.

Child - The Business Enterprise In Modern Industrial Society - London: Collier, MacMillan - 1969.

Grinyer & Kessler - The Systematic Evaluation of Methods of Wage Payment - J. of Man. Studies - Oct. 1967.

Hempel - Philosophy of Natural Science - Englewood Cliffs: Prentice Hall - 1966.

Hertzberg - Work and the Nature of Man - Staple Press - 1966.

Kretch, et al - Individual in Society - New York: McGraw Hill - 1962.

Lupton & Gowler - Selecting a Wage Payment System - E.E.F. - 1968.

McArthur - Personality Differences between Middle and Upper Classes - J. of Abnom. Soc. Psych. - 50, 1955.

Moser - Survey Methods in Social Investigation - London: Heinemann - 1958.

Paul - The Mechanics of Motivation - Management Today Annual Review - 1970.

Robertson (Mary) - The Pursuit of Happiness at Work - Management Decision - Autumn 1969.

Ross & Zander - Need Satisfaction and Employee Turnover - Personnel Psych. - no. 10 - 1957.

Schein - Organisational Psychology - Englewood Cliffs: Prentice Hall - 1965.

Project One:

Questionnaire and Punching Codes

PEOPLE AND PAY : A SURVEY

INTRODUCTION

May I please request your help in taking part in this survey by completing the attached questionnaire.

This questionnaire is part of a much wider survey which is aimed at exploring the relationship between what a person wants from his job and the various experience he has had in the past. The survey is being carried out by a lecturer at the School of Management Studies, Portsmouth Polytechnic, and all information given will be treated by him in a most confidential manner. Information given in this questionnaire will not be seen by, or divulged to, any employing organisation, and will be published only in combination with hundreds of other results, making any personal identification impossible.

The results of this survey will be used by the investigator to examine the assumptions made by many employing organisations when designing methods of remunerating its employees (from managers to operating personnel). It is hoped that more realistic assumptions can be made based on this survey, and your participation in it will make the results much more meaningful.

Because a questionnaire does not always give you the opportunity to answer in the way you would most like to, it may be desirable for the investigator to interview you at home. This would present an opportunity to get a better understanding of the information given. If you are willing to help further in this way you can indicate so at the end of the questionnaire.

You may also be interested in seeing a summary of the results. If you are, you can indicate this at the end of the questionnaire too.

As the investigator, I very much hope you will be able to spare some of your valuable time to complete the questionnaire and thus be of great help to me. I am sure you will also enjoy doing it.

Many thanks.

ROGER BENNETT

GENERAL INSTRUCTIONS.

Please read these before starting to answer the questions.

This questionnaire asks you to give answers to a variety of questions concerning your job situation and personal situation. The questions are straightforward and easy to answer.

Questions 1 - 6 and question 30 require you to make a statement in reply to the question. For example, if you were 42 years old and were asked "How old are you? ....." you would write "42" on the line provided.

The remaining questions all have possible answers to them written alongside accompanied by a number. When answering the question please put a "ring" round the appropriate number.

For example, if you are married, and were asked:

Are you married ?	YES	(1)
	NO	2

you would circle the number opposite "YES". In this question you can and should only ring one answer.

There are questions, however, which may have several answers to them. You might, for example, like to watch plays and documentaries on T.V. If so, this is how the following question would look:-

Which of these T.V. programmes do you like watching ?	PLAYS	(1)
	DOCUMENTARIES	(2)
	FILMS	3
	NONE	0

You might, of course, like none of them or all three.

Please read the questions carefully and give answers which are to the best of your knowledge correct. If you do not wish to answer a question, please cross it out. Your help in answering this questionnaire is purely voluntary.

Thank you very much for your co-operation.

PEOPLE AND PAY : A SURVEY

EXPLANATORY NOTE ON THE
PURPOSE OF THE "CARD NUMBER"

As you will notice each questionnaire carries a 'card number' the purpose of which is to make sure that when the information you have given is transferred to the computer a check can be made for any possible errors in punching computer cards.

For example, if you put your age at, say, 42, and the person putting that information into the computer made a mistake and punched it as 22, it would be very difficult to find out what the real age should be if the questionnaire was not numbered.

Although this number does appear on the questionnaire, it is not in any way connected with your name unless you wish to volunteer to be interviewed. Then it is necessary to know which is your questionnaire so that we can discuss any details you wish to in greater depth.

In order to ensure strictest confidentiality, will you please observe the following procedure:-

1. If you want to take part in the interviewing stage and receive a copy of the results - fill in your name and address on the last page and return with the questionnaire.

2. If you wish to be interviewed but not to receive a copy of the results - fill in your name and address on the last page and return with the questionnaire.

3. If you wish only to receive a copy of the results - detach last sheet from questionnaire, fill in name and address, tear off card no. and return separately.

4. If you do not wish either results or to be interviewed - please leave last page attached and return with questionnaire.

If you follow this procedure, I can guarantee fullest confidentiality.

I would stress that your co-operation in this survey is totally voluntary, although I naturally hope that you will be able to help me in my research. It is therefore in my interest to safeguard your interests.

Thank you for at least considering taking part in the survey.

ROGER BENNETT

PLEASE READ THE INSTRUCTIONS BEFORE STARTING

Q.1 What is your age and date of birth ?

AGE _____

DATE OF BIRTH _____

Q.2 What is your present job/occupation ? (e.g. Fitter, Doctor, Shopkeeper, etc) Please state if self-employed.

_____

Q.3 What kinds of job/occupation have you held in the past ? (Write 'not applicable' if appropriate)

2 YEARS AGO _____

5 YEARS AGO _____

10 YEARS AGO _____

20 YEARS AGO _____

Q.4 What was, or is, the last job/ occupation of your wife's father or guardian ?

_____

Q.5 What jobs/occupations has your father had ?

LAST OR PRESENT _____

WHEN YOU WERE 15 _____

WHEN YOU WERE 10 _____

Q.6 If you have any brothers, what jobs/occupations do they have at present ? (Write 'not applicable' if you do not have any brothers)

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

Thank you for your help so far. Please continue...

Q	1		2	3				4	5			6						-
COL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C																		X

Q.7	Do you belong to a trade union or other form of employees' association ?	YES	1
		NO	2
Q.8	What is your present net (take-home) pay or salary ? (Per Week)	UNDER £20 PER WEEK	1
		£20/£30 "	2
		£31/£40 "	3
		£41/£60 "	4
		£61/£80 "	5
		MORE THAN £80 "	6
Q.9	Do you have any other sources of income besides your pay or salary ?	YES	1
		NO	2
Q.10	Are you	SINGLE	1
		MARRIED	2
		MARRIED & SEPARATED	3
		DIVORCED	4
		WIDOWED	5
		OTHER	6
Q.11	How many children do you have ?	NONE	0
		ONE	1
		TWO	2
		MORE THAN TWO	3
		NOT APPLICABLE	4
Q.12	Does your wife work at an outside occupation ?	YES	1
		NO	2

Thank you for your help - please continue...

Q	7	8	9	10	11	12	-
COL	19	20	21	22	23	24	25
C							X

Q.13 Please read carefully each of the following job descriptions:-

Slightly higher pay than you now get; Opportunity to earn much more through hard work; Simple work, planned by your boss; No overtime, or very little; Working by yourself; Time-off when reasonably requested; Small increases in pay each year; Job located long way from home.	1
Money slightly lower than you now get; Pay will increase slowly; Work very different from your present job; Would require going on a training course; Chance of promotion if you do the job well, or the opportunity of doing a more complex job; Reasonably close to home.	2
Same money as you now get; Little chance of pay increases in near future; Would involve working closely with other people in a small department; You would often be asked to work late; Many opportunities for going to parties held by your new work-mates/colleagues; Job close to home; No training involved.	3

Having read each of the above descriptions, which one would you choose, assuming you had to choose one of them? Please circle the appropriate number in the right hand column.

Thank you for your help - please continue...

Q	13	-
COL	26	27
C		X

Q.14 What type of accommodation do you live in ?

OWN HOUSE (OR BUYING)	1
RENTED HOUSE	2
FURNISHED FLAT	3
UNFURNISHED FLAT	4
LODGINGS	5
FIRM'S HOUSE	6
OTHER (PLEASE STATE)_____	7

Q.15 Which type of Secondary School did you last attend ?

ELEMENTARY (PRE 1947)	1
GRAMMAR	2
MODERN	3
TECHNICAL	4
COMPREHENSIVE	5
PUBLIC/PRIVATE	6
OTHER (PLEASE STATE) _____	7

Q.16 Was the School you attended

MIXED	1
ALL BOYS	2

Q.17 Whilst at School, did you obtain any qualifications ?

(Please ring all appropriate numbers)

NONE	0
SCHOOL CERTIFICATE	1
C.S.E.	2
G.C.E.'O'	3
G.C.E.'A'	4
OTHER (PLEASE STATE) _____	5

Your help is much obliged - please continue...

Q	14	15	16	17	-
COL	28	29	30	31	32
C					X

Q.18	At what age did you leave school ?	13 OR UNDER	1
		14	2
		15	3
		16	4
		17 OR OVER	5
Q.19	Have you done an apprenticeship (including Services) or any other formal pre-job training ?	YES	1
		NO	2
Q.20	What kind of studying have you done since leaving School ? (Please ring all appropriate numbers)	NONE	0
		EVENING CLASSES	1
		DAY CLASSES	2
		FULL TIME	3
		CORRESPONDENCE COURSE	4
		OTHER (Please State)_____	5
Q.21	Have you obtained any qualifications since leaving School ? (Please ring all appropriate numbers)	NONE	0
		G.C.E. 'O' or 'A'LEVEL	1
		ONC/OND	2
		HNC/HND	3
		1st DEGREE	5
		PROFESSIONAL	6
		OTHER (Please state)_____	7
Q.22	Has your mother ever worked at an outside job/occupation since getting married?	YES	1
		NO	2
		DON'T KNOW	3

Not much further to go - please continue...

Q	18	19	20					21	22	-
COL	33	34	35	36	37	38	39	40	41	42
C										X

Q.23 How many brothers do you have ?

NONE	0
ONE	1
TWO	2
MORE THAN TWO	3

Q.24 How many sisters do you have ?

NONE	0
ONE	1
TWO	2
MORE THAN TWO	3

Q.25 As a boy under 15 which of these did you attend regularly and for more than 3 months ?

(Ring all appropriate numbers)

CHAPEL/CHURCH	1
SUNDAY SCHOOL	2
YOUTH CLUB	3
BOYS CLUB	4
OTHER (Please State)_____	5
NONE	0

Q.26 Did you ever have a part-time job for more than one month whilst at school ? (e.g. butcher boy, newspaper boy etc)

YES	1
NO	2

Q.27 Did you hold any of these positions whilst at School ?

(Ring all appropriate numbers)

HEAD BOY	1
PREFECT	2
HOUSE CAPTAIN	3
SPORTS CAPTAIN	4
OTHER (Please State) _____	5
NONE	0

Only 3 questions to go - please carry on ...

Q	23	24	25	26	27	-
COL	43	44	45	46	47	48
C						X

Q.28 To which of these club/societies, etc. do you belong.

(Please ring all appropriate numbers)

SPORTS CLUB	1
SOCIAL CLUB	2
CHAPEL/CHURCH	3
LOCAL COUNCIL	4
PROFESSIONAL ASSOCn.	5
SAVINGS CLUB	6
THEATRICAL/MUSICAL SOCIETY	7
OTHER (Please State)_____	8
NONE	0

Q.29 Printed below are a number of pairs of statements each statement referring to something you may or may not wish for most of all at present. Read each pair of statements and indicate which one of them you would most prefer to have by putting a ring round the appropriate number. Ring only one statement in each pair - the one you most prefer. Treat each pair of statements separately.

Friendly people to work with, or	1
More interesting job/occupation.	2
To get on well with neighbours, or	1
Promotion and more responsibility.	2
More personal goods and belongings or	1
Friendly people to work with.	2
More interesting job/occupation, or	1
To get on well with neighbours.	2
Save and invest more money, or	1
Promotion and more responsibility.	2
More personal goods and belongings, or	1
To get on well with neighbours.	2
Friendly people to work with, or	1
Save and invest more money.	2

Q	28	29							-
COL	49	50	51	52	53	54	55	56	57
C									X

Promotion and more responsibility, or More personal goods and belongings.	1 2
Save and invest more money, or To get on well with neighbours.	1 2
Friendly people to work with, or Promotion and more responsibility.	1 2
More interesting job/occupation, or Save and invest more money.	1 2
More personal goods and belongings, or More interesting job/occupation.	1 2

Q.30 Please state what you think is the single most important thing that people in this country want in life ?

_____

_____

_____

_____

Many thanks for your help and co-operation - it is much appreciated.

Should you wish to receive a summary of the results and/or take part in an interviewing programme, please complete the form overleaf and return with this questionnaire.

Q	29 (cont'd)					30	-
COL	58	59	60	61	62	63	64
C							X

To: ROGER BENNETT,
SCHOOL OF MANAGEMENT STUDIES,
PORTSMOUTH POLYTECHNIC,
ROYAL BEACH HOTEL,
SOUTHSEA,
HANTS.

(i) I AM PREPARED TO BE INTERVIEWED — YES 1 / NO 2

(ii) I SHOULD LIKE TO SEE A SUMMARY OF THE QUESTIONNAIRE RESULTS. — YES 1 / NO 2

MY NAME, ADDRESS AND TELEPHONE NO. ARE

NAME _____

ADDRESS _____

_____

_____

_____

TELEPHONE (HOME/WORK) _____

Q	(i)	(ii)	Card No.			-
Col	65	66	67	68	69	70
C						X

Project 1 Survey Codes

Q.1	Numerical - as per age only	9 = non - response	
Q.2	0 - other-technician/low level professional/chef 1 - trainee/apprentice/student 2 - operative-skilled and semi-skilled (inc. police officer)		
Q.3	3 - general worker (inc. unskilled) 4 - clerical-sales ass'ts, rep's, shopkeepers		
Q.4	5 - supervisory-foreman, c'hand, sergeants, etc. 6 - managerial-executive, large bus. owner		
Q.5	7 - professional 8 - not applicable		
Q.6	9 - non-response		
Q.7	1 & 2 as per	9 = non - response	
Q.8	1 - 6 as per	9 = non - response	
Q.9	1 & 2 as per	9 = non - response	
Q.10	1 - 6 as per	9 = non - response	
Q.11	0 - 4 as per	9 = non - response	
Q.12	1 & 2 as per	3 = not applicable	9 = non - response
Q.13	1 - 3 as per	9 = non - response	
Q.14	1 - 7 as per	9 = non - response	
Q.15	1 - 7 as per	9 = non - response	
Q.16	1 & 2 as per	9 = non - response	
Q.17	0 - 5 as per	9 = non - response	
Q.18	1 - 5 as per	9 = non - response	
Q.19	1 & 2 as per	9 = non - response	
Q.20	0 - 5 as per	6 = not applicable	9 = non - response
Q.21	0 - 7 the highest qual'n recorded 8 = postgrad. (M.Sc., Ph.D., etc.)		9 = non - response
Q.22	1 - 3 as per	9 = non - response	
Q.23	0 - 3 as per	9 = non - response	
Q.24	0 - 3 as per	9 = non - response	

Q.25
0 = none
1 = religious (chapel/church/Sunday)
2 = non-religious (youth club/boys club)
3 = others
4 = 1 & 2
5 = 1 & 3
6 = 2 & 3
7 = 1, 2 & 3
9 = non - response

Q.26 1 & 2 as per 9 = non - response

Q.27 Total number of items circled 9 = non - response

Q.28
0 = none
1 = religious (chapel/church)
2 = job/career related (prof. ass'n)
3 = other/external (rest + other)
4 = 1 & 2
5 = 1 & 3
6 = 2 & 3
7 = 1, 2 & 3
9 = non - response

Q.29 1 & 2 as per 9 = non - response

Q.30
1 = economic/security
2 = social
3 = self
4 = other
5 = 1 & 2
6 = 1 & 3
7 = 2 & 3
8 = 1, 2 & 3
9 = non - response

Back Page 1 & 2 as per 9 = non - response

Project Two:

Inventory of Orientation Measures; Example of Validity-Check Paperwork (Paired Comparisons Measure); Concept Description Exercise for Three Classes of Individuals (Partial Basis for Constructing Semantic Differential).

D.M.S. INVENTORY 1

A Would you please give the following information:-

(1) NAME (Please Print)
SURNAME .....
CHRISTIAN NAMES .....

(2) PRESENT ADDRESS
.....
.....
.....

(3) AGE (Please circle appropriate range)
16 - 20; 21 - 30; 31 - 40; 41 - 50; 51 - 60; 60+

(4) ARE YOU
MARRIED/SINGLE (Please circle)

(5) WHAT IS YOUR CURRENT OR LAST JOB?
JOB TITLE .....
BRIEF DESCRIPTION .....
.....
LENGTH OF TIME IN IT .....(MONTHS OR YEARS)

NOTE: THIS IS NOT A TEST ..... I AM INTERESTED IN YOUR VIEWS AND OPINIONS. THERE ARE NO RIGHT OR WRONG ANSWERS.

B Please read carefully each of the statements printed on the next page and consider how desirable they are to you, that is how much you may or may not want the the things they describe. Then read each of the possible answers given opposite the statement and put a circle round the answer that best indicates how you feel.

Continued/.....

How desirable is it that you:

Are left alone to get on with your job?	EXTREMELY DESIRABLE	DESIRABLE	DON"T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Are able to use your own common sense?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Are sure of having a job in difficult times?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Have friends who would help you out when you're in a spot?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Have a job that doesn't require too much thought?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Earn more money than you get now?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Get the credit for doing a good job	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Work with friendly people?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Could throw in your job if you wanted to?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Don't have too many responsibilities to worry about?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Keep yourself to yourself?	EXTREMELY DESIRABLE	DESIPABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Save and invest some money?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE

Continued/.....

How desirable is it
that you:

Have an interesting job of work to do?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Earn just enough money to get by?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Live next door to friendly people	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE

THANK YOU FOR YOUR HELP ..... PLEASE CONTINUE

C. Please read carefully each of the following job descriptions:

Slightly higher pay than you now get; Opportunity to earn much more through hard work; Simple work, planned by your boss; No overtime, or very little; Working by yourself; Time off when reasonably requested; Small increases in pay each year; Job located long way from home.	1
Money slightly lower than you now get; Pay will increase slowly; Work very different from your present job; Would require going on a training course; Chance of promotion if you do the job well, or the opportunity of doing a more complex job; Reasonably close to home.	2
Same money as you now get; Little change of pay increases in the near future; Would involve working closely with other people in a small department; You would often be asked to work late; Many opportunities for going to parties held by your new work-mates/colleagues; Job close to home; No training involved.	3

Having read each of the above descriptions, which one would you choose, assuming you had to choose one of them? Please circle the appropriate number in the right hand column.

Continued/.....

D. Printed below are a number of pairs of statements each statement referring to something you may or may not wish for most of all at present. Read each pair of statements and indicate which one of them you would most prefer to have by putting a ring round the appropriate number. Ring only one statement in each pair - the one you most prefer. Treat each pair of statements separately.

Friendly people to work with, or More interesting job/occupation	1 2
To get on well with neighbours, or Promotion and more responsibility	1 2
More personal goods and belongings, or Friendly people to work with.	1 2
More interesting job/occupation, or To get on well with neighbours.	1 2
Save and invest more money, or Promotion and more responsibility.	1 2
More personal goods and belongings, or To get on well with neighbours	1 2
Friendly people to work with, or Save and invest more money	1 2
Promotion and more responsibility, or More personal goods and belongings	1 2
Save and invest more money, or To get on well with neighbours	1 2
Friendly people to work with, or Promotion and more responsibility	1 2
More interesting job/occupation, or Save and invest more money	1 2
More personal goods and belongings, or More interesting job/occupation.	1 2

Continued/:.....

E. Although we all want different things from life, some of them are more frequently obtainable than others.

Read the list of statements printed on the left hand side of the table below and consider how frequently you expect to have opportunities to achieve them. Then place a tick in the box under the heading which best indicates how often you expect to achieve what each statement refers to.

HOW FREQUENTLY DO YOU EXPECT TO HAVE THESE OPPORTUNITIES:	HEADINGS				
	NOT AT ALL	VERY SELDOM	ON SOME OCCAS- IONS	ON MOST OCCAS- IONS	ALL THE TIME
To be given more responsibility at work					
To earn more money					
To have a secure job					
To be with people you like					
To have interesting work to do					
To save some money					
To get credit for doing a good job					
To have friends who will stand by you					
To work with friendly people					

CONTINUED/.....

F. The following pages contain two identical forms, on each of which appear a number of scales with adjectives printed at each end of them. On each scale a number of "boxes" are marked out, each box representing some degree of intensity of the word nearest it. Thus, for example the middle box represents a position where neither word applies.
At the top of each page you will find printed a 'concept' i.e. "YOURSELF" and "THE IDEAL EMPLOYEE". Please put a tick on the scale in the place which you feel best describes the concept.

REMEMBER:

1) On the first page, describe your own view of yourself,

2) On the second page,,describe your view of what you consider to be the ideal employee i.e. the kind of person that most companies in general would ideally like to employ.

Continued/.....

YOURSELF

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view the above. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

THE IDEAL EMPLOYEE

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view this employee. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

INSTRUCTIONS

1. Read each statement carefully.

2. Sort slips into piles which you feel contain statements of similar meanings.

3. Consider each pile of statements carefully and label them with a word or phrase which represents the general meaning of them.

4. Place each pile into a separate envelope and label the envelope with the word or phrase chosen to represent the meaning of the slip.

PROMOTION & MORE RESPONSIBILITY	SAVE & INVEST MORE MONEY
PROMOTION & MORE RESPONSIBILITY	SAVE & INVEST MORE MONEY
BETTER WORKING CONDITIONS	GREATER ECONOMIC STABILITY
BETTER WORKING CONDITIONS	GREATER ECONOMIC STABILITY
FRIENDLY PEOPLE TO WORK WITH	TO GET ON WELL WITH NEIGHBOURS
FRIENDLY PEOPLE TO WORK WITH	TO GET ON WELL WITH NEIGHBOURS
GREATER PERSONAL FREEDOM	OPPORTUNITIES FOR CONTINUED EDUCATIONAL DEVELOPMENT
GREATER PERSONAL FREEDOM	OPPORTUNITIES FOR CONTINUED EDUCATIONAL DEVELOPMENT
MORE PERSONAL GOODS & BELONGINGS	MORE INTERESTING JOB/OCCUPATION
MORE PERSONAL GOODS & BELONGINGS	MORE INTERESTING JOB/OCCUPATION
BETTER CO-OPERATION FROM OTHERS IN LIFE	TO GAIN RESPECT FROM COLLEAGUES & OTHERS HELD IN ESTEEM
BETTER CO-OPERATION FROM OTHERS IN LIFE	TO GAIN RESPECT FROM COLLEAGUES & OTHERS HELD IN ESTEEM

FROM: R.D. Bennett

TO: All Members of Staff

14th February, 1973

A PERSONAL REQUEST

Dear

I wonder if you would consider helping me by completing the attached forms. These are connected with one aspect of my Ph.D. project and I require some 'expert' help with it.

At the top of each form is the name of a particular type or conception of man. Would you please consider each concept in turn and indicate how you view it by placing a tick on the scale between each pair of words. Put the tick nearest the word which best fits your impression of each type. If neither fits put the tick half-way between. When you have finished, please return the forms to me as soon as possible.

I must stress that this is a personal request and that, should you object to being asked, please ignore the request. I won't even feel upset if you wish to make your feelings known to me.

Should you complete the forms, please do not put your name on them.

IMPORTANT: Even if you have your own definitions of each type, would you please use the following as your guide :-

Economic Man - one who seeks to maximise, in a rational way, economic/material gain from life and work.

Social Man - one who seeks to be involved with other people, and who gains satisfaction from being a member of a group comprising people he respects or likes or whose aims he shares.

Self-Actualising Man - one who seeks to develop his abilities and to fulfil himself in the way he desires most and is most capable of doing.

Your help will be very much appreciated.

Roger Bennett

RDB/MW

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view the above. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

Project Three:

Main Survey Questionnaire;

First 'Academics Survey' Questionnaire;

Second 'Academics Survey' Questionnaire.

PLEASE READ EACH SECTION CAREFULLY AND ANSWER THE QUESTIONS GIVING YOUR OWN VIEWS. THERE ARE NO RIGHT OR WRONG ANSWERS

1. The behaviour of an individual within an enterprise of any sort - hospital, manufacturing plant, police force, local authority, public services, etc. - is the result of a number of 'forces' or 'factors' acting upon that individual in relation to his desires and expectations about work. The most frequently cited factors are:-

CONDITIONS OF WORK (C.W.)	-	the physical environment (heating, lighting, cleanliness, noise, ventilation, etc.) in which the individual works.
WORK GROUP (W.G.)	-	those people with whom the individual most frequently associates during his working hours.
INCENTIVE & REWARD SYSTEM (I.R.S.)	-	the way in which financial rewards are offered and made.
TECHNOLOGY (TECH.)	-	the state of knowledge, methods, procedures, technical operations used for producing goods and services, and determining the nature of the job or work performed.
ORGANISATION OBJECTIVES (O)	-	the desired states of affairs the organisation hopes to achieve.
MANAGEMENT (M)	-	the process whereby orders are given, tasks allocated and work controlled in order that organisational objectives and purposes can be achieved through the effective and efficient use of resources.
STRUCTURE (S)	-	the arrangement of activities and authority within the organisation into a meaningful system for performing work.
ENVIRONMENT (E)	-	the forces of external systems (such as economic, political, social, educational, market, and cultural pressures - including trade unions and other interest groups) acting upon the organisation, and the people who work within it.
TASKS (T)	-	the work undertaken by the individual as required by his superior in order to help achieve the organisation's objectives.

CONTINUED ON NEXT PAGE

PLEASE READ THE NOTES OPPOSITE BEFORE ANSWERING

As you are no doubt well aware from your own experience, organisations differ quite considerably on each of these factors. Please consider YOUR OWN organisation carefully and give it a rating on the scales below. Place a circle around the number, on each scale, which you feel represents the best description of your organisation: it might be at either extreme or anywhere between. Treat each scale as a variable between each extreme.

MY ORGANISATION

(i.e. that part of the total organisation which surrounds your own unit or department - NOT your own departmental organisation or your own job.)

MANAGEMENT	Authoritarian, Autocratic	1	2	3	4	5	6	7	Participative Democratic
STRUCTURE	Flexible, Organic	1	2	3	4	5	6	7	Rigid Bureaucratic
ENVIRONMENT	Hostile, Difficult	1	2	3	4	5	6	7	Friendly, Responsive
CONDITIONS OF WORK	Pleasant	1	2	3	4	5	6	7	Unpleasant
TASKS	Interesting	1	2	3	4	5	6	7	Boring
WORK GROUPS	Cohesive, Tight-knit	1	2	3	4	5	6	7	Non-Cohesive Loose-knit
TECHNOLOGY	Simple	1	2	3	4	5	6	7	Complex
ORGANISATION OBJECTIVES	Vague and Ambiguous	1	2	3	4	5	6	7	Clearly defined

INCENTIVE AND REWARD SYSTEM

Please put a tick under the kind of payment in operation in your part of your organisation for (1) manual employees, and (2) clerical employees.

	Ouput Incentives (Bonus schemes)	Hourly Rates or Salary	Merit Rating	Other (state)
(1) Manual				
(2) Clerical				

Thank you for your co-operation and help. Please continue.

2. People can be classified into three categories or types according to the way they view work. Please read carefully the following descriptions of these types:-

INDIVIDUAL TYPES

INSTRUMENTAL (I) - a person who views work as a means of providing money, security and other material rewards.

RELATIONAL (R) - a person who views work as a means of providing friendship with other people.

PERSONAL (P) - a person who views work as a means of providing personal satisfaction.

(Often, of course, an individual's view of work may be based on a combination of these three categories.)

Each of these individual types may behave in different ways and with different strengths of behaviour. Such ways are described below:-

BEHAVIOUR

HIGHLY NEGATIVE BEHAVIOUR	MILDLY NEGATIVE BEHAVIOUR	NEUTRAL BEHAVIOUR	MILDLY POSITIVE BEHAVIOUR	HIGHLY POSITIVE BEHAVIOUR
-2	-1	0	-1	+2

where

POSITIVE BEHAVIOUR = constructive, supportive behaviour;

NEGATIVE BEHAVIOUR = disruptive, antagonistic behaviour;

NEUTRAL BEHAVIOUR = indifferent, middle-of-the-road behaviour.

CONTINUED ON NEXT PAGE

PLEASE READ THE NOTES OPPOSITE BEFORE ANSWERING

How do you think the types of individuals described opposite would behave, in general, in the part of the organisation for which you work? Assume that such people would be manual/clerical, and in non-supervisory jobs.

PUT A CIRCLE ROUND THE POINT ON THE SCALE WHICH BEST REPRESENTS YOUR OPINION.

TREAT EACH SCALE AS A VARIABLE FROM ONE EXTREME TO THE OTHER.

STRENGTH OF BEHAVIOUR

TYPE OF INDIVIDUAL	HIGHLY NEGATIVE BEHAVIOUR	MILDLY NEGATIVE BEHAVIOUR	NEUTRAL BEHAVIOUR	MILDLY POSITIVE BEHAVIOUR	HIGHLY POSITIVE BEHAVIOUR
INSTRUMENTAL (I)	-2	-1	0	+1	+2
RELATIONAL (R)	-2	-1	0	+1	+2
PERSONAL (P)	-2	-1	0	+1	+2
Mainly I + R	-2	-1	0	+1	+2
Mainly I + P	-2	-1	0	+1	+2
Mainly R + P	-2	-1	0	+1	+2

3. In question 1, nine organisational factors were referred to which may well have different degrees of influence on employee behaviour in your organisation. Please consider how important you feel each factor is in influencing behaviour - as defined on page 4 - and place them in a rank order of importance by writing them against the numbers below using the abbreviation shown on page 2. For example, if you consider conditions of work the most important, write this against position No. 1, and so on until all nine factors have been assigned a rank position.

	POSITION	NAME OF ORGANISATION FACTOR
MOST IMPORTANT	1	_____
	2	_____
	3	_____
	4	_____
	5	_____
	6	_____
	7	_____
	8	_____
LEAST IMPORTANT	9	_____

Please continue.

4. Each of these nine organisational factors may influence behaviour in one of three ways:

1. DIRECTLY - i.e. they may apply constraints on actual behaviour

2. INDIRECTLY - i.e. they may act as incentives or inducements to behave in a particular way

3. DIRECTLY & INDIRECTLY - i.e. they may <u>both</u> (1) apply constraints on, and (2) act as inducements for, behaviour

How do you think each factor affects behaviour?

Would it be DIRECT, INDIRECT, or both DIRECT & INDIRECT?

Please put a tick in the box which best represents your view.

	Do you think the influence on behaviour is:		
	DIRECT	INDIRECT	BOTH DIRECT & INDIRECT
Conditions of Work			
Work Group			
Incentive & Reward System			
Technology			
Organisation Objectives			
Structure			
Management			
Environment			
Tasks			

Please continue.

5. In what way do you think most manual/clerical non-supervisory employees in your part of the organisation view work? Please circle one of the following statement numbers in answer to this question. If none of the statements seem to you to be adequate, please add your own description in the space provided and circle number 7.

MOST EMPLOYEES IN MY PART OF THE ORGANISATION VIEW WORK:

(Circle ONE statement number only, please)

solely as a means of earning high pay 1
as a means of making money and friends 2
as a way of making friends and companions 3
as a way of achieving personal satisfaction and the respect and friendship of fellow employees 4
as an interesting and satisfying activity 5
as something that has to be done to earn money but which can be personally satisfying 6
OTHER (please state) _____
_____ 7

6. Finally, would you please complete the following:-
(Remember this form will be treated in strict confidence)

(a) Name of the Organisation you work for _____

(b) Type of activity (e.g. product, service) your Organisation is engaged in) _____

(c) Your job (title plus brief description) _____

(d) Length of time in current job _____ (e) Age _____

(f) Whether any formal management training received/being received YES/NO

MANY THANKS FOR YOUR HELP. PLEASE RETURN YOUR COMPLETED FORM AS ADVISED.

PORTSMOUTH POLYTECHNIC

SCHOOL OF MANAGEMENT STUDIES

DETERMINANTS OF BEHAVIOUR IN ORGANISATIONS

During the past year I have been collecting data on the way in which managers perceive the effects of certain factors on behaviour in organisations. I am hoping to be able to compare these perceptions with the views of experienced academics and researchers such as yourself.

If you are able to spare some time I would very much welcome and appreciate your help by completing the very brief questionnaire which follows. This contains some admittedly crude measures but they serve the purpose of obtaining rough comparisons between sub-groups at the level of data I require.

In order to be able to detect differences of view amongst the sample I would appreciate it if you would also complete the section at the bottom of this letter and return it as attached with the questionnaire. It is not intended that your name or identity be coupled with your expressed views - if this should be desirable, your written consent will be sought, and no material published without it.

I do hope you may be able to help me, and look forward to receiving your reply at your earliest convenience.

Yours sincerely,

R.D. BENNETT
Senior Lecturer

N.B. Would you please state

1. TITLE AND NAME _____
2. POSITION _____
3. PROFESSIONAL ADDRESS _____

School of Management Studies,
Portsmouth Polytechnic,
King Charles Street,
PORTSMOUTH, PO1 2ER,
Hants.

Tel No. Portsmouth 815814

PLEASE READ THE FOLLOWING DEFINITIONS BEFORE ANSWERING THE QUESTION.

1. The following definitions are for factors most frequently cited in the literature as having an effect or influence on behaviour in organisations:

CONDITIONS OF WORK (C.W.)	-	the physical environment (heating, lighting, cleanliness, ventilation, etc.) in which the individual works.
WORK GROUP (W.G.)	-	those people with whom the individual most frequently associates during his working hours.
INCENTIVE & REWARD SYSTEM (I.R.S.)	-	the way in which financial rewards are offered and made.
TECHNOLOGY (TECH.)	-	the state of knowledge, methods, procedures, technical operations used for producing goods and services, and determining the nature of the job or work performed.
ORGANISATION OBJECTIVES (O)	-	the desired states of affairs the organisation hopes to achieve.
MANAGEMENT (M)	-	the process whereby orders are given, tasks allocated and work controlled in order that organisational objectives and purposes can be achieved through the effective and efficient use of resources.
STRUCTURE (S)	-	the arrangement of activities and authority within the organisation into a meaningful system for performing work.
ENVIRONMENT (E)	-	the forces of external systems (such as economic, political, social, educational, market, and cultural pressures - including trade unions and other interest groups) acting upon the organisation, and the people who work within it.
TASKS (T)	-	the work undertaken by the individual as required by his superior in order to help achieve the organisation's objectives.

CONTINUED ON NEXT PAGE

PLEASE READ THE NOTES OPPOSITE BEFORE ANSWERING

1. (cont) Please consider how important you feel each factor is in influencing behaviour and place them in a rank order of importance by writing them against the numbers below using the abbreviation shown on page 2. For example, if you consider conditions of work the most important, write this against position No. 1, and so on until all nine factors have been assigned a rank position.

	POSITION	NAME OF ORGANISATIONAL FACTOR
MOST IMPORTANT	1	_____
	2	_____
	3	_____
	4	_____
	5	_____
	6	_____
	7	_____
	8	_____
LEAST IMPORTANT	9	_____

2. If you feel that other factors should be added to the list of nine mentioned in question 1, please state and describe them briefly below:

PLEASE CONTINUE

3. During the next 5 - 10 years certain of the factors in sections 1 & 2 may become the focus of academic and research attention, and of critical importance, or decline from current attention (if any is given) and importance. Would you please state which factors (if any) you feel will come into those categories?

(a) Factors likely to be of critical importance in 5 - 10 years.

(b) Factors likely to be of no importance, or declining importance, in 5 - 10 years.

4. Finally, if you have any other comments or views you wish to express on the topic of determinants of organisational behaviour, please do so below - they will be most welcome.

Many thanks indeed for your help and for giving of your time. Please return this questionnaire in the envelope provided.

PORTSMOUTH POLYTECHNIC

SCHOOL OF MANAGEMENT STUDIES

DETERMINANTS OF ORGANISATIONAL BEHAVIOUR (2)

Thank you so much for attempting to complete, and returning, the previous questionnaire which sought your views on the importance of various factors in determining behaviour in organisations without any specific referent or datum for ranking. The difficulty in doing this has been indicated in replies, confirming my initial thoughts at the time of considering the nature of organisational behaviour prior to designing the questionnaire.

Having now gained your reactions to the feasibility of assessing the importance of these factors on a generalised basis - I hope in not too underhand a manner - would it be possible for you to consider the same factors now against some specific referents - namely, three stereotype jobs/occupations (manual, professional, and executive)? I realise this is yet another impositionoon your time, and will understand should you refuse this second request. Your help so far has been of great value to my work, and I trust it might be possible for you to further contribute to it.

I look forward to hearing from you.

Yours sincerely,

R.D. BENNETT
Senior Lecturer

N.B. Would you please state

1. TITLE AND NAME _____
2. POSITION _____
3. PROFESSIONAL _____
   ADDRESS _____
   _____
   _____

School of Management Studies,
Portsmouth Polytechnic,
King Charles Street,
PORTSMOUTH, PO1 2ER,
Hants.

Tel. No.: Portsmouth 815814

PLEASE READ THE FOLLOWING DEFINITIONS BEFORE ANSWERING THE QUESTION.

1. The following definitions are for factors most frequently cited in the literature as having an effect or influence on behaviour in organisations:

CONDITIONS OF WORK (C.W.)	-	the physical environment (heating, lighting, cleanliness, ventilation, etc.) in which the individual works.
WORK GROUP (W.G.)	-	those people with whom the individual most frequently associates during his working hours.
INCENTIVE & REWARD SYSTEM (I.R.S.)	-	the way in which financial rewards are offered and made.
TECHNOLOGY (TECH.)	-	the state of knowledge, methods, procedures, technical operations used for producing goods and services, and determining the nature of the job or work performed.
ORGANISATION OBJECTIVES (O)	-	the desired states of affairs the organisation hopes to achieve.
MANAGEMENT (M)	-	the process whereby orders are given, tasks allocated and work controlled in order that organisational objectives and purposes can be achieved through the effective and efficient use of resources.
STRUCTURE (S)	-	the arrangement of activities and authority within the organisation into a meaningful system for performing work.
ENVIRONMENT (E)	-	the forces of external systems (such as economic, political, social, educational, market, and cultural pressures - including trade unions and other interest groups) acting upon the organisation, and the people who work within it.
TASKS (T)	-	the work undertaken by the individual as required by his superior in order to help achieve the organisation's objectives.

CONTINUED ON NEXT PAGE

PLEASE READ THE NOTES OPPOSITE BEFORE ANSWERING

1. (cont) Please consider how important you feel each factor is in influencing the behaviour of people in the specified job types and place them in a rank order of importance by writing them against the numbers below using the abbreviation shown on page 2. For example, if you consider conditions of work the most important, write this against position No. 1, and so on until all nine factors have been assigned a rank position. Ignore, if possible, variations which might occur as a result of differing situations.

The job types to be considered are as follows:

MANUAL - those jobs requiring mainly physical/motor skills (e.g. semi-skilled shop floor worker).

PROFESSIONAL - those jobs requiring a high knowledge base and extensive training and education (e.g. accountants).

EXECUTIVE - those jobs requiring considerable decision-making skills and a knowledge base (e.g. senior manager or director of a company).

POSITION		NAME OF ORGANISATIONAL FACTOR		
		MANUAL	PROFESSIONAL	EXECUTIVE
MOST IMPORTANT	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
LEAST IMPORTANT	9			

MANY THANKS FOR YOUR HELP AND FOR GIVING YOUR TIME.

PLEASE RETURN IN ENVELOPE SUPPLIED.

Project Four:

Proposed Questionnaire for Main Longitudinal Study.

(See Text of Chapter Seven for Criticism)

PORTSMOUTH POLYTECHNIC

SCHOOL OF MANAGEMENT STUDIES

PEOPLE AND JOBS : A SURVEY

SECTION 1

Would you please state the following:-

(1) NAME (Please Print)

SURNAME .....

CHRISTIAN NAMES .....

(2) PRESENT ADDRESS

.....

.....

.....

(3) AGE (Please circle appropriate range)

16 - 20; 21 - 30; 31 - 40; 41 - 50; 51 - 60; 60+

(4) WHAT IS YOUR CURRENT JOB?

JOB TITLE .....

BRIEF DESCRIPTION .....

.....

LENGTH OF TIME IN IT .....(MONTHS OR YEARS)

(5) WHAT ARE THE REASONS FOR LEAVING IT? (BE HONEST)

.....

.....

.....

(6) WHAT IS IT ABOUT THIS NEW JOB, OR THE COMPANY, THAT YOU LIKE THE BEST? (AGAIN, PLEASE BE HONEST)

.....

.....

.....

.....

76 730216 1600 03 01

(~~18~~ 7) We all know that money is important in our kind of society and that it is almost impossible to live without it. Money, of course, enables us to buy those things (e.g. food, a home) that we need in life, but it might also do other things for us (e.g. make us independent). What I would like you to do is to think of as many things that money might do for you, or help you to do, and write them in the space provided below.

THANK YOU FOR YOUR HELP .... PLEASE CONTINUE TO THE NEXT SECTION

THIS IS NOT A TEST ... I AM INTERESTED IN YOUR VIEWS AND OPINIONS. THERE ARE NO RIGHT OR WRONG ANSWERS.

SECTION 1

Please read carefully each of the statements printed below on the left hand side of the page and consider how desirable they are to you, that is how much you may or may not want the things they describe. Then read each of the possible answers given opposite the statement and put a circle round the answer that best indicates how you feel.
The example given below illustrates how to fill in the questions in this section.

EXAMPLE

How desirable is it that you:					
Are able to watch T.V. in the evenings?	EXTREMELY DESIRABLE	(DESIRABLE)	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE

If you had put a circle round the words as shown in the example, this would mean that you thought it was desirable that you were able to watch T.V. in the evenings. You might, of course, think it extremely undesirable, in which case you would put a circle round the words 'extremely undesirable'. Each of the questions in this section can be answered in a similar way.

How desirable is it that you:

Are left alone to get on with your job?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Are able to use your own common sense?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Are sure of having a job in difficult times?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Have friends who would help you out when you're in a spot?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE

How desirable is it that you:

Have a job that doesn't require too much thought?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Earn more money than you get now?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Get the credit for doing a good job?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Work with friendly people?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Could throw in your job if you wanted to?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Don't have too many responsibilities to worry about?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Keep yourself to yourself?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Save and invest some money?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Have an interesting job of work to do?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Earn just enough money to get by?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Live next door to friendly people?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE

THANK YOU FOR YOUR HELP ..... PLEASE CONTINUE

SECTION 2

The statements in this section are concerned with the kinds of things that affect your work and those things that might seem to you to be important in any organisation you might work for. Again, read each statement separately and ring round the words you think best represent the way you feel.

REMEMBER - THIS IS NOT A TEST

I don't care what sort of payment system is in operation, so long as I earn enough money.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I wouldn't work for any old organisation.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I like to work for people who take care of you and are concerned about your welfare.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I think experience should be rewarded more than anything else.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
If my friends told me they thought I was earning too much money, I'd get really worried.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I like to be able to work at my own speed.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I think any method of payment should allow a man to increase his earnings if he works harder.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
As long as I can earn as much as I like I don't care who I work for.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I'd like to see people paid more when they take on more responsibility.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE

I'd rather take a job with less pay than work for a supervisor who's always on your back.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I think big organisations are too impersonal.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I don't mind how my pay is determined as long as I can get on with my work in my own way.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I reckon everyone should be paid the same unless one man is more skilled than another.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I'd rather work harder and have some time off than work lots of over-time just for the money.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I don't think people should be paid bonuses; they're either worth what they're paid or they're not.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I like working for people who know what they're doing and can tell you what you're supposed to do.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
All I ask for in my job is for management to show an interest in what I'm doing.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
As long as I get enough money, I don't care how my pay is determined.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I'd like to see people paid extra for being loyal and co-operative as well as for working harder.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE

I like to feel I have some control over the amount of money I earn.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I wouldn't like to rely on the efforts of other people for my pay.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I think people with higher status should get higher pay.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I prefer working for small organisations.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I'd like to have a say in how my pay is determined.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I don't mind what sort of work I do.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I think older people should be paid more than younger people even when doing the same work.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I think all managements should involve their workers more in running the organisation.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
As long as I've got interesting work to do I don't care where I work.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY DISAGREE

THANK YOU FOR YOUR HELP ..... PLEASE CONTINUE

SECTION 3

The statements printed in this section are similar to those you have just finished looking at in previous sections. But in this section I would like you to read each statement and consider how much you agree or disagree with it with respect to your current job. As before, put a circle round the words which you think best represent how much you feel you agree or disagree with each statement.

REMEMBER - THINK OF YOUR CURRENT JOB (OR LAST IMMEDIATE JOB)

The people I work with are pretty friendly really.	STRONGLY DISAGREE	AGREE	DON'T KNOW	AGREE	STRONGLY AGREE
My job doesn't really require me to think very much.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
The pay I get is pretty good really compared with other people I know.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
When I do a good job I usually get the credit for it.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I don't have to work if I don't want to.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
My friends usually give me a hand if I get into a spot.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
The people I live next door to aren't very friendly really.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
What I like about my job is not having too much to worry about.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
My job is pretty secure really.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
I quite regularly put some of my pay into savings.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE

I keep myself to myself whenever I can.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I suppose my job is pretty interesting really.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE
Mostly I earn just enough money to get by.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
On the whole I'm left alone to get on with my job.	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
I am usually able to use my own common sense in doing things.	STRONGLY DISAGREE	DISAGREE	DON'T KNOW	AGREE	STRONGLY AGREE

THANKS VERY MUCH FOR YOUR HELP - IT IS MUCH APPRECIATED.

SECTION 4

This section is concerned with the kind of work you do. It contains a number of partly completed sentences followed by four statements which can be used to complete the sentence. Put a circle round the statement you feel best represents your work when read with the incomplete sentence.

Here is an example. Suppose your work involved a lot of travelling and that you were asked to complete the following:-

My work involves	a great deal of travelling; some travelling; a little travelling; no travelling at all.

You would put a circle round the words, 'a great deal of travelling' as follows:-

My work involves	a great deal of travelling; some travelling; a little travelling; no travelling at all.

Now please complete the following sentences.

(1) My work is	very difficult to do; fairly difficult to do; a little difficult to do; not difficult at all.
(2) My work requires	very close supervision; some supervision; a little supervision; no supervision.
(3) My work demands	a lot of careful attention; some careful attention; a little careful attention; no careful attention.

(4) In my work I use	a lot of equipment; some equipment; a small amount of equipment; no equipment.
(If you have circled 'no equipment', please miss out (5) (6) and go straight to (7)	
(5) The equipment I use is	very complicated; fairly complicated; somewhat complicated; not complicated at all.
(6) On the equipment I use I	do all my own maintenance; do some maintenance; do urgent maintenance only; depend on other people for maintenance.
(7) My work requires me to	plan how it is done; do some planning now and then; suggest how it could be planned; depend on others for planning.
(8) In my work I have to	talk to a lot of other people; talk to some people; talk to few people; work on my own.
(9) My work requires	a lot of training; some training; a little training; no training.
(10) The work I do is	very tiring; tiring to some extent; a little tiring; not tiring at all.
(11) My work is	very repetitive; somewhat repetitive; a little repetitive; not repetitive at all.

(12)	The pace at which I work is	completely under my control; mostly under my control; a little under my control; not under my control.
(13)	My work requires	continuous high effort; high effort sometimes; little high effort; no high effort.
(14)	To get my work done I depend on	a lot of other workers; some other workers; few other workers; no-one else.
(15)	My work is	extremely dirty; fairly dirty; a little dirty; not dirty at all.
(16)	My work problems involve	a lot of contact with other departments; contact with some departments; contact with a few departments; no contact with other departments.
(17)	My work is	often dangerous; sometimes dangerous; rarely dangerous; not dangerous at all.
(18)	My work requires me to use	a lot of different technical skills; some different technical skills; few different technical skills; no technical skills.
(19)	In my work I	do the same thing every day; do some different things each day; do many different things each day; never do the same things twice.

(20)	My work involves using	a lot of thinking ability; some thinking ability; little thinking ability; no thinking ability.
(21)	I consider my work to be	very important to society; of some importance to society; of little importance to society; of no importance to society.

ONLY ONE MORE SECTION TO GO - KEEP GOING

SECTION 5

Although we all want different things from life, some of them are more frequently obtainable than others.

Read the list of statements printed on the left hand side of the table below and consider how frequently you expect to have opportunities to achieve them. Then place a tick in the box under the heading which best indicates how often you expect to achieve what each statement refers to.

HOW FREQUENTLY DO YOU EXPECT TO HAVE THESE OPPORTUNITIES: ↓	HEADINGS				
	NOT AT ALL	VERY SELDOM	ON SOME OCCASS-IONS	ON MOST OCCAS-SIONS	ALL THE TIME
To be given more responsibility at work					
To earn more money					
To have a secure job					
To be with people you like					
To have interesting work to do					
To save some money					
To get credit for doing a good job					
To have friends who will stand by you					
To work with friendly people					

YOURSELF

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view yourself. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

There are no more questions to answer. Thank you very much indeed for your help.

Would you now please make sure you have answered all the questions (remember of course, that this questionnaire will be seen only by myself). Having done this, please put the questionnaire in the envelope provided, seal down, and return direct to me.

Thanks again for your help.

R. D. BENNETT

76 730216 1600 03 16

Project Four:

Questionnaire Used in

Complementary Study to Main Study

PORTSMOUTH POLYTECHNIC

SCHOOL OF MANAGEMENT STUDIES

MANAGER'S EMPLOYEE PROFILE

1. GENERAL INFORMATION

Would you please state the following:-

1.1 JOB (TITLE & BRIEF DESCRIPTION): _____

_____

1.2 LENGTH IN JOB: _____

1.3 LENGTH WITH COMPANY: _____

1.4 AGE: _____

1.5 NUMBER OF PREVIOUS COMPANIES WORKED FOR: _____

2. EMPLOYEE PROFILE

Attached you will find two identical forms but with different headings. One is concerned with the type of employee you think the Company should be employing (ideal employee), whilst the other is intended to reflect the sort of employee the Company is employing (current employee). Naturally, you will feel that your responses would vary for each person of a given type, but think in general terms rather than specific terms. Put a tick on each of the scales in the place you feel best illustrates your general feelings i.e. the extent to which one of the two words describes these feelings. If neither word is useful, put your tick in the middle of the scale.

THE IDEAL EMPLOYEE

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view this employee. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

THE CURRENT EMPLOYEE

Each of the scales below contain pairs of opposite words -

Please put a tick on each of the scales in the place which best represents how you view this employee. Please be honest - there are no right or wrong answers.

1.	ALOOF	FRIENDLY
2.	SECURE	VULNERABLE
3.	IDEALISTIC	OPPORTUNISTIC
4.	DEPENDENT	INDEPENDENT
5.	RIGID	FLEXIBLE
6.	TOLERANT	INTOLERANT
7.	DREARY	CHEERFUL
8.	SELF-LESS	GREEDY
9.	CREATIVE	UNIMAGINATIVE
10.	EGOTISTIC	ALTRUISTIC
11.	RESTRICTIVE	PERMISSIVE
12.	CAUTIOUS	IMPETUOUS
13.	EMOTIONAL	RATIONAL
14.	DISTANT	CLOSE
15.	AGGRESSIVE	DEFENSIVE
16.	WARM	COOL
17.	DEMOCRATIC	AUTOCRATIC
18.	ACCEPTING	INQUISITIVE
19.	TRADITIONAL	PROGRESSIVE
20.	REJECTING	WELCOMING
21.	CO-OPERATIVE	COMPETITIVE
22.	CONFORMING	DEVIATING
23.	INFLUENTIAL	ORDINARY

THANKS VERY MUCH FOR YOUR HELP.

3. INFLUENCES ON EMPLOYEES AT WORK

Many factors existing in your Company will influence the way in which an employee views his job and working situation; different factors/ influences perhaps applying at different points of time in the employee's length of stay with the Company. Would you please list below what you think are the factors influencing employees at various stages of their time with your Company. (The factors/influences may be connected with any aspect of working life in the Company.)

INFLUENCES ON AN EMPLOYEE:

IMMEDIATELY starting with the Company	SIX MONTHS after starting with the Company	FIVE YEARS after starting with the Company	On deciding to LEAVE the Company

Many thanks indeed for co-operating in this research. Your help is much appreciated.

Ancilliary Data Related to

Projects 1, 2 & 3

TABLE 6.12

RAW DATA FOR SPLIT-HALF RELIABILITY TESTS -
PAIRED COMPARISONS MEASURE

SUBJECT	1ST HALF			2ND HALF			SUBJECT	1ST HALF			2ND HALF		
	I_1	R_1	P_1	I_2	R_2	P_2		I_1	R_1	P_1	I_2	R_2	P_2
1	4	0	2	2	0	4	21	1	1	4	2	0	4
2	3	0	3	2	2	2	22	1	2	3	1	2	3
3	0	3	3	0	2	4	23	0	2	4	0	2	4
4	0	2	4	0	2	4	24	2	2	3	2	2	2
5	1	1	4	2	0	4	25	1	1	4	1	1	4
6	1	3	2	3	1	2	26	0	2	4	0	3	3
7	0	2	4	0	2	4	27	0	3	2	1	2	4
8	1	1	4	1	1	4	28	2	0	4	2	0	4
9	2	1	3	3	0	3	29	0	2	4	2	2	2
10	2	2	2	0	3	3	30	2	1	3	4	0	2
11	2	1	3	0	2	4	31	2	0	4	1	1	4
12	0	2	4	0	3	3	32	1	1	4	0	2	4
13	1	3	2	4	1	1	33	1	1	4	2	0	4
14	2	0	4	2	0	4	34	2	0	4	0	2	4
15	0	3	3	0	3	3	35	1	1	4	2	2	2
16	1	1	4	1	1	4	36	0	2	4	2	1	3
17	0	2	4	0	2	4	37	0	2	4	0	3	3
18	1	2	3	2	2	2	38	4	0	2	3	0	3
19	0	4	2	0	4	2	39	4	0	2	2	0	4
20	1	1	4	1	1	4	-	-	-	-	-	-	-

INTERNAL CONSISTENCY OF RATING SCALES - 'D' COMPONENT ONLY

(N=39)

The following tables show the results of the analysis of the Rating Scale measure of orientation for internal consistency. This has been achieved by comparing the scale value of one statement (e.g. A) with that of another purporting to measure the same orientation (e.g. B). If those were perfectly consistent, all members of the sample would have responded in such a way as to yield data where only the diagonals of the following tables would have figures in them i.e. 1.1, 2.2, 3.3, 4.4, and 5.5. The letters refer to statements in the questionnaire, whilst the numbers 1 to 5 represent the possible scale positions.

A list of statements, their type (i.e. what they measure and the nature of the statement positive and negative) and their identification is given.

The correlational figure (C) is derived from the Contingency Coefficient (see Siegel 1956) and boosted to unity for comparative purposes. The maximum value of the contingency coefficient (c.c.) was calculated, yielding

$$C = \frac{\text{c.c. (actual)}}{\text{c.c. (max.)}}$$

IDENTIFICATION	STATEMENT	TYPE
A	Are sure of having a job in difficult times?	I(+)
B	Earn more money than you get now?	I(+)
C	Save and invest some money	I(+)
D	Could throw in your job in you wanted to?	I(-)
E	Earn just enough money to get by?	I(-)
F	Have friends who would help you out when you're in a spot?	R(+)
G	Work with friendly people?	R(+)
H	Live next door to friendly people	R(+)
I	Are left alone to get on with your job?	R(-)
J	Keep yourself to yourself?	R(-)
K	Are able to use your own common sense?	P(+)
L	Get the credit for doing a good job	P(+)
M	Have an interesting job of work to do?	P(+)
N	Have a job that doesn't require too much thought?	P(-)
O	Don't have too many responsibilities to worry about?	P(-)

INSTRUMENTAL

B

A \ B	1	2	3	4	5
1					
2					
3				2	2
4			1	17	4
5	1		1	10	1

TABLE 6.13

C = 0.947 p <<0.001

C

A \ C	1	2	3	4	5
1					
2					
3			1	3	
4				22	1
5	2			8	2

TABLE 6.14

C = 0.965 p <<0.001

C

B \ C	1	2	3	4	5
1	1				
2					
3				2	
4				27	2
5	1		1	4	1

TABLE 6.15

C = 0.98 p <<0.001

E

D \ E	1	2	3	4	5
1	1	3	1		1
2	1	2		8	6
3	2	2	2	3	1
4		1		3	
5				2	

TABLE 6.16

C = 0.785 p <0.001

RELATIONAL

G

F	1	2	3	4	5
1	.				1
2				1	1
3				3	
4			1	26	
5				4	2

TABLE 6.17

C = 0.975 p<<0.001

H

F	1	2	3	4	5
1				1	
2				1	1
3			1	2	
4		1	3	23	
5				5	1

TABLE 6.18

C = 0.965 p <<0.001

H

G	1	2	3	4	5
1					
2					
3				1	
4		1	4	28	1
5				3	1

TABLE 6.19

C = 0.98 p <<0.001

J

I	1	2	3	4	5
1	2	2	1	5	2
2		1	3	16	2
3					
4		1		3	1
5					

TABLE 6.20

C = 0.745 p<0.001

PERSONAL

L

K	1	2	3	4	5
1				2	1
2					
3					
4	1			12	4
5		1	1	11	6

C = 0.88 $p \ll 0.001$

TABLE 6.21

M

K	1	2	3	4	5
1					3
2					
3					
4				2	16
5				1	17

C = 0.96 $p \ll 0.001$

TABLE 6.22

L

M	1	2	3	4	5
1					1
2					1
3					1
4				4	20
5				2	10

C = 0.94 $p \ll 0.001$

TABLE 6.23

O

N	1	2	3	4	5
1		1		1	
2					
3					
4		4	3	9	1
5		2	1	14	3

C = 0.92 $p \ll 0.001$

TABLE 6.24

FREQUENCIES WITH WHICH ORGANISATIONAL FACTORS ARE RELATED TO TYPE OF PAYMENT SYSTEMS (REF. FIG. 7.1)

FACTOR	SCALE VALUES 1	2	3	4	5	6	7	$\bar{X}$	S
OUTPUT RELATED SYSTEMS (N = 83)								TABLE 7.1.1	
M	2	20	29	2	18	11	1	3.62	1.49
S	2	10	17	9	19	22	4	4.39	1.55
E	1	6	6	19	18	28	5	4.83	1.38
CW	10	22	20	8	16	7	0	3.33	1.53
T	15	26	23	9	6	4	0	2.72	1.34
WG	3	18	25	14	14	8	1	3.56	1.40
TECH	1	7	6	8	16	28	17	5.20	1.55
O	5	15	17	8	22	11	5	3.98	1.64
STRAIGHT TIME SYSTEMS (N = 88)								TABLE 7.1.2	
M	5	16	22	7	22	15	1	3.84	1.58
S	1	11	15	16	15	25	5	4.46	1.55
E	1	7	15	16	21	23	5	4.57	1.44
CW	9	25	23	12	16	3	0	3.11	1.36
T	11	33	20	11	10	3	0	2.83	1.32
WG	4	19	26	16	9	10	4	3.60	1.54
TECH	0	2	6	10	20	30	20	5.48	1.27
O	8	10	8	10	20	24	8	4.46	1.82
MERIT RELATED SYSTEMS (N = 18)								TABLE 7.1.3	
M	3	3	2	2	5	3	0	3.67	1.76
S	0	7	2	4	1	1	3	3.78	1.84
E	0	1	1	4	4	8	0	4.94	1.15
CW	2	8	4	1	3	0	0	2.72	1.24
T	1	7	4	3	2	0	1	3.11	1.45
WG	3	3	5	1	5	1	0	3.28	1.56
TECH	1	0	3	1	5	5	3	5.00	1.60
O	2	2	5	0	3	5	1	4.06	1.08

TRUNCATED CORRELATION MATRICES (Decimal points omitted)

GENERAL SAMPLE (N = 189)

TABLE 7.7

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-577	270	-076	-021	-017	000	072	098	070	-043
S		-302	023	070	-141	-046	099	-128	-120	082
E			-249	-152	-165	-024	158	-007	143	-004
CW				180	216	016	-108	-088	-134	086
T					105	-250	-125	051	-157	-098
WG						044	-208	-036	-125	038
TECH							-024	035	066	003
O								052	262	063
IRS									139	-028
BEH										246

BY NATURE OF ROLE

MANAGERIAL (N = 41)

TABLE 7.8

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-440	341	-430	013	144	-122	202	178	360	-229
S		-295	-049	060	-214	-144	016	-107	-531	064
E			-195	-179	-096	034	136	148	048	-133
CW				157	220	-171	-091	-247	-149	067
T					-012	-249	-220	163	-143	-294
WG						-279	140	-286	-061	-004
TECH							-053	-044	281	-054
O								176	406	013
IRS									148	097
BEH										027

PROFESSIONAL - MANAGERIAL (N = 42)

TABLE 7.9

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-468	143	-105	052	-123	220	133	-013	-009	050
S		-282	287	114	-342	-334	274	-171	-078	-175
E			-152	-131	-041	068	138	154	073	083
CW				070	095	-127	160	-224	-133	-178
T					-107	-321	069	077	185	194
WG						204	-229	-003	-042	-094
TECH							067	-153	-316	-127
O								-140	020	031
IRS									195	057
BEH										663

PROFESSION: NON-MANAGERIAL (N = 89)

TABLE 7.10

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-619	182	120	082	-001	-019	-075	203	016	041
S		-226	-111	-009	-086	032	163	-197	-013	122
E			-290	-111	-211	-030	068	-094	267	056
CW				232	166	116	-166	-023	-142	160
T					256	-214	-139	-065	-259	-041
WG						175	-344	008	-203	043
TECH							-010	118	086	-066
O								135	353	174
IRS									090	-150
BEH										214

OTHER (N = 17)

TABLE 7.11

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-842	511	-220	-548	-156	093	206	-073	-003	-035
S		-588	214	479	029	170	-389	144	125	064
E			-249	-321	-335	-149	485	-039	146	102
CW				148	605	134	-346	079	-173	163
T					111	051	206	394	-302	-110
WG						031	-307	167	-131	178
TECH							-033	-029	-309	107
O								055	081	-180
IRS									166	-127
BEH										023

BY JOB TYPE

ENGINEERING (N = 44)

TABLE 7.12

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-457	163	056	039	012	171	-014	154	-269	-168
S		-234	-104	-045	-237	-267	207	-308	190	261
E			-275	-247	-080	045	306	186	108	-040
CW				134	121	-010	-059	-064	036	091
T					028	-356	-096	-196	-163	048
WG						-023	-045	001	-254	078
TECH							176	162	197	-117
O								-211	212	375
IRS									-014	-219
BEH										359

OPERATIONS (N = 25)

TABLE 7.13

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-385	467	-207	027	-237	-049	514	036	345	-352
S		-492	139	170	030	-014	-255	-464	-392	171
E			-432	016	-355	164	430	243	315	-597
CW				021	379	-132	-167	-367	-253	269
T					-098	-280	-015	161	-265	-279
WG						-248	-005	-307	-356	-094
TECH							-073	146	151	180
O								063	198	-402
IRS									098	069
BEH										060

ADMINISTRATION (N = 31)

TABLE 7.14

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-622	497	-253	-182	046	054	-084	-049	300	-105
S		-411	084	134	-206	-167	232	209	-351	149
E			-006	-294	-051	-168	-120	-223	113	048
CW				343	142	064	137	127	080	127
T					362	146	012	319	-094	-162
WG						148	-292	200	220	157
TECH							-171	106	020	-046
O								155	223	094
IRS									089	241
BEH										092

RESEARCH AND DEVELOPMENT (N = 27)

TABLE 7.15

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-404	-313	206	198	-044	-166	122	339	-153	116
S		-106	-045	-110	103	016	477	110	123	-012
E			-448	-164	035	-124	-113	-243	197	274
CW				348	230	-141	-200	-011	-365	-102
T					221	-580	-215	041	-300	106
WG						-066	-380	-251	-242	387
TECH							117	051	433	-168
O								341	519	091
IRS									161	-302
BEH										312

STAFF (N = 41)

TABLE 7.16

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-757	438	-334	-159	-263	-059	090	356	332	289
S		-345	146	106	028	026	000	-377	-279	-223
E			-171	-172	-323	-120	-080	048	134	187
CW				024	331	221	-123	-072	-311	-078
T					292	-167	-173	028	-163	-213
WG						307	-280	202	-228	-146
TECH							-009	096	039	040
O								151	260	-196
IRS									201	-108
BEH										265

OTHER (N = 21)

TABLE 7.17

VARIABLE	S	E	CW	T	WG	TECH	O	IRS	BEH	ORN
M	-715	242	195	131	318	-062	090	-453	-107	-121
S		-200	-010	214	-355	345	-354	181	-228	-040
E			-164	231	-324	-323	659	-183	104	307
CW				298	171	041	-322	-057	066	472
T					014	078	-336	-145	-105	051
WG						-221	-318	-168	208	-179
TECH							-278	-278	-231	-038
O								002	264	329
IRS									371	121
BEH										453

INCREASES IN M.R.S.Q. (Decimal points omitted)

BY NATURE OF ROLE

TABLE 7.18

	CATEGORY				
VARIABLE	MAN	PROF-M	PROF	OTHER	TOTAL
M	0190	0002	0010	0280	0030
S	2821	-	0006	1309	0272
E	0522	-	0593	0408	0007
CW	0019	0016	0007	0051	0153
T	0013	0003	0353	0824	0053
WG	0585	0040	0016	0161	0064
TECH	0209	0548	0034	0956	0021
O	1716	0025	1246	0125	0687
IRS	0038	0154	0070	0980	0105
ORN	0050	4402	0199	-	0529
TOTAL	6163	5190	2532	5095	1922
N=	41	42	89	17	189

BY JOB TYPE

TABLE 7.19

	CATEGORY					
VARIABLE	ENG	OP'S	ADMIN	R & D	STAFF	OTHER
M	0597	0045	0054	0352	1100	0065
S	0005	1540	1232	0291	0068	0046
E	0173	-	0042	0057	-	0135
CW	0089	0134	0088	0017	0357	0141
T	0013	0572	0234	0061	-	0008
WG	0800	1186	0570	0486	0080	1194
TECH	0563	0006	0004	1403	0056	0052
O	0007	0166	0982	2689	0535	0596
IRS	0018	0273	0097	0407	0159	1015
ORN	1290	0157	-	1149	0563	2050
TOTAL	3556	4080	3303	6911	2922	5302
N=	44	25	31	27	41	21

BY STAGE ON D.M.S. COURSE

TABLE 7.20

	CATEGORY					
VARIABLE	PRE-DMS	DMS 1	DMS 2	DMS 3	EX-DMS	NON-DMS
M	0143	0635	0129	0134	0382	0648
S	0095	0651	0073	0006	1421	0090
E	5258	0329	0182	0164	0003	0058
CW	0126	0199	0015	0240	1138	0036
T	0061	0025	0281	0772	0008	0365
WG	0550	0193	0047	0064	0017	0126
TECH	0410	0512	0006	0005	-	1966
O	-	0495	0043	2013	1389	2975
IRS	-	0172	0511	0484	0025	0039
ORN	0143	0180	0594	0191	1822	0133
TOTAL	6786	3392	1972	4073	6203	6437
N=	19	27	46	25	44	28

CONSTANTS AND COEFFICIENTS (Decimal points omitted)

BY NATURE OF ROLE

TABLE 7.21

	CATEGORY			
VARIABLE	MAN	PROF -MAN	PROF	OTHER
M	12	01	-03	28
S	-43	-	-03	69
E	-21	-	15	12
CW	-06	-03	-02	-09
T	03	-02	-11	-27
WG	-19	06	-04	09
TECH	11	-24	06	-26
O	31	03	14	08
IRS	-09	09	07	14
ORN	05	32	09	-
CONSTANT	4.83	3.23	2.21	0.46
N=	41	89	89	17

BY JOB TYPE

TABLE 7.22

	CATEGORY					
VARIABLE	ENG	OP'S	ADMIN	R & D	STAFF	OTHER
M	-19	06	09	-24	-03	-15
S	02	-27	-17	-14	-11	-21
E	12	-	-06	07	-	13
CW	08	-11	09	-03	-18	-04
T	-03	-06	-15	09	-	03
WG	-18	-16	19	-13	-09	28
TECH	25	01	-02	38	07	15
O	-02	06	21	23	14	06
IRS	03	-19	07	21	14	45
ORN	22	09	-	23	15	24
CONSTANT	1.63	5.41	3.17	0.54	3.04	0.30
N=	44	25	31	27	41	21

BY STAGE ON D.M.S. COURSE

TABLE 7.23

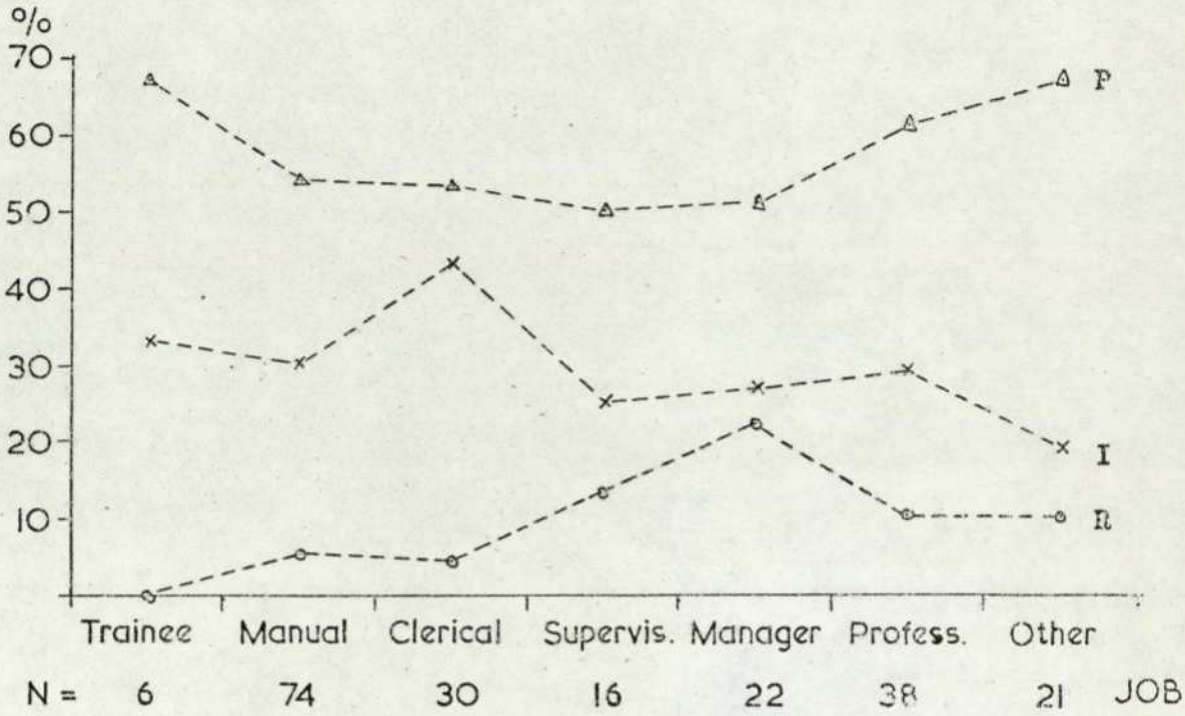
	CATEGORY					
VARIABLE	PRE-DMS	DMS 1	DMS 2	DMS 3	EX-DMS	NON-DMS
M	-10	-11	04	12	-19	-22
S	-11	-11	-08	-03	-36	07
E	49	35	-21	-18	01	12
CW	-19	14	03	-23	-29	06
T	09	05	-14	-18	02	15
WG	-27	15	-08	-08	03	-17
TECH	20	-13	-02	02	-	43
O	-	-08	06	35	28	19
IRS	-	19	16	-27	04	09
ORN	08	10	11	13	17	11
CONSTANT	2.31	1.66	4.37	4.31	4.75	-0.27
N=	19	27	46	25	44	28

DOMINANT ORIENTATIONS RELATED TO (Q6) FIG. 6.12

FIRST BROTHER'S JOB

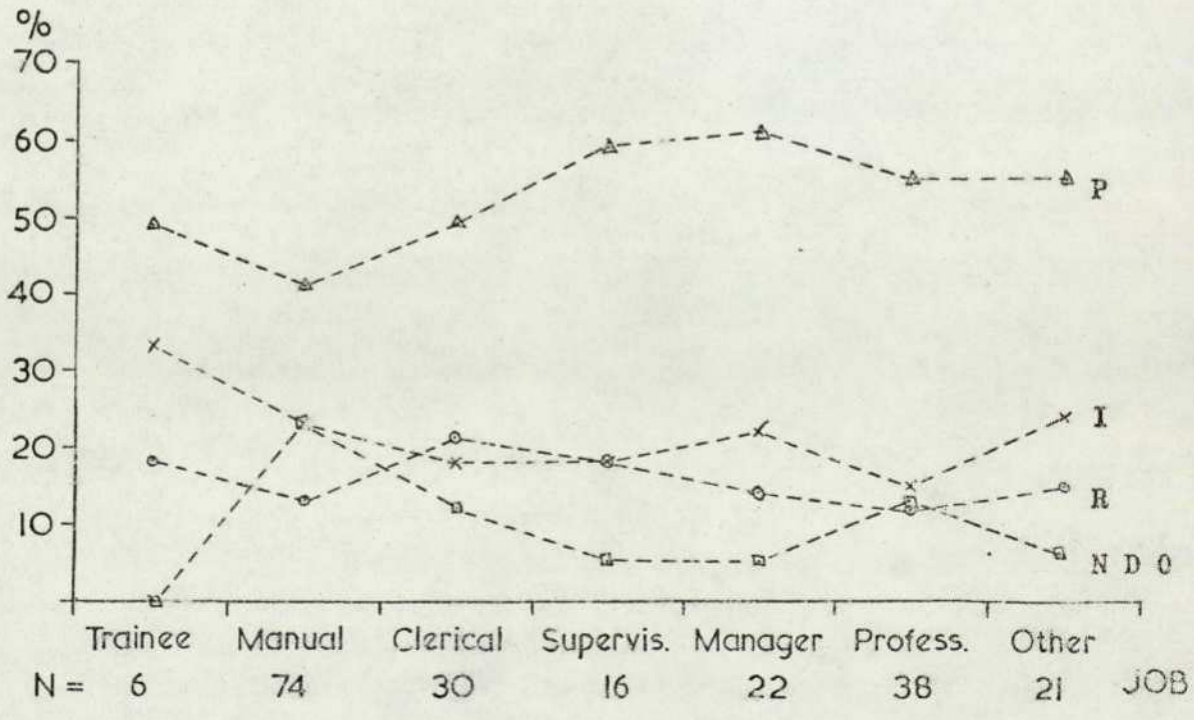
Q13 a -J.D.

$X^2 = 34$ $0.1 < P < 0.2$



Q29 b -P.C.

$X^2 = 19$ $P > 0.5$

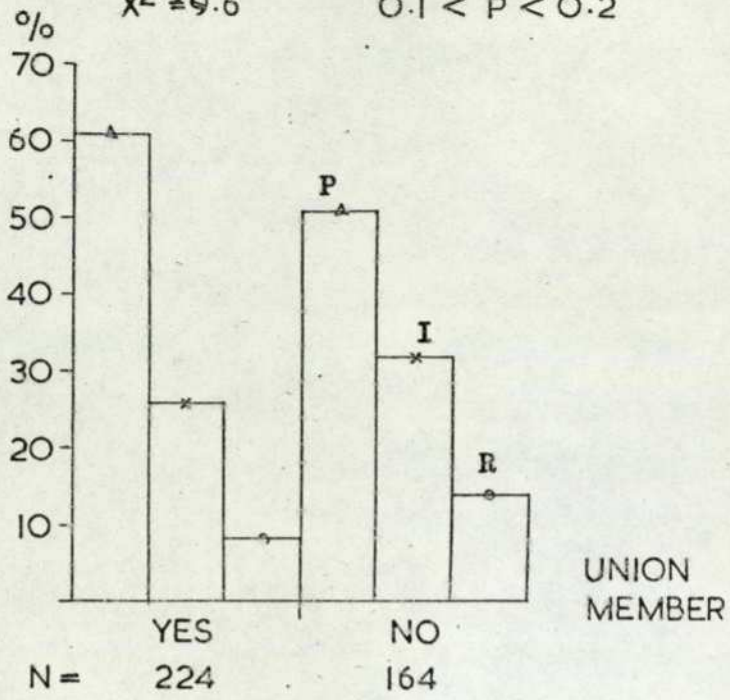


DOMINANT ORIENTATIONS RELATED TO (Q7) FIG. 6.13

UNION MEMBERSHIP

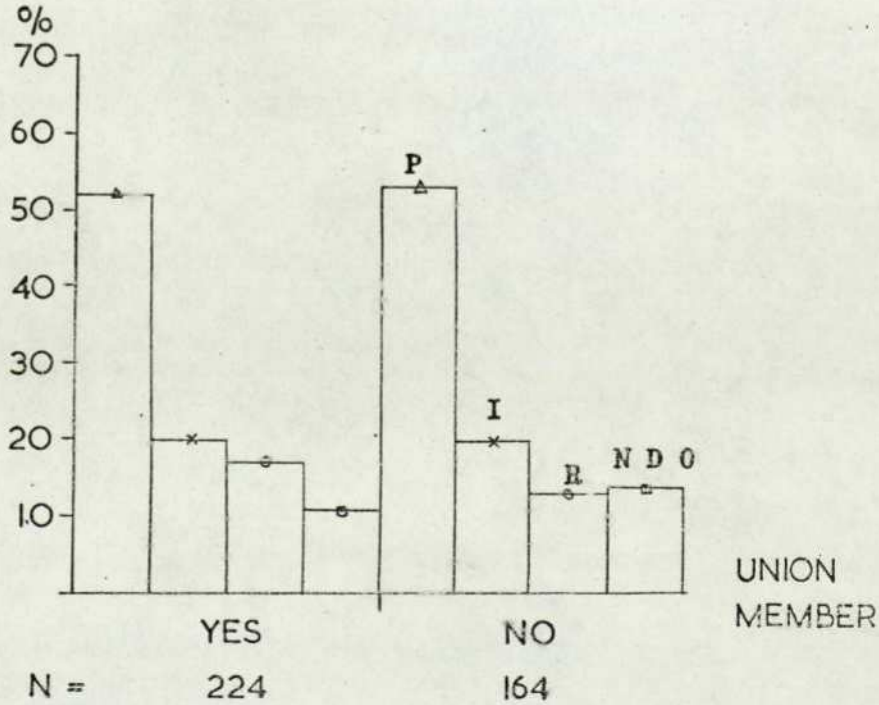
Q13 a – J.D.

$X^2 = 9.6$ $0.1 < P < 0.2$



Q29 b – P.C.

$X^2 = 3$ $P > 0.5$

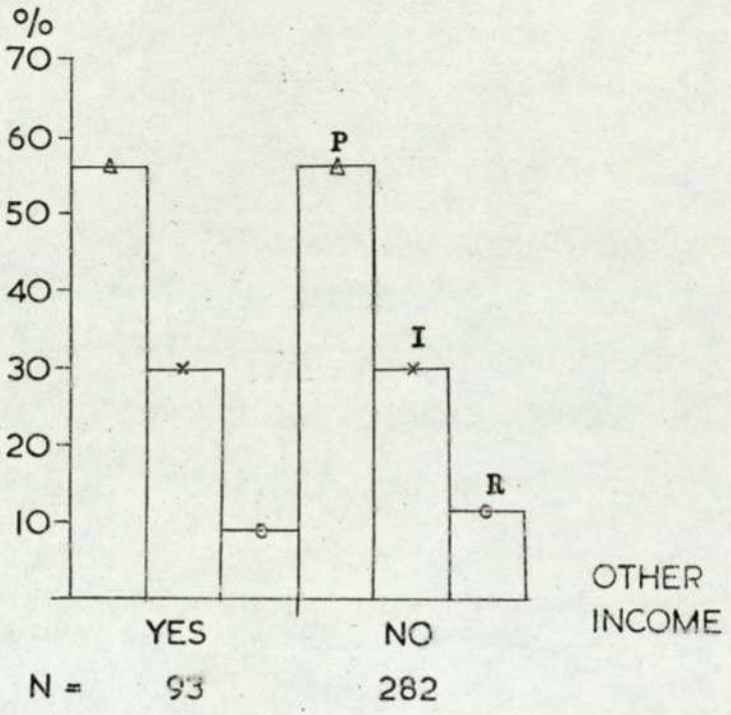


DOMINANT ORIENTATIONS RELATED TO (Q9) FIG. 6.14

OTHER SOURCES OF INCOME

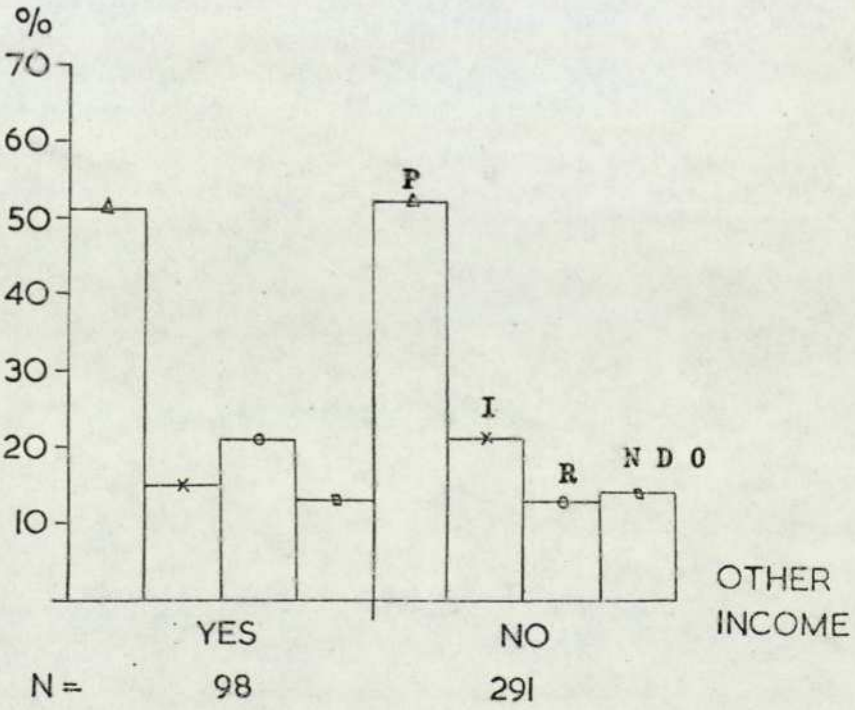
Q13 a-J.D.

$X^2 = 1$ $P > 0.5$



Q29 b-P.C.

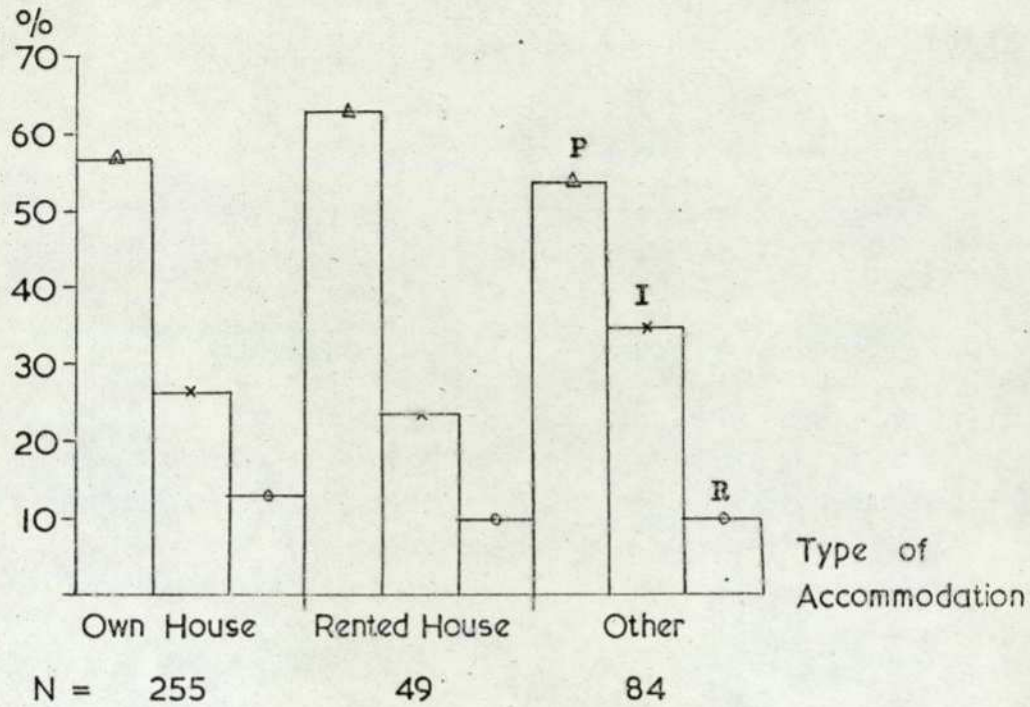
$X^2 = 5$ $0.1 < P < 0.2$



DOMINANT ORIENTATIONS RELATED TO LIVING ACCOMMODATION (Q14) FIG. 6.15

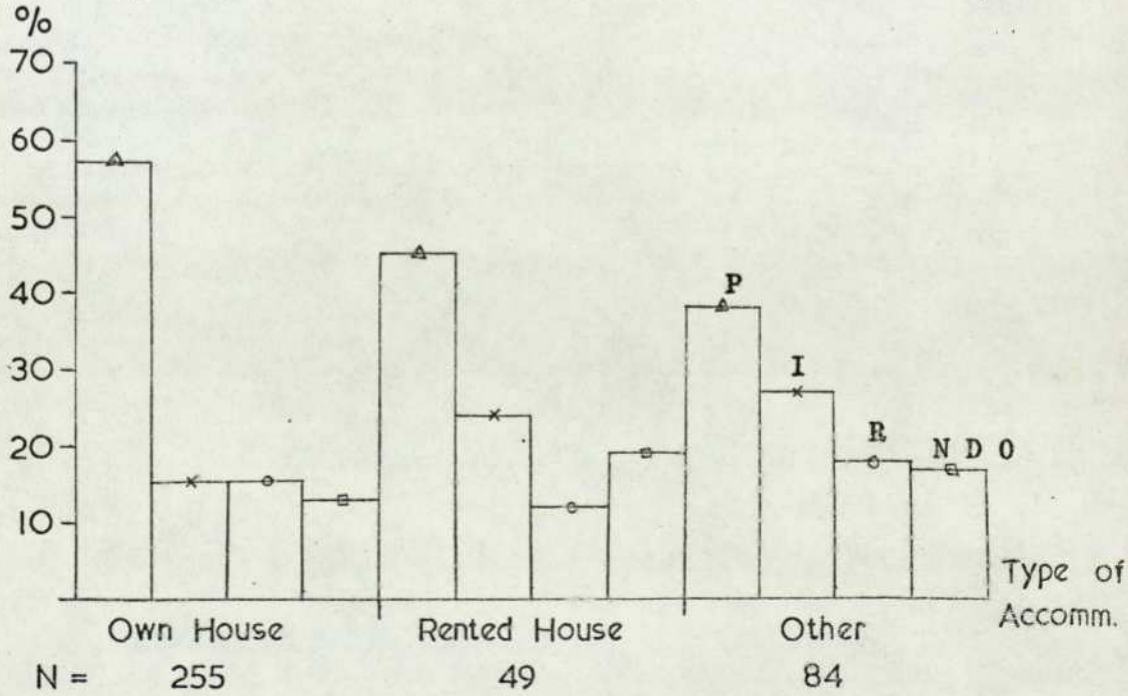
Q13 a - J.D.

$X^2 = 17$ $P > 0.5$



Q29 b - P.C.

$X^2 = 29$ $0.1 < P < 0.2$

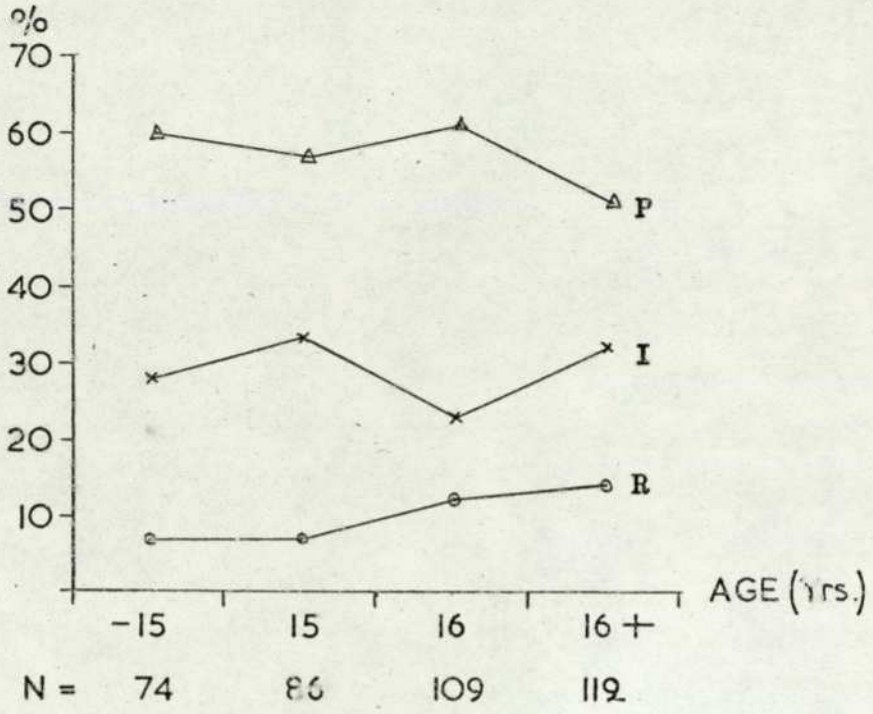


DOMINANT ORIENTATIONS RELATED TO (Q18) FIG. 6.16

AGE ON LEAVING SCHOOL

Q13 a - J.D.

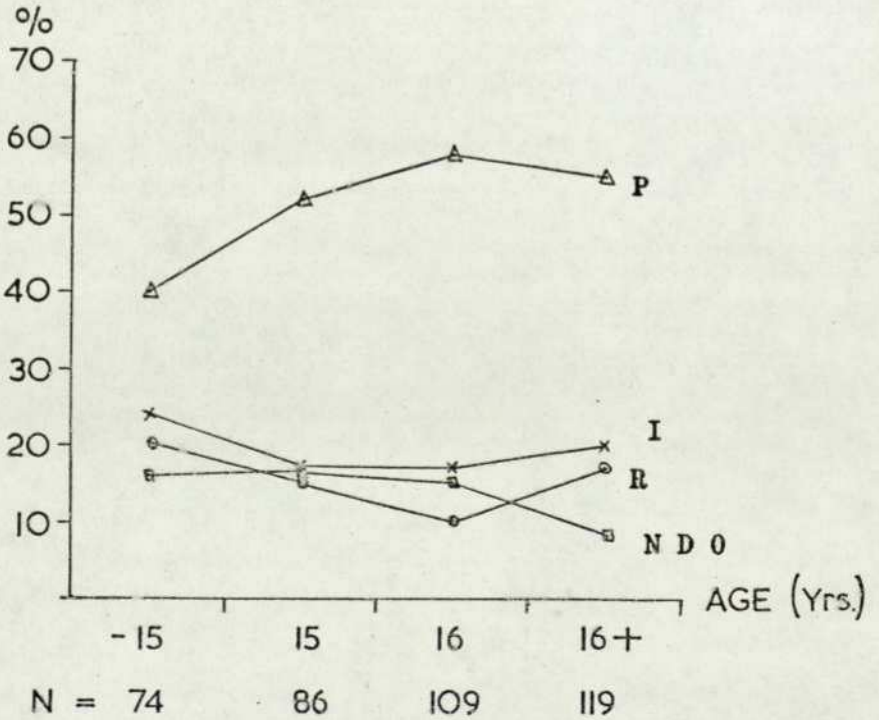
$X^2 = 16$ $0.25 < P < 0.5$



N = 74 86 109 119

Q29 b - P.C.

$X^2 = 18$ $0.2 < P < 0.25$



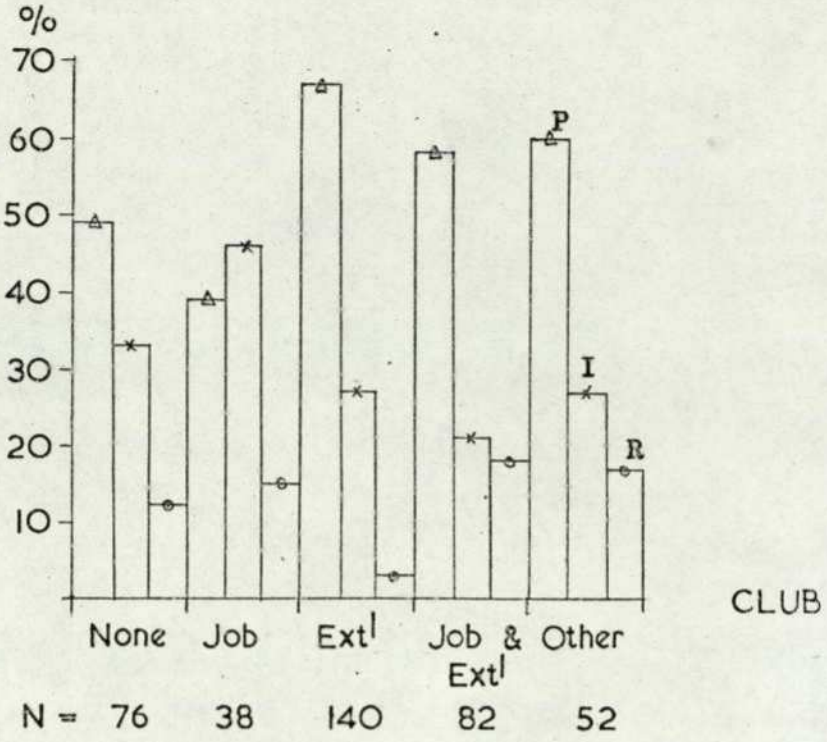
N = 74 86 109 119

DOMINANT ORIENTATIONS RELATED TO (Q28) FIG.6.17

CLUBS ATTENDED AS MAN

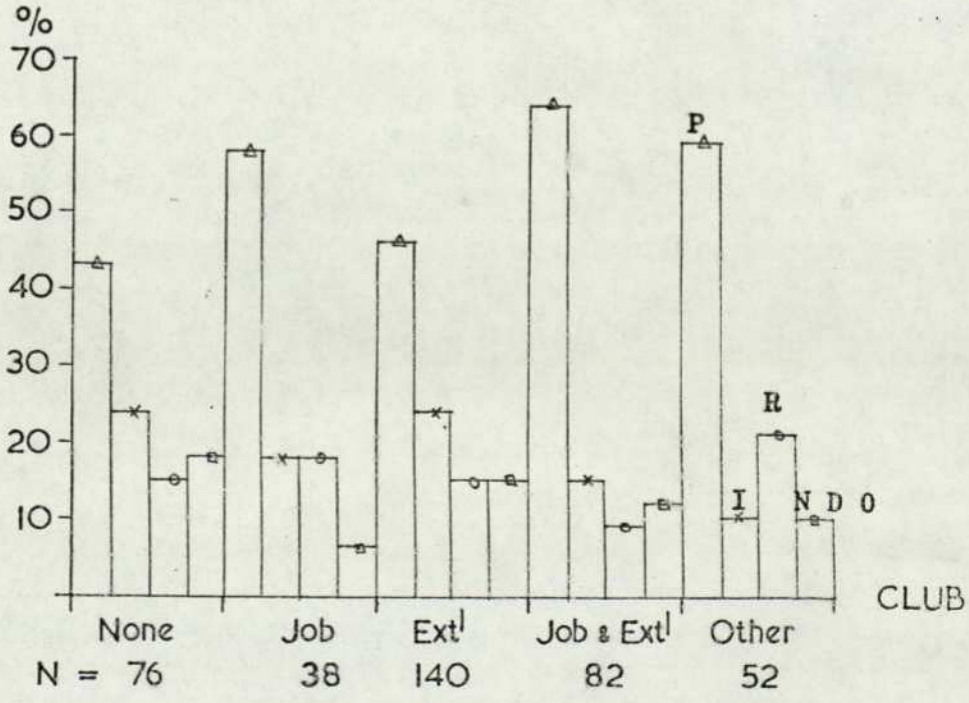
Q13 a -J.D.

$X^2 = 33$ $0.1 < P < 0.2$



Q29 b -P.C.

$X^2 = 33$ $0.1 < P < 0.2$



PROJECT TWO

SCORES ACHIEVED ON D.M.S. INVENTORY 1

(REF. APPENDIX 4)

NOTES: (1) Case Letters refer to individual respondents, each suffix letter indicating course (F = Full-time DMS, P = Part-time DMS, B = Block release DMS, A = Architects) Whilst suffix number 2 = score at end of stage 1 (No number = score at beginning of stage 1) for DMS only.

(2) JD = Job Description
RS = Rating Scale
PC = Paired Comparison
SD = Semantic Differential
VT = Values Test
I = Instrumental Orientation
R = Relational Orientation
P = Personal Orientation

CASE	CAT	J.D.	R.S.	P.C.	S.D.	V.T.
A_F	I		112	2	.20	35
	R		180	2	.53	39
	P	✓	171	8	.45	33
B_F	I		162	0	.20	34
	R		240	4	.53	42
	P	✓	242	8	.45	33
C_F	I		168	3	.27	32
	R		228	4	.74	42
	P	✓	264	5	.36	37
D_F	I		128	0	.27	55
	R	✓	228	8	.63	12
	P		264	4	.45	41
D_F	I		180	2	.27	24
	R		176	2	.53	44
	P	✓	240	8	.55	37
F_F	I		231	3	.53	31
	R		238	1	.53	34
	P	✓	325	8	.64	37
G_F	I	✓	119	2	.13	30
	R		132	4	.68	42
	P		273	6	.18	37
H_F	I		170	0	.20	29
	R		247	4	.58	44
	P	✓	288	8	.45	35
I_F	I	✓	294	1	.47	Not
	R		204	3	.37	Known
	P		273	8	.91	
A_P	I	✓	160	0	.40	44
	R		198	5	.37	24
	P		242	7	.73	38
B_P	I	✓	120	1	.13	22
	R		228	5	.79	52
	P		190	6	.36	24
C_P	I		144	4	.47	36
	R		221	0	.63	27
	P	✓	300	8	.64	34
D_P	I		220	2	.40	30
	R		260	4	.58	40
	P	✓	242	6	.91	28
E_P	I	✓	190	6	.67	34
	R		180	1	.32	32
	P		252	5	.45	39

CASE	CAT	J.D.	R.S.	P.C.	S.D.	V.T.
F_P	I		200	3	.53	35
	R		165	1	.42	30
	P	✓	220	8	.91	40
G_P	I		160	1	.33	30
	R		216	3	.79	34
	P	✓	252	8	.45	32
H_P	I		171	3	.27	30
	R		216	1	.47	43
	P	✓	231	8	.73	31
I_P	I		220	2	.40	18
	R		126	2	.53	38
	P	✓	322	8	.54	34
J_P	I		160	3	.13	17
	R		241	3	.58	41
	P	✓	241	6	.45	
K_P	I		187	2	.33	40
	R		180	3	.47	39
	P	✓	171	7	.45	40
L_P	I		144	0	.33	26
	R		180	5	.47	40
	P	✓	210	7	.36	29
M_P	I		228	7	.33	28
	R		180	0	.47	38
	P	✓	322	5	.73	36
N_P	I		260	6	.20	43
	R		216	0	.69	35
	P	✓	210	6	.45	34
J_F	I		198	4	.46	
	R		204	4	.47	
	P	✓	230	4	.48	
K_F	I		162	2	.27	
	R		165	2	.42	
	P	✓	264	8	.45	
LF_2	I		162	6	.27	
	R		180	4	.68	
	P	✓	231	2	.55	
BF_2	I		209	2	.27	
	R		216	2	.74	
	P	✓	210	8	.73	
C_{F2}	I		176	2	.33	
	R		198	2	.63	
	P	✓	276	8	.45	
D_{F2}	I	✓	187	0	.13	
	R		266	5	.68	
	P		300	7	.45	

CASE	CAT	J.D.	R.S.	P.C.	.S.D.
E_{F2}	I		140	4	.27
	R		204	0	.42
	P	✓	264	8	.54
F_{F2}	I		209	3	.33
	R		228	1	.47
	P	✓	325	8	.73
G_{F2}	I		160	1	
	R		126	4	
	P	✓	220	7	
H_{F2}	I		220	7	.07
	R		234	2	.63
	P	✓	264	3	.36
J_{F2}	I		209	8	.53
	R		198	0	.52
	P	✓	220	4	.73
K_{F2}	I		190	1	
	R		144	3	
	P	✓	240	8	
A_A	I		192	3	.27
	R		160	4	.42
	P	✓	170	5	.45
B_A	I		198	2	.27
	R	✓	176	2	.58
	P		220	8	.64
C_A	I		210	2	.47
	R		285	4	.53
	P	✓	315	6	.55
D_A	I		130	0	.40
	R	✓	294	6	.63
	P		160	6	.27
E_A	I		101	0	.33
	R		240	7	.63
	P	✓	220	5	.55
F_A	I		220	1	.13
	R		228	6	.74
	P	✓	220	5	.45
G_A	I		48	5	.40
	R		105	3	.42
	P	✓	153	4	.55
HA	I		176	0	.40
	R	✓	273	6	.47
	P		260	6	.55

CASE	CAT	J.D.	R.S.	P.C.	S.D.
I_A	I	✓	180	6	.27
	R		102	4	.58
	P		147	2	.45
J_A	I		308	6	.40
	R		180	0	.58
	P	✓	273	6	.82
K_A	I		210	3	.27
	R		187	3	.68
	P	✓	280	6	.73
L_A	I	✓	280	4	.53
	R		300	4	.26
	P		264	4	.27
M_A	I		110	1	.4
	R		114	4	.58
	P	✓	161	7	.82
N_A	I		190	2	.07
	R	✓	221	2	.68
	P		210	8	.36
A_B	I		216	6	.53
	R		153	0	.26
	P	✓	276	6	.91
B_B	I		190	5	.53
	R		160	2	.21
	P	✓	180	5	.45
C_B	I		190	0	.4
	R	✓	128	5	.42
	P		180	7	.55
D_B	I		170	0	.4
	R		204	4	.53
	P	✓	220	8	.55
E_B	I		160	3	.47
	R		198	1	.63
	P	✓	220	8	.55
F_B	I	✓	270	4	.53
	R		204	4	.37
	P		220	4	.64
G_B	I		144	0	.6
	R		153	4	.11
	P	✓	230	8	.73
H_B	I		198	2	.33
	R		216	2	.53
	P	✓	253	8	.64

CASE	CAT	J.D.	R.S.	P.C.	S.D.
I_B	I	✓	231	5	.4
	R		143	1	.63
	P		264	6	.55
J_B	I		190	2	.27
	R		216	5	.58
	P	✓	200	5	.45
K_B	I		200	2	.67
	R		252	3	.37
	P	✓	210	7	.64
L_B	I		221	0	.07
	R		240	5	.79
	P	✓	260	7	.27
M_B	I	✓	190	5	.47
	R		187	4	.53
	P		189	3	.73
N_B	I		252	4	.53
	R		247	0	.53
	P	✓	247	8	.73
O_B	I		189	0	.33
	R		153	6	.47
	P	✓	264	6	.55
A_{B2}	I		180	3	.40
	R		135	1	.26
	P	✓	230	8	.64
B_{B2}	I		240	3	.40
	R		234	2	.32
	P	✓	200	7	.45
C_{B2}	I		190	1	.33
	R	✓	198	3	.53
	P		220	8	.55
D_{B2}	I		180	0	.40
	R		180	4	.47
	P	✓	220	8	.55
E_{B2}	I		150	0	.53
	R		150	4	.53
	P	✓	25[illegible]	8	.82
F_{B2}	I		150	2	.33
	R		170	3	.47
	P	✓	189	7	.82
G_{B2}	I		170	0	.33
	R		144	4	.47
	P	✓	192	8	.64

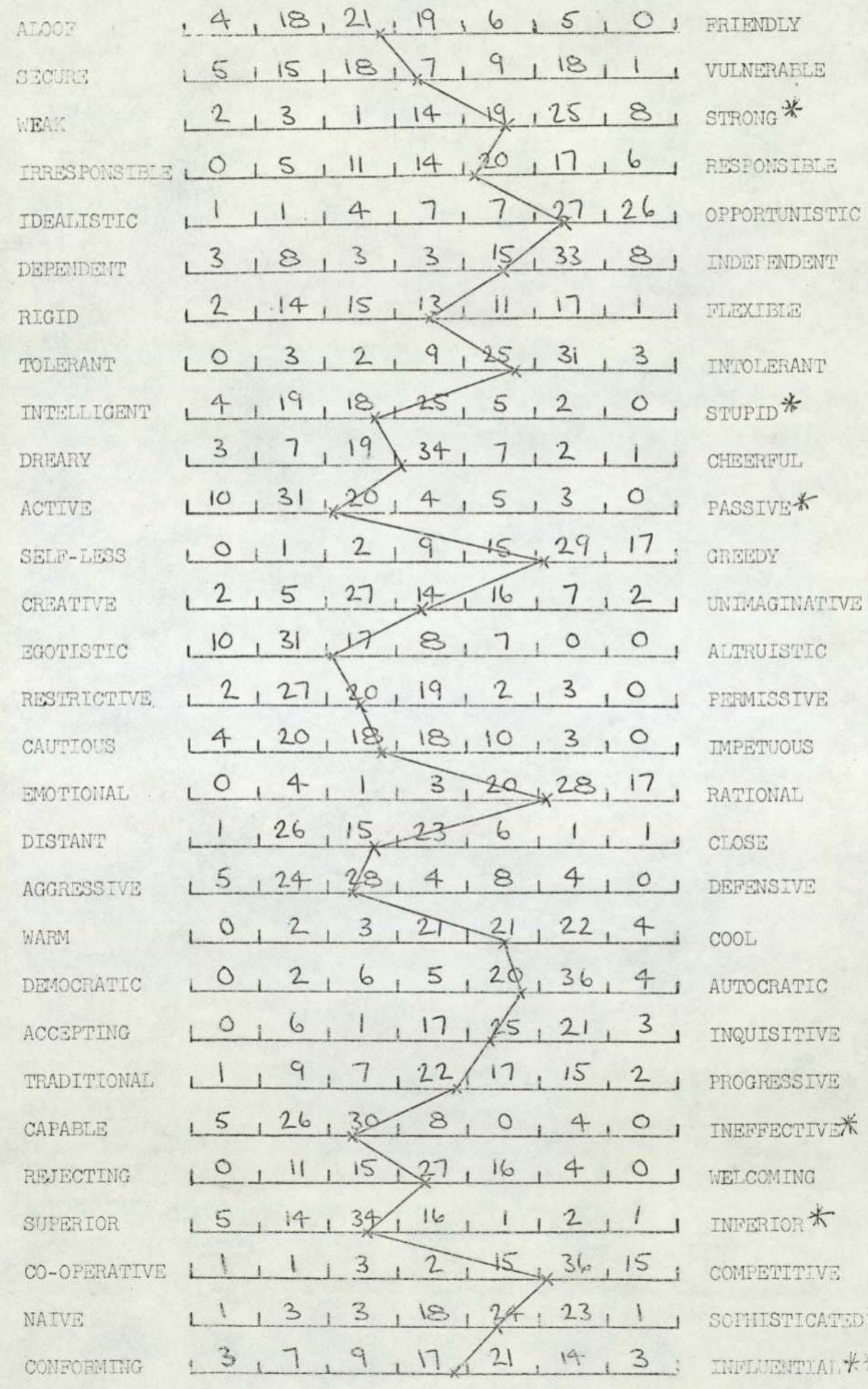
CASE	CAT	J.D.	R.S.	P.C.	S.D.
B_{P2}	I		160	4	.20
	R		210	3	.79
	P	✓	171	5	.55
C_{P2}	I		152	3	.53
	R		187	1	.26
	P	✓	273	8	1.00
D_{P2}	I		220	3	.40
	R		234	4	.63
	P	✓	260	5	.73
F_{P2}	I		209	2	.60
	R		180	2	.47
	P	✓	264	8	.82
G_{P2}	I		160	0	.27
	R		192	4	.63
	P	✓	273	8	.55
H_{P2}	I		153	3	.20
	R	✓	198	4	.58
	P		189	5	.55
I_{P2}	I		234	3	.67
	R		180	1	.32
	P	✓	299	8	.45
K_{P2}	I		216	2	.27
	R		153	3	.47
	P	✓	176	7	.64
L_{P2}	I		260	1	.53
	R		204	4	.37
	P	✓	276	7	.36
M_{P2}	I		228	1	.47
	R		247	3	.42
	P	✓	189	8	.32

PROFILE - DATA (BASED ON MEAN SCALE POSITION) FOR DESCRIPTION OF THREE CONCEPTS OF MAN, USING SEMANTIC DIFFERENTIAL FORM

The following data was yielded by respondents (N=73) when asked to describe three concepts of man - economic, social, and self-actualising. Those scales not acting in discrimatory or descriptive capacities were rejected marked (*) and one scale divided marked(**)to produce the semantic differential used in project 2 (see appendix 4.)

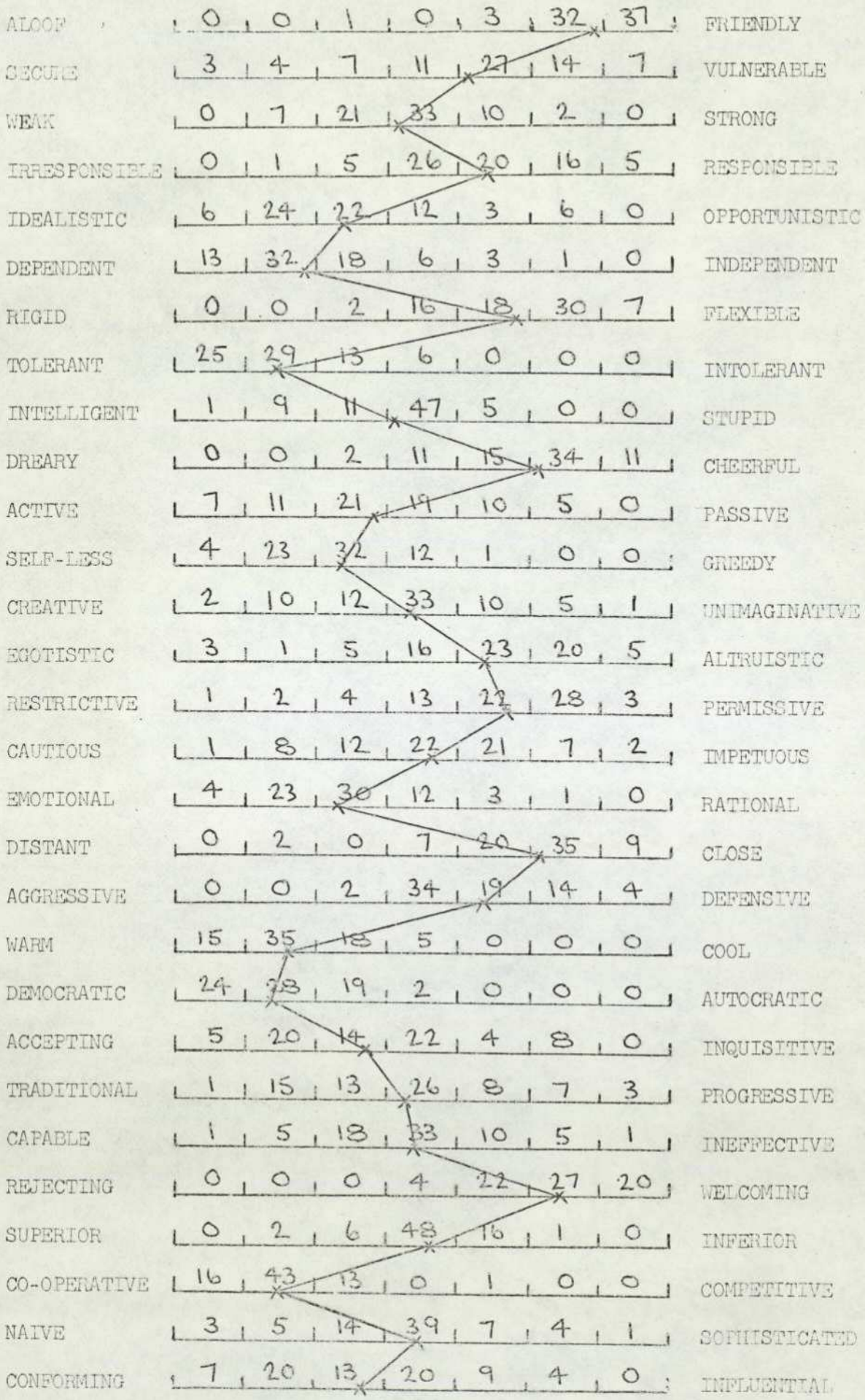
CONCEPT ECONOMIC MAN

Please put a tick on each of the scales below in the place which best represents your view of this concept.



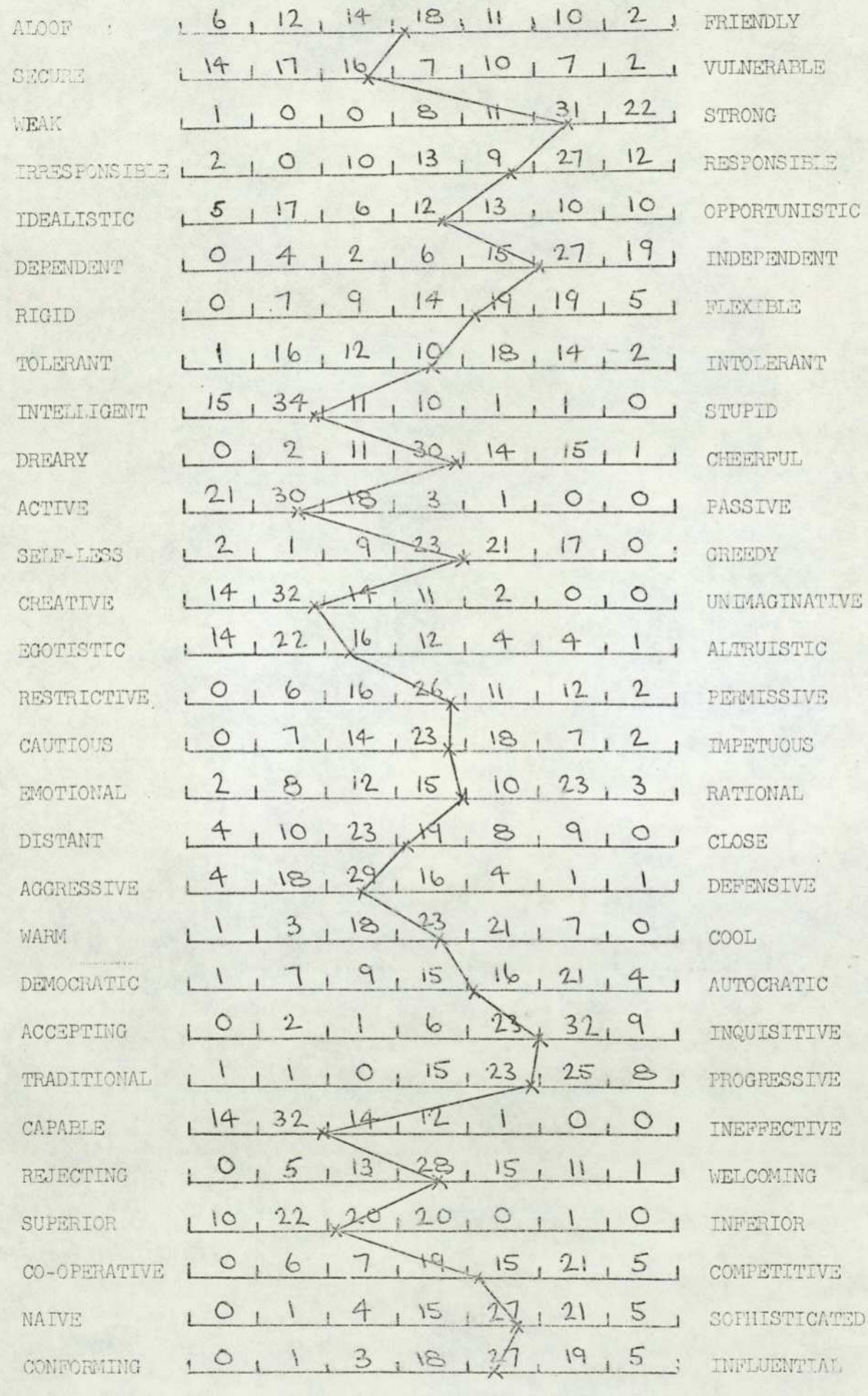
CONCEPT SOCIAL MAN

Please put a tick on each of the scales below in the place which best represents your view of this concept.



CONCEPT: SELF-ACTUALISING MAN

Please put a tick on each of the scales below in the place which best represents your view of this concept.



APPENDIX 9

Extending Measures of Organisational Variables

and

Developing Compound Index of Behaviour

in Organisations

A BASIS FOR EXTENDING MEASURES OF ORGANISATIONAL VARIABLES

It was noted in chapter 7 that the measures used for obtaining data about the nature of the respondent's organisation (as he saw it) were perhaps too simplistic, yielding to some extent unsatisfactory results. This problem was discussed with some fifteen of the respondents, and suggestions sought as to how the measures might be improved. They were unanimous in approving the general approach i.e. the use of scales for rating the perceived organisation, although some felt that certain variables (e.g. size, payment system) could be better measured by use of hard, factual data. They offered additional scales for existing variables together with some new variables which were considered important. These are listed below as a suggested basis for extending and improving the measures - they have not been tested or evaluated in any way.

AMENDMENTS TO EXISTING VARIABLE MEASURES

WORK GROUP	SMALL - LARGE CLOSE-KNIT - LOOSE-KNIT COMPETITIVE - CO-OPERATIVE
TECHNOLOGY	SIMPLE - COMPLEX STABLE - DYNAMIC TRADITIONAL - ADVANCED
MANAGEMENT	AUTOCRATIC - DEMOCRATIC YOUNG - OLD (OR YOUTHFUL- ELDERLY) FORMALLY QUALIFIED - NOT QUALIFIED
OBJECTIVES	VAGUE - WELL DEFINED (OR CLEAR)

TASKS	SIMPLE	-	COMPLEX
	REPETITIVE	-	VARIED
	BORING	-	INTERESTING
	MANUAL	-	MENTAL
CONDITIONS OF WORK	PLEASANT	-	UNPLEASANT
STRUCTURE	RIGID	-	FLEXIBLE
	SIMPLE	-	COMPLEX
	FLAT	-	TALL

INCENTIVE & REWARD SYSTEM — Measured by actual type, and then rated as WORK RELATED- PERSON RELATED and OUTPUT RELATED-NON-OUTPUT RELATED

EXTERNAL ENVIRONMENT	FRIENDLY	-	HOSTILE
	CHANGING	-	STABLE

ADDITIONS TO EXISTING MEASURES

SIZE	LARGE	-	SMALL

(Could be measured by actual number of employees - although turnover, capital employed etc could also be used).

POLITICAL SYSTEM	ACTIVE	-	PASSIVE
	OPEN	-	HIDDEN
	SUPPORTIVE	-	DISRUPTIVE
RESOURCES	PLENTIFUL	-	SCARCE
	RELEVANT	-	IRRELEVANT (i.e. to objectives)
	ACCESSIBLE	-	INACCESSIBLE

The index is then simply the ratio of the resultant of one set to that of the other, such that

$$I.B. = \frac{X}{Y}$$

where $X = (X_1 + X_2 + X_3 \text{ ------ } + Xm) \div n$

& $Y = (Y_1 + Y_2 + Y_3 \text{ ------ } + Ym) \div n$

An index value greater than 1.0 would indicate a level of positive behaviour, whilst a value less than 1.0 would suggest the reverse. Inter-unit, or inter-organisation comparisons could then be made.

The following factors are possible candidates for inclusion in the index:

X_1 - number of constructive, practical suggestions

X_2 - improvement in quality

X_3 - improvement in production

X_4 - long-term employees

Y_1 - labour turnover

Y_2 - absenteeism

Y_3 - complaints and grievances

Y_4 - number of strikes

(It is not necessary that the two sets of factors be equal in numbers)

A difficulty with computing the index is concerned with the units in which each of the individual (raw) variables are measured. There are several possible solutions to this problem - converting variables to percentage scores (e.g. X_1 could be measured in terms of the number of suggestions made in a given period as a ratio or percentage of the previous three year average); using marginal changes in a given period as a proportion of the total for the period (e.g. $\frac{X_1^{t2} - X_1^{t1}}{X_1^{t2}}$ where t1 & t2 are beginning and end of the time period, respectively).

No doubt other possible solutions might be appropriate. Each should be tried for the several sets of trial data (fictitious or real) and compared for stability and sensitivity. The problems concerning representative items, weightings, base periods etc should also be explored (see Boot and Cox, 1974).

The use of an index for measuring aspects of organisational life is not new, although many problems surround the measuring of intangible, qualitative factors. This is so in the field of human resource accounting where traditionally indices of performance concentrate on output variables whereas many input and intervening variables influence organisational outcomes. An introductory discussion on these points is to be found in E.H. Caplan's ' Management Accounting and Behavioural Science' (Addison-Wesley, 1971 chap 3).

BIBLIOGRAPHY

Adler,M.J. (1965); The Conditions of Philosophy; Atheneum.

Afifi, A.A.; & Azen, S.P. (1972); Statistical Analysis: A computer Oriented Approach; Academic Press.

Alderfer, C.P. (1969); An Empirical Test of a New Theory of Human Needs; Org. Beh. & Hum. Perf., 4, 142-175.

Aldrich, H.E. (1972); Technology and Organisational Structure: A Re-examination of the Findings of the Aston Group; Admin. Sc. Qutly., March, 26-43.

Applewhite, P.B. (1965); Organisational Behaviour; Harper.

Argyris, C. (1957); Personality and Organisation; Harper.

- (1964); Integrating the Individual and the Organisation; Wiley.

- (1965); Organisation and Innovation; Irwin.

- (1973); Personality & Organisation Theory Revisited; Admin. Sc. Qutly., June pp 141-167.

Athos, A.G. & Coffey, R.E. (1968); Behaviour in Organisations: A Multi-dimensional View; Prentice-Hall.

Ayer, A.J. (1946); Language, Truth and Logic; Gollancz.

Babbington, A.C. (1970); The Effect of Non-Response in the Sample Survey with an Example; Hum. Rels., 23(3), 169-180.

Behrend, H. (1960); Some Aspects of Company Wage Policy; J. of Ind. Econ's, March.

Bennett, R.D. (1967); Organisational Antagonism- The Argyris Viewpoint; Unpublished Seminar Paper, Bath University, School of Management.

- (1968); A Change of Wage Payment System - Problems and Implications; Unpublished M.Sc. Thesis, Bath University.

- (1970); Changing Pay and Men; Man. Today; July.

- (1971); Organisational Development in a School of Management; Man. Dec., 9(2), 140-145.

- (1972); Production Engineering - Key to Liberating Human Resources; The Production Engineer, October, 345/346.

- (1974); Orientation to Work and Some Implications for Management; J. of Man. Studs; May, 149-162.

- (1974B); The Role of Research in Management Decision Making; Man. Dec., 12(3), 189-198.

Bennett, R.D., & Dawson, R.O. (1972); Productivity in Petticoats; Factory Man, 41, 13-15.

Bennett, R.D., Dawson, R.O., & Manule, P.G. (1972); Putting Research to Work; Personnel Man., March.

Bertalanffy, L. von (1956); General Systems Theory; General Systems Yearbook, 1, 1-10.

Blau, P. (1968); Theories of Organisations; International Encyclopaedia of Social Sciences; Collier - Macmillan.

Blauner, R. (1964); Alienation & Freedom- The Factory Worker and his Industry; The University of Chicago Press.

B.M.D. (undated); A Statistical Package for the ICL 4130; Vol. 2., Programmes for Multivariate Analysis; Portsmouth Polytechnic.

- (undated); A Statistical Package for the ICL 4130; Vol. 3., Programmes for Regression Analysis; Portsmouth Polytechnic.

Boot, J.C.G., & Cox, E.B. (1974); Statistical Analysis for Managerial Decisions; McGraw-Hill.

Boulding, K. (1956); General Systems Theory: The Skeleton of a Science; General Systems Yearbook, 1, 11-17.

Bower, M. (1966); The Will to Manage; McGraw-Hill.

Bowers, D.G. & Seashore, S.E. (1966); Predicting Organisational Effectiveness with a Four-Factor Analysis of Leadership; Admin. Sc. Qutly., 11, 238-263.

Bowey, A.M. (1972A); Management Practice and the Development of Organisation Theory in Industrial Sociology (Tailor-Made Management Policies as an Alternative to Panaceas); Unpublished Ph.D. Thesis, Victoria University of Manchester.

- (1972B); Approaches to Organisation Theory; Soc. Sci. Inform. 11(6), 109-128.

- (1972C); Tailor-made Payment Systems and Employee Motivation; Man. Dec. 10, Spring, 82-92.

Bowey, Angela & Lupton, T. (1970); Productivity Drift and the Structure of the Pay Packet; J. of Man. Studs. 7(2 & 3).

Brayfield, A. & Crockett, W.H. (1955); Employee Attitudes and Employee Performance; Psych. Bull., 52,5.

Brech, E.F.L. (1957); Organisation: The Framework of Management; Longmans, Green.

Brown, A.J. (1972); A Case Study Illustration of the Role of the Wage Payment Scheme in the Organisational System; Brit. J. of Ind. Rels. 10(1).

Brown, J.A.C. (1954); The Social Psychology of Industry; Penguin.

Brown, R. (1971); Orientations to Work and Industrial Behaviour of Shipbuilding Workers on Tyneside; S.S.R.C.

- (1973); Sources of Objectives in Work & Employment-in Child, J. (Ed); Man and Organisations; Allen & Unwin.

Burns, T. & Stalker, G.M. (1961); The Management of Innovation; Tavistock.

Burnstein, E. (1969); An Analysis of Group Decisions Involving Risk (The 'Risky Shift'); Hum. Rels. 22, 381-396.

Carpenter, H.H. (1971); Formal Organisational Structural Factors and Perceived Job Satisfaction of Classroom Teachers; Admin. Sc. Qutly, Dec., 460-465.

Carruthers, T.E. (1963); Work Values and Chosen Careers; Note on a Trial of an American Work Values Inventory with British Subjects; Occup. Psych. 42, 111-117.

Cartwright, D, & Zander, A. (1968); Group Dynamics; Research and Theory; Tavistock.

Castore, C.H. & Roberts, J.R. (1972); Subjective Estimates of Own Relative Riskiness and Risk Taking Following a Group Discussion; Org. Beh. & Hum. Perf., 7, 107-120.

Child, J. (1969); The Business Enterprise in Modern Industrial Society; Collier, MacMillan.

- (1973); Strategies of Control and Organisational Behaviour; Admin. Sc. Qutly, 18(1), 1-17.

- (1974); What Determines Organisation Performance?; Org. Dyn., Summer, 2-18.

Chisnall, P. (1973); Multi-Dimensional Research - Integrating Research Techniques; J. of Man. Studs., 10, 162-167.

Chruden, H.J., & Sherman, A.W. (1963); Personnel Management; Edward Arnold.

Clark, P.B., & Wilson, J.Q. (1961); Incentive Systems: A Theory of Organisations; Admin. Sc. Qutly,6, 129-166.

Coch, L., & French, J.R.P., (1948); Overcoming Resistance to Change; Hum. Rel. 1, 512-532.

Cofer, C.N., & Appley, M.H. (1964); Motivation: Theory & Research; Wiley.

Cole, G.D.H. (1918 (1928)); The Payment of Wages; London: Allen & Unwin.

Corina, J. (1970); Forms of Wage and Salary Payment for High Productivity. O.E.C.D.

Cotgrove, S. (1967); The Science of Society; Allen & Unwin.

Cronback, L.J. (1960 (1970)); Essentials of Psychological Testing; Harper & Row.

Cumming, M.W. (1968); The Theory and Practice of Personnel Management; Heinemann.

Curle, Adam (1949); The Sociological Background to Incentives; Occ. Psych., 23, 21-28.

Currie, R.M.; Financial Incentives Based on Work Measurement; BIM 1963.

Daniel, W.W. (1969); Industrial Behaviour and Orientation to Work; A Critique; J. of Man. Studs., 6(3) 367-375.

- (1972); What Interests a Worker? New Society, 23 March.

Daniel, W.W., & McIntosh, Neil (1972); The Right to Manage?; MacDonald.

Davis L.E. (1971); Job Satisfaction Research: The Post-Industrial View; Ind. Rels: 10(2), 176-193.

De Bal, Marcel Bolle (1969); The Psycho-Sociology of Wage Incentives; Brit. J. of Ind. Rels. 2 No. 3 pp 385-398.

Dewey, J. (1956); Reconstruction in Philosophy; Muller.

Dickinson, Z.C. (1937); Compensating Industrial Effort; MacDonald & Evans.

Diesing, P. (1966); Objectivism vs Subjectivism in the Social Sciences; Phil. of Sci., March - June.

Donaldson, L. (1974); Woodward, Technology, Organisational Structure and Performance - A Critique of the Universal Generalisation; Working Paper of The London Graduate School of Business Studies; Sept.

- (1974B); Private Communication with the Author.

Drever, J. (1964); A Dictionary of Psychology; Penguin.

Dunnette, M. (1966); Fads, Fashions & Folderol in Psychology; Amer. Psych. 21, 343-352.

Emery, F.E. (1959); Characteristics of Scio-Technical Systems; Tavistock Inst. of Hum. Rels.; Document 527.

Emery, F.E., & Trist, E.L. (1959); Socio-Technical Systems; Pergamon.

- (1965); The Causal Texture of Organisational Environments; Hum. Rel. 18.

Etzioni, A. (1960); Two Approaches to Organisational Analysis: A Critique and a Suggestion; Admin. Sc. Qutly., 5, 257-278.

- (1961 (1965)); A Comparative Analysis of Complex Organisations; Collier-MacMillan.

Evans, J.S. (1970); Time Span - the Neglected Tool; Per.Management - Feb.

Feldman, M.P. (1971); Psychology in the Industrial Environment; Butterworths.

Fiedler, F.E. (1967); A Theory of Leadership Effectiveness; McGraw-Hill.

Fletcher. (1973); 'The End of Management', in Child, J. (Ed.), Man. and Organisation; George Allen & Unwin.

Form, W.H. (1972); Technology and Social Behaviour of Workers in Four Countries:A Sociotechnical Perspective; Amer. Soc. Rev., 37, 727-738.

Fox, Alan. (1971); A Sociology of Work in Industry; Collier-MacMillan.

Freeman, F.S. (1962); Theory and Practice of Psychological Testing; Holt.

French, W. (1970); The Personnel Management Process; Houghton Mifflin.

Gardener D.M., & Rowland, K.M. (1970); A Self-Tailored approach to Incentives; Pers. Jour., Nov. pp 907-917.

Gellerman, S.W. (1963); Motivation and Productivity; A.M.A.

- (1968); Motivating Men with Money: Fortune, March, 144-146, 179-180.

George C.S. (JR), (1968); The History of Management Thought; Prentice-Hall.

George, J.R., & Bishop, L.K. (1971); Relationship of Organisational Structure and Teacher Personality Characteristics to Organisational Climate; Admin. Sc. Qutly., Dec., 467-475.

Ghizelli, E.E., & Brown, C. W. (1955); Personnel and Industrial Psychology; McGraw-Hill.

Glueck, W.F., & Dennis, D.M. (1972); Bureaucratic, Democratic, and Environmental Approaches to Organisation Design; J. of Man. Studs., 9, 196-205.

Goldthorpe, J.H. (1966); Attitudes and Behaviour of Car Assembly Workers: A Deviant Case and a Theoretical Critique; Brit. J. of Soc., 17(3), 227-244.

Goldthorpe, John H., Lockwood, D. Bechhofer, F., & Platt, J. (1968); The Affluent Worker: Industrial Attitudes and Behaviour; University Press.

Gouldner (1959); Organisational Analysis in: Sociology Today (2); Merton et al.

Gowler, D. (1971); Behind the Wage Packet; Man. Today, May.

Greene, R.M. (1969); The Management Game: How to Win with People; Dow Jones-Irwin.

Grinyer, P.H., & Kessler, S. (1967); The Systematic Evaluation of Methods of Wage Payment; J. of Man. Studs., October, 309-320.

Guilford, J.P. (1954); Psychometric Methods; McGraw-Hill.

Haire, M., Ghiselli, E.E., & Porter, L.W. (1963); Psychological Research on Pay: An overview; Ind. Rel. 3(1), Oct. 3-8.

Hall, A., & Fagen, R. (1956); The Definition of a System; General Systems Yearbook, 1, 18-28.

Hall, P. & Locke, H.W. (1938); Incentives and Contentment; Pitman.

Hall, R.H. (1972); Organisations: Structure and Process; Prentice-Hall.

Harding, F.D., & Bottenberg, R.A. (1961); Effect of Personal Characteristics on Relationships Between Attitudes and Job Performance; J. of Appl. Psych., 45(6), 428-430.

Helmstadter, G.C. (1964); Principles of Psychological Measurement; Appleton-Century-Crofts.

- (1970); Research Concepts in Human Behaviour; Appleton-Century-Crofts.

Herbst, P.G. (1957); Measurement of Behaviour Structures by Means of Imput-Output Data; Hum. Rels., 10, 335-345.

Herman, J.B., & Hulin, C.L. (1972); Studying Organisational Attitudes from Individual and Organisational Frames of Reference; Org. Beh. & Hum. Perf., 8(1), 84-108.

Hertzberg, F. (1966); Work and the Nature of Man; Staple Press.

Hertzberg, F., Mausner, B., Peterson, R., & Capwell, D. (1957); Job Attitudes: Review of Research and Opinion; Psych. Service of Pitts.

Hertzberg, F., Mausner, B., & Snyderman, B. (1959); The Motivation to Work; Wiley.

Heward, J.H. & Steele, P.M. (1972); Business Control Through Multiple Regression Analysis; Gower Press.

Hickson, D.J. (1963); Worker Choice of Payment System; Occ. Psych. 37, 93-100.

Hickson, D.J., Pugh, D.S., & Pheysey, D.C. (1969); Operations Technology and Formal Organisation Structure: An Empirical Re-Appraisal; Admin. Sc. Qutly., 14, 378-397.

Hilgard, E.R., & Atkinson, R.C. (1967); Introduction to Psychology; Harcourt, Brace & World.

Hilgendorf, E.L., & Irving, B.L. (1969); Job Attitude Research: A New Conceptual and Analytical Model; Hum. Rels. 22(5), 415-426.

Hill, W.A. (1973); Leadership Style: Rigid or Flexible,; Org. Beh. & Hum. Perf., 9(1), 35-47.

Hulin, C.L. & Blood, M.R. (1968); Job Enlargement, Individual Differences and Worker Responses; Psych. Bull. 69(1), 41-55.

Hunt, J.G., & Hill, J.W. (1969); The New Look in Motivation Theory for Organisational Research; Hum. Org. 28, 100-109.

Hunt, J.W. (1973); The Elusive Question of Size in Organisations; Pers. Prac. Bull. 29(1), March 53-61.

Husband, T. (1975); Payment Structures Made to Measure; Pers. Man., (7)4, 27-29+39.

Hutton, G. (1969); Thinking about Organisation; Bath University Press.

Hyman, R. (1970); Economic Motivation and Labour Stability; Brit. J. of Ind. Rels. 8(2) 159-178.

Indik, B.P. (1963); Some Effects of Organisation Size on Member Attitudes and Behaviour; Hum. Rels. 16(4).

Ingham, G.K. (1970); Size of Industrial Organisation and Worker Behaviour; Cambridge University Press.

Iris, B., & Barrett, G.V. (1972); Some Relations Between Job and Life Satisfaction and Job Importance; J. of App. Psych. 56, 301-304.

Jackson, M. (1973); Encounters with Yourself; New Society, 30 Aug. 507-510.

James, C.F. & Rzasa, P.V. (1968); A Pricing Analysis of the One-For-One Incentive Plans; Pers. Journal, June, 398-401.

James, W. (1943); Pragmatism. A New Name for Some Old Ways of Thinking; Longmans.

Kahn, R., Wolfe, D., Quinn, R., Snoer, J., & Rosenthal, R. (1964); Organisational Stress: Wiley.

Kalish, R.A. (1970); The Psychology of Human Behaviour;Brooks-Cole.

Kast, F.E. & Rosenweig, J.E. (1970); Organisation and Management: A Systems Approach; McGraw-Hill.

Kast, F.E. & Rosenweig, J.E. (1974); Organisation and Management - A Systems Approach; McGraw-Hill. (2nd Ed.)

Katz, D. & Kahn, R.L. (1966 (1967)); The Social Psychology of Organisations; Wiley.

Katzell, R.A., Barrett, R.S., Parker, T.C. (1961); Job Satisfaction, Job Performance, and Situational Characteristics; J. of App. Psych., 45(2), April 65-72.

Kefalas, A.G., & Suojanen, W.W. (1974); Organisational Behaviour and the New Biology; Ac. of Man. Journ., 17(3), 514-527.

Kelly, J. (1969); Organisational Behaviour; Irwin.

Kendall, L.M. (1963); Canonical Analysis of Job Satisfaction and Behaviour, Personal Background, and Situational Data; Unpublished Ph.D. Thesis, Cornell University.

Kepner, C.H. & Tregoe, B.B. (1965); The Rational Manager; McGraw-Hill.

Kerlinger, F.N. (1964); Foundations of Behavioural Research; Holt, Rinehart & Winston.

Kolasa, B.J. (1969); Introduction to Behavioural Science for Business; Wiley.

Korte, C. (1971); Effects of Individual Responsbility and Group Communication on Help-giving in an Emergency; Hum. Rels., 24, 149-160.

Kreitler, Hans, And Kreitler, Shulamith. (1972); The Model of Cognitive Orientations: Towards a Theory of Human Behaviour; Brit. J. Psych. 63(1), 9-30.

Kretch, P., Crutchfield, R. S., & Ballachey, E.L. (1962); Individual in Society; McGraw-Hill.

Krupp, S. (1961); Pattern in Organisation Analysis: A Critical Examination; Holt, Rinehart & Winston.

Lafitte, P. (1958); Social Structure and Personality in the Factory; Routledge & Kegan Paul.

Lampkin, E.C. (1972); Effects of n-Dominance and Group Composition on Task Efficiency in Laboratory Triads; Org. Beh. & Hum. Perf., 7, 189-202.

Langer, W.C. (1937); Psychology and Human Living; Appleton-Century-Crofts.

Lawler, E.E. (111), (1971); Pay & Organisational Effectiveness - Psychological View: McGraw-Hill.

Lawler, E.E. & Porter, L.W. (1967); The Effect of Performance on Job Satisfaction; Ind. Rel., 7, 20-28.

Leavitt, H.J. (1964); Applied Organisation Change in Industry, in Cooper, Leavitt & Shelly: New Perspectives in Organisation Research; Wiley.

Levy, Philip & Pugh, Derek (1969); Scaling and Multivariate Analysis in The Study of Organisational Variables; Sociol., 3, 193-213.

Lewin, K. (1951); Field Theory in Social Science; Harper & Row.

Likert, R. (1961); New Patterns of Management; McGraw-Hill.

- (1967); The Human Organisation; McGraw-Hill.

Likert, R. & Hayes, S.P. (Jr.), (1957); Some Applications of Behavioural Research; UNESCO.

Lindzey, Gardner (Ed.) (1958); Assessment of Human Motives; Holt, Rinehard & Winston;

Locke, E.A. (1968); Toward a Theory of Task Motivation and Incentives; Org.Beh. & Hum.Perf., 3, 157-189.

Lupton, T. (1968); Beyond Payment by Results; Industrial Society - Social Services in Management; Penguin.

- (1972); Payment Systems; Penguin.

Lupton, T. & Gowler, D. (1969); Selecting a Wage Payment System; E.E.F. Kogan Page.

- (1972); Wage Payment Systems - A Review of Current Thinking; Pers. Management. 4(11), Nov. 25-28.

Lynton, R.P. (1949); Incentives and Management in British Industry; Routledge & Kegan Paul.

McDermid, Charles D. (1960); How Money Motivates Men; Bus. Hor. 3(4) 93-100.

McGregor, D. (1960); The Human Side of Enterprise; McGraw-Hill.

- (1966); Leadership and Motivation; Eds: Bennis & Schein; M.I.T. Press.

McKersie, R.B. (1963); Wage Payment Methods of the Future; Brit. J. of Ind. Rels. 1

Madge, Charles (1948); Payment and Incentives; Occ. Psych. 22. 39-45.

March, J.G. & Simon, H.A., (1958); Organisations; Wiley.

Margerison, C.J. (1973); Managing Effective Work Groups; McGraw-Hill.

Marriott, R. (1961); Incentive Payment Systems - A Review of Research and Opinion; Staple Press.

Marrow, A.J., Bowers, D.G., & Seashore, S.E. (1967); Management by Participation; Harper & Row.

Maslow, A.H. (1954); Motivation and Personality; Harper.

Michaelson, L.K. (1973); Leader Orientation, Leader Behaviour, Group Effectiveness and Situational Favourability: An Empirical Extension of the Contingency Model; Org. Beh. & Hum. Perf., 9(2), 226-245.

Miles, R.E. (1972); Private Communication with Author; June.

Miller, E.J., & Rice, A.K. (1967); Systems of Organisation; Tavistock.

Miller, D.W. & Starr, M.K. (1960 (1965)); Executive Decisions and Operations Research; Prentice-Hall.

Mohr, L.B. (1971); Organisational Technology and Organisational Structure; Admin. Sc. Qutly., Dec., 444-459.

Moore, P.G. (1970); The Myth of the Percentage Sample; J. of Man. Studs. 7(2), 145-155.

Morse, J.J., & Lorsch, J.W. (1970); Beyond Theory Y; H.B.R. May/ June 61-68.

Nagel, E. (1954); Sovereign Reason; Collier-MacMillan.

Newman, A.D., & Rowbottom, R.W. (1968); Organisation Analysis; Heinemann.

Newman, Derek (1973); Organisation Design; Edward Arnold.

- (1973B); Private Communication with the Author.

Northcott, C.H. (1955); Personnel Management; Pitman.

Opsahl, R.L., & Dunnette, M.P. (1966); The Role of Financial Compensation In Industrial Motivation; Psych. Bull. 66, 94-118.

Osgood, Succi, & Tannenbaum, P. (1957); The Measurement of Meaning; Univ. of Ill. Press.

Osmond, C.W. (1970); Organisation - Is Technology the Key? (A Reply to Hickson, et al, Feb. 1970 Issue of Personnel Management); Pers. Man. 2(5), 43/44.

Paine, F.T., Deutsch, D.R., & Smith, R.A. (1967); Relationship between Family Backgrounds and Work Values; J. of Appl. Psych. 51(4), 320-323.

Parker, P. (1974); The Goal Posts Keep Moving; J. of Gen. Man. Summer 3-11.

Parker, S.R., Brown, R.K., Child, J., & Smith, M.A. (1967); The Sociology of Industry; Allen & Unwin.

Pepper, S. (1961); World Hypotheses; Univ. of Col. Press.

Perrow, C. (1961); The Analysis of Goals in Complex Organisations; Amer. Soc. Rev., 859-866.

- (1967); A Framework for the Comparative Analysis of Organisations; Amer. Soc. Rev., 32, 194-208.

Pfeffer, J. (1972); Size and Composition of Corporate Boards of Directors: The Organisation and its Environment; Admin. Sc. Qutly, 17, 218-228.

Popper, K.R. (1972); Objective Knowledge - An Evolutionary Approach; Oxford U.P.

Porter, L.W., & Lawler, E.E. (1964); The Effects of 'Tall' versus 'Flat' Organisation Structures on Managerial Job Satisfaction; Pers. Psych., 17, 135-148.

- (1965); Properties of Organisation Structure in Relation to Job Attitudes and Job Behaviour; Psych. Bull., 64,23-51.

Porter, L.W., & Lawler, Edward E. III (1968); Managerial Attitudes and Performance; Irwin-Dorsey.

Pritchard, R.D. (1969); Equity Theory: A Review & Critique; Org. Beh. & Hum. Perf., 4, 176-211.

Pugh, D.S. (1966); Modern Organisation Theory: A Psychological and Sociological Study; Psych. Bull., 66, 235-251.

Pugh, D.S., Hickson, D.J., Hinings, C.R., MacDonald, K.M., Turner, C. & Lupton, T. (1965); A Conceptual Scheme for Organisation Analysis; Admin. Sc. Qutly, Dec.

Tym, D. (1964); Is there a Future for Wage Incentive Systems?; Brit. J. of Ind. Rels. 3.

Randell, G.A. (1966); A Systems Approach to Industrial Behaviour; Occ. Psych: 40, 115-127.

Rappaport, A. (Ed.) (1970); Information for Decision Making; Prentice-Hall.

Reddin, W.J. (1974); Managerial Effectiveness in the 1980's; Man. by Obj's., 3(3), 6-12.

Renold, Sir Charles (1949); Occasional Paper (No. 2); B.I.M.

Rice, A.K. (1958); Productivity and Social Organisation; Tavistock.

Rice, L.E., & Mitchell, T.R. (1973); Structural Determinants of Individual Behaviour in Organisations; Admin. Sc. Qutly, 18(1), 56-70.

Richardson, Roy (1971); Fair Pay and Work; Heinemann.

Richardson, S. (1965); Test Booklet - Study of Values; British Edition, NFER.

Rigby, P.H. (1965); Conceptual foundations of Business Research; Wiley & Son.

Roethlisberger, F.J. & Dickson, W.J. (1939); Management and the Worker; Harvard Univ. Press.

Ronan W.W. (1970); Individual and Situational Variables Relating to Job Satisfaction; J. of Appl. Psych. Monograph -54(1) Part 2. Feb.

Ronan, W.W. and Prien, E.P. (1971); Perspectives on the Measurement of Human Performance; Appleton-Century-Crofts.

- (1973); An Analysis of Organisational Behaviour and Organisational Performance. Org. Beh. & Hum. Perf. 9(1), 78-99.

Rosenberg, M. (1957); Occupations and Values; The Free Press.

Rummel, J.F. & Ballaine, W.C. (1963); Research Methodology in Business; Harper and Row.

Russon, F. (1950); Bonusing for Builders and Allied Trades; Norman Tiptaft.

Saleh, S.D., & Hyde, John (1969); Intrinsic vs Extrinsic Orientation and Job Satisfaction; Occ. Psych. 43, 47-53.

Sashkin, M. (1972); Leadership Style and Group Decision Effectiveness: Correlational and Behavioural Tests of Fiedler's Contingency Model; Org. Beh & Hum. Perf., 8(3), 347-363.

Sayles, L.R. & Strauss, G. (1966); Human Behaviour in Organisations; Prentice-Hall.

Scheflen, K.C., Lawler, E.E. III, & Hackman, J.R. (1971); Long-Term Impact of Employee Participation in the Development of Pay Incentive Plans: A Field Experiment Revisited. J. of Appl. Psych. 55(3), 182-186.

Schein, E. (1965); Organisational Psychology; Prentice-Hall.

Schwab, D.P., & Cummings, L.L. (1970); Theories of Performance & Satisfaction: A Review; Ind. Rel. 9(4), Oct., 408-430.

Scontrino, P.M. (1972); The Effects of Fulfilling and Violating Group Members' Expectations about Leadership Style; Org. Beh. & Hum. Perf., 8(1), 118-138.

Scott, W.G. (1974); Organisation Theory: A Reassessment; Ac. of Man. Jour., 17(2), 242-254.

Seashore, S.F. (1954); Group Cohesiveness in the Industrial Work Group; Michigan Univ.

Seiler, J.A. (1967 (1969)); Systems Analysis in Organisational Behaviour; Irwin.

Sells, S.B. (1964); 'Toward a Taxonomy of Organisations'; in Cooper, Leavitt, & Shelly; New Perspectives in Organisation Research; Wiley.

Selltiz, C., Jahoda, M., Deutsch, M., & Cook, S.W. (1965); Research Methods in Social Relations; Methuen & Co.

Sibson, R.E. (1960); Wages and Salaries; A.M.A.

Siegel, S. (1956); Non-Parametric Statistics for the Behavioural Sciences; McGraw-Hill.

Silverman, D. (1975); Accounts of Organisations, in McKinglay, J.B. (Ed.); Processing People; Holt, Rinehard & Winston.

Simon, H.A. (1960); The New Science of Management Decision; Harper.

Singh, G. (1968); A Manual of the Multiple Variate Counter; London University Computing Services Ltd.

Shalingsky, W. (1969); Group Composition as a Factor in Assembly Effects; Hum. Rel. 22, 457-464.

Sheldrake, P.F. (1971); Orientations to Work Among Computer Programmers; Sociology, 5, 209-224.

Sheppard, D.I. (1967); Relationship of Job Satisfaction to Situational and Personal Characteristics of Terminating Employees; Pers. Jour. 46(9), 567-71.

Shimmin, S. (1968); A Review of the Literature on Payment by Results; In Payment by Results Systems (Supplement), Report No. 65, N.B.P.I.

Smith, M.A. (1968); Process Technology and Powerlessness; Brit. J. of Soc., 19, March. 76-88.

Smith, P.C., Kendall, L.M., & Hulin, C.L. (1969); The Measurement of Satisfaction in Work and Retirement; Rand McNally.

Smith, Paul I slee (1973); Job Involvement and Communications; Bus. Books.

Soboleva, G.D. (1970); The New Soviet Incentive System; A Study of its Operation in Kiev; Inter. Lab. Rev. lol(1), 15-33.

Sofer, C. (1972); Organisations in Theory and Practice; Heinemann.

Sprott, W.J.H. (1958); Human Groups; Penguin.

Tannenbaum, R. & Schmidt, W.H. (1958); How to Choose a Leadership Style; H.B.R., March/April.

Tannenbaum, R., Weschler, I.R., & Massarik, F. (1961); Leadership and Organisation: A Behavioural Science Approach; McGraw-Hill.

Taylor, F.W. (1911); The Principles of Scientific Management; Harper Bros.

Taylor, W.J., & Watling, T.F. (1972); The Basic Arts of Management; Business Books.

Terreberry, Shirley (1968); The Evolution of Organisational Environments; Amin. Sc. Qutly., 12, 590-613.

Thomas, H. (1972); The Myth of the Percentage Sample - Further Comments; J. of Man. Studs., 9(1), 34-39.

Thompson, J.D. (1967); Organisation in Action; McGraw-Hill.

Tiffin, J. & McCormick, E.J. (1965); Industrial Psychology, George Allen & Unwin.

Thorns, D.C. (1971); Work and its Definition; The Soc. Rev., 19(4).

Tosi, H., Aldag, R., & Storey, R. (1973); On the Measurement of the Environment: An Assessment of the Lawrence and Lorsch Environmental Uncertainty Questionnaire; Admin. Sc. Qutly., 18, 27-36.

Trahair, R.C.S. (1969); Dynamics of a Role Theory for the Worker's Judgement; Hum. Rels., 22(2), 99-119.

- (1970); The Workers' Judgement of Pay and Additional Benefits: An Empirical Study; Hum. Rels., 23(3), 201-223.

Trist, E., Higgin, G. Murray, H., & Pollock, A. (1963); Organisational Choice; Tavistock.

Tull, D.S., & Albaum, G.S. (1973); Survey Research: A Decisional Approach; Intertext.

Udy, S.H., Jnr. (1959); Organisation of Work: A Comparative Analysis of Production Among Non-Industrial Peoples; HRAF Press.

Vernon, M.D. (1969); Human Motivation; Cambridge. Univ. Press.

Viteless, M.S. (1954); Motivation and Morale in Industry; Staple Press.

Vroom, V.H. (1964); Work and Motivation; Wiley.

Walker, C.R., & Guest, R.H. (1952); The Man on the Assembly Line; Cambridge, Mass.

Walker, J.D. (1948); Mechanical Engineering Science (Vol. 1); English Universities Press.

Wedderburn, Dorothy, & Crompton, Rosemary (1972); Worker's Attitudes and Technology; Cambridge University Press.

Weick, K.E. (1974); Amendments to Organisational Theorising; Ac. of Man. Jour., 17(3), 487-502.

Weiner, P.P. (1949); Evolution and the Founders of Pragmatism; Oxford University Press.

Weiss, R.S., & Kahn, R.L. (1960); Definitions of Work and Occupation; Soc. Probs., 18(2).

Wernimont, P.F. (1972); A Systems View of Job Satisfaction; J. of Appl. Psych.; 56, 173-178.

Wernimont, P.F. & Fitzpatrick, S. (1972); The Meaning of Money; J. of Appl. Psych., 56(3), 218-226.

Whyte, W.F. (1955); Money and Motivation; Harper & Row.

Wild, R. (1974); Job Restructuring and Work Organisation; Man. Dec. 12(3), 117-126.

Wilson, N.A.B. (1973); On the Quality of Working Life; Department of Employment, Manpower Papers No. 7; H.M.S.O.

Woodward, J. (1958); Management and Technology; H.M.S.O.

- (1965); Industrial Organisation; Oxford Univ. Press.

- (1970); Industrial Organisation: Behaviour and Control; Oxford University Press.

Wootton, Barbara (1955); The Social Foundations of Wage Policy; George Allen & Unwin Ltd.

Wofford, J.D. (1971); The Motivational Bases of Job Satisfaction and Job Performance; Pers. Psych. 24, 501-518.

Yeomans, K.A. (1968); Statistics for the Social Sciences: 2 - Applied Statistics; Penguin.

ADDENDUM

The author is grateful to [redacted], [redacted],
Thames Valley Regional Management Centre, for permission and time to undertake this project, and for his helpful guidance and support.

A FURTHER ASSESSMENT OF THE MEASURES OF ORIENTATION

It will be recalled from chapter six that it was decided to test the measures of orientation a little more than had been possible in Project 2. Although a considerable development has taken place - from no existing measures to three potentially useful ones - it remains possible within the scope of this thesis to take that development a little way further.

One of the criticisms levelled at the work done in Project 2 (see page 240) was that it did not cover a sufficiently wide range of different types of groups. The work described here attempts to remedy this, and to obtain further justification or criticism of the measures adopted.

AIM

The basic aim of the project was to further determine the potential suitability of three measures of orientation.

METHOD

The results obtained from Project 2 indicated that certain modifications might be made to improve the measures, and that the semantic differential form (S. D.) could be dispensed with. Accordingly, a revised set of measures were combined into the questionnaire shown in Exhibit 1 at the end of this addendum. This includes a slightly re-worded Job Description (J. D.) measure with more distinction between the three descriptions; a revised and re-worded Rating Scale (R. S.) D-component (measuring 'desire' items) which excluded the three negatively-inclined statements shown previously (chapter six) to be suspect; and a Paired Comparison (P. C.) measure with minor alterations to wording. The R. S. E-component (measuring expectations of achieving desire items) was included intact, whilst the S. D. measure was omitted.

A small amount of biographical information was also sought at the beginning of the questionnaire. Consideration was given to the possibility of including in the questionnaire other measures of, e.g. ability, attitudes, job satisfaction, for purposes of comparison. This was not done, since to include other measures would have lengthened the questionnaire unduly, prejudicing response rates. Since this is, at the current stage of development, a refinement, it has been decided to recommend this as part of further work to be done.

Questionnaires were distributed to three groups of people, together with an addressed envelope for returning completed questionnaires to central collecting points. Two groups were studying on the Diploma in Management Studies (D. M. S.) course at a constituent college of the Thames Valley Regional Management Centre, where the author was employed as Research Co-ordinator.

One of them comprised people who were studying for the D. M. S. on a full-time basis. All members were unemployed and saw the D. M. S. (General Management) as a useful way of gaining new employment. Indeed, all were supported on the course through the Training Opportunities Scheme. The group was quite varied in composition: some had been Works Managers or Production Managers; a few had held positions at Director level; some had been in Sales; whilst others had come from the Services - in addition to others (such as professional engineers). All were, however, in the same boat as far as employment was concerned. This group was quite large (25 members), although for many activities it was split in two. A good degree of interest was shown in the project and its outcome, and a seminar was held at the end to discuss the results.

Since some revisions have been made to the measures, it was decided to repeat one of the analyses performed in Project 2, namely an inter-measure analysis of dominant orientations. This analysis was done on the basis of comparing the dominant orientation on one measure with its position on a second measure. For example, if 'I' was dominant on P. C. (i.e. ranked 1) its position on R. S. was noted (say, ranked 3) and the difference in rank recorded. The results, in the form of a percentage frequency table, are given in table A8. It will be seen quite quickly that P. C. and R. S. compared with each other produce the most occasions on which orientations are measured similarly. This is both surprising and not surprising. It is surprising since P. C. did not come out so well in the previous analyses of means, yet not surprising because most dominant orientations were of the Personal (P) category - the one on which both measures tended to agree. Nonetheless, the results are further evidence for R. S. and possibly P. C. as useful measures.

TABLE A8

COMPARISON OF DOMINANT ORIENTATION ON ONE MEASURE WITH ITS RELATIVE POSITION ON ANOTHER FOR EACH GROUP (FIGS. DENOTE % OCCURRENCE)

Measures Compared	No Difference		1 Rank Different		2 Ranks Different	
	A	B	A	B	A	B
JD - RS	55	36	31	32	14	32
JD - PC	57	55	24	32	19	13
PC - RS	66	68	28	18	6	14
RS - PC	66	68	21	18	13	14

NOTE: Figures in cells represent % frequency with which a dominant orientation on one measure occurs in the various categories when compared with a second measure for the same orientation. For example, 55% of dominant orientations as measured by JD are also shown as dominant on RS for Group A, whilst only 14% are shown on RS as being ranked last.

CONCLUSIONS AND RECOMMENDATIONS

The former results and discussions go a long way toward painting a reasonably clear picture. It can be concluded that it is possible to measure differences in orientations between groups and that the Rating Scale (R. S.) measure has the greatest capacity to do this. Although the Paired Comparison (P. C.) measure did not perform so well, it cannot entirely be dismissed from considerations of further work. That further work is required on both R. S. and P. C. measures cannot be denied, but it is claimed that R. S. has sufficient capacity to be used in research where only group analysis is sought. Whilst a reasonable stage of development has been reached, it is not claimed that individual differences could be assessed with fair accuracy. There is, however, no evidence to suggest they cannot.

It is recommended that some additional work be carried out on the R. S. measure. The aim should be to produce a reasonably well standardised instrument with norms for varying groups of people. The following should point in this direction:

1) Consider whether certain statements could be re-worded even more suitably. A panel of judges, each individually interpreting statement meanings, could prove useful. This was done in Project 2, but only regarding the orientation purported to be measured.

2) Consider expanding the number of statements, particularly for the D-component. As it stands, the measure looks at very limited aspects of a person's orientation - this must be overcome.

3) Consider using different forms of response categories. As was pointed out in the pre-survey discussions, some of the D-component response categories for certain statements

seem to impose restrictions on the respondent's freedom to respond. This is clear, too, from the analysis of scale spread. It is possible that assessing the degree of importance attached to desire items might produce better spread. Parallel forms, using each type of response, could be used. Additionally, if the desirable - undesirable responses proved less satisfactory than an importance scale, it would be interesting to ask respondents to rank order statements in terms of desirability (most desirable to least desirable). It is possible , in this way, to build up a composite measure from 3 components - desirability, importance, expectation.

4) Gain further data on the measure's reliability (using split-half and/or parallel forms) and also on its predictive validity (e.g. correlating scores with job performance, earnings, ratings by superiors as well as its correlation with other instruments where relevant). Using the modified and standardised measure, assess its capability to detect changes in orientation on group and individual bases over time.

As far as the P. C. measure is concerned, considerable attention must be paid to the wording and interpretation of the statements. These could possibly benefit by expansion in numbers, although to do so would produce a very lengthy P. C. If such re-wording and expansion can be achieved and suitable similar results achieved in comparison with R. S., the P. C. measure should then be involved in 4 above.

This additional work will enable a very promising measure of orientation to be developed into a valuable research tool, the need for which has been clearly demonstrated in earlier parts of this thesis. It is hoped that a significant contribution has been made to this development.

EXHIBIT 1

QUESTIONNAIRE COMPRISING

REVISED ORIENTATION MEASURES

THAMES VALLEY REGIONAL MANAGEMENT CENTRE

ASSESSING VIEWS OF WORK

A. Would you please give the following information:

1. NAME (You do not have to give this if you do not want to) _____

2. AGE (Please circle as appropriate) 16-20; 21-30; 31-40; 41-50; 51-60; 60+.

3. MARITAL STATUS (Please circle as appropriate) MARRIED / SINGLE / OTHER

4. NATURE OF CURRENT (OR LAST) JOB (e.g. Fitter, Technician, Accountant) _____

5. LENGTH OF TIME IN CURRENT (OR LAST) JOB (Please circle as appropriate) under 1 yr; 1-3 yrs; more than 3 yrs.

6. NAME (not address) AND TYPE OF ORGANISATION CURRENTLY (OR LAST) WORKED FOR (e.g. Bloggins, Biscuit Makers) _____ _____ _____

7. WOULD YOU LIKE A SUMMARY OF RESULTS? (Circle as appropriate) YES / NO (If YES, please supply address)

NOTE: THE FOLLOWING SECTIONS DO NOT FORM A TEST .... I AM INTERESTED IN YOUR VIEWS. THERE ARE NO RIGHT OR WRONG ANSWERS TO THE QUESTIONS THAT FOLLOW.

THANKS FOR HELPING THIS FAR .... PLEASE CONTINUE.

B. Please read carefully each of the following job descriptions:

Higher pay than you now get; Opportunity to earn much more through hard work; Simple work, planned by your boss; No overtime, or very little; Working by yourself; Time off when reasonably requested; Increases in pay each year; Job located some way from home.	1
Money slightly lower than you now get; Pay will increase slowly; Work very different from your present job; Would require going on a training course; Chance of promotion if you do the job well, or the opportunity of doing a more complex job; Reasonably close to home.	2
Same money as you now get; Some chance of pay increases in the near future; Would involve working closely with other people in a small department; You would often be asked to work late; Many opportunities for going to parties held by your new work-mates/colleagues; Job close to home; No training involved.	3

Having read each of the above descriptions, which one would you choose, assuming you had to choose one of them?
Please circle the appropriate number in the right hand column.

CONTINUED..

Case	Cat.	J. D.	P. C.	R. S.		
				D-Comp.	E-Comp.	Total
1.17	I		0	17	10	170
	R		4	15	13	195
	P	√	8	19	11	209
1.18	I		0	17	11	187
	R		8	19	13	247
	P	√	4	17	11	187
1.19	I		0	16	11	176
	R		4	17	11	187
	P	√	8	15	12	180
1.20	I		0	16	12	192
	R		4	16	12	192
	P	√	8	18	12	216
1.21	I		2	17	8	136
	R	√	3	17	10	170
	P		7	19	10	190
2.1	I	√	8	18	13	234
	R		0	15	11	165
	P		4	15	10	150
2.2	I		8	16	7	112
	R		1	15	11	165
	P	√	3	16	11	176
2.3	I		0	17	10	170
	R		5	18	11	198
	P	√	7	19	10	190
2.4	I		4	18	11	198
	R		0	16	10	160
	P	√	8	19	12	228
2.5	I		4	16	12	192
	R	√	6	18	12	218
	P		2	20	13	260
2.6	I		6	17	11	187
	R		0	14	12	164
	P	√	6	18	12	218
2.7	I		2	11	12	132
	R		4	16	11	176
	P	√	6	19	9	171
2.8	I	√	1	12	9	108
	R		3	16	11	176
	P		8	19	12	228
3.1	I		3	13	14	182
	R	√	6	19	14	266
	P		3	10	10	100
3.2	I		8	18	14	256
	R		1	16	12	192
	P	√	3	18	9	162

Case	Cat.	J.D.	P.C.	R.S.		
				D-Comp.	E-Comp.	Total
3.3	I	√	4	18	13	234
	R		3	16	15	240
	P		5	18	13	234
3.4	I	√	6	19	10	190
	R		2	15	12	180
	P		4	17	10	170
3.5	I	√	0	16	13	208
	R		6	17	13	221
	P		6	16	11	176
3.6	I		5	16	9	144
	R		5	13	15	195
	P	√	2	16	7	112
3.7	I		8	19	15	285
	R		0	16	15	240
	P	√	4	18	15	270
3.8	I		2	17	7	119
	R		3	15	9	135
	P	√	7	19	7	133
3.9	I		3	16	11	176
	R		4	18	15	270
	P	√	5	15	10	150
3.10	I		2	12	9	108
	R		2	12	8	96
	P	√	8	20	14	280
3.11	I		2	15	10	150
	R		2	16	7	112
	P	√	8	19	8	152
3.12	I		4	16	11	176
	R	√	0	16	11	176
	P		8	18	10	180
3.13	I		8	15	11	165
	R	√	4	17	13	221
	P		0	18	9	162
3.14	I		4	19	10	190
	R		0	17	10	170
	P	√	8	18	8	124
3.15	I		4	12	13	156
	R	√	8	15	15	225
	P		0	14	7	98
3.16	I		0	14	10	140
	R		8	16	12	192
	P	√	4	17	10	170
3.17	I		8	20	11	220
	R		2	17	11	187
	P	√	2	19	7	133

Case	Cat.	J. D.	P. C.	R. S.		
				D-Comp.	E-Comp.	Total
3.18	I		3	15	12	180
	R		5	16	11	176
	P	√	4	17	10	170
3.19	I	√	7	16	11	176
	R		4	16	11	176
	P		1	15	6	90
3.20	I		4	20	13	260
	R		0	20	14	280
	P	√	8	20	14	280
3.21	I	√	4	16	15	240
	R		4	16	14	224
	P		4	19	14	266
3.22	I		1	16	9	144
	R		4	13	11	143
	P	√	7	17	6	102

C. Please read carefully each of the statements printed below and consider how desirable they are to you, that is how much you may or may not want the things they describe. Then read each of the possible answers given opposite the statement and put a circle round the answer that best indicates how you feel.

Note: the scales are not all labelled in the same way - some start with "EXTREMELY DESIRABLE", others with "EXTREMELY UNDESIRABLE".

HOW DESIRABLE IS IT THAT YOU:

Are able to use your own common sense?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Are sure of having a job in difficult times?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Have friends who would help you out when you're in a spot?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Have a job that doesn't require too much thought?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Earn more money than you get now?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Get the credit for doing a good job?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Work with friendly people?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Keep yourself to yourself?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Save and invest some money	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Have an interesting job of work to do?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE
Earn just enough money to get by?	EXTREMELY UNDESIRABLE	UNDESIRABLE	DON'T KNOW	DESIRABLE	EXTREMELY DESIRABLE
Live next door to friendly people?	EXTREMELY DESIRABLE	DESIRABLE	DON'T KNOW	UNDESIRABLE	EXTREMELY UNDESIRABLE

THANK YOU FOR YOUR HELP ..... PLEASE CONTINUE

D. Printed below are a number of pairs of statements, each statement referring to something you may or may not wish for most of all at present. Read each pair of statements and indicate which one of them you would most prefer to have by putting a ring round the appropriate number. Ring only one statement in each pair - the one you most prefer. Treat each pair of statements separately.

Friendly people to work with, OR More interesting job/occupation	1 2
To get on well with neighbours, OR Promotion and more responsibility	1 2
More personal goods and belongings, OR Friendly people to work with	1 2
More interesting job/occupation, OR To get on well with neighbours	1 2
More money to save and invest, OR Promotion and more responsibility	1 2
More personal goods and belongings, OR To get on well with neighbours	1 2
Friendly people to work with, OR More money to save and invest	1 2
Promotion and more responsibility, OR More personal goods and belongings	1 2
More money to save and invest, OR To get on well with neighbours	1 2
Friendly people to work with, OR Promotion and more responsibility	1 2
More interesting job/occupation, OR More money to save and invest	1 2
More personal goods and belongings, OR More interesting job/occupation	1 2

CONTINUED..

E. Although we all want different things from life, some of them are more frequently obtainable than others.

Read the list of statements printed on the left hand side of the table below and consider how frequently you expect to have opportunities to achieve them. Then place a tick in the box under the heading which best indicates how often you expect to have what each statement refers to.

HOW FREQUENTLY DO YOU EXPECT TO HAVE THESE OPPORTUNITIES?	HEADINGS				
	NOT AT ALL	VERY SELDOM	ON SOME OCCASIONS	ON MOST OCCASIONS	ALL THE TIME
To be given more responsibility at work					
To earn more money					
To have a secure job					
To be with people you like					
To have interesting work to do					
To save some money					
To get credit for doing a good job					
To have friends who will stand by you					
To work with friendly people					

VERY MANY THANKS FOR YOUR HELP
... PLEASE RETURN THE COMPLETED FORM IN THE ENVELOPE PROVIDED

EXHIBIT 2

SCORES DERIVED FROM REVISED MEASURES

(N = 51)

Notes (1) Cases fall into three groups identified by integer numbers as follows:

1 = group taking Diploma in Management Studies under Training Opportunities Scheme (full-time)

2 = group taking Diploma in Management Studies (Education Management - part-time)

3 = group of semi-skilled/skilled male manual workers from a manufacturing company.

For purposes of analyses, 1 and 2 form Group A, 3 forms Group B.

Notes (2) Abbreviations as follows:

CAT = category of orientation
I = instrumental orientation
R = relational orientation
P = personal orientation
JD = Job Description measure
PC = Paired Comparison measure
RS = Rating Scale measure
D-Comp. = Desire component of RS measure
E-Comp. = Expectation component of RS measure

Case	Cat.	J. D.	P. C.	R. S.		
				D-Comp.	E-Comp.	Total
1.1	I	√	4	18	9	162
	R		3	14	10	140
	P		5	18	10	180
1.2	I		0	13	10	130
	R		6	16	9	144
	P	√	6	18	10	180
1.3	I		3	16	7	112
	R		3	16	10	160
	P	√	6	19	11	209
1.4	I	√	6	16	8	112
	R		0	12	8	96
	P		6	17	9	153
1.5	I		2	17	13	221
	R	√	3	17	12	204
	P		7	19	13	247
1.6	I	√	1	13	8	104
	R		3	15	9	135
	P		8	18	11	198
1.7	I		2	12	10	120
	R		4	14	13	182
	P	√	6	18	12	216
1.8	I		2	16	9	144
	R		4	19	12	228
	P	√	6	19	10	190
1.9	I		2	17	11	187
	R		3	16	12	192
	P	√	7	18	12	216
1.10	I		1	14	10	140
	R		3	16	10	160
	P	√	8	20	13	260
1.11	I		8	17	9	153
	R	√	0	20	12	240
	P		4	18	11	198
1.12	I		4	14	8	112
	R	√	3	16	12	192
	P		5	18	8	144
1.13	I	√	4	15	12	180
	R		0	16	10	160
	P		8	19	13	247
1.14	I		2	14	9	126
	R		4	16	11	176
	P	√	6	19	12	228
1.15	I		1	16	11	176
	R	√	3	16	10	160
	P		8	20	12	240
1.16	I	√	4	18	12	216
	R		1	12	12	144
	P		7	16	11	176

The other comprised people working in educational establishments or departments within Local Authorities and were taking a D. M. S. (Education Management). Course members were mostly professional people - either teachers who were at Head of Department or similar level, or administrators with professional backgrounds and qualifications. The group was quite highly motivated in its work on the course and also showed a keen interest in the project. All were in secure employment and studying for the D. M. S. on a part-time basis. There were 15 on the course.

Discussions with course tutors indicated that, whilst the two groups were markedly different in composition and job security, most members would show a fairly high interest in things concerned with job satisfaction and should score highly on the Personal (P) Orientation measures. It was expected that neither group would score highly on Instrumental (I) measures even though one comprised unemployed people. This latter point makes it tempting to predict that D. M. S. (General) members would be more I-oriented than the others - in fact the reverse occurred, although the numbers involved were small.

The third group contrasted quite markedly with the first two. All (40 members) worked on the shop floor in a manufacturing company, came from the same machining department and all (except two) were on a bonus scheme. This group was chosen after lengthy and careful discussions with the Training Manager, Personnel Manager, Shop Manager, three foremen and a shop steward, all of whom were asked to nominate the department most likely to contain a good number of workers with a high I-orientation. Most agreed on the Machining Department, although it was stressed that some employees would not necessarily be concerned too much with materialistic aspects of life. All members of this group were ex-trainees, as opposed to ex-apprentices, and therefore fell between the semi-skilled and skilled categories (management,

however, referred to them as skilled workers). Managers agreed they were not all typical manual workers but were high earners (potentially). It was expected that this group would score rather differently on the orientation measures- higher on I and lower on P, with any difference on R being debatable.

The survey of all groups took place within the same 3-week period: mid-November to early December 1975. Of 25 questionnaires circulated to group 1, 21 were returned completed; of 15 given to group 2, 8 were returned; and of 40 given out to group 3, 22 were returned. The total useful returns (51) represented an overall response rate of about 63%, with no reminders. Since group 2 was rather small, and a preliminary analysis of responses indicated fair similarities (except a slightly higher I score for group 2) between groups 1 & 2, they were combined. This combined group - Group A - might be termed the 'manager' group, and the other (now labelled Group B) termed the 'worker' group, with sizes of 29 and 22 respectively.

An option to interview group members was sought but not exercised. It was thought that, whilst such interviews might help confirm the questionnaire results, the pre-survey discussions had produced enough strength of evidence to make predictions about the groups without using individual interviews.

The basic characteristics of these two groups are given in tables A1 - A3. Whilst both contained similar proportions of married men, they differed considerably in ages with the worker group comprising more younger people than the manager group.

There was also large differences in the length of time group members had been in their current or previous job. The worker group (B) was composed mainly of people in the same job for more than 3 years.

The fact that group B members were younger on average than group A supports the view that they would have higher I-orientation. This is certainly in line with the results of Project 1.

BASIC CHARACTERISTICS OF GROUPS TABLES A1-A3

(% in each category)

Table A1 - Age Ranges (years)

Group	N	16-20	21-30	31-40	41-50	51-60	60+
A	29	0	10	28	52	10	0
B	22	0	40	32	18	5	5

Table A2 - Years in Job/Previous Job

Group	N	<1	1-3	>3
A	29	14	38	48
B	22	9	9	82

Table A3 - Marital Status

Group	N	Married	Single	Other
A	29	92	4	4
B	22	91	9	0

RESULTS AND DISCUSSION

Responses to the questionnaire have been analysed and presented in derived form in Exhibit 2. The format is exactly the same as that used for presenting the results of Project 2 (see appendix 8). Scores were derived as follows:

J.D. Measure - No score derived or possible. Orientation represented by chosen job description indicated by a tick (√).

P.C. Measure - Score derived simply by counting up number of statements chosen with a particular orientation and recording that number. Maximum score 8, minimum 0 - note that scores are not independent of each other.

R.S. Measure - Score derived from two components. D-component score achieved by summing scale points (1-5) over the particular orientation - similarly for E-component (note: equal statements per orientation in each of the components but not between them). Score is then the product of D and E scores. Maximum score - 20 x 15 = 300: minimum score - 4 x 3 = 12.

An analysis of the 'scores' shown in Exhibit 2 should enable tests of certain hypotheses, derived from the pre-survey discussions, to be made.

These might be stated as follows:

H1 - the manager group (A) will score more highly on measures of P-orientation than will the worker group (B);

H2 - the worker group (B) will score more highly on I-orientation than the manager group (A);

H3 - little significant difference will occur between the two groups on R-orientation scores but that any difference found will be in the direction of higher scores for the worker group.

The null hypothesis (Ho) in the case of H1, H2 and H3 is that no significant difference at all will be found between the groups on I, R and P orientation scores.

Table A4 gives the percentage frequency with which any one measure shows an orientation as dominant. Inspection of this table provides a first step in assessing the acceptability of the previously stated predictions (i.e. H1, H2 and H3). It will be seen that little difference occurs between the groups on the same orientation category (CAT) for the J.D. Measure whereas quite large differences occur for both P.C. and R.S. Measures. In the case of P.C., the differences for I, R and P (respectively) are 15, 17 and 32; for R.S. they are 26, 25 and 51; whilst for J.D. they are 1, 3 and 4. For P.C. and R.S. the differences are in the directions predicted (although only R.S. shows relative magnitudes as predicted), but J.D. produces differences in the reverse direction (nonetheless, too small to be of significance). Since this visual inspection is so clear, values of X^2 have not been calculated in order to determine significance levels. The latter will be considered a little later on. It is possible to reject J.D. as a suitable measure since it does not discriminate between two groups for which strong evidence exists

that differences should occur. (This result places in perspective the data gained during Project 1, for it will be remembered that discrepancies occurred between the J. D. and P. C. measures (as originally used) for the same variable).

FREQUENCY (%) WITH WHICH ORIENTATIONS ARE SHOWN AS DOMINANT ON EACH MEASURE — TABLE A4

CAT	MEASURE AND GROUP					
	J. D.		P. C.		R. S.	
	A	B	A	B	A	B
I	24	23	16	31	7	33
R	21	18	10	27	21	46
P	55	59	74	42	72	21

N. B. A = manager group.
B = worker group.

Before making any further judgements about the P. C. and R. S. measures, the significance of the differences achieved must be looked at. Clearly, the differences in dominant orientation as shown in table A4 are significant, but it is possible that dominant orientations for one group could be obtained with lower scores than those obtained by the other group - for the same orientation. A harsher test, therefore, is to compare the mean scores for each group. This has been done and the values of mean (M), standard deviation (SD), t-test result (t) and level of significance are given in table A5. For this analysis, R. S. has been considered both as a composite score and in terms of its separate components. This will allow judgements to be made, if necessary or desirable, about improving the measure.

It can be seen that whilst again both P. C. and R. S. produce differences of means as hypothesised, only one result (P) for P. C. is significant. On the other hand, R. S. produces two significantly different results with the third (R) being marginally significant, i. e. the value of P is quite close to O. O5. Thus, R. S. produces results in line with the predictions made by all three hypotheses. This is not to suggest that P. C. should, therefore, be rejected; however, as it stands it cannot really be said to differentiate strongly enough between the groups. It is interesting to note that in the tests made in Project 2 (especially that concerned with the subjective criterion analysis, p. 217) P. C. came out stronger than R. S., but only when predicting P orientation (furthermore, J. D. tended to come out best). In the present analysis, P. C. happens to have produced a significant difference on P-orientation again. It could be that this measure is somewhat biased - probably because respondents are forced to choose. As has been argued in the literature (see chapter two), orientations possibly do not form in mutually exclusive categories.

The R. S. measure thus seems the most capable of the three at differentiating between groups of people assessing different orientations. But do both components differentiate? Table A5 suggests not. The E-component (i. e. the extent to which respondents expected to have opportunities of fulfilling certain desires) produces significant differences for all three categories of orientation, whilst the D-component produces none. Whilst it may be true that both groups, on average, desired the same things equally, more evidence would be required before finally accepting the D-component as it stands. Certainly scale response categories bear looking at and maybe alternative forms derived.

TABLE A5

Measure	Cat.	Group A		Group B		Total		Significance
		M	SD	M	SD	M	SD	(MA-MB)
P.C.	I	2.8	2.45	4.1	2.47	3.4	2.57	MS(1.86)
	R	2.9	2	3.3	2.36	3.1	2.17	NS(0.64)
	P	6.3	1.6	4.6	2.59	5.6	2.26	S(2.71)
R.S.	I	158	37	186	46	170	40.1	S(2.33)
	R	177	32	196	47	185	40.5	MS(1.63)
	P	203	31	169	60	188	49	S(2.42)
R.S. (D)	I	15.7	1.97	16.3	2.28	16	2.11	NS(0.98)
	R	16	1.79	16	1.78	16	1.79	NS(0)
	P	18	1.33	17	2.19	17.7	1.84	MS(1.83)
R.S. (E)	I	10	1.69	11.5	2.19	10.7	2.01	S(2.5)
	R	11.03	1.25	12.2	2.32	11.5	1.93	S(2.14)
	P	11.14	1.29	9.8	2.72	10.5	2.13	S(2.13)

Note: S = Significant at $P \leq 0.05$

MS = Marginally significant (P close to 0.05)

NS = Not significant ($P >> 0.05$)

Figures in brackets are values of 't'

In addition to looking at the capacity of the measures to differentiate between the groups, it was considered necessary to also look at the spread of responses to see if only certain parts were being used. Since the P.C. measure seems not too useful, the analysis is confined to the R.S. measure. The responses given in the questionnaire (sections C and E) have been analysed on a frequency basis, i.e. the number of respondents using different parts of the

scales have been determined and converted into percentage figures. The results for D and E components are given separately in tables A6 and A7 respectively. It will be noticed that some scales produce similar patterns of spread for both groups and others reasonably dissimilar patterns. Some are bunched at one end whilst others are slightly more evenly spread. It is argued that such a differential pattern would be expected - for some scale items, respondents are bound to agree, and on others disagree. However, there is a degree of similarity on the D-component scales that may be more than expected. This is additional evidence of a reasonably strong measure that could be improved still further, and recommendations to this end will be made later.

Looking at table A6 first, scale 1 was concerned with using one's own common sense and, as can be seen, very few felt this to be undesirable. Similarly, scale 2, which sought views about having a job in difficult times, produced no responses of an 'undesirable nature'. Having helpful friends (scale 3) was seen by some to be undesirable - although this may seem a strange response. Not having to think too much at work - scale 4 - was felt to be undesirable by most, although the worker group was less convinced about it. Scale 5 indicates that most people in both groups wanted to earn more money but with a little more spread than before. The next scale (6) also had a little spread - a few thought it undesirable to get the credit for doing a good job. Working with friendly people (scale 7) produced responses heavily in the same direction - desirable - for both groups. The same picture but with better spread occurs also for scale 8 - keeping oneself to oneself. Most felt this to be undesirable. Almost identical patterns occur for saving and investing some money (scale 9 - seen as desirable), and having interesting work (scale 10 - also seen as desirable). Scale 11 - earning just enough money to get by - produces the best spread, but this could be the result of misinterpreting its meaning. Finally, most respondents wanted friendly people to live next door to (scale 12). It is clear, then, that a mixed pattern of spread occurs.

For the E-component (table A7), a greater difference in spread occurs between the groups. Having more responsibility (scale 1) is clearly expected more by the manager group than the workers. To a lesser extent, managers also have a greater expectation of earning more money (scale 2). Scale 3 - having a secure job - produces a clear difference but with less spread. Here workers have a greater expectation of this than managers - not surprising in view of the make-up of the manager group. This does show that the scale is measuring in a reasonably true fashion. 'Being with people you like' (scale 4) seems to be expected equally by both groups - not an unnatural thing. This is also true of scale 5, with both groups expecting to have interesting work to do. Whilst it might be argued that group B should differ on this scale from group A, the level of skill used in the work justifies the responses. A wide spread is achieved on scale 6, but oddly more workers expect to save money than do managers (this is a reflection of the nature of the manager group; few out-of-work people would expect to do so). Getting credit for doing a good job (scale 7) is expected just about equally, although a greater spread occurs for group B. The last two scales (8 and 9) produce responses bunched over some four points of the range - most people seem to expect to have, and work with, good friends. Those scales would thus seem to achieve reasonable spreads in directions to be expected. This, together with the differences achieved on mean scores for this component, suggests it to be a reasonably good element of the measure. If the D-component can be further improved, a very good measure will exist.

ANALYSIS OF SPREAD OF RESPONSES (% FREQUENCY) ON R.S. (D-COMPONENT) FOR GROUPS A AND B

TABLE A6

Scale*	Group	Scale Position					Polarity**	ORN Measured
		1	2	3	4	5		
1	A	3	0	0	17	80	Desirable	P
	B	0	0	0	45	55		
2	A	31	62	7	0	0	Undesirable	I
	B	64	27	9	0	0		
3	A	17	66	7	7	3	Undesirable	R
	B	18	77	0	5	0		
4	A	49	48	0	0	3	Desirable	-P
	B	36	55	0	9	0		
5	A	0	7	3	76	14	Desirable	I
	B	0	9	5	50	36		
6	A	24	73	0	3	0	Undesirable	P
	B	23	63	0	14	0		
7	A	0	0	0	80	20	Desirable	R
	B	5	0	0	72	23		
8	A	0	10	14	48	28	Undesirable	-R
	B	0	27	5	45	23		
9	A	0	7	7	76	10	Desirable	I
	B	0	5	0	59	36		
10	A	86	14	0	0	0	Undesirable	P
	B	59	36	0	5	0		
11	A	7	70	3	17	3	Desirable	-I
	B	27	32	0	27	14		
12	A	3	83	11	0	3	Undesirable	R
	B	32	58	5	5	0		

* Numbering represents scale statements as set out in the questionnaire (Exhibit 1), numbering from top down, in section C.

** This simply represents response labels on right hand end of scales in section C, omitting the word 'extremely'.

ANALYSIS OF SPREAD OF RESPONSES (% FREQUENCY) ON R.S. (E-COMPONENT) FOR GROUPS A AND B

TABLE A7

Scale*	Group	Scale Position 1	2	3	4	5	Measured
1	A	0	0	24	62	14	P
	B	18	23	36	9	14	
2	A	0	10	46	41	3	I
	B	9	23	41	18	9	
3	A	0	14	21	48	17	I
	B	0	0	5	32	63	
4	A	0	3	24	63	10	R
	B	0	0	18	45	37	
5	A	0	0	24	52	24	P
	B	0	0	32	23	45	
6	A	6	17	46	28	3	I
	B	0	14	27	36	23	
7	A	0	10	59	28	3	P
	B	14	23	31	9	23	
8	A	0	10	34	53	3	R
	B	0	14	27	23	36	
9	A	0	0	31	69	0	R
	B	0	5	19	31	45	

↑ Not at all ↑ All the time

(end of scale labels)

* Numbering represents scale statements as set out in the questionnaire (Exhibit 1), numbering from top down, in Section E.